

On the Margins of the “Economic Miracle”: Non English-Literate Chinese Factory Workers in Singapore, 1980–90*

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Abstract

While the writing of Singapore’s “history from below” has begun to gain momentum in academic circles, there is still a considerable lack of understanding about the contributions and experiences of the ordinary person to the city-state’s remarkable growth after 1965. In Singapore’s broader historiography, the success of the nation’s economy is commonly attributed to the genius and foresight of key personalities, or in more recent times, the spirit of entrepreneurship by a select few. Thus, the non English-literate Chinese factory worker in Singapore currently only exists in a marginalised space in Singaporean historical discourse, in spite of their role in Singapore’s transition “from Third World to First,” to use the parlance of Lee Kuan Yew. Through the use of collective reminiscence and biography, this paper seeks to present the lives of the workers in narrative. In doing so, it aims to solicit an alternative, Chinese working-class account of the “economic miracle” epoch.

Keywords: Singapore history, oral history, literacy in Singapore, Chinese factory workers, Chinese working-class life

A study on the lives of non English-literate, ethnic Chinese factory workers¹⁾ in Singapore is necessary in tracing the reasons for, and social effects of, the country’s remarkable growth. Although they are by no means the only reason for the success that much of Singapore’s population has enjoyed, they are a primary source of the nation’s “economic miracle.”²⁾ Contributions to Singapore’s outstanding development were certainly made

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- 1) For brevity, this community will be referred to throughout this paper as “Chinese factory workers” or simply “factory workers.” The term “factory workers” is used to exclusively describe production-line staff, as opposed to clerical/management/administrative personnel that might also be involved in factory operations. Furthermore despite frequent use of the terms “manufacturing” and “production,” the types of factory workers that this paper will concern itself with also include assembly- and packing-line staff.
- 2) Factory workers in Singapore were, of course, not exclusively ethnic Chinese. Apart from Singaporean Malay and Indian factory workers, foreign labour from Malaysia (in particular) also features strongly in the demographics of most factories in Singapore. However, the historical experiences of each community must be regarded as being sufficiently different to warrant the attention of separate studies.

by other sections of the industry—factory managers, clerical staff, supervisors, and entrepreneurs to name but a few—but numerically, the Chinese factory workers formed a third of the island’s entire labour force by the end of the 1980s [*Census 1990* (4) 1993: xvii], and if one also takes their families into account then the experiences of the factory workers in everyday life are representative of how a considerable proportion of the resident Chinese population lived through the historical experience of “Singapore.”

Significant gaps in the existing body of works indicate that the function of the Chinese factory workers, whether in the context of Singapore’s social past or in its development, is not yet widely understood. The few scholarly texts on the factory workers of Singapore that do exist are largely academic exercises in the field of social work by graduate students such as Chang Kung Yee [1973], Lim Cheng Yuen [1989] and Angeline Balasingam [1993], while a sociological study of female factory workers was undertaken by Chung Yuen Kay [1990] in the form of a doctoral thesis at the National University of Singapore. Janet W. Salaff’s research [1988] must be regarded as a seminal ethnography of the working-class Chinese household in Singapore; however its broader objectives invariably prevent a more nuanced engagement with the factory workers.

Broader accounts on Singapore’s post-independence economic developmental policies and the successes that they have induced are the subject of study by several notable scholars such as W. G. Huff [1994], Edgar Schein [1996], Lim Chong-Yah [1980; 1991; 1996] and Linda Low [1999a; 1999b; 2002], while the importance of creating a malleable, disciplined, low-waged, and docile labour force in order to sustain the brisk pace of Singapore’s industrialisation has been raised by Christopher Tremewan [1994: 69]. Correspondingly, compelling analyses by Chua and Tan have drawn the attention of academia toward the pattern of increasing income disparity between class groups within Singapore’s general population [see Chua and Tan 1999; Chua 1994]. The authors suggest that the “economic miracle” served only to tantalise the working-class sections of the population by continually fanning their aspirations towards a middle-class standard, a standard defined by the possession of material wealth in the form of home-ownership and luxury goods. For many households, Singapore’s economic development created the mirage of class mobility, rather than actual movement.

Oral History Reminiscences and a “History from Below”

When we look beyond statistical representations and explore the finer details of the factory worker’s experience both as individuals and as a collective, we reinvest the element of historical agency to the workers and discover how, as a social class and as a language community, they struggled to come to terms with the alacrity of Singapore’s economic development. In his study on the ordinary person’s experience of the Great Depression in Singapore during the 1930s, Loh Kah Seng [2006: 46] underscores the value

in oral records in writing histories that seek to present an alternative understanding of the past through the eyes of the common person, and as Loh indicates such an approach also resonates with authors of people's histories such as Paul Thompson [1978; in Loh 2006].

The interviews cited in this paper are drawn from my doctoral research on literacy, class, and the subjective experience among the ethnic Chinese of Singapore from 1945–2000. The interviews operated around a series of loosely structured questions designed to encourage each participant to reminisce how s/he remembered specific periods of their lives amidst Singapore's past. The process of selecting the participants began by approaching a list of contacts in Singapore. Many of these were friends and acquaintances drawn from personal association. Others were complete strangers, introduced to me by contacts made through the process of research. All functioned as the initial line of “gatekeepers” in that it was they who were asked to source for potential interviewees, and the chief guidelines for selecting the participants were based primarily on education level and age. From the pool of potential interviewees, my principal concern was to ensure that the four broad groups from the former criteria—“no formal education,” “primary schooling,” “secondary schooling,” and “college/polytechnic/university graduates”—were each strongly represented. The ratio of interviewees by education level was 15:20:20:16 respectively.

The age of the participants ranged from 24 to 73 at the time of their interviews. There were two main concentrations in the ages of those involved, the first between the ages of 25 to 35, and the second between 45 to 55. All were interviewed over two periods of fieldwork in Singapore, in 2004 and 2005, lasting over eight months, and there was no attempt to control or proportion the representation of dialect groups. But the importance of ensuring that gender representation was as equal as circumstances would allow dominated the process of approaching potential interviewees. In all, there were 34 female and 37 male participants.

The main criterion for selecting the factory workers from this group was that they needed to have been employed for at least a year in production-related work in a factory between 1980 and 1990. To define what production-related work specifically meant for the purpose of selecting oral accounts for use in this study, I relied on the classifications used by the Singapore Department of Statistics for the purposes of census enumeration, which in turn is based on the Singapore Standard Occupational Classification of 1978. The occupational work undertaken in the factories by the interviewees fall under the categories of “Production Craftsmen and Related Workers” (Major Group 7) and “Plant and Machine Operators and Assemblers” (Major Group 8). Ownership of the factories (whether by foreign or local capital, or by the state) was not a factor, although this detail does emerge in the interviews that follow.

In all, 15 interviewees from the participant pool met the occupational criterion, and references to 8 of them appear in this paper. Of those employed as factory workers

during the 1980s, 8 are Hokkien and 4 are Teochew. They are joined by 2 Hakka and a Hainanese. Ten were under the age of 40 in 1980, 7 by 1990, and 12 were married with at least one child in the household by the decade’s end. For this discussion to remain concise, it is not possible to articulate all of the factory workers’ stories. Several accounts presented by the remaining 7 workers that made overlapping points with those which do feature in this paper were reluctantly left out.

There is room among historians for scepticism about the reliability of oral traditions in history-writing. While the concern is valid, it must also be conditioned by recognising the usefulness of oral traditions in soliciting personal memories and the circumstances of life, which are far less susceptible to being distorted by mainstream discourse. It is this memory that this paper seeks to draw upon from the participants, both as individuals and as a collective, for the purposes of historical interpretation.

By telling the story of the Chinese factory workers in Singapore during the 1980s, and presenting their lives and aspirations within the context of exploitation as a dominant theme in their daily existence, a greater understanding of just how unequal the “economic miracle” actually was can be achieved. Primarily (though not exclusively) through the use of reminiscence, oral history and collective biography, this paper will therefore seek to illustrate the historiographically understated function of the Chinese factory worker as an effecting mechanism of Singapore’s history, as well as explore how s/he came to terms with broader patterns of socio-economic change in Singapore during the 1980s.

Negotiating the Concept of a Singaporean Working-class

Since the 1990s, advances in sociological approaches to Singaporean society have demanded a rethink on how class and stratification in Singapore’s recent past is understood. Following on from his earlier works on the subject, Chua Beng Huat argues in *Life Is Not Complete Without Shopping* that class in Singaporean society is shaped through a practice of reciprocal perception, and that it is an unrelenting process of judging what material wealth one “has” or “lacks” with what others “have” or “lack” [2003: 9]. It can be argued that class-structures in Singapore are therefore understood in everyday life through a process of lifestyle comparisons. The degree in which one is able to participate in the process of material acquisition is the central yardstick of measurement in class perception [*ibid.*: 9–10].

Tan Ern Ser’s recent quantitative survey on how Singaporeans describe their respective positions within a subjective class structure provides a useful framework from which we can approach this discussion. Utilising educational attainment, household income, property ownership, occupation, ethnicity and age as principal indicators, Tan argues that Singaporeans tend to understand the world around them within the context

a four-category class structure, ranging between the “Lower,” “Working,” “Middle” and “Upper” class groups [2004: 14–19]. Thus, Tan argues that the working-class in contemporary Singapore is created and located at an intersection of self-perception and economic realities.

The primary constraints in these modes of understanding class in Singapore are that they are highly contemporary. As survey tools they operate best within the confines of Singaporean society after the ascent of the “miracle phase,” i. e. from the 1980s onwards. For the purposes of this paper and the time period it concerns itself with however, they are invaluable as aids in conceptualising how the otherwise abstract idea of class was thought of in Singaporean everyday life.

This paper amalgamates these respective approaches toward the Singaporean working-class with a Weberian perspective of social structures and relationships. Specifically, it views class within the framework of life chances [see Parsons 1947]. For Weber the idea of life chances in class determinism is tied heavily to the ownership of economic resources. This in turn yields the capacity to acquire higher levels of education and income, and increases the range of opportunities in the context of life chances. The determinants of class in this discussion are therefore occupation, household income and education level.

Understanding (Non-)Literacy in the Context of This Study

The socio-economic function of literacy, or more specifically, non-literacy in the English language, is one of the central pillars of this discussion. Literacy standards are often not clearly defined. Indeed, one tends to struggle at any attempt to compartmentalise a sociolinguistically-complex community, such as that of the Chinese of Singapore, into simplistic categories of being “literate” and “non-literate” in a particular language. The factory workers are a case in point; while many were able to speak English, albeit at widely varying degrees of competency, their actual literacy levels were far lower, as evidenced by the generally low levels of education they received.

Because a chief objective of this paper is to examine the implications of education as a life chance for the Chinese during the 1980s, the term “non English-literacy” will be expanded from its literal meaning to accommodate a more subjective approach. The “non English-literate” can be understood in this study as including those individuals who demonstrate English literacy levels that are insufficient for them to move easily from factory production positions to non-menial forms of waged work, either for the purposes of economic mobility or when their jobs in the factories became untenable. The assumption in framing English literacy levels in the context of employment opportunities therefore is that it is closely tied with the actual level of education received by an individual.

The Social Profile of the Chinese Factory Worker during the 1980s

Scrutiny of the data from the census of 1980 allows us to construct a socio-linguistic profile of the Chinese factory workers at the start of the decade. Tables 1 and 2 correlate the languages spoken at home with the occupation of the head of the household among the Chinese in Singapore.

Very few of those employed in production-related work in 1980 were literate in English; in fact an overwhelming majority came from Chinese households that spoke exclusively in dialect. The third most dominant language group that contributed to the manufacturing workforce were the Mandarin monolingual families, with the Malay monolingual households ranked second at 22,397 [*Census 1980* (8) 1981: 114]. By the census of 1990, the Chinese language communities remained the principal source of labour for the factories, although there were significantly more Mandarin monolingual factory workers than there were dialect monolingual workers [*Census 1990* (8) 1993: 125].

Table 1 Language(s) Spoken in Household and Occupation of Head of Household 1980 (Monolingual)

Languages Spoken in Household	Professional and Technical	Administrative and Managerial	Agricultural Workers and Fishermen	Production and Related Workers	Not Working
Mandarin	4,753	3,587	144	8,560	1,774
Chinese dialects	5,411	6,731	4,888	72,910	52,502
English	10,678	10,100	45	3,582	4,185

Source: [*Census 1980* (8) 1981: 114]

Table 2 Language(s) Spoken in Household and Occupation of Head of Household 1980 (Multilingual)

Languages Spoken in Household	Professional and Technical	Administrative and Managerial	Agricultural Workers and Fishermen	Production and Related Workers	Not Working
Mandarin and Chinese dialects (without English)	2,337	2,551	887	14,101	7,608
Mandarin and English (with or without dialects)	1,594	1,943	95	2,546	2,372
Two or more Chinese dialects	269	309	199	2,546	3,074
English and Chinese dialects	3,498	3,941	179	6,722	9,472

Source: [*Census 1980* (8) 1981: 114]

In 1980, over 75 per cent of all workers were between the ages of 20 and 39 [*Census 1980* (4) 1981: 63], with women forming nearly a third of the production force [*ibid.*: 68]. By 1990, women accounted for over half of the production line positions in the factories, with the majority aged similarly between 20 and 39 [*Census 1990* (4) 1993: 92].

The circumstances that drove Ai Lek to find work in the factories were commonplace among the non English-literate Chinese women. She dropped out of school after four years at primary level, finding work in a textile factory in order to help put her younger brothers through school. Aged 18 in 1981, she married the son of a family friend, Ah Tee, and a year later she was pregnant with their first child. But less than two months after giving birth she was again looking for work in the factory lines [Author 2004: Ai Lek].

There is little risk of over-generalising when one suggests that factory workers in 1980 were either illiterate, or had received only minimal levels of education. The *Report on the Ministry of Education* (otherwise known as the Goh Report) notes that as of 1978 only 71 per cent of the Singaporean student cohort that began Primary One would eventually gain entrance to Junior Secondary, with a mere 14 per cent of the student population making it to Senior Secondary level. Just 9 per cent would undertake tertiary studies [Goh 1979: Section 3–2].

While the education system prior to the reforms set in motion by the Goh Report was responsible for a general increase in literacy levels across the population through the 1960s and 70s, inherent flaws in pedagogical practices resulted in a large “unskilled” labour force by 1980. Of the 324,121 persons across all ethnic and language groups employed in the manufacturing industry, 64,609 had no formal educational qualifications at all, with a further 196,314 listed as having completed only primary school [*Census 1980* (4) 1981: 78]. Just over forty thousand managed to complete the first two years of their secondary education [*ibid.*: 79]. In short, in 1980 over 93 per cent of the entire manufacturing work force (301,516 persons) did not have at least secondary school certification. By 1990, the average level of education among the employed factory workers was higher—an indicator of the new demands of “economic relevancy” within the landscape of high-technology industries that many workers faced in the battle to remain employed and employable. Those without any formal education at all numbered just 12,937, while over 110,000 attended secondary school, with just under half completing [*Census 1990* (4) 1993: 105–106].

The census and Ministry of Education report fail to provide insight into the reasons for the high rate of attrition in the school system during the 1960s and 70s, which led to the large, poorly-literate factory force. The Goh Report points to the intolerance of the education system at the time toward “slow learners,” suggesting that “most of these pupils would not have the capability to proceed to University education” regardless [Goh 1979: 1–3, 1–4]. Such a view, while undoubtedly applicable to some cases, ignores the economic problems faced by many families that contributed to the attrition rate. The immediate and overriding need for members of the family to alleviate the burden

shouldered by the principal breadwinner(s) often resulted in young students being pressed into work out of necessity. Proudly displaying a pair of battered old workbooks from her school days filled with star-shaped stickers presented by her teachers, the author’s interview with Lok Kwee revealed a story of promise unfulfilled. Enrolled in Dorset Primary School during the mid-1970s, she recalls:

I was good in Maths and Chinese. . . and because my results were always not too bad [in all subjects], I was usually third or fourth in my class at the end of each year. My form teacher was very proud of me, because I once won a Chinese composition contest held by the school. Out of the many students who were in Primary Three mine was the best. Can you imagine that! When I had to drop out of school [after Primary Six to look for work]. . . my form teacher was very upset. . . I will always remember that she tried to keep me in school by offering to help pay my school fees. [Author 2005: Lok Kwee]

While not demonstrating the same level of aptitude as Lok Kwee, Ah Tee found his education at Yio Chu Kang Primary School falling afoul of similar circumstances:

School was not a priority; my father was the only one working in the family [as my mother remained at home to look after the children]. So once it was possible I had to go out and earn money, to help ease the burden. . . . Up to Primary Four I earned some money by delivering newspapers in the morning. . . and coffee in the afternoon to offices. I tried to study at the same time. . . it was too hard [because I just had no time], so I quit just after attempting some years of secondary school and went to work full-time. . . [at first] as a labourer [with a moving company]. . . and then [at a factory] in Jurong. [Author 2004: Ah Tee]

In these two examples, instead of functioning as a mechanism through which economic mobility could be achieved, the education system served to reinforce the capitalist structure of “meritocratic social stratification.” Families with the financial ability to do so invested in home tuition for their children in order to familiarise themselves with “the battery of tests designed to identify superior pupils” [Salaff 1988: 35]. For example, when preparing for their Primary School Leaving Examination (PSLE), it was common practice for students from more affluent households to furiously hone classroom concepts on assignment books that contained past examples of exam scripts. Tutors, charging a fee that ranged from S\$50 to 170 depending on their reputation and qualifications, would be on hand to diligently aid the pupil in navigating any difficulties [Author 2004: Ong].

As 12 year-old Rosyth school student S. K. Ong prepared to sit for his PSLE in 1987, he had tutors to assist him in English and Chinese. They would come to the house twice a week for two-hour sessions, setting homework and going through mistakes made in schoolwork or classroom tests. His mother, who held a bachelor’s degree from the University of Leeds, tutored him in Science and Maths on weekends [*ibid.*]. Ong found

the PSLE “easy,” admitting that he was well-prepared “because I knew what kind of questions were coming out” [*ibid.*]. His results qualified him for entry into the island’s premier school, the Raffles Institution.

In contrast, for the families of both Lok Kwee and Ah Tee, the financial demands of keeping them enrolled in Primary School were already testing their household finances to the limit. Hiring a tutor was out of the question. Lok Kwee’s parents had both completed primary school, and her father had attended one year of junior secondary. Ah Tee’s father dropped out of school at Primary Five, and his mother was illiterate. In both households, turning to parental guidance for schoolwork was not a possibility. As far as school was concerned, the children would have to fend for themselves.

Ah Tee was fatalistic about his grades, accepting his teacher’s remarks that his dropping out of school was inevitable, given his poor results in tests and examinations. At no point did he suggest that his academic struggles were due to problems with the curriculum, or the economic circumstances of his household:

School is for those who can be doctors or scientists. For me, I’m not so smart, so paying all that school fees is a waste of money. My mother and sisters convinced me to stay in school, so I tried. I kept failing, or just passing. . . [I agree with my teachers in that] I think I was not good enough. After I failed Secondary Two, I thought, enough is enough. No more school. [Author 2004: Ah Tee]

Similarly, other interviewees (including Lok Kwee) expressed an uncertainty toward their own abilities to complete secondary school, even if their financial status had allowed for such a scenario. This attitude is a symptom of the discourse of inadequacy and “surrender from children who do not make the grade” as foreshadowed in the Goh Report [*Goh* 1979: Section 1-4].

The Factory Workers as a Mechanism for Singapore’s Economic Growth after 1965

The loss of self-esteem in an environment where “the ideology of. . . meritocracy labels those who cannot continue on in school as lacking qualifications” [Salaff 1988: 35] is integral in contextualising the willing silence by factory workers as other sections of the population began to reap the rewards of the nation’s “economic miracle.” Salaff points to a parallel study of low-income American families by Richard Sennett and Jonathan Cobb, who argue that households in the lowest socio-economic tiers in the United States often “refrained from directly challenging the political system because they felt personally responsible for the labels of ability they bore” [*ibid.*: 35]. The acceptance of their plight as merely being of their own making, and the exploitation of this submission, is fundamen-

tal to the creation of the low-waged, yet efficient and docile labour force that the economy required in the drive for spectacular growth.

Workers like Lok Kwee and Ah Tee *et al.* were part of a community and industry that played a critical role in Singapore’s rapid economic growth and the funding of its substantial infrastructural development.³⁾ The net investment in the manufacturing sector in 1980 amounted to 1,413 million Singapore dollars, of which 1,189 million came from foreign sources. By 1990, these figures had increased to 2,484 million and 2,217 million respectively [*Statistics* 1991: 128]. Because the bulk of these investments came from companies headquartered in the United States, Japan, the United Kingdom, the Netherlands, and Germany, the 1980s would see multi-national conglomerates from these nations in particular emerge to play a central role in guiding the nature of production in Singapore’s manufacturing industries.

In the period immediately after independence, the economic guiding principles adopted by the state meant that production would primarily concern itself with fabricated products/machinery, electrical machinery, transport equipment, as well as textiles, garments and leather goods. Factories in these industry groups were vital in the battle against unemployment throughout the 1960s and 1970s, accounting for 109,764 jobs or just over 52 per cent of the employed pool in the manufacturing sector in 1976 [*Industrial* 1977: 9–10], an increase from just 19.1 per cent in 1960 [*Industrial* 1961: 6–8]. By 1980, the manufacturing industry alone accounted for over 30.1 per cent (324,121) of all jobs in the entire working population [*Census 1980* (4) 1981: 12], with the majority being in factory-line positions [*ibid.*: 76–77, 82–83]. Over the course of the two decades since independence, the industry had thus emerged as one of the central pillars of Singapore’s economic growth. The *Report on the Census of Industrial Production 1976* notes that the sector’s contribution to the country’s GDP in 1976 stood at 21.7 per cent, or 2.21 billion Singapore dollars [*Industrial* 1977: 9], compared to 13.2 per cent or 294 million Singapore dollars in 1960 [*Labour* 1966: 60].

Aspirations, Debt, and Control

The labour-intensive industries and their factories which dominated Singapore’s manufacturing sector meant that unemployment was not, at least relative to the island nation’s neighbours, an overwhelming issue for the state. At the time of the 1980 census, 30,101

3) The writings of W. G. Huff, Linda Low, Lawrence B. Krause, Edgar Schein and Lim Chong-Yah provide detailed analyses on the reasons for Singapore’s rapid economic development. In order to remain thematically focused on the intentions of this paper, and because of the body of literature that has already been published on the subject, this paper will not be attempting to explain in detail “why” the economic development of Singapore was, for much of its population at least, such a great success.

economically active Chinese were unemployed and (if one discounts the temporary surge in unemployment caused by the recession of 1985/86) as a proportion of the working population the unemployment levels would remain constant throughout the decade [*Census 1980* (4) 1981: 54; *Census 1990* (4) 1993: 38].

However, the high rate of employment has disguised a more elusive narrative of Singapore's economic history. Income for workers employed in the manufacturing sector presented a significant obstacle towards fulfilment of material aspirations, with many households living a hand-to-mouth existence. Only just over 2 per cent of all production/production-related workers were on a salary of over S\$1,000 per month in 1980; 77 per cent were reporting monthly incomes of less than S\$500. Monthly salaries for male factory workers ranged between S\$300 to S\$600 in 1980; for their female counterparts it was usually between S\$200 to S\$400 [*Census 1980* (7) 1981: 64]. An analysis of the average wage for production workers between 1980 and 1990, compared to their administrative and/or professional peers, begins to reveal a stark contrast in economic experiences at the time.

Phang Sock-Yong's analysis of the National Housing Price Index provides another useful framework to view the rapid escalation of living costs during the latter 1980s. He observes that the cost of housing increased on average by 139 per cent between 1979 and 1983, before falling by 27 per cent by the end of 1985, coinciding with the nadir of the 1985/86 economic recession. According to Phang, as the economy began to recover, housing prices surged once again. By 1996, the cost of housing in Singapore was nearly three times what it had been ten years earlier, having witnessed an increase of nearly 260 per cent on average [Phang 2004: 5].

A cursory glance at the advertisements for housing sales during the decade provides a closer glimpse of the increasing financial demands placed upon factory workers who aspired to home ownership. Table 4 depicts a selection of asking prices gleaned from advertisements at the time for three- and four-room type HDB apartment units across the island between 1982 and 1990. These two particular designs were chosen due to the fact that these designs were used as a yardstick by the PAP in its plan to achieve complete

Table 3 Average Monthly Earnings in Manufacturing Sector by Occupation Class, 1980–90
(Singapore dollars)

Production Workers					
1980	1982	1984	1986	1988	1990
\$443	\$564	\$691	\$732	\$828	\$991
Professional, Administrative, Managerial, Executive Workers					
1980	1982	1984	1986	1988	1990
\$1,919	\$2,201	\$2,521	\$2,215	\$2,260	\$2,578

Source: [*Statistics* 1991: 65–67]

Table 4 Examples of Asking Prices Found in Advertisements in *The Straits Times* for Pre-owned HDB Housing between 1982–90, 3–Room and 4–Room Types (Singapore dollars)

Type	Location	Asking Price	Year
HDB 3–Room	Circuit Road	35,000	1982
HDB 3–Room	Kim Keat Avenue	60,000	1982
HDB 4–Room	Sims Drive	90,000	1982
HDB 4–Room	Haig Road	100,000	1982
HDB 3–Room	Toa Payoh	40,000	1984
HDB 3–Room	Clementi	58,000	1984
HDB 4–Room	Bedok South	115,000	1984
HDB 4–Room	Dover Road	98,000	1984
HDB 3–Room	Toa Payoh	31,000	1986
HDB 3–Room	Eunos Crescent	43,000	1986
HDB 4–Room	Ang Mo Kio	82,000	1986
HDB 4–Room	Ghim Moh	80,000	1986
HDB 3–Room	Tampines	59,000	1988
HDB 3–Room	Telok Blangah	57,000	1988
HDB 4–Room	Ang Mo Kio	93,000	1988
HDB 4–Room	Bedok North	88,000	1988
HDB 3–Room	Kim Tian Road	62,000	1990
HDB 3–Room	Circuit Road	49,000	1990
HDB 4–Room	Moulmein Road	100,000	1990
HDB 4–Room	Jurong West	100,000	1990

Source: [ST 01. 05. 1982; 1984; 1986; 1988; 1990]

home-ownership by the end of the twentieth century [ST 18. 03. 1988: 17].

In spite of the rapid upsurge in real estate prices after the easing of the recession in 1986/87, the People’s Action Party (PAP) was confident that its target was achievable. In 1988, then Minister for National Development S. Dhanabalan contended that it was conceivable for a worker earning S\$500 a month to own a three-room flat at the least, based on a 25 year repayment period and concessional down payment of 5 per cent [ST 18. 05. 1988: 17]. However, Ho Kim Hin observes that

[o]n the basis of housing affordability measured by a CPF member’s ability to pay for the purchase of his flat in 1985, it is found that [mainly] *dual*-income households in Singapore are able to pay for the purchase of a HDB flat [Ho 2004: 5] (emphasis added).

Ho’s analysis makes for stark reading when placed alongside Dhanabalan’s assurances to Parliament at the time, the latter having declared that “there’s no [other] country in the world where someone starting work after leaving school can expect to buy a home after two years” [ST 19. 05. 1988: 20]. As a requisite for home-ownership for many families within the lower income groups, the dual-income model drew increasing numbers of housewives into the workforce as the 1980s progressed. The *Yearbook of Statistics 1990*

for instance notes that there was an increase of over 23,600 women employed in the work force from 1989. Two-thirds were women in their early 30s, and most had taken up positions as production operators in the manufacturing sector [*Statistics* 1991: 55–58].

The success of the HDB's housing project in improving the living conditions of the general population cannot be disputed. By the 1980s a vast majority of the population had been moved from quarters that were either overcrowded or lacking in basic amenities. A large proportion of the population became home-owners, in their eyes an elevation in their socio-economic standing, thus creating a mood of contentment among most of the citizenry. But in order to keep the prices of the HDB flats comparatively low in the face of the nation's natural land shortage, the PAP government pursued the policy of leasing housing to the majority of its citizens. Because the flats were built on state land and the units were sold leasehold (the lease lasting for 99 years), the prices could be kept at levels that were significantly lower than if they were freehold properties. Christopher Tremewan has pointed out HDB apartment "owners" purchased equity, rather than ownership in the strict sense of the word. After the expiry of the term the flat would revert back to the control of the HDB [1994: 57].

As Tremewan contends, the net effect of the public housing policy was to lodge many within the working-class firmly into a long-term debt to the state [*ibid.*: 58]. A sense of urgency and anxiety drove the Chinese factory worker to remain employed regardless of the workplace situation in order to meet the demands of the repayment schedule. Complaints against long hours or inadequate safety measures, for instance, were suppressed for fear of forfeiting the steady income that employment offered. And it was this fear of being unable to repay the debt to the state that was essential to maintaining a disciplined and efficient workforce in the factories.

Exhaustion was the defining theme in Ai Lek's life in the factory. She would return home after her 12 hour shift, which began at 6 in the evening, just in time to prepare breakfast for her children who were about to leave for school. There was laundry to be done and simple dishes of vegetables, pork or chicken to be prepared as dinner for the family. Once cooked, these would be left in a tin pot, to be reheated and consumed by the members of the household as they each returned home later in the day. It would be close to noon before there was time for sleep. The blaring ring of an alarm clock would stir her from her slumber at around half-past-four in the afternoon, followed by a shower and a quick meal, before she made her way to the chartered bus that would carry two scores of other women like herself to the factory to begin the shift [Author 2004: Ai Lek].

Tiredness left the worker prone to making mistakes that could jeopardise his or her own safety. Ai Lek was fortunate to avoid grievous injury when the gears under a line belt that carried microchip boards into an automated stamping tool caught her sleeve. But for two of her friends who were alert to the immediate danger, she would have lost her arm to the pitiless automation [*ibid.*]. Others were not as fortunate. Just a week into her first job as a production worker in the Molex factory, Lok Kwee witnessed a fellow

worker lose three fingers to a precision moulding machine. Fatigue, the monotonous nature of line production and the fast-moving components of powerful automated factory equipment combined to devastating effect as her colleague’s fingers were severed. “She just stared, I think at first there was no pain. Then she wailed, long and keen. It was a terrifying sound, one that I will never forget” [Author 2005: Lok Kwee].

Even when fatigue was not an obvious factor, the lax standards of safety in the factories meant that the workers were subject to physical hazards that threatened even the most alert of staff. In a review of occupational health and safety in Singapore, Liew Khai Khiun suggests that the historical problem of poor workplace safety in Singapore, particularly within the factory, was a considerable one that went largely unaddressed by the Singapore government, and that “[t]he victims have been predominantly blue-collar workers. . . . Women workers make up most of the numbers of those hurt in the factories and the manufacturing sectors, as these concerns are staffed mainly by females” [Liew 2003: 3]. On 16 July 1987, Chong Sow Wan lost all of her fingers on her left hand in an accident while working at a seafood-processing factory in Jalan Tepong. The company, Marine Foods, had failed to erect a safety fence around the mincing machine, an act that would have cost the company less than a hundred Singapore dollars. As it was, the act of thriftiness on the part of the factory owners left Sow Wan maimed for life [ST 18. 07. 1987: 21]. On 29 April 1988, 38-year old Teo Chee Hua was killed and three others crippled in an explosion at a gas-manufacturing plant in Senoko. Highly flammable acetylene gas had leaked from a faulty generator, leading to the disastrous blast. His wife would have to raise their two young daughters on her own, both of whom were still attending primary school [ST 01. 05. 1988: 16].

The increasing cost and pressure of surviving in Singapore in the 1980s was, as a consequence, exacting upon most of its citizens. The lowest socio-economic strata of society found it increasingly difficult to reconcile the realities of working life with their own aspirations. Factory workers such as Ai Lek and her husband often had to look to supplementary sources of income to get by:

We worked alternate shifts. . . but even that was not enough. . . the children needed textbooks, workbooks, stationary, uniforms. . . shoes, allowance. . . we only bought one set, so that the younger one can use it when our older son outgrew them. . . even then it was hard on our children. We had to make sure that we did not cook too much rice everyday, as it would have been very expensive to buy another bag of rice if we ran out [for the month]. . . . In the early evenings [my husband] would work as a drinks stall vendor at the coffee shop downstairs, and because I was still at work, he had to bring the children there with him, so he could watch them. . . they would do their homework while he made drinks. [Author 2004: Ai Lek]

While the environment around her changed at a bewildering pace, the fundamental theme of daily life did not change for Giok Cheng. Her older brother left home when he

was 16, only surfacing nearly two decades later after he established a small bicycle sales and repair shop in Jalan Kayu. The burden of providing for the family was unexpectedly and prematurely thrust upon her when her father died of tuberculosis in 1967.

Earlier in her life, her basic competency in spoken English helped her find work as a housekeeper for the families of British Royal Air Force (RAF) officers stationed in Singapore. When the RAF began withdrawing its personnel from the late 1960s onwards, this left few opportunities for similar employment. Like an increasing number of women at the time, she turned to the factories for survival.

Her younger brothers, whom she helped put through secondary school, each maintained loose ties with the family after leaving home in the early 1970s. They offered token sums of money to help their mother, sometimes by mail, sometimes at the end of the odd visitation, and only once every few months. After a few years, even this inconstant stream of monetary aid dried up. Throughout, her obligations anchored her to the household, and her sense of responsibility smothered any desire to start a family of her own. She remained single, in order to care for her mother:

Who would look after her if I got married? Everyone left by that time, there was only myself My mother gave birth to me, I think I should at least pay her back by promising my life to her. . . . What husband do you think will like it if I spent all my time and money looking after her [even after I've married into his family]? If there was only me, at least I could force myself to spend less. I don't mind the hardship. With children and a family that could not be done. If I was rich, then maybe. [Author 2005: Giok Cheng]

Aged 37 in 1982, Giok Cheng joined King's Shoe Manufacturing as a production operator at the company's factory in Genting Lane. The long hours of her work kept her away from her aging mother. Though she worked diligently to provide for the simple comforts of life for her mother, apart from the times when the pair would sit almost silently watching Mandarin television programs in their humble two-room flat after dinner, there was little interaction. On the weekends, the matriarch would sit muttering, partly to herself and partly to Giok Cheng while the latter swept the floor, cleaned the windows, and did the laundry. On occasion, she would grow tired of the old lady's constant nagging, and a heated argument would ensue during which hurtful words were exchanged, and painful memories evoked. On a rainy Thursday evening in May 1990, she returned home to discover the body of her mother hanging from a rope tied to a window grill. Abandoned at every turn, she now felt completely alone in the world [*ibid.*].

The Chinese Factory Worker's Life in the 1980s as a Gendered Experience

As we pursue the theme of exploitation and the non English-literate Chinese factory

worker, it is also critical to recognise the function of gender as a key variable in this facet of everyday life. The male and female experience of the factory workers was often markedly different in affairs that ranged from wage discrepancies to the demands of enforced single parenthood, all of which are reflections on the nature of gender and sexual relations in Singaporean society.

As much as the male factory worker was a subject in a relationship heavily defined by exploitation that he endured with both the state and other strata of Singaporean society, there was another community whom he often exploited in turn. Within the gendered relationships of Singaporean society, the male factory worker was often a chief precipitator in the commodification of women. The community of prostitutes were subservient to the carnal demands of (among others) the male, non English-literate Chinese factory worker.

To use a prostitute was not simply an act of sexual release. As we shall see, it was also an act to display masculinity by being blasé about the feat. It provided an opportunity for the male factory worker to reclaim an element of sexual agency when he found himself denied by his spouse for a variety of reasons in the household. The role of prostitution in the lives of male factory workers during the 1980s is thus an integral one.

For the female worker, gender relations took on a different meaning, particularly in the workplace. Many were illiterate, or at best poorly educated, and were either not fully aware of the protection that they were ostensibly afforded against unwanted advances by male superiors, or were content to let the latter get away with lewd actions due to a desire to remain in employment. For other women, the factory was a physical space where opportunities for economic mobility could arise.

Among male factory workers, there was a tendency to disconnect the idea of visiting a prostitute from infidelity, just as there was a trend in associating their sexual interactions with streetwalkers as a form of harmless “entertainment” [Author 2004: Ah Siang]. So long as they fulfilled their monetary obligations as fathers and husbands to their families, how they spent any remaining portions of their salaries was based on personal whim. For many, the carnal relief afforded by a visit to the brothel was a welcome, even inevitable, respite from the mundane daily routine [Author 2005: Heng Yew]. Ah Siang, who worked the production lines at the Leung Kai Fook Medical Company’s factory since 1974, describes:

My wife was working [in another factory] at night, I was working from mornings until the evening. And having the children in the house made [having sex] difficult. I’m a man, and all men need to have certain things in life. A woman is just one of those things. Looking for a “chicken” was a way to ease the urge. . . . I’m still a good father and husband, because I don’t keep another woman outside. My money goes to the children for school, and food for the family. . . . A very small amount goes to my entertainment. I think I worked hard enough to deserve just that, correct or not? [Author 2004: Ah Siang]

It is apparent that the households of other factory workers were similarly desexualised. In her study of the relationship between individual households and the state in Singapore during the 1970s, Janet Salaff's interviews point to a similar pattern among other non English-literate Chinese women. Ng Wee Ping, described by Salaff as a former packer at a peanut factory with no formal education, considered sexual intercourse as her obligatory duty [1988: 42–43]. “I don't like sex. Even though I haven't told him, that sticky thing frightens me. . . . Most women I know don't like sex either. . . [but what] can you do when he wants sex?” [*ibid.*: 43]. Also interviewed by Salaff, homemaker P. H. Lim remarked in like fashion, “I didn't mind sex at first, but not after so many children. I'm tired of it. . . . My husband knows I don't enjoy sex, but we never discuss it” [*ibid.*: 69].

While the home was thus the undoubted emotional and obligatory anchor (at least for those who felt beholden to their responsibilities as a parent) for the male factory worker, apart from the necessities of procreation there appeared to be little sexual activity for pleasure. Reasons for this, my informants have suggested, ranged between the presence of children in the household to the unwillingness of their wives [Author 2005: Heng Yew].

In adopting an arbitrary attitude towards women there is also a sense of male bravado involved. Brothel calls were seldom done alone, and it was not uncommon for large groups of factory workers to make the trip together after work by bus to Geylang, Chinatown, Joo Chiat or other locales where the sexual services of women could be easily acquired [Author 2004: Ah Siang]. Once there, they would settle down over a cup of black coffee or bowl of noodles in one of the scores of coffee shops that dotted the districts, mingling with other factory workers or members of Singapore's lower social strata. Notes about which prostitutes to use or avoid would be exchanged as readily as complaints about working conditions or rising living costs [Author 2005: Heng Yew].

The brothel represented a useful alternative domain to the desexualised home for many male Chinese factory workers in large part due to the lack of similar “obligatory anchors,” for instance the upkeep of children. It was also an economical substitute for mistress-sing, which increasingly involved greater amounts of material wealth beyond the means of factory workers. A worker at the Speedy-Tech Electronics transformer plant during the late 1980s, Heng Yew was then married with three young children. In our discussions he candidly admitted to visiting prostitutes at least thrice—and on some occasions up to five times—a week. When asked if it would not be more practical to maintain a mistress given his libidinous appetite, he replied:

Keeping a mistress is expensive, only the *towkay* can afford it. [The women who were willing to become mistresses] were all very demanding and pragmatic. . . . not like the old days during my father's time. . . . You need to have a car, let her stay in a nice room, or even a house, a bungalow. You need to give her a lot of jewellery and money for shopping to keep her happy. For us it's much simpler to look for “chickens.” You pay her for an hour, and if you like her you

can come back again next time. If not, or if you grow bored of having the same “dish” after awhile you are free to find another one. And there are no attachments that can harm your family. [*ibid.*]

Fees to secure the services of a prostitute varied greatly, with the determining factors chiefly her nationality, age, general popularity with the clientele, and the reputation of the brothel and its facilities. On average for a fee of around S\$30 to 40 a client would be able to choose one of anywhere up to a dozen local women. Less picky customers could pay just S\$10 and allow the choice to be made on their behalf. Thais and Indonesian prostitutes, who were also often freelancers with no brothel affiliation, came cheaper. Across the board fees were considerably higher if virginity could be promised to the patron.

In several instances their wives grudgingly accepted these liaisons with streetwalkers as part of the lifestyle expected of male Chinese factory workers. Mistress-sing was regarded as a more dastardly and serious transgression given its cost. Discovery was still hurtful and often resulted in emotional arguments between spouses, but so long as the male remained employed and continued to provide income for the family, fidelity was not always an expected trait [Author 2004: Ai Lek]. For Ah Siang, his visits to the brothel were especially obvious to his wife when he forgot to dispose of the evidence. At times he would have unused condoms in his trouser pocket, or complimentary matchboxes bearing the street address and “house name” of the brothel:

She knew... we fought over it sometimes, but we also fought over many things. Deep down I think she knew that I was still a good husband and father. I didn't leave her and the children for another woman... At the end of each day I still came home to them. [Author 2004: Ah Siang]

Apart from the emotional consequences surrounding the use of prostitutes, in their interactions with prostitutes the male factory workers also had to contend with the spectre of sexually transmitted diseases (STD). From 1976 to 1986, the highest annual incidence of STDs peaked in 1980 when the number of infections was registered at 1,013 cases per 100,000 members of the population, with gonorrhoea, syphilis and non-gonococcal urethritis the most common forms [Snodgrass 1998: 3]. In 1985 the island reported its first case of HIV infection, followed by a debut of the AIDS virus a year later [*ibid.*: 5]. Ian Snodgrass of the Communicable Diseases Centre in Singapore remarks that a significant number of those infected with STDs were production craftsmen and machine operators/assemblers, and that a majority of the patients were male [*ibid.*: 6].

For female workers the factory could be transformed into a domain where, if not overtly sexual, was at least charged with sexual-tension through the advances of males in superior positions. These overtures reflect the dynamics of gender-relations in

Singapore and the region at the time, where the empowered male line-supervisor, production manager or factory owner was the norm for female workers. *Towkay* was a male designation both literally as well as in the context of gender relations. The term *towkay neo* did exist, though it was less used to refer to a “lady boss” than it was for identifying the “(male) bosses’ wife.” Of the 37,220 ethnic Chinese designated as employers in the census of 1980, only 3,699 were female [*Census 1980* (4) 1981: 36].

In key sectors within the manufacturing industry, women constituted the bulk of the employed workforce [*ibid.*: 117–119; *Census 1990* (4) 1993: 125–127]. At the time of enumeration, the census of 1980 reports that 90,086 Chinese female employees staffed the production lines [*Census 1980* (4) 1981: 66], increasing to 161,381 by 1990 [*Census 1990* (4) 1993: 105]. Most of their immediate supervisors were male, and the youthfulness of much of the female work force made the latter prime candidates for romantic overtures, sexual harassment, and in some instances, assault. Leng Yip, who was employed as a night shift worker at the Motorola Factory in the Ang Mo Kio industrial park, recalls how a particular supervisor placed in charge of the shift abused his position for his own lewd gratification:

[My supervisor] was a *lau ti ko*, 50 over years old with a wife and children... The way he looked at the young [female factory workers] was so disgusting. He would stand over their shoulders and look down... pretending to watch their work, but actually he was looking at their chest. Other times he would look for chances to touch them, like when he was “teaching” them how to operate the machinery, or when he said, your skin is so smooth, or, your hair is so smooth, he would stroke their arms or hair... he kept a few of the women as his mistresses... it was a well-known fact. He once offered me money too, I was tempted... because it was a source of income and I didn’t need to do much... If I had taken up the offer I would have been no better than a prostitute. [Author 2005: Leng Yip]

Exploitation of the women’s desire for continued employment, as well as a lack of education about the channels through which they could express their grievances and report cases of sexual harassment, meant that abuse of the workplace power dynamic was prevalent. One factory supervisor allegedly took it upon himself to provide impromptu “medical check-ups” for production workers, particularly the younger women. He would summon them into an office to examine their bodies for signs of ill health, which involved the female worker removing some articles of her clothing. Many women who encountered such behaviour at work remained silent, or restricted their complaints to each other [*ibid.*].

In other cases, romantic propositions by superiors were received more favourably. A mundane existence could be enlivened by the “excitement of romance” [*ibid.*]. While none of the female interviewees were forthcoming in personal revelations of adultery, several were keen to defend friends who were less reserved about having extramarital affairs.

Many were young when they married their husbands and hence “not that ready” to be tied down in matrimony and motherhood, Leng Yip offered. Consequently, for some at least the desire for romance and excitement away from screaming children and absent husbands was adjudged to be natural [*ibid.*].

Class mobility was also another draw when it came to considering the propositions of a factory superior. Thoughts of escape from the financial immediacy of life on the production line were inevitably contemplated as a worker from Seagate Technologies Singapore, Boi Eng, illustrates:

[The shift engineer] was young, quite good-looking... wearing glasses so he was very gentle-looking and spoke English very well since he had a degree from the National University of Singapore. [He] was different from the very coarse type of men I grew up with. He treated me very nicely... and dropped me off at the bus-stop [with his car] every evening... I could tell very quickly he was interested... you can tell by the way a man talks to you and looks at you, you know? Even though he knew I was married he still tried... If I was still unmarried then I would have been happy to go out with him... He had money, a car and lived a comfortable life, it would have been nice to live like that. What a good life, an engineer you know! [Author 2005: Boi Eng]

Ultimately Boi Eng would turn down his approach “to avoid subjecting my husband to ridicule” [*ibid.*]. Shortly after, the shift engineer left Seagate to join JIT Electronics, and the two have not met since.

It was often only due to tragic instances of violence, usually inflamed by the rejection of an overture or a messy end to an affair, that such matters were brought to the surface, providing evidence of how exploitative and sexualised the factory environment could be for many female workers. Thirty-six year-old shift manager Wee Seng Chew was accused of raping and assaulting a female worker in 1988. Wee had offered his victim a lift home and took the opportunity to declare his feelings for her. When she rejected his advances, he forced himself on her [*Wanbao* 28. 08. 1989: 8]. The following year 42 year-old Teo Cheng Wee, a line supervisor, was arrested for repeatedly outraging the modesty of two female workers. It was soon apparent to the police that they were not his first victims [*ibid.*].

Labour Control and Moves Toward High-technology Industries in the Latter 1980s

The conditions in the factories were a symptom of the PAP government’s labour policies drawn up after it came to power. The intervening years between the PAP’s victory in the General Elections of 1959 and the 1980s are characterised by a legislated disempowerment

of Singapore's trade unions, accomplished primarily through the deregistration of "leftist-oriented" members of the Singapore Association of Trade Unions (SATU) and the amendment of the Trade Unions Act in 1966 [Deyo 1989: 122–125]. Frederic Deyo notes that there was only one instance of industrial conflict-related work stoppage in 1986, and that there were none in the years 1978–85 [*ibid.*: 63], a remarkable decline from 1955 when there were 275 instances of work stoppages [*ibid.*: 62].

At the centre of the PAP government's policy was its pursuit of an Export-Oriented Industrialisation (EOI) strategy; by diminishing the power of collective bargaining and eliminating oppositional unions, the PAP state hoped to increase Singapore's attractiveness to foreign capital by creating what Deyo terms as an "industrially peaceful" investment landscape [*ibid.*: 94]. Garry Rodan also suggests that the success of the EOI strategy also required a high degree of government intervention, particularly in matters pertaining to labour costs and wage levels [2001: 145].⁴⁾

The success of the EOI strategy manifested itself in the increasingly critical role that the factories played in Singapore's economy, and the growing number of jobs the sector was responsible for. The nature of the nation's economy after independence is hence characterised by the persistent presence and continued wooing of foreign Multi-National Corporations (MNCs). As Mauzy and Milne have documented, investing MNCs found Singapore attractive primarily due to labour legislation that was in place by the 1970s such as the Employment Act (1968) and the adoption of the National Wages Council (1972), which boosted productivity and aided in cost-minimisation [2002: 31]. Singapore's reliance on MNCs firmly entrenched the nation's economy, and in particular its manufacturing sector, into a system that would mirror industry developments in the host nations of these corporations [*ibid.*: 67–68]. As the computer and technological industries in the primary investor countries such as the United States, Japan, the United Kingdom, the Netherlands, and Germany began to grow in significance from the latter part of the 1980s, so too would this drive and alter Singapore's manufacturing landscape. For the factory workers, the prerequisites of "skill" and education in the factories would increase dramatically.

As depicted in Table 5, investment emphasis on food and beverage production, textiles, wearing apparel, plastic and wood products fell significantly (or continued to fall in the case of textiles and wearing apparel industries) between 1980 to 1990 as factories in these industries were either wound up or relocated elsewhere in the region.

As much as they were concerned only with the immediate needs of their daily

4) A more detailed examination of the function and decline of organised labour in Singapore's post-war history is, unfortunately, beyond the scope of this paper. Interested parties should refer to the excellent works dealing with the subject by Frederic C. Deyo (*Beneath the Miracle*) [1989] and Garry Rodan ("Singapore: Globalisation and the Politics of Economic Restructuring") [2001], both of which have been cited here.

Table 5 Net Investment Commitments in Manufacturing Sector by Industry, 1980–90
(millions of dollars)

Industry Type	1980	1982	1984	1986	1988	1990
Food and beverages	99.4	101.5	154.4	83.3	168.4	43.8
Textiles	32.6	8.9	0.3	5.6	10.6	2.8
Electrical machinery and appliances	392.2	321.8	655.8	522.0	935.6	1,197.1
Plastic products	66.8	47.5	33.4	42.6	53.5	14.5
Wood products	30.8	8.8	15.8	11.4	—	8.6
Wearing apparel	8.0	10.4	6.7	—	0.9	0.2

Source: [*Statistics* 1991: 127]

existence—food, education for the children, and a home of their own—the lives of the Chinese factory workers were inextricably bound with the greater and abstract driving force of technological determinism. Salaff observes that the Singaporean schooling system was tarred by “educational wastage” throughout the 1970s, with large numbers of students dropping “out of the academic stream without acquiring any of the skills required by the advanced hi-tech industries” [1988: 34–35]. And as we have already witnessed, a premature end to schooling was a common feature among the Chinese factory workers.

Made possible with the invention of components such as microprocessors and integrated circuits, the “Personal Computer (PC) Revolution” began to gain momentum by the mid-decade. Propelled by billions of investment dollars, the industry was transformed from hobbyist to multi-national in nature. PC sales doubled each year from 1980 to 1982 from 700,000 units to 2.8 million in the United States alone, and by 1986 computer-related sales in the U. S. exceeded 15 billion United States dollars. Yet a combination of high overheads and low productivity in the manufacturing sector of key developed economies, particularly in the United States and Germany, meant that production often fell heavily short of demand [see Sichel 1997]. Marrying the generous setup subsidies provided by Singapore’s Economic Development Board (EDB) with a pool of low-waged skilled workers, the island appeared an attractive proposition for the siting of production facilities for many technological conglomerates [see *ST* 18. 03. 1988; *ST* 02. 05. 1988].

The Yokogawa Hokushin Electric Corporation announced in 1985 that it would shift its production operations to a facility in Singapore [*ST* 06. 12. 1985: 14], while a Singaporean company, Wearnes Technology, was commissioned in the same year by Victor Technologies to undertake the production of microcomputers for the North American market [*ST* 14. 12. 1985: 19]. Apple Computer, IBM and Compaq established manufacturing and sales facilities by 1986, while Kenwood announced the opening of its largest factory in the Ang Mo Kio industrial park two years later, which would produce receivers and compact disc players [*ST* 12. 03. 1988: 14]. Alongside the Kenwood factory was a multi-million dollar wafer-chip manufacturing plant operated by Italian semiconductor firm SGS. Other electronics giants such as Sony and Philips announced plans to site

extensive production facilities in Singapore by the end of the decade, the former in Tuas employing nearly 450 workers and the latter with five factories running consecutive eight-hour shifts, employing over 5,000 staff [see *ST* 01. 03. 1988; *ST* 13. 03. 1988].

The effect of this change in Singapore's production landscape devastated the households of many older Chinese factory workers, with thousands of unskilled employees rendered "obsolete" as they were considered by many employers to be lacking in the necessary skills and education required for efficiency in high-technology factory operations. At the end of 1985, the Ministry of Labour reported that 5,762 workers in the manufacturing industries had been retrenched in the first nine months of the year alone, adding to the total unemployment pool of nearly 50,000 [*ST* 07. 12. 1985: 15]. The 1990 census reveals that of the 26,168 economically-active persons who were unemployed at the time of enumeration, more than a third were literate only in Chinese [*Census 1990* (4) 1993: 159–160]. The majority were over the age of 30, and had received only primary schooling [*ibid.*: 161].

Thus, the poorly educated and those literate only in Chinese, such as Swee Seng, a worker at Tractors Singapore Ltd. and a father of three teenaged children, were the ones most directly affected. Swee Seng, along with over 70 factory operators, was laid off by the company in November 1988, with the recession a key reason cited for the organisation's retrenching of its employees. Bitterly, he suggests that this was merely an excuse:

All of the people that were let go were older workers like me... those who cannot read and speak English... they wanted to get rid of us for a long time before that because they had bought some new machines that were more complicated and more difficult to use. [Author 2005: Swee Seng]

With only a Primary Two education, Swee Seng was left with few alternatives of employment. From his two-bedroom flat in Toa Payoh he moved between odd-jobs for the next six years, ranging from newspaper delivery to junk collection, until he was finally able to secure more stable employment as a cleaner in the Kallang National Stadium in 1992.

Having received no formal education in her childhood and entering her 40s by the mid-1980s, Ngai Leong found herself discarded in similar fashion by her employers, Carlee Electronics in 1986. Despite having been told that the company was downsizing its operations, a few months later she learnt from a friend that the company was advertising for female production operators for single-shift work. The stipulated requisites were youth, and for applicants to have at least completed primary school [Author 2004: Ngai Leong].

At the time of her retrenchment, Ngai Leong was a mother of four. Her husband, a man 14 years her senior with a penchant for heavy gambling, worked the Keppel docks

as a mobile canteen operator. Once a month, she would rummage through his clothes and wallet while he slept, “extracting” her household allowance from whatever money he had at the time. When she first did this, her husband flew into a rage, accusing her of frittering their money away on frivolous things. But according to Ngai Leong, over time, he began to see the reason for her actions:

He knew that he cannot control the gambling habit, so this was the best way. Of course, he was not happy. All men have their egos and [to have their wife controlling their money] is humiliating, but you cannot expect me to bring up the children by myself. [*ibid.*]

Even with her husband’s enforced contribution to the household income, employment remained foremost in Ngai Leong’s mind. Scouring the newspapers and pleading with friends and relatives to let her know if any work was available, she found her age and lack of education an insurmountable barrier. She cannot remember how many jobs she applied for, both on her own and through an employment agency, but it was “a lot, many more than 30 I’m sure” [*ibid.*]. Two years and a series of odd jobs later, she was at her wits end when she heard of an opening at a new hotel. She applied to join its housekeeping team, and after an anxious wait, Ngai Leong was given a job with a monthly wage of seven hundred dollars, subject to her undergoing a training programme. From March 1989, the Westin Stamford would be her workplace. She was never to return to the factories.

Remembering the 1980s and the “Economic Miracle”: The Perspective from Below

On the evening of 28 November 1990, Lee Kuan Yew, who held the office of Prime Minister since 1959, handed the official stewardship of the state over to Goh Chok Tong in a simple ceremony watched by the population on television sets live across the island. Amid the tributes that poured in from friends and international dignitaries, it was evident that Lee’s role in Singapore’s history was absolute. S. Rajaratnam, a colleague of the PAP strongman from the earliest days of the party, suggested that it was not necessary for a statue of Lee Kuan Yew to be erected to honour his achievements. “I think his statue is Singapore—what he created and left behind” [*ST* 27. 11. 1990: 16]. Dennis Bloodworth, a former journalist and a close friend of Lee’s, commented, “He had a vision of Singapore that he could create and I think he’s had the satisfaction of creating it” [*ibid.*].

Ai Lek and her husband watched the ritual on the Mandarin television channel mostly in awed silence, with the former commenting to her husband, “so sad that he has to retire. He is a great man, without him we will not have today” [Author 2004: Ai Lek].

Despite the harshness of their lives through the 1980s, the couple was adamant that their plight could have been far worse if not for the PAP. “Look at Africa, people there have nothing to eat. Life was hard, but at least we could survive. . . . All you need to do is work hard and trust the government to know what’s best for us” [*ibid.*]. Since that November evening in 1990, the couple’s view on the Singaporean leadership has changed, citing the unfairly high wages earned by subsequent PAP ministers compared to the income of “normal people” as a principal grievance [Author 2004: Ah Tee]. But the memory of Singapore under Lee Kuan Yew is spared from criticism. “At least *lao* (old) Lee earned the right to be paid highly. The ministers today haven’t proven themselves at all” [*ibid.*].

What was most astounding was the simple acknowledgement of how they understood their plights. Virtually all were subservient to the state’s narrative of meritocracy, and that their role as the nation’s labour force was a natural occurrence. Proof of this was their own attrition from the education system; regardless of the financial circumstances that led to them leaving school, workers such as Lok Kwee and Ah Tee were adamant that they would not have successfully completed school even if financial resources were readily available. “Good in primary school doesn’t mean I’ll be good in secondary school. . . . I am not the studying kind” reflected the former in spite of her outstanding academic performance in her early schooling [Author 2005: Lok Kwee]. For Boi Eng, the order of the world was understood through the attainment of adequacy. “Life is destined,” she remarked, “Have house, have job and have food. Cannot complain, right? Always count your blessings” [Author 2005: Boi Eng].

In “the house that Lee built,” it is the 1980s that visually captures all that is commonly thought of when one considers Lee Kuan Yew’s historical function in Singapore’s development. Bearing the architectural hallmarks of the modernisation process, it was dominated by the rapid appearance of skyscrapers *en masse*, complemented by the increasingly massive sprawl of HDB flats. Cutting a swathe through the urban jungle, both above and below ground, was a sophisticated multi-billion dollar public transport system, the MRT (Mass Rapid Transit). These elements are arguably the most obvious signs of Singapore’s affluence attained during Lee’s leadership. Despite the difficulties encountered in 1985/86, the nation’s economy appeared triumphant, and a younger generation of Singaporeans who were highly literate in the English language, and thus projected an impression of sophistication in their dealings with clientele from overseas, were helping to transform Singapore into a centre for financial and computer services in Asia.

Though the factory workers were a chief effecting mechanism in Singapore’s remarkable growth, the 1980s were a time when their considerable problems, stemming from having to survive in a hand-to-mouth existence, were increasingly compounded through newer demands in economic relevancy. Older workers would be cast aside as companies began to demand of their production workers increased levels of minimum education. For those who successfully made the transition into the new production

workforce that was desired by the dictate of technological determinism, one had to make do with long hours, low wages, and escalating living costs. Struggling to make loan repayments for the houses that they had purchased from the state, pushing themselves to the limits of endurance in order to come to terms with the rising costs of daily necessities, the factory workers found themselves lodged in a long-term debt through which their docility toward their harsh circumstances could be exacted and expected. Amidst the growing affluence of the rest of the nation, they were to remain on the margins of the “economic miracle.”

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