THE ELECTRONICS INDUSTRY

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“Dormant Volcanoes or Fresh Green Vegetables?”
Women Electronic Workers in Delhi

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Summary of Findings

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Introduction

Women Electronic Workers in the 1990's

October 1994
Walking into Okhla Industrial Area we suddenly came across a large group of around 100 young girls and boys sitting in front of the Calcom Electronics factory gate, shouting slogans. Sushma, the 'leader', explains to us that they are protesting against the management which has downgraded their jobs to the unskilled category and is refusing to pay them the stipulated minimum wage for skilled workers. Through October up to December 1995, these young workers formed a union, moved from a dharna outside the factory gate, to the court, to a hunger strike in front of the Chief Minister's office, to endless sessions in the labour court.

November 21 1994
Women and men workers sat patiently in front of the Weston Electronics factory gate on a wooden platform covered with a canvas. It is 450 days today since the factory had just shut the doors to over 200 workers. Every other day Rattu Devi, Gayaati, Sandhya came and sat on the platform even as the court case continued month after month. They had worked for over 20 years in Weston and the hurt and shock at being locked out was visible on their faces and in their voices, even after so many days. Management had offered 'golden handshakes', in fact 76 workers had already taken 'hijab (final settlement) but they were determined to stay and fight out the case and be reinstated as workers. "We want our jobs back not money".

January 1995
Jayshree Dey had piles and piles of papers in the corner of her front room. She has been fighting 147 cases, representing workers from Ajuva Radios. She became a union leader after management refused to give her the scale due to her new grade as junior engineer. She has been suspended for two years and spends every day trudging through different court rooms and the labour comissioners offices. "I know I will not get my job back but I cannot give up - all the workers, especially the men trust me and I have to win their cases."

20 February 1995
We met Bina by chance at the BMS union office as we waited for the General Secretary. She was young, very attractive and had worked for eight years in a small scale electronics unit Avanti. The owner had started a new company a few months ago called Accuracy in the same building and asked all the workers in Avanti to resign, with the promise that he would reemploy them in the new company. Bina said this was a common practise amongst small units who used up the concessions provided for 5 years and then
simply shut down the old unit and reopened with a new name. Most of the Avanti workers agreed and quite a few were reemployed in Accuracy. Bina had refused to resign, suspecting that the employer would try to get rid of her since she had not been ‘cooperative’. She had come on her own to meet the union officer, was confident and aware of her rights. Married with two children, she was the main earner since her husband got intermittent casual jobs in the export garment industry. She was determined to fight alone saying “for 8 years I have borne injustice - not any more”.

28 February 1995
Sunita was tense and distracted when we went to interview her in the sprawling slum behind the Medical Institute. She had just heard that her husband, a smack addict who she had left was planning to come and kidnap her son. As we sat Jaswanti, the union leader from her factory walked in saying she had also heard about the problem and had come to help. A fascinating discussion began on strategies to handle the husband-Jaswanti giving examples from her own experience of fighting for a divorce. “Just ask him for maintenance and he will immediately give you a divorce as well as custody of the child. You know that these men have never been able to support themselves, let alone us and the children.”

These are women workers in the 1990's in the Delhi electronics industry - strong, militant, some unionised, others not but all aware of their rights as workers. They come from large units but also small, some have worked for over 20 years, others less than two. Contrary to the image of a submissive, docile workforce, and the stereotype of women electronic workers in export industries, whose youth and innocence, the basis of their recruitment, led to easy manipulation and control, these women workers are engaged in struggles around their work, wages, service conditions as well as in struggles in their personal lives.

They constitute of course a minute section of all working women, the bulk of whom are unorganised, irregular, casual workers who are low paid, the poorest of the poor.1 We met these women as well in the electronics factories - young, just out of school, their first job and first venture outside the security of home.2 Managers called them “fresh and green” - like vegetables their youth would be consumed in producing consumer items few of them could afford to buy, with no knowledge of rights and unions - the employer's dream girls.

In the electronics industry in Delhi these women- dormant volcanoes as well as ‘fresh, green’ young women both represent the history and changes in the industry over the last two decades.

Industrial restructuring is transforming the lives of these women in fundamental ways. Restructuring in the electronics industry started in the 1980's and the new economic policy

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1 The majority of women workers continue to be in the unskilled, lowest paid, dead end jobs, and they form 98 per cent of the unorganised sector.

2 In Delhi Dr. Shekhar lal Das was a part of the research team. Ranjana Padhi, Tara Negi also conducted some of the interviews.
initiated in 1991 has intensified this process. Workers recruited in the 1970's are losing their jobs even as changes in technology and new labour processes are creating new categories of women workers. There is a growing demand for women workers who have been working in this industry since the 1970's. These women have been able to move into better paid and secure jobs as a result of unionisation and struggles. They are aware and active around their rights as workers. This section is under attack today. While the overall tendency is towards casualisation, there are also new job categories where employers invest in training, higher qualification and skill requirements which mean also provision of better wages and benefits/incentives. Some women are entering these new jobs in the electronics industry. Alongside the demand for young girls continues for semi-skilled low waged assembly jobs as long as they remain quiescent and docile.

To understand what is happening to different sections of women workers we examine the broader context of changes in the electronics industry as well as changing industrial policies in the following section. Based on research undertaken between 1993-1996 on women workers in the electronics industry in Delhi, we look at the operation of state, managerial as well as workers men and women's own strategies/discourses/social practices around work and the family in the context of the processes of industrial restructuring which has been intensified by the New Economic Policy initiated in 1991. Using a framework that emphasises the multiple identities of women, the effects of industrial restructuring on women worker's work and lives is seen in the factory, the household as well as the neighbourhood.

The electronics industry has been chosen because it is a modern industry projected to grow very fast in the next few years. It is also an example par excellence of recent changes towards globalisation and liberalisation. This is not only due to the nature of the industry itself which is at the heart of the developments in new technology, telecommunications and the transformation of socio-economic life itself but also because India's experiment with liberalisation began with the electronics sector. The significance of the industry from our perspective lies in the fact that it has employed women in significant numbers and estimates are that it will continue to demand a women specific workforce in future. Women have formed around 30-40 per cent of additional manufacturing employment in the Indian electronics industry so far and given the priority accorded towards employment creation in this sector, it is estimated that the factory employment of women in the electronics industry will grow by 25 per cent in the near future. (Sen and Gulati, 1987, N. Banerjee, 1995)

Sample

The research was conducted in the industrial areas of Delhi. Delhi is the fourth largest location for the electronics industry in India. It has a significant position because of a large concentration of small scale units making consumer electronic products and in 1994 per capita production in Delhi, at Rs. 1429 per person, was the highest of all other locations of electronic production. Delhi also has 9.40% of the share in total exports of electronic products. (Rajiv Rastogi, N R

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The employment potential of the electronics industry has to be treated with caution. A report prepared by the Institute of Manpower Research, 1991 for the Department of Electronics projects that employment would be created for 1528.5 thousand at the end of the VIII plan period (IAMR, 1991). However this employment creation is mainly in allied and derived sectors rather than in manufacturing and there is no guarantee that women will have access to these new jobs.
Tripathi and M. Venkatesan, EIAP, January 1996, DOE) In terms of employment as well Delhi provides the highest employment compared to other states. The employment figures for all India are 320,000 with Delhi generating employment for 45,000.

The electronics industry in Delhi is primarily concentrated in three industrial estates - Okhla, Naraina and Wazirpur Industrial Areas. In the sample some units from the neighbouring state UP -NOIDA (New Okhla Industrial Area) - a new industrial area in neighbouring state of Uttar Pradesh were included since a number of companies from Delhi were shifting units to that region.

The sample covers 24 companies manufacturing a range of electronic items. The products covered in the study include television sets, computers, radios, speakers, videos, cassettes, semiconductors, relays and stabilisers. The sample includes a larger number of units producing consumer products, particularly televisions, which reflects the dominance of this item in the Delhi electronics industry.

Companies have been classified on the basis of the number of workers employed to enable identification of units where the Factories Act and other labour legislation is applicable. Using the criteria of employment the universe of companies were divided into five classes - Large: 101 -500 workers, Medium : 21-100 workers, Small: 11-20 workers, Tiny 1-10 workers, Non-unit/Homebased workers. The total number of workers interviewed is 130. There are 46 ex-workers, women and men, 66 currently employed women workers, and a control group of 18 men from the same units as currently employed women workers. The distribution of companies and the percentage of workers interviewed is given below.

The sample has a larger number of companies as well as workers in units employing more than 101 workers. However, a number of the large units (employment size) are registered as small scale industries, with a capital investment upto 60 lakhs, although they employ more than 300 workers.
Table: Distribution of workers interviewed by unit size

<table>
<thead>
<tr>
<th>Size of employment</th>
<th>No of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large 101-500 workers</td>
<td>14, 58.3%</td>
</tr>
<tr>
<td>Medium 21-100 workers</td>
<td>4, 16.6%</td>
</tr>
<tr>
<td>Small 11-20 workers</td>
<td>3, 12.5%</td>
</tr>
<tr>
<td>Tiny 1-10 workers</td>
<td>3, 12.5%</td>
</tr>
<tr>
<td>Total companies</td>
<td>24</td>
</tr>
</tbody>
</table>

Table: Total Sample

<table>
<thead>
<tr>
<th>Unit size</th>
<th>No of workers interviewed</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Women</td>
<td>Men</td>
</tr>
<tr>
<td>Large</td>
<td>51</td>
<td>9</td>
</tr>
<tr>
<td>Medium</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Small</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Tiny</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Home-based</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>18</td>
</tr>
</tbody>
</table>
The Electronics Industry in India

The growth, structure and development of this industry can be divided into three broad phases each one reflecting different policy regimes.

Phase I: Self Reliance through regulation 1970-80

The industry started in the 1950's when radio sets began to be manufactured in India. In 1959 the first television broadcasts were initiated from New Delhi but it was in 1973 that a domestic television industry emerged. Within the broader policy framework of import substitution and self sufficiency, the television industry was set up with a bias towards the public sector and small scale private enterprise. Indigenous Research and Development was supported and no foreign collaborations were allowed.

In 1972-73, there were 77 licensed manufacturers of television sets, of which 87% were in the private small scale sector, while the rest were in the public sector (S. Guhathakurta, 1994) The public sector concentrated on defence and communication equipment, power electronic equipment, instrumentation and components. The small scale sector focussed on the production of consumer electronics, primarily television at this stage. The manufacturing process consisted of manual assembly of mainly imported components. Government policy supported the small scale sector and was a major factor in the growth of this sector.

In 1974 an export processing zone, Santacruz Export Processing Zone (SEEPZ) was started near Bombay, exclusively for the production of electronic products. However the electronic industry's growth during this period was based primarily on the domestic market. Televisions for instance recorded a relatively high rate of growth, as compared to other electronics products.

Inspite of the growth of the industry, the focus on the small scale sector implied high costs and lack of international competitiveness. The component industry was just starting and there were many problems with the homegrown electronic circuit. Failure rates were high, producers could not cope with servicing demands and unauthorized copying of foreign circuits led to numerous unstandardized technologies being used in the industry and a increased reliance on imports. Consequently, prices remained high. The cost of assembling, marketing and profit together of a B&W T.V. in India was four times that of a similar television abroad. (K J Joseph, 1989)  

Phase II: Liberalisation plus Self reliance

In 1981 a new policy was initiated in the electronics industry, based on the recommendations of the Sondhi Committee, published in 1979, as well as a shift in the general policy environment towards liberalisation. In 1985, the Prime Minister Rajiv Gandhi addressing the All India Manufacturer's Organisation articulated the new approach in his statement.
"Electronics is the nervous system of a nation and as a nation evolves, that nervous system must also evolve."

He stressed the application of electronics in the wider industrial system and called for the private sector to invest in this industry, with the promise that regulations and restrictions would be streamlined. The policy package called Integrated Policy Measures on Electronics, was announced in March 1985, with the perspective of improving productivity and efficiency in different sectors of the national economy. Liberalisation during this period was not completely open door but cautious and selective. For instance, imports were allowed of components subject to local manufacturing capacity.

During this period a number of large firms entered into electronics production. There was a tremendous expansion particularly in the manufacture of colour television sets. The structure of the industry which has hitherto been primarily concentrated in the small scale private sector with a few large public sector units now changed. There were two processes whereby large firms became significant during this period: through the entry of large industrial houses (MRTP) and foreign controlled companies (FERA) and secondly through the "graduation of small scale units through expansion". (K.J.Joseph, 1989) Joseph notes that out of the top ten B&W T.V. manufacturers in 1988, eight were in the small scale sector in 1976. In our sample of 24 companies in Delhi and NOIDA, a similar process of graduation can be seen Out of 14 companies which were in the Small Scale sector in the 1970's, 5 of these were registered in the Organised Sector in the 1990's.

This process was often accompanied by a shift in production items. A number of units which produced audio items - radios, tape recorders, calculators discontinued the manufacturing of these items and shifted to colour T.V. and in some cases VCR. (T.S. Papola, 1989)

A significant feature of the industry was the extent of subcontracting. Initially small scale units were expected to be integrated independent units, undertaking design, product development, manufacture, testing and marketing as well as after sales service. However, since most of these units lacked infrastructure and finances to manage, they ended up as dependent on one or two large customers for job work. (AJC Bose, 1987) At the same time, large units resorted to subcontracting in two ways - commercial and industrial. In a study on consumer electronics Papola states that out of 240 electronic units in NOIDA Complex near Delhi, many had sold their import licenses but the majority assembled televisions for larger units who supplied chassis and components to them. He estimates that 60 per cent of processing is undertaken by subcontractors and 40 per cent by parent units. (T.S. Papola, 1989)

A major impetus for subcontracting was lower labour costs and an attempt to avoid dealing with a unionised workforce. In fact the 1980's was a period when employers resorted to subcontracting on a large scale in many industries as a strategy to undermine the strength of a unionised and organised workforce. In Bombay companies such as Murphy and Bush transferred total production to subcontracted units while workers in the main plant in Thane were without work. (A. Shrouti & Nandkumar, 1994)
Sunrise To Sunset

Since 1984, all sectors in electronics grow substantially at a healthy growth rate of 30 per cent per annum till 1989. Compound annual growth rate during 1985-86 to 1989-90 was a significant 34 per cent. (P. Chakraborty, 1993) By 1990 however the spurt in growth began to decline and a period of recession set in. 1991 showed a negative growth rate in real terms and the period between 1989 to 1993 saw the electronics industry in the grip of a severe recession. The worst affected were the T.V. and components sectors. The crisis hit small scale units which had proliferated during the early eighties boom period. Already between 1984-1987, out of 460 firms which were granted licenses, 167 units closed down, after selling only a few sets. In 1991, it was estimated that nearly 30 per cent of the small units would down their shutters. In 1992 there were reports of 101 units out of a total of 335 closing down. (FE, April, 1992) CETMA reported that 50 members had left because they had closed down their units.

Phase III: Liberalisation and Globalisation

In 1991 the New Economic Policy initiated structural reforms in the Indian economy, propelled by an external debt crisis. However as we have seen in the case of the electronics industry, from the mid-seventies through the eighties there has been a process of 'creeping liberalisation' and the drastic measures introduced in 1991 have to be seen in the context of changes that had occurred in many sectors in the earlier period itself.

The 1993-94 budget was termed by many as the budget for the consumer electronics industry. The Finance Minister, Dr. Manmohan Singh, said that "the electronics industry has the potential of becoming a world class industry", contributing to the country's export effort and to employment generation "The government reduced excise duties, recognising the need to revive the recession which had hit the TV industry. Along with this there were reductions in customs duty and a boost given to consumer finance. There was a 25-30 per cent increase in the sales of three major TV brands - Onida, Videocon and BPL in the first four months of 1993. However other sectors of the electronics industry such as components manufacturers felt that they might be badly affected due to convertability of the rupee.

Enter the Giants

In the second phase of economic reforms the electronics industry was opened up almost completely to global competition. The lowering of import duties on imported electronic equipment (initially reduced from 250 per cent to 150 per cent and then to 100 percent)bought in as personal baggage, meant that foreign brands would compete directly with Indian ones. Indian manufacturer's reactions ranged from stating that this would mean "the death knell for the indigenous industry " to a more cautious response calling for a "level playing field". (FE, 1993) Supporting the position of the Bombay Club, Indian TV manufacturers felt that the industry needed at least four to five years more of protection, since the industry was in the process of restructuring to establish international quality standards.
The threat of competition was at this stage countered by saying that domestic manufacturers had a well developed vendor network as well as service centres and multinationals could not enter so easily. However, apart from competing with foreign brands imported into the country, the liberalisation of foreign equity restrictions has meant the direct entry of multinationals into the country. By the mid 1990's the following Indian TV companies had linked up with multinationals for domestic manufacture of international branded electronic products.

<table>
<thead>
<tr>
<th>Indian Company</th>
<th>Multinational Company</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sony/Olympia Electronics</td>
<td>Sony</td>
<td>audios</td>
</tr>
<tr>
<td>Salora International</td>
<td>Matsushita</td>
<td>CTV</td>
</tr>
<tr>
<td>Bestavision</td>
<td>Gold Star</td>
<td>CTV</td>
</tr>
<tr>
<td>Videocon</td>
<td>Toshiba</td>
<td>CTV</td>
</tr>
<tr>
<td>BPL</td>
<td>Sanyo</td>
<td>VCR</td>
</tr>
<tr>
<td>Kalyani</td>
<td>Sharp</td>
<td>VCR</td>
</tr>
</tbody>
</table>
Competition and forced restructuring of domestic companies

The industry continued to show low growth rates through till 1995. In September 1995, the Planning Commission constituted a Working group on Electronics and recommended a goal of a growth rate of 32 percent. In April 1995 M/s Author D. Little commissioned to do a study on the TV Manufacturing and Electronics Component Industry, projected that the Indian TV industry could target 11 million sets of production by the year 2000. This would be done through increased exports and linkage with foreign companies.

By 1996 domestic manufacturers in the electronics industry began to change their attitude towards multinationals. Now there was talk of foreign friends, partnership and collaboration. Behind the scenes domestic manufacturers were engaged in yet another phase of restructuring to meet the challenge of MNCs by introducing even more ‘flexibility’ in the organisational structure of companies, in the labour market, as well as in product items.
Industrial Restructuring and Labour Market Flexibility in the Electronic Industry

Labour market adjustment in India is seen as necessary for stimulating long term growth of output and employment. The key issue is flexibility, as the labour market is seen as rigid. In delineating the disincentives to industrial employment growth, a World Bank report sees the main problem due to 'the predominant approach has been protective of existing jobs and oriented towards specific firms and industries rather than being concerned with the overall growth rate industrial employment.' It goes on to list the consequences of this approach -

1. The legal framework and government apparatus regulating industrial labor and labor-management relations have generated disincentives to employment growth in organised manufacturing.
2. Regulations restricting retrenchment of workers and closure of factories are a disincentive to expansion of organised sector employment, since firms are stuck with labor they have hired even if business declines or if workers do not perform well.
3. The statutory payment of annual bonuses and other benefits has strengthened disincentives to hire workers.
4. The direct cost of labor to employers has increased sharply in recent years in part due to the substantial overindexation of wages which occurs through the system of 'dearness allowance'.
5. The ease with which tiny unions can be recognized and the lack of a clear framework for a single union to gain undisputed authority to represent a firm's labor force, undoubtedly contribute to difficult labor relations and disincentives to labor hiring in the organised sector.


The recommendation is to overcome these rigidities by introducing flexibility. In discussing the issue of industrial restructuring and labour market flexibility two points have to be kept in mind. Firstly the Indian labour market has always been flexible in the sense that labour market regulations/protective legislation has rarely been extended or implemented for the vast majority of workers. On the basis of the 1981 Census A Mathur has estimated that employment security provisions do not cover more than 12 percent of 'main workers'.

(A. Mathur, 1992) The situation for women workers is much worse since only 6 percent of women workers are in organised industry and services while 94 percent are in the unorganised sector which has always been 'flexible'.

Therefore we need to distinguish between old forms of flexibility which we call Seasoned flexibility (forms which have been tried and tested over years) and new forms emerging as a result of the present phase of restructuring which could be called Nascent flexibility. Seasoned

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Flexibility and Nascent Flexibility are not mutually exclusive since the new forms are often adaptations and transformations of old ones.

Keeping in mind the issues of *continuity* and *change*, we looked at three different dimensions of flexibility - organisational structure, pattern of production and the labour market in relation to the electronics industry.

1. Organisational structure of the firm

Subcontracting has been a structural feature of the electronics industry and this trend has intensified further. There is both international and domestic subcontracting in the industry with large firms tying up with Phillips, Goldstar, Delta Hamlin, Motorola etc and all the small and tiny units in subcontracting relations with a number of large firms. Even as this structural feature of the industry continues to intensify there are other moves within the industry. Some large companies such as Videocon are going in for synergy and starting its own ancillaries to ensure quality control.

2. Labour Market Flexibility: the process of casualisation

In our sample 76 percent of women workers were permanent, 20 percent temporary, 4 percent homebased. There are no contract workers in our sample of currently employed women workers. However, a number of ex-workers have been employed as contract workers. Compared to the general condition of working women as well as in relation to other industries, the degree of permanency is high. However this situation is already changing as data on other aspects of work status of the company’s workers shows.

Management Strategies towards labour market flexibility

We have seen in the previous section that electronic companies in the 1990’s faced a recession as well as severe competition. In the following section we will examine the strategies adopted towards restructuring based on our research in the Okhla Industrial area. These include the following methods:

1. Ban on new recruitment of permanent category of workers
2. Recourse to temporary, casual workers
3. Retrenchment of permanent workers legally or illegally - voluntary retirement schemes
4. Shutting down entire departments or entire units
5. Transferring workers from bargainable categories to non bargainable
6. Relocation to low wage areas (A. Shrouti & Nand Kumar, 1994)
7. Renaming units every few years, reemploying fewer workers again on a temporary basis.

While the strategies listed above have been noted generally for other industries in the 1980’s, a specific form in Delhi is the renaming of units. This strategy enables small companies to benefit from the tax concessions for new smallscale industries given for five years, endlessly and at the same time breaks the workers record of service so they cannot claim permanency.

Overall the data from our sample shows that the largest section of workers (42%) were in units where support staff workers i.e. canteen, gardeners, sweepers were non permanent, 16% in units
where all jobs were non permanent, 15% in units where production workers had been made non permanent. Only 26% reported that in their units such changes had not occurred.

The situation for electronic workers then is not as secure as it appears from the initial picture of the work status of women workers since the general environment of employment is one of a casualised/ non permanent workforce.

Restructuring at the level of the enterprise

Further specification of the trends in restructuring requires examination of data at the level of the enterprise/company. An analysis of 24 companies in the electronics industry sample showed that:
- 17 percent companies all jobs were non-permanent
- 17 percent companies had transferred production workers from permanent to non-permanent
- 29 percent companies had made all support staff non-permanent
- 25 percent of the companies had not transferred any jobs to the non-permanent category
- 4 percent the respondent did not know

From the companies where all jobs were non-permanent, three were tiny/small sized units and one was a new large unit set up 6 months ago in Noida where all workers were on probation - these are cases where workers were anyway not permanent. The transfer from permanent to non-permanent workers seems to be taking place in the medium and large scale units. The companies which were transferring workers from permanent to non-permanent categories were also setting up new units. For instance, 8 companies had resorted to changing the status of employed workers into contract workers and five out of them had also set up new units.

Firms in the electronics industry seem to be followig a two step process of restructuring. The first step is casualisation of the workforce. The next step is redundancy of existing workforce and relocation of units to lower wage areas with a temporary workforce. In fact, apart from transfer of jobs from the permanent to non-permanent categories, companies had also resorted to direct reduction of workers. In our sample of 24 electronic companies, more than half (13 companies) had reduced their workforce through no new recruitment or replacement, retrenchment of workers, Voluntary Retirement Schemes, increased subcontracting, automation and shut down of departments and closures.

New employment was being given in ten companies. Eight companies which had not reduced their workforce were expanding employment. This expansion was again mainly through the setting up of new units in low wage, non-unionised industrial areas such as NOIDA. There does not seem to be any significant preference for women or men workers in recruiting for new jobs - what emerges is a strong preference for temporary/contract workers.

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5 This confirms a similar conclusion from the survey of Bombay Labour market flexibility by the Deshpande's. (S. Deshpande & L. Deshpande 1994)
Contract workers

Contract labour is used in the electronics industry in two ways: night shift and for work on holidays as well as replacement labour during disputes. In some firms 75% of production is carried out by contract labour. Contract workers are hired for six months at a time, usually in the same factory. In some cases the contractor had a deal with two or three units, often belonging to the same company, and contract workers circulated every six months between these units. This is similar to the circulating contract labour pattern found in the pharmaceutical industry. (S. Gothiskar, 1997)

Trends in relation to homebased work

Although projections have been made regarding the growth of homebased work in the electronics industry, the few cases of homebased workers in the Delhi electronics industry in our sample were doing homebased work due to personal contact based on trust rather than a tendency of the industry towards putting out work to homebased workers. This is mainly due to the fact that imported kits are used for assembly and the components considered too expensive to risk putting out to homebased workers. In large and medium size units the pressure for quality control was given as the main reason for not putting out work to homebased workers.
Work Organisation and the Sexual Division of Labour

The electronics industry is characterised by a wide range of technologies ranging from simple screwdriver assembly of imported kits to highly automated modern plants such as Panasonic where Auto Insertion Plants are used which insert 350 components automatically. Whatever the level of technology there exists a sexual division of labour in the production process with women doing certain jobs and men doing other jobs. Women workers were still predominantly involved in assembly work 37% while 23% were doing soldering, 3% only supervising, 2% chassis finishing, 6% in house repair while 27% were involved in multiple tasks which included assembly/soldering.

Flexibility and Feminisation

It is argued that greater flexibility is associated with feminisation of the labour force i.e. that women constitute a more flexible labour force. In the electronics industry 35 percent of women reported that women were now doing men's jobs and 24 percent reported that men were doing women's jobs. All these were from large units and it appears that in some enterprises the sexual division of labour is flexible in the production process. Rather than feminisation or defeminisation one sees an increase in job rotation across gender boundaries. For instance, in some companies such as Jacko Watches, workers were part of groups who were shifted around almost every day, carrying out a range of different tasks. In consumer electronics this is occuring mainly in the assembly section but also in other tasks.

Multiple tasks/polyvalent workers?

A feature of flexibility in the pattern of production is a change in the technical division of labour and nature of work with more flexible jobs. (G. Standing, 1991) In addition there is a the introduction of a new pattern of work organisation where a variety of customized products are manufactured using flexible general purpose machinery and multiskilled adaptable workers. In the electronics industry, although we do see a increase in job rotation, this is not due to increased skill training but more a defensive management strategy to use available workers to the maximum. Small and tiny units do have multiskilled workers and due to competitive pressures, shift flexibly from one product to another, but this is not on the basis of new technology. A tiny unit for instance can be assembling television as well as producing paper napkins for a period, only to shift to making cellular phones after six months. The seasoned flexibility in this sector is a short term strategy to maintain narrow profit margins.
Women Workers: A flexible labour force?

In the 1970’s as offshore electronic factories proliferated across the world, in particular across South East Asia and South Asia, a profile of the 'typical' electronic worker emerged - young, unmarried, with secondary school education. Research conducted in the 1980’s in India on Santa Cruz Export Processing Zone, Bombay confirmed this profile.

In India the electronics industry caters primarily to the domestic market but most units also have export sections and since the 1990’s more and more 100% export units are being established. In the nineties as the electronics industry continues to grow, how far does this profile hold? Based on our sample of 66 electronic women workers currently employed from 24 companies, data showed that the 'typical' electronic worker is still predominantly young i.e. 73% of the workers were between the ages of 21-30 years of age. A significant number were even younger - 11% between the ages of 10-20 years of age. 10% fall in the age group 31-40 years, with 6% in the middle age 41-50 years category with none in the elderly category.

This profile confirms the general characteristics of female employment in export oriented and electronic industries. However we feel that this is a static picture and we need to disaggregate and look behind the majority figures and try to analyse why in fact there are older and married women also employed in this industry. It is necessary to see when these women entered the labour market and in what ways employer preferences as well as household strategies play a role in producing the age and marital structure of this workforce.

Employer preference for women workers

How far do electronics industry managers prefer to hire unmarried women? The association of young and single women with export oriented industries has been based on an analysis of employer preference due to a variety of reasons: a) the advantages of high labour turnover and low wages, b) reduced social costs of reproduction of the labour force c) the domestic responsibilities of married women with children.

Our data shows a variation from this characteristic in the sense that while a large number were unmarried 53%, there were 37% married women, with 6% divorced and 4% widowed. Single women i.e. unmarried, divorced and widowed do form a large percentage together -63% but it is important to distinguish daughters and childless single women from single or married mothers since the advantages employers derive is from a reduction in the social costs of reproduction as well as reduced domestic responsibilities of the former section of women (Sharon Stichter, 1990)
Flexibility in hours of work

Is there a significant difference between married and unmarried women in terms of domestic responsibilities? How far does this affect the time they spend at factory work i.e. does it restrict them from overtime or working longer hours when required?

Only 9% of all women workers did no domestic work at all. Out of these the majority were unmarried women. However 58% did do some work in the house ranging up to three hours daily. Here again it was the unmarried who were a majority in this group. 29% of women worked three to five hours daily at domestic chores and here it is married women who predominate. Widows also did longer hours of domestic work, from three to over five hours daily.

The data does show that although the number who did no domestic work at all was very small, unmarried women did fewer hours of domestic labour in comparison to married women. In fact no unmarried woman did more than five hours daily.

Looking at the total working day, we find that 93% of women workers worked 8-8.5 hours daily at the workplace. Combining factory working hours with domestic labour hours we find that over half the sample worked 11-12 hours daily, 29% did on an average 12 and a half hours daily while some women were working 13 and a half hours daily.

In the electronics industry, overtime was a regular feature in many units. So in addition to the time spent above over half the women 52% also did overtime. Amongst the women who did do overtime 26% had no fixed hours for overtime while 14% worked 1-2 hours and 9% 2-3 hours with 3% working less than an hour. Given that 45% of women workers in electronics had regular overtime, even a lower estimate of one hour daily (although it was more likely to be two hours) the total working time increases to 13-14 hours daily for a major section of the electronic workforce. In some cases (19%) women had regular overtime on a holiday which meant a seven day working week. Overtime was compulsory for 21% of the women who did do overtime and here too both married and unmarried women were represented. It is also interesting that there was not much difference between married and unmarried women amongst those who did not do overtime at all (48% unmarried and 46% married).

Costs of reproduction

Do employers absorb the social costs of reproduction of the labour force? The costs of childbearing and child care include maternity leave, sick leave, frequent absences, higher health care bills.

If we exclude homebased workers who are not legally entitled to any of the above benefits we find that amongst factory workers 89% of women did not have a creche in the workplace. 6% of the workers who did have a creche all worked in large units. Women with children depended primarily on family members to look after children while they were at work (26%), while one woman left her child in a private creche and two left older children on their own. The electronics industry in Delhi has employed a large number of women from Kerala. Many of them are married or have got married to co-workers in Delhi. All of them left their children with their parents in

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* In fact temporary workers also rarely get these benefits even though the law entitles them to ESIS.
Kerala and saw them only once a year. A number of women spoke with sadness about having to leave babies less than one year old behind but in the same breath said that the child would be better looked after and healthier with their mothers or mother-in-law and so they did not really mind. The costs of child care are therefore primarily borne by the household.

Employers in Delhi industrial areas have shown a strong preference for migrant women workers. Added to the advantages of being migrants, employers also prefer women from Kerala due to their perception that they are better educated, although in terms of educational qualifications even though local women recruited have to have the same qualifications.

Partial costs of child bearing however were available to 82% of women workers in the form of paid maternity leave though for some it was at half pay.7 A significant number 73% could also avail of sick leave and had health costs covered by the Employees State Insurance Scheme.

Here again we find that since the passing of the Employment State Insurance Scheme Act, employers do not have to bear the costs of maternity benefits for workers earning below Rs. 3000/- per month, if their establishments come under the ESI. The ESI scheme provides for paid sick leave and maternity benefit for 90 days - 45 days before and 45 days after confinement. The costs for providing maternity benefits are borne by the public sector corporation and not by the individual employer. (National Commission on Self Employed Women 1988) In this case it is the state that bears the partial costs of childbearing.

Do employers have to pay for the fact that absenteeism is high amongst married women? A constant and consistent complaint of managers and employers, often the only one about women workers, was that they take leave very often. In response to a question on how far domestic responsibilities had affected their job 69% of the women said that there had been no adverse effect. However there were a significant number of women who had found that having to take leave frequently had resulted in a reduction of their wages (21%), while 6% of them had been threatened with dismissal, others were refused increments and promotions or permanency. One woman left her job when she had a baby since the company refused to pay maternity benefit or give her time off. She came back to work after one year in a temporary position. This seemed a common pattern in small and tiny units. Here again it appears that where women are forced to take leave to carry out domestic responsibilities, employers simply cut wages.

The evidence elaborated above does seem to provide some understanding on why there are a significant number of married women in the electronic labour force. Two conclusions could be drawn - 1. There is a difference between employer preference and employer acceptance. This means that while employers would like ideally to have young unmarried women workers, they are not averse to also employing married women as long as they can treat married women as if they are unmarried. 2. As employers do not really bear the costs of reproduction of the labour force, since these costs are borne by the household and the state, there is no financial burden in employing married women.

7Full costs of childbearing would include delivery fees and hospital charges. Increasingly urban working women are going to hospitals for delivery and with modern techniques such as ultrasound often being used unnecessarily, the costs of childbirth have escalated in recent years.
Employer preferences for women workers could be seen on a continuum ranging from an ideal preferred workforce to the least desirable workforce. If managers in the Japanese multinational firm Panasonic could be taken as representative of the new industrial culture then they clearly state that their preference is for "fresh green labour" - young girls, recruited from rural hinterlands. A number of managers in Okhla stated that the most "difficult" women were older unionized women who tended to use their permanent status for more flexibility in relation to work - i.e. taking leave more often etc., even more than unionized men.

Young unmarried rural, migrant women, non-unionized - married women who are treated as unmarried, non unionized - married, older women who are non-unionized - married older women who are unionized

**Household Strategies**

Household strategies of reproduction play a significant role in determining the pattern of women's employment. Earlier studies on women in the garments and electronic industries in India had pointed out a similar trend i.e. one reason young women have started working in the electronics industry was as a short term household strategy to earn their own dowries. They all saw their work as transitory, a good dowry as a passport to marriage in a higher economic group and marriage as an exit from factory work. (Chhaachhi & Pittin 1996) However, there has been a change in this pattern of labour deployment by households as well as in the self perception of women workers. In a study done in 1987 of electronic women workers and confirmed by the present study we find that women who had entered the labour market as 'daughters' in the 1980's were still working, some married and others still as single women. Data shows that a large section of women in the sample - 65% - across all the age groups, had started earning when they were between 16-20 years old.

These women had entered the labour market in different periods. 36% had been employed at their present job in the 1990's with 17% of these recent entrants having worked less than a year in the present job. 42% of the women workers had worked between 3-10 years and were employed in the 1980's. 20% of the women had worked from 10 to over 20 years and had been employed in the 1970's. Women who had entered the labour market in the 1970's and 1980's and were now in the prime and middle age groups had been employed in the same company and this was their first and only job (75%).

However women who had entered the labour market in the mid-eighties to early nineties, were predominantly all young and very young and had also worked elsewhere before joining their present job. 20% had done one other job while 6% of the women had done more than two jobs before working in the present company. Younger women entered an insecure labour market in the nineties and seemed to be more 'mobile' than older workers.

There has been a change in perception from the notion of jobs as "time pass". Most of the young unmarried women wanted to continue work after marriage saying that given the price rise it was impossible to manage on one income these days. Women employed in the small and tiny units did dream of leaving - not out of the labour market but to better jobs. The data in this case appears to be moving more towards the double peak or central peak pattern as in Thailand rather than the early peak pattern more generally associated with export industries. (Guy Standing, 1982)
Rather than the static profile of the woman electronic worker we now get a sense of different generations of women workers - new entrants who are young and unmarried, young married women who have worked for a long period, and older, married women with over 10-20 years of service. This age structure is already changing as we see that it is women in their late thirties and above who are losing their jobs. It is the last section which is under threat not so much due to age but due to the high degree of unionisation and politicisation as a result of long years of factory work as well as a strongly developed worker identity, as we shall see in the subsequent sections. In the present situation flexibility in the workforce seems to be related less to age and marital status preference and more to unionisation.

**Education**

Moving to the next characteristic feature of the electronic woman worker we find again a confirmation of a higher educational background in comparison to workers from the other industries. 55% had studied more than secondary school (44% 12th pass and 11% were graduates) with only 3% being just literate. In addition to a high educational background, women workers had also acquired additional qualifications through informal and formal courses - 21% of the women had learnt typing and 3% tailoring through informal courses. Although these are all gendered courses, they do imply the development of particular skills - the famous dexterity and nimble fingers which is needed for electronic production.

There has been a shift in the required qualifications in recruitment of women workers in the electronics industry. Five years ago 19% of workers said that no qualifications, informal or formal were required, and 39% said secondary school was minimum. Today 32% said that secondary school plus additional qualifications were a minimum to get a job while 21% said even higher qualifications such as diplomas and degrees in electronic engineering were necessary. Large units were asking for higher qualifications but the norm in all units, including tiny ones seems to be secondary school plus some additional qualifications.

**Skill and Job designations**

Did these educational qualifications get reflected in skill designations?

The definition of skill is a completely arbitrary process and rarely reflects the actual capacity of the worker. For women skill designations are often predefined on the basis of their sex rather than through an assessment of their qualifications. Training in needlework and sewing produce skills which are transferable to assembly work which is required in electronic factories. Interestingly this aspect is implicitly acknowledged by employers but is not translated into recognition. Since these skills are the result of a socially invisible and privatised process of training i.e. within the household, they are seen as 'natural' and non-recognised. The implications of designating women's work as unskilled and semi-skilled, along with a non-recognition of the training which prepares them for assembly line jobs has serious consequences. Non-recognition does not only imply an ideological downgrading of women's learned attributes but also affects wage levels. Skill designations are the basis for wage calculations and defining women workers as unskilled fixes them at the lowest level of the salary scale. Employers derive a double benefit - they hire women who have already been partially trained and at the same time by designating them as unskilled/semi-skilled, they can be paid lower wages.
In our study managers stressed again the nimble fingers, dexterity and the fact that women were "good at threading needles". In this section we explore the linkage between skill designation, wage levels and recognition of women's skills. During the research this issue in fact became the focus of industrial action and is reflective of the changes in job content and designations due to industrial restructuring.

Women workers were almost evenly distributed in all three categories: 33% unskilled, 32% semi-skilled and 27% in the skilled category, with 8% in highly skilled.

The employers skill designation had no relationship to the educational background of the workers. In the unskilled category 18 percent of the women were doing their graduation simultaneously with working, 41% had passed 12th and 22% has passed secondary school. Only one woman was just literate in the unskilled category. The semiskilled category had a similar distribution with a larger number who had passed secondary school. In the skilled category there are a larger number of women who have passed 12th as well as doing their graduate degree. One woman who was already a graduate was also in the skilled category. The highly skilled category has a larger number who have finished 12th standard.

The mixture of low as well as high educational qualifications in the unskilled category brings out sharply the lack of relationship between skill and educational background. Although the skilled category does contain women with higher educational qualifications, it also includes a significant number of women who have just passed secondary school.

Apart from formal educational qualification, some women workers had also done short diploma/certificate courses in tailoring, card punching, teaching. They were also distributed over all the skill categories.

The data then shows that in the electronic industry in Delhi there is not even recognition of formal educational qualifications. Although the requirements are for women with a certain educational level, and this level has been raised in the last five years, however these qualifications are not reflected in skill designations.

A number of managers mentioned that skill was related to length of service rather than educational background. In our sample however there is again no clear correlation between the number of years spent in the present job and skill designations. Workers in the unskilled category ranged from less than a year to 10-20 years of service in the same job, though a larger number 41% had worked between 3-5 years. A similar distribution is found in the semi-skilled category from less than a year up to 10-20 years of service. In the skilled category 35% had worked less than a year while the rest had worked for more than three years.

The data on the highly skilled category however is interesting since it highlights two elements of skill designations in the electronics industry - workers with long years of service and a new category of technically trained young women workers.
Skill and Length of Service

In our sample two women who had this designation had worked from 20-40 years in the same company. For these women recognition of their skill capacities came after many years of work in the same company when they are in the late thirties or into middle age, with a very slow movement from unskilled to their present designation. There is a link between skill, job designation and length of service but this is not automatically granted to women. Not only did women workers have to demand upgradation and recognition of their skills but they also had to agree to conditions which affected their service record. In addition the change in designation did not also automatically result in an increase in salary - again this was an issue of struggle. In fact a number of women we interviewed who had demanded skill recognition were suspended and victimised. Most women workers rarely raise the issue of skill and job designation since it implies loosing their jobs. Far from upgrading women workers a new trend appears to be emerging of downgrading workers to lower scales.

Changing job designations: downgrading skills and scales

One of the major issues in the electronics industry today is the attempt by management to change the designation/skill definition of workers and reclassify them as ‘general workers’ who are unskilled. In our sample 44% were operators/wiring operators, 18% were called helpers, 10% technicians (included asst. technician), 5% associate customer engineers, 6% supervisors, 5% assistant engineer, 2% engineer, 2% customer executive while 10% of the workers had no designation at all.

During our research we were involved in a major struggle led by women workers from Calcom Electronics over this issue. This was a significant struggle and since it is a harbinger of future changes in the industry we elaborate the main issues below.

Calcom Electronics produces tuners, picture colour tubes and televisions on subcontract for other companies. Phillips takes around 80 percent of their output while other companies such as Videocon, Uptonica take the rest. The company has six units in Delhi and employs a total of around 700 workers, with a annual turnover of between Rs. 100-125 crores. The plants are split primarily to benefit from the concessions given to small scale industries. In fact the two units in Okhla Calcom Electronics and Calcom Plastics Limited are run practically by the same management. In these two units about 200 workers are women - mainly young between the ages of 18-21 and unmarried. From April 1994 upto December 1996 200 young girls and boys fought a case against the management of Calcom Electronics and Calcom Plastics. They were forced into a struggle because the management refused to respond to a simple demand that they should be given minimum wages, according to their scales in line with the new increments promulgated by the Delhi government.

The issue that sparked off this agitation dates back to April 1994, when Calcom workers put forward a demand for implementation of minimum wages. Even as the union waited for a response, another issue emerged. In September workers were surprised to find that when they were paid their salaries, their designation had suddenly been changed from operators and fitters into 'workers' which changed their status from the category of skilled workers to unskilled workers.
Under the Minimum Wages Act there are three categories of workers specified - skilled, semi-skilled and unskilled. According to the Minimum Wages Act an operator is a skilled worker, and taking into account the increment passed by the Delhi administration from 1st August 1994 (i.e. Rs. 38 for all categories) would be entitled to a minimum wage of Rs. 1806. The Calcom management’s strategy to redesignate workers resulted in operators being paid Rs. 1342, which is the minimum wage calculated for an unskilled worker.

The workers received appointment letters which clearly stated that they had been selected to the post of Operator III in 1992. In February 1994 along with the notification of an increment in wages, the same workers were designated as Workers Grade III, Unskilled. (Annex). Workers who were fitters were made into helpers and then fitters and operators were redesignated ‘workers’. The management claimed that the earlier appointment letters were a ‘clerical error’ and that these workers are in fact unskilled. As the case went to court the management continued to downgrade the work of these women stating that they are ‘only 10th pass and were merely inserting pins into holes’.

On the other hand workers pointed out that they had worked for four years and many of them had diplomas and that when they were appointed they were told they were skilled operators.

The issue is clearly linked to the fact that the Delhi Administration, unlike other places has been revising the minimum wages every six months and given the high levels of unionisation in Okhla, management have adopted the strategy of downgrading and changing designations from specific jobs to a general category as a way to avoid implementing the minimum wages order. Mr Wadhwa, the General Manager of Calcom in fact even admitted that the change in designation “was informally proposed by the Labour Commissioner’s office to escape the controversy arising out of minimum wages.” (Pioneer, 21 December 1995) Calcom management took a very strong line on the case and refused to accept even the investigation report filed by the Labour Inspector who certified that indeed these women were operators and should be paid Rs. 1806 due to them as skilled workers. Management continued to insist that they were unskilled and in fact their company was paying them more than the amount due to an unskilled worker.

The issue of whether an operator is a skilled or unskilled worker is difficult to resolve since there are no clear guidelines on what defines skill. The specification in the Minimum Wages Act often lists the same designation under skilled as well as unskilled. Courts and labour administrators too have no clarity on what constitutes a skilled worker and discussions are full of subjective assumptions and statements.

The usual argument given to show that the work women do in electronics is unskilled or at most semi-skilled is that it ‘can be done by anyone’ i.e. requires very little training. In our sample workers did state that the duration of training was short with 85% workers who learnt their jobs in less than 15 days, 6% 16 days to a month, 5% 1-3 months and one worker had done a course over 9 months to become a technician. All training above three months was offered only in large units.

What is ignored is of course the hidden training women have received in the household, a training which employers take into account in recruitment but refuse to acknowledge. In addition however many other aspects of training that these women have also acquired are ignored. Years
of work experience in previous jobs in same or similar work, informal courses etc all build up skill capacities. If these 'qualifications' were taken into account the training requirement for 'nimble fingers' would be much longer and the skill levels of these workers would be much higher than currently recognised.

In our sample for instance, amongst unskilled workers 23% had worked in another job before joining the present company with some who had worked in two or three jobs before the present one. While the semi-skilled workers were primarily new entrants in the labour force, half the workers in the skilled category also had worked in another job before the present one. In the highly skilled category again two women had been employed elsewhere before this job. Amongst the workers who has held previous jobs in the last five years, 67% had worked in electronic factories, while the rest had worked in the plastics and export garments factories.

In addition, women workers had acquired informal qualifications in typing, beauty treatment, card punching. Interestingly the largest number who has done some course were in the unskilled and skilled categories. 20% had done typing courses - a course which again enhanced skills in dexterity and speed of hands.

An alternative assessment of skill which is based on an objective assessment of job content along with comparisons with jobs of comparable worth is necessary but in addition it should also take into account the hidden training provided by the household as well as informal courses and years of work experience.

New category of workers

In our sample there were women in the highly skilled category who had only worked between 1-3 years and one between 5-10 years. The determining factor in this case was not length of service but a technical degree. These young women belong to a new category of women workers in the electronic industry who had been hired in the late 1980's and early 1990's. They have done a 2-3 years course in Electrical Engineering at polytechnics and were designated as skilled or highly skilled and were working as supervisors, and assistant engineers. (Table: skill & years of service, age.) A number of large companies, particularly the multinationals, send newly recruited workers for further training. For instance, Panasonic in its newly established unit in Noida sent a group of polytechnic trained boys and girls for a three month course at the Matsushita plant in Singapore. In addition all the large electronic companies send women to ERTL for further training. It is interesting however that though they are seen as skilled/highly skilled, designated as floor/line supervisors and the nature of work is mainly supervisory, at the same time they are often required to sit on the assembly line to fill in for absent workers. In firms such as Continental Device, manufacturing semi-conductors, a regular training programme was initiated after the company got the ISO 1000 certificate. Quality Control Circles were instituted and apart from training on-line, for two hours everyday line operators were trained off-line. The management stated that they preferred to train line workers to work on the new technology based production process since 'they had a previous knowledge of the whole process'. Over time the firm was planning to become totally computerised and convert line operators into keyboard punchers. At the same time new recruitment for the automated new lines of production was being made from diploma holders from Industrial Training Institutes with a minimum of secondary school education.
A small survey done of polytechnics in Delhi showed that a large number of women were enrolling for the course on electrical engineering and the institutes reported a 100% placement rate. Women with insitutional training were aware that they were in demand in the electronics industry and were confident that they would get jobs easily in the new multinational companies.

It is clear then that the only recognition of skill is a 'technical' degree. While this new category of women workers are being drawn into a labour process that requires institutional training and this is being recognised in skill categorisation as well as job designation, for the bulk of women workers the long term trend is towards further downgrading as the Calcom workers case illustrates.

The issue of skills and job designations is an area of struggle and contestation because skill designation is the basis on which different slabs of minimum wages are paid and is therefore an issue which is currently being fought out between unions and management in the electronic industry.
Wage Systems and Differentials

Wages are the single most important issue concerning workers. Given the restricted nature of jobs for women production workers, economic necessity is the main reason women take up jobs, rather than a desire for personal autonomy per se. In some cases economic independence may lead to personal autonomy but the primary motivation is earning money to ensure livelihoods. The determination and fixation of wages is usually an arbitrary process inspite of the fact that in India government intervention in the wage determination process is significant. In fact for the organised sector, particularly public sector enterprises, it is said that the 'role of collective bargaining is much less important than that of the government'. (ILO 1996) Government intervention in wage determination has meant the fixation of minimum wages i.e. **the legally enforceable lowest limit of wage in a given industry in a given State by a process invoking the authority of the State** (S. Vaidya, 1989)

System of wage payment

In the electronics industry as a whole time rate as well as piece rate payment systems were prevalent, although the predominant form of payment was time rates. Homebased workers, who were few were paid on piece rate basis. Contract workers who were employed for the late shift and for work on holidays were also paid on a piece rate basis. In some companies, a dual system of wage calculation - combining time rate with piece rate, was attempted for regular workers as well but these were temporary since workers found that ultimately it went against their own interests.

Wage differentials and Average daily wages

The trickiest section of the Equal Remuneration Act is the one which states that men and women should be paid equally for the 'same work or work of a similar nature'. Employers have generally avoided paying equal wages by simply stating that women and men do different work. Going by the legal definition as it exists today, wage differentials can only be examined by looking at wage rates within each occupation. However, we found wide variations in wages between different companies as well as within each company for the same occupation. The range of wages for each occupation in our sample was often more than a hundreded percent as the table below illustrates.
Table: Currently employed Women Workers Designation & Wages

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Minimum wage</th>
<th>Maximum wage</th>
<th>Average wage</th>
<th>percentage of currently employed women workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operators/Wire Girls</td>
<td>1050</td>
<td>1950</td>
<td>1500</td>
<td>41%</td>
</tr>
<tr>
<td>Helpers</td>
<td>900</td>
<td>2609</td>
<td>1754.50</td>
<td>18%</td>
</tr>
<tr>
<td>Assistant Technician</td>
<td>1950</td>
<td>2250</td>
<td>2100</td>
<td>3%</td>
</tr>
<tr>
<td>Technician</td>
<td>2550</td>
<td>2700</td>
<td>2625</td>
<td>6%</td>
</tr>
<tr>
<td>Quality Control</td>
<td>1200</td>
<td>2230</td>
<td>1715</td>
<td>5%</td>
</tr>
<tr>
<td>Junior/Associate Engineer</td>
<td>1919</td>
<td>4000</td>
<td>2959.50</td>
<td>6%</td>
</tr>
<tr>
<td>Line Supervisor</td>
<td>1400</td>
<td>4500</td>
<td>2950</td>
<td>6%</td>
</tr>
<tr>
<td>No designation</td>
<td>350</td>
<td>1950</td>
<td>1150</td>
<td>15%</td>
</tr>
<tr>
<td>total</td>
<td></td>
<td></td>
<td></td>
<td>66 100%</td>
</tr>
</tbody>
</table>

The difficulty of assessing wages in the same occupation is complicated by the fact that two occupational categories - helpers and those with no designation are actually catch all categories with workers involved for many years in doing specific jobs such as operators without being given that designation.

Wage Differentials across the Industry

The wide variation in wages in the same occupation across the industry can be partially explained by the size of the firm. In television manufacturing units the range of wages is: Large - Rs 1759, Medium-Rs 1538, Small-Rs 1200, Tiny- Rs 1393, Homebased Rs 700. In addition, we find that other significant factors were the location of the industrial area and the specific product being manufactured. Our sample included units from three industrial areas and the data on wages in particular shows a contrast between units located in Okhla Industrial Area, Delhi and NOIDA Industrial Area, U.P. as well as between television manufacturers and computer manufacturers.

The average wages across occupations in large units manufacturing televisions in Okhla for instance were Rs 1759 while the average wage in large units, across occupations in Noida was Rs 1587. The advantages of relocation of electronic units from Okhla to Noida is clearly linked with lower wage costs. Wages in computer manufacturing units were generally higher than in the television industry in both industrial areas, the average across occupations being Rs 3200.
Wage Differentials within a firm

It is more useful to look at wages within a firm although here too there are wide variations within an occupation as well. Analysis of data from a single firm based on a sample of 105 women and men workers showed that the wages for men and women in the same occupation are almost the same, although men do get more money in hand due to longer hours of overtime.

Gendered Job Hierarchy and Wage Differentials

There is also a clearly gendered job hierarchy - as we go up the occupational ladder the number of women declines. There are very few women working as technicians, and none in the senior categories of foreman, engineers etc. Within the supervisory category there is also a hierarchy with women reaching the level of floor or line supervisors but not supervisors of the whole department. The range of wages between the maximum that women workers get and the maximum that men workers get is wide, illustrating the restriction of women in lower levels of the job hierarchy. The starting wage, in most units tends to be the same. In tiny units women workers were employed only on assembly work while young boys were employed as helpers to shift machines, clean and oil machines, carry boxes, etc. These boys were getting lower wages than the women. In large units 53 percent men's maximum wages were higher than women's maximum wages and in only 16 percent maximum wages for men and women were equal. It is on the upper end of the job hierarchy that wage differentials appear since women are either non existent or underrepresented in these occupations.

These differentials were perceived as due to the presence of a technical degree or seniority and experience - however the assessment of a technical degree, experience and recognition of length of service was a gendered process in which women workers had to work longer years before wages would increase, if at all and their skill and work experience continued to be unrecognised.

The supposedly gender-neutral reasons of differences in skill, qualifications, and length of service have a different meaning for women workers due to perceptions and policies within the industry itself. The argument of Human capital theories of the labour market locate discrimination in factors outside the labour market i.e. that women have lower endowments when they enter and therefore they remain in lower paid jobs. However our study brings out factors that operate within the labour market which also play in role in determining why women get lower wages.
Minimum Wages

Given the arbitrariness of wage determination the only measure to assess wages becomes the statutory minimum wage. Unlike other states, the Delhi Administration has been revising the minimum wage every six months in the past few years. The field work covered the period mid 1994 up to end 1995. Since this period includes two wage revisions i.e. on February 1994 and August 1995, two estimates of the statutory minimum wage and the wages paid to women electronic workers in our sample, have been made based on the rates prevailing on 1.8.94 as well as those prevailing on 1.8.95. Minimum wages have been divided into five blocks based on the actual rates stipulated by the Delhi Government and workers classified on the basis of the employer defined skill category.

In 1994 there were 42 percent workers below the minimum wage and within the space of a year there are 57 percent below the minimum wage. Non payment of minimum wages is the single issue that unions have been taking up in Okhla and the presence of a union is significant in ensuring minimum wages. Large units also have more workers who are above the minimum wage.

Table: MINIMUM WAGES IN DELHI ELECTRONICS

<table>
<thead>
<tr>
<th>Category</th>
<th>No. of women</th>
<th>Category</th>
<th>No. of women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below minimum wage</td>
<td></td>
<td>Below minimum wage</td>
<td></td>
</tr>
<tr>
<td>upto Rs. 1544</td>
<td>38</td>
<td>wage</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>57%</td>
<td>upto Rs. 1419</td>
<td>42%</td>
</tr>
<tr>
<td>Unskilled minimum wage</td>
<td></td>
<td>Unskilled minimum wage</td>
<td></td>
</tr>
<tr>
<td>Rs. 1545 - 1710</td>
<td>6</td>
<td>wage</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>9%</td>
<td>Rs. 1420 - 1585</td>
<td>15%</td>
</tr>
<tr>
<td>Semi-skilled minimum wage</td>
<td></td>
<td>Semi-skilled minimum wage</td>
<td></td>
</tr>
<tr>
<td>Rs. 1711 - 1968</td>
<td>10</td>
<td>wage</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>15%</td>
<td>Rs. 1586 - 1843</td>
<td>11%</td>
</tr>
<tr>
<td>Skilled minimum wage</td>
<td></td>
<td>Skilled minimum wage</td>
<td></td>
</tr>
<tr>
<td>Rs. 1969 - 2500</td>
<td>2</td>
<td>wage</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>3%</td>
<td>Rs. 1844 - 2000</td>
<td>14%</td>
</tr>
<tr>
<td>Above minimum wage</td>
<td></td>
<td>Above minimum wage</td>
<td></td>
</tr>
<tr>
<td>Above Rs. 2501</td>
<td>10</td>
<td>wage</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>15%</td>
<td>Above Rs. 2001</td>
<td>18%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>Total</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>
Legal Regulation/De-Regulation: Labour Status Categories

Drawing together the trends mentioned in the earlier section we focus more specifically on legal regulations and future trends in the electronics industry. To assess the existence and impact of legal regulations we use a labour status approach, restricting ourselves to three dimensions of protection and security - employment security, income security and labour representation security.

1. Employment Security: job status and nature of contract
2. Income Security: minimum wages and benefits
3. Labour Representation Security: trade union

A composite index was formulated including work status, nature of contract, legally entitled benefits, minimum wages and trade union organisation. The index results classified the women workers into six Labour Status Categories. Women electronic workers who have lost their jobs recently have been separated and classified on the basis of data relating to their jobs before job loss.

The labour status approach has been very usefully developed by John Harris, K.P. Kamau and Gerry Rodgers, 1990. We have however used the approach to focus on different dimensions of protection and security rather than regularity and autonomy of different kinds of work.
<table>
<thead>
<tr>
<th>Category</th>
<th>Label</th>
<th>currently employed</th>
<th>ex-workers</th>
<th>row total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Protected, Secure, above Minimum Wage Standard</td>
<td>9 12.85</td>
<td></td>
<td>12.85%</td>
</tr>
<tr>
<td>II</td>
<td>Protected, Secure, within Minimum Wage Standard</td>
<td>21 30.00</td>
<td>4 5.71</td>
<td>35.71%</td>
</tr>
<tr>
<td>III</td>
<td>Unprotected, Marginally Secure, within Minimum Wage Standard</td>
<td>19 27.14</td>
<td></td>
<td>27.14%</td>
</tr>
<tr>
<td>IV</td>
<td>Protected, Insecure, below Minimum Wage Standard</td>
<td>3 4.28</td>
<td></td>
<td>4.28%</td>
</tr>
<tr>
<td>V</td>
<td>Unprotected, Insecure, below Minimum Wage Standard</td>
<td>11 15.71</td>
<td></td>
<td>15.71%</td>
</tr>
<tr>
<td>VI</td>
<td>Destitute Workers</td>
<td>3 4.28</td>
<td></td>
<td>4.28%</td>
</tr>
<tr>
<td></td>
<td>column total</td>
<td>66 94.28</td>
<td>4 5.71</td>
<td>70 100.0</td>
</tr>
</tbody>
</table>

*11 women ex-workers do not fit the categories because although they are protected and have a trade union their wages are below the minimum wage standard.

**Category I: Protected, Secure, above Minimum Wage Standard**

In the electronics industry, workers who are permanent, with written contracts, receiving all benefits as well as wages above the minimum wage are 13 per cent of the sample. These workers are young, with an equal number of unmarried and married women. Concentrated in large units, these workers had worked more than three years in the same unit (44 per cent), with some who had worked for even longer (more than five years 33 per cent, more than ten years 11 per cent, and more than twenty years 11 per cent) The workers were called semi-skilled on the basis of boss's perception. Their general living conditions were Household Conditions Index 3 and 4.

**Category II: Protected, Secure, within Minimum Wage Standard**

36 per cent are in this category as workers who also have employment security in the form of permanency with written contracts, and are receiving all legally entitled benefits. Their wages
however are within the minimum wage standard for semi-skilled and skilled workers. These workers are also unionized.

The workers are mainly young, and unmarried, with a few divorced women. All of them belong to large scale units and have worked more than three years (76 per cent while 24 per cent had worked between one to three years at the same job). They fall mainly into the unskilled category, on the basis of boss' definition of skill. HCl 3 and 2, but also some in HCl 4 and one in HCl 1. The SI places them mainly in semi-skilled and skilled.

Category III: Unprotected, Marginally Secure, within Minimum Wage Standard

27 percent of the workers do not have a written contract, although some of them are permanent workers. They have some benefits with wages at the lower scale of the range within the minimum wage standard (i.e., wages from unskilled to skilled workers). These workers belong to units that are not unionized.

These workers are young, with an equal number of married and unmarried women. Again most of them are in large units (68 per cent) but some were in tiny units (21 per cent). Workers in this category had worked a range of years with almost an equal number of women who had worked less than one year (32 per cent) and those who had worked more than ten years (27 per cent). According to boss perception of skill, these workers were categorised as skilled (42 per cent) with 26 per cent as skilled and 21 percent as highly skilled. HCl were mainly 3 (42 per cent) and 2 (32 per cent), with some with even better conditions 21 per cent in 4.

Category IV: Protected, Insecure, below Minimum Wage Standard

4 percent are workers who are unionized but have wages below the minimum wage standard for unskilled workers. They have permanent and temporary work status, some have a written contract as well as all benefits but the distinguishing characteristic of this category is wages below the minimum wage. They are young, unmarried and married, all working in large scale units. All of them had worked longer than three years with 67 per cent who had worked more than five years in the same unit.

Category VI: Unprotected, Insecure, below Minimum Wage Standard

16 percent are workers who are non-unionized, are temporary, with no written contract. Some of them have a few of the legally entitled benefits but all receive wages below the unskilled minimum wage standard.

These workers include the very young (46 per cent) young (36 per cent) and 18 per cent in the prime age group. They were mainly single women of which 72 per cent were unmarried, 9 per cent divorced and 9 per cent widowed women. Most of them were in large units 55 per cent, but some 27 per cent were in small scale units and 18 per cent in medium sized units. These were recent entrants into the labour market having worked for less than three years in the units, (91 per cent) only one woman had worked for more than five years. Most of them are seen as semi-skilled with 27 per cent as skilled and 18 per cent as unskilled. Their household conditions are HCl 3 with some in 2. The SI also categorises them mainly as semiskilled.
Category VII: *Destitute Workers*

4 per cent of electronic workers are temporary, contract and homebased workers with no written contract, no legally entitled benefits and no trade union organisation. Their wages are far below the unskilled minimum wage standard. The workers are very young and young, and include married and unmarried women. They are all homebased workers and have been doing this work for less than three years. One worker had been working for more than five years. They were seen as semi-skilled as well as unskilled. Household conditions were in the lower range from equally distributed over 1, 2 and 3.

**General conclusions from the labour status categorisation**

We now get a more textured picture of working women in the electronics industry. The most striking conclusion of the labour status categories is the fact that the distinction between the formal/informal, organised/unorganised sectors dissolves – apart from the top and bottom category which represent the two poles of formal and informal sectors there is a range of work statuses, insecure contracts and inadequate wages across different units, highlighting the fact that even workers in the organised sector do not have regular, permanent well paid jobs.

Alongside another important dimension emerges which leads one to question the stereotype of women workers as only irregular, casual workers who are low paid, the poorest of the poor. It is still true that the majority of women tend to be in the unskilled, lowest paid, dead end jobs, and that they form 98 per cent of the unorganised sector. Nevertheless, since the 1960's in many industries, as a result of unionisation and struggles a section of women workers have been able to move into better paid and secure jobs - this is reflected in Category I and II.

Both the top categories consist of workers from units that are unionized. The presence of a trade union is significant in ensuring employment security. 50 per cent of the workers are unionized and of these 66 per cent are permanent workers. Even if women do not participate actively in the trade union there is a spin off effect in terms of a general improvement in working conditions.

This section is under attack today. The category of workers who are protected, secure and getting wages above the minimum wage standard is high but in fact it includes workers who have lost and are loosing their jobs. Amongst the workers who have lost their jobs most are either working in the unorganised sector or are unemployed and would today fall into the category of* Destitute Workers*. The fact that it is a 'privileged' section of workers who have lost their jobs highlights the precarious nature of employment today.

Women workers had better working conditions in larger units. All the workers with wages above the minimum wage standard were in large units. Workers who were getting all the legally entitled benefits were from large units. It is also in large units that a new area of employment is opening for women workers where employers invest in training, higher qualification and skill requirements which mean also provision of better wages and benefits/incentives but not necessarily job security. Some women are entering these new jobs.
The number of years a woman has worked is also significant in ensuring security. As we go down the hierarchy the number of years of service also declines. In fact in category VI, the workers are new entrants into the labour force, 69 percent having worked less than three years. This indicates that the new jobs available in the last few years are vulnerable and insecure.

Interestingly all the categories had a mixture of married and unmarried women but in Category VI which is composed primarily of new entrants there were a larger number of single women - unmarried, divorced and widowed. The terms and conditions of new opportunities of employment seem to be best reflected in this category - a casualised, unprotected, insecure workforce, getting very low wages.

Women Workers: a flexible labour force?

The labour status categories bring out clearly that women workers in the electronics industry already constitute a flexi-labour force. For those at the bottom of the hierarchy this is just an aspect of the continuity of seasoned flexibility but we have also seen how workers who are protected and secure are now threatened with job loss. Industrial restructuring has intensified a pre-existing pattern of labour market flexibility and is extending these conditions of casualisation and insecurity to categories of workers who through years of struggle and organisation had become 'inflexible'.
Working Class Households: Adjusting to Adjustment

In the previous section we have seen the present structure as well as identified future trends in relation to currently employed workers. For proponents of SAP defined labour market flexibility the processes of casualisation, growing income and employment insecurity are all positive indicators. In response to the impact these changes are having and will have on the health, well being and future livelihoods of working people there are two arguments usually put forward by international agencies as well as pro-economic reformists.

First it is said that working class households and communities can take on the burden of caring for the sick, elderly and disabled as social services are cut back. There is a cynical use of the findings that in coping with the effects of structural adjustment in many parts of Latin America and Africa, the poor have evolved a variety of survival strategies which included the use of extended kin networks and community support to survive. Since the poor have managed creatively to survive adjustment the World Bank recommends that communities should be encouraged to continue this support and the state should withdraw.

Secondly workers who are displaced can be retrained and redeployed in the labour market. The World Development Report 1995 argues for the necessity of employment restructuring which will lead to mass layoffs. For those who are ‘left behind’, it recommends policies which combine “special measures to reintegrate able bodied individuals into the world of work, transfers to sustain their living conditions above a certain minimum and interventions to reach their children and give the next generation the opportunity to escape poverty.” (WDR 1995, pg. 46)

In this section we will look at the condition of households of women electronic workers to see if they are in a position to take on further obligations, and also examine what has actually happened to workers who have lost their jobs in the electronics industry and how far they and their children can escape the poverty spiral.

Working Class Households: Adjusting to adjustment

L. Beneria has identified three forms of household adjustments in response to economic restructuring in Mexico: Labour market adjustments, Household budgetary adjustments and the Restructuring of Everyday Life. We have made further distinctions within these three forms of adjustment. (L. Beneria, 1991)

Households were classified into income categories based on the classification developed by the NCAER study in 1992-1994. ((S.L. Rao & I. Natarajan, 1996)) 17 percent of the households were in the Low Income category, 17 percent in the Lower Middle category, 24 percent in the Middle category, 17% in the Upper Middle Income category and 26 percent were in the High Income category.
Working class households in Delhi were dependant primarily on employment for survival with very few possessing back up resources in the absence of jobs. In the sample 90% of households had no other source of income, while 10% had income from business.

**Savings and Indebtedness**

A significant proportion of households in the sample did not have any savings 40%. Those who did save tended to use the formal channels such as banks 39%, while the rest preferred to save at home 13%. Only 6% resorted to informal channels such as moneylenders.

While households were affected by the rise in prices etc. the impact was differential with a section facing destitution but the majority managing to cope without falling into conditions of complete distress. 90% of the households had not been forced into selling assets - this of course included those who had no assets to sell. Among the 10 percent who had sold assets, a number had sold jewellery which is a woman’s asset, others consumer items and immovable property.

**Indebtedness**

In the sample 82% of the households had not taken any loans. It is interesting however that amongst the households who did take loans, the primary agency was the employer 6%, with the rest from relatives and formal credit sources, while very few took loans from moneylenders. Loans were taken primarily for crisis situations or investments with a few needing loans for daily consumption and marriages etc.

In addition to dependence on labour market for survival, working class households are also dependent on employers for loans. Such a relationship has implications for organising. The mobilisation of kin networks for financial support emerges from the fact that after the employer it was relatives who workers turned to for loans.

**Labour Market Adjustments**

In response to economic pressures, more household members are forced to work. Our data shows that the percentage of earning members in relation to total number of household members is high. 36 percent of households had half of all members earning, 11 percent had three-fourth of its members working, 27 percent had two-fourth members earning while 24 percent of households had all members earning. Only one household had a quarter of its members earning. Interestingly, unlike the study on Mexico where women were still not joining the labour force in large numbers, our data shows that seventy five percent of earners were female in 45 percent of the households and there were 15 percent of households where only women earned. Households with twenty five to fifty percent of female earners were 38 percent of the households in our sample.

**Household Budgetary Adjustments**

How have households handled the price rise?
There were 6 percent of households who were at minimum consumption level, and in 23 percent of the households did not have to make any adjustments. 77% of households had made some adjustments in household budgets. The type of adjustments ranged from cuts in food to cuts in leisure and non essentials.

Type of adjustments:

1. Labour Increasing adjustments: buying in bulk, processing, reducing fuel
   - Buying food in Bulk: 15 21.42%
   - Saving on Fuel Consumption: 7 10.00%
   - Buying cheaper food and processing: 9 12.85%

2. Dependence on Public Distribution System
   - Buying from Ration shop: 36 58.37%

3. Health Impairing adjustments
   - Females eating less: 1 1.4%
   - Family members eating less: 2 2.85%
   - Reduction in number of meals: 11 15.71%
   - Cut in fruits and non-veg food: 14 20.00%

4. Restructuring of Everyday Life
   - Buying less clothes: 29 41.42%
   - Cut in Leisure: 21 30.00%
   - Reduction in out of town travel: 10 14.28%
   - Defer big purchases: 1 1.42%
   - Stop eating outside: 17 24.28%

Working class households in Delhi are affected by the price rise and are coping by a series of adjustments, primarily through labour market adjustments i.e. sending more members out to earn. However the signs are ominous since a large number of households have not only restructured everyday life but have also gone in for health impairing adjustments. The effect of labour increasing adjustments on women's working time given the existing sexual division of labour in the household, have been well documented. However even changes that occur in the area of cuts in leisure, out of town travel, eating outside, buying clothes, have implications for working women's lives in leading to a further restriction in their mobility, association and socialising with friends as well as for organising. Almost half the households were dependant on the public distribution system and the revamped system introduced in 1997 would have implications which would lead to further cuts in consumption.

Health

Unlike trends in other countries undergoing structural adjustment the issue of a shift from public hospitals to privatised medical care did not make much sense in India due to bad quality of public health services. People only went to public hospitals such as AIIMS either for specialist treatment or if they were absolutely destitute.
Our data thus reflects this situation where for minor illness, 81% of the households paid for their own treatment, usually going to the local clinic or using home remedies while only 19% used ESIS hospitals even for minor illness. For major illness a large number 69% did not pay for health services i.e. they were covered by the health insurance system, while 23% continued to pay five years ago as well as now. The data does not show any shift from either private to public health services or vice versa.

**Education**

Overall this was one area where households of women electronic workers had not made a drastic adjustment. There were no households where education for children had been stopped completely. Parents said we will starve, beg do anything but somehow will provide our children with good education. Although they did not stop education completely, these households did have to make adjustments to cope with the increase in expenses. 16 percent of the households had transferred children from private schools to municipal schools, while around 30 percent continued to send children to municipal schools.

The ability to provide for the future of their children is however precarious as we will see in the next section. Amongst households of workers who had lost their jobs there were a larger number who had been forced to cut expenditure on the education of their children as well as resort to other methods to handle school expenses such as loans etc.
The Experience of Job Loss

Industrial restructuring in the electronics industry primarily took the form of cutting labour costs through retrenchment and relocation of units to low wage areas. Getting rid of labour has taken different forms in the electronics industry in Delhi -

1. Outright dismissal of temporary and casual workers
2. Voluntary retirement
3. Closures and relocation of units
4. Disciplinary action after forced transfers, false cases etc.

Main findings of case study

To understand the experience of job loss in the electronics industry we did a case study of 46 men and women workers who lost their jobs from two companies Weston and Clifton, both TV manufacturing units in Delhi. In both cases the units were locked out and all the workers were retrenched. In Clifton 108 workers, many of whom were widows and couples, and 200 workers from Weston. The lockout was declared in 1993 in both units and at the time of the study workers had been unable to work on their jobs for more than two years.

Profile:
Most of the workers in both units had worked for more than ten to twenty years in the same company. Contrary to the pattern in the public sector, the workers were not all old. 43 percent were below 30 years, 43 percent between 31 to 40 years old and 14 percent above 40 years old. There was not much difference between men and women age wise. Only 20 percent of the workers were unmarried, the rest being married with two women who were widows. There is also not much difference in the educational qualifications between men and women. 22 percent have done but failed secondary school while 47 percent have done secondary school and 9 percent are graduates. In addition, five men have Industrial Training Institute diplomas and three women have done certificate courses in typing and tailoring. Only 22 percent are just literate and only one male worker illiterate. They are predominantly married (76 percent).

Compensation:
The compensation ranged from just Rs 9000 to Rs65,000. The compensation money for most of the workers disappeared overnight. For over half the workers the money was spent on domestic expenditure.

In a report prepared for the World Bank on the implementation of the National Renewal Fund, by the Gandhi Labour Institute, it was pointed out that while a large number of displaced workers are old, however even in the first round about 30-32 percent are relatively younger adults. It is estimated that in the second major round of displacement, a younger adult workforce would be affected. H. B. Patel, 1995. In the study on VRS in Bombay conducted by the Maniben Kara Institute, the sample of 100 workers had only 8 percent below the age of 40 years (H. B. Maniben Kara Institute, 1994).
Present job status:
After two years of job loss, 41 percent of the workers were unemployed, 37 percent self-employed, and 9 percent had irregular jobs, or were working as temporary and contract workers. Only two workers (4 percent) - one man and one woman - had got permanent jobs again in an electronics factory.

There were significant differences between men and women in terms of opportunities for work after job loss. Only one woman in our survey had managed to get another permanent job in an electronics factory. Others only got casual jobs of which two were working in temporary jobs as contract workers in a tiny electronics unit and a third woman was doing domestic service. Not a single woman could move into self-employment.

From privileged worker to destitution

- Overall for both men and women job loss has meant a drastic reduction in living standards.
- The effects of the loss of a regular source of income has been particularly drastic for single earners families who are 26 percent of the sample. For the rest 48 percent of the households which previously had two earners now have to depend on the income of one earner and 22 percent of households which had three earners would now depend on the income of two earners.
- As a result of the loss of a source of regular income in a number of households older members of the family who were not earning have now started working. Elderly mothers have taken up homebased piecereated garment export work while fathers have taken up casual jobs.
- The worst situation in fact is for households with a large number of dependants and two earners, both of whom are now unemployed. There were eleven such households in our sample where either both husband and wife or brother and sister had been laid off from work in the last two years and had not found any other regular job.

- In such a situation households of job loss workers have had to make many adjustments to the way in which they had hitherto lived. The predominant changes have been in the area of everyday life where all 'frills' such as clothes, eating out, leisure and travel have been cut down. However more serious are the adjustments which over time will lead to health problems which are reduction in healthy and sufficient food items as well as labour increasing adjustments, the burden of which falls on women.

- In many households the education of children had been affected. A number of them had withdrawn their children from more expensive private schools and transferred them to municipal schools, others had taken loans to pay school fees and most of them now bought second hand books.
- 43 percent of the households had taken loans ranging from Rs. 1600 upto Rs. 40,000, primarily for daily consumption and illness (24%) with 11 percent taking the loan for children's education and marriage costs and some for buying a house or repairing the house.
- For some of the older women, job loss has not meant such dire economic deprivation since they have other earners in the family but has affected their sense of autonomy.
- Almost all these workers regretted taking 'hisab', feeling that it would have been better to have fought to retain their jobs rather than be in the present situation.
Trade Union responses

Trade unions in the electronics industry in Delhi have different views on Voluntary Retirement Schemes. Unions such as IFTU totally oppose it and also campaign actively against management attempts to get workers to accept VRS. Others such as HMS feel that if some workers wish to accept then they would help to get a good settlement, at the same time they would also help workers who not wish to accept VRS.

Is there a future for job loss workers?

For workers who have lost their jobs the future is grim. They have no links with any organisation. They cannot be union members since they are no longer employed. They have lost both economic security as well as identity as workers. In cases where workers have accepted voluntary retirement against the wishes of the union, they are sometimes considered as betrayers and even ostracised.

It is urgent that specific policies are formulated for this section of workers. An association for displaced workers which is affiliated to unions or to the National Center for Labour would be an important step towards creating a sense of support and solidarity as well as restoring a sense of dignity. Such an association could then act as a pressure group and press for attention to their situation.
Future trends: Cheap Labour Platform?

There continues to be a controversy over the employment potential of the electronics industry. On one side there are arguments that as labour costs rise in Taiwan, Thailand, Phillipines, Indonesia and Malaysia, India may emerge as the next assembly base for big Japanese consumer electronics companies (ET, 1993). An assessment by Morgan Stanley, an American investment bank on wage differentials shows that the wage cost advantage of the NICs - Hong Kong, South Korea, Singapore and Taiwan has been eroded for the past decade and today India and China have the lowest labour costs.

On the other hand it is stated that increasing automation has reduced the advantages India has as a low wage processor of electronics. As a World Bank commissioned study in 1993 states - "India's unskilled and semi-skilled labour, which is widely available at a wage differential that is nearly as great as that for skilled manpower, is now relatively unimportant for the electronics industry because electronics process technology has become so capital intensive." (G Gowen & D Heffler, pg 214, 1993) It is argued that the main reason for the entry of multinationals into India is not a search for cheap labour but access to a vast middle class market.

Whether India provides a cheap labour platform or simply access to markets the implications for women workers are serious. While a new category of women workers with technical degrees and relatively high wages, coming from middle class families, may emerge, for the majority of women from working class households, the prospects of future employment are as casual workers with no job security. The Study Group on Electronics recommendations for the 1997 budget include a proposal to allow women workers to work three shifts in the electronics industry. (CETMA, Nov 1996) It is ironic and significant that the industry commissioned the same consultancy firm Arthur Miller which had made recommendations for the development of the Mexican border industries as free trade zones based on cheap labour cost advantages in the 1980's, to plan the future of the electronics industry in India in the 1990's.

Our study has shown that women - young and old want to work and want training and better jobs. Earning a wage has led to an increase in their autonomy and has changed relations within the household as well. Even as managers keep shifting pastures looking for 'fresh green labour', young women workers are becoming conscious of their rights and after a few years of accepting unfair treatment are as they say in their own words - exploding like pvalamukkhis. Loss of jobs or the provision of bad quality jobs in the electronics industry would set back a process of change not only in their working lives but also in their personal lives.
A Sustainable Future for Women Workers: Policy and Strategic Perspectives

The 1990's are a period characterised not only by new forms of global economic restructuring but also a shift from a commitment to a redistributive welfare state to a social darwinist model which emphasizes the 'survival of the fittest' in a world of open economies, free markets, individual competition and policies of structural adjustment and stabilisation which emphasize markets mechanisms and cost competitiveness. The space and scope for people, NGOs and even national governments to influence and formulate independent policies is narrowing as global corporations and international development agencies define the agenda for the future of the world

There is today an even more serious development whereby the legal rights won after so many years are sought to be abolished. Seen as creating rigidities in the labour market, the call for legal deregulation attempts to dismantle the structure of legal protection for workers to allow for flexibility. Even as the sustained efforts of organisations such as SEWA have finally led to the passing and adoption of the Homeworkers Convention, we see simultaneously an attempt towards taking away and restricting the rights of working women.

Based on our research and discussions with women workers Delhi, we feel that along with policies and strategies to keep jobs for women, get new jobs for women as well as improve the quality of employment that women enter, we also have to address simultaneously other dimensions of working women's multiple identities and the multifaceted nature of the constraints that operate against them, not just in the labour market but also in the household and in society in general. A policy for women's employment has to include strategies for challenging the sexual division of labour and gender ideology inside as well as outside the workplace. Notions of masculinity and femininity affect skill definitions, wages, working conditions, participation in organisations as well as access to resources, education, training and mobility within the labour market as well as the household and society in general. Taking this into account this proposal will attempt, wherever possible to formulate policies and demands which constitute Coalescing Strategies. By this we mean strategies which attempt to overcome the false dualism between workplace and household, wage work and domestic labour, private and public. In addition, given the close interconnection between economic, political and social developments at a macro level and the livelihoods and lives of working people at a micro level, each section will attempt to address both macro and micro issues.

Our research has also highlighted the situation of specific categories of women. Even as policies have to be wholistic, integrated and comprehensive in addressing the multiple dimensions of women worker's lives, specific policies have to be formulated for particular categories for women

1. Policies for access: this includes access to employment, education, training
2. Policies to improve the quality of employment: better wages and working conditions
3. Policies to preserve employment: dealing with job loss
4. Policies for implementation: institutions and structures which are democratic
Bibliography

Arvind Shrouti & Nand Kumar, New Economic Policy, Changing Management strategies: Impact on Workers and Trade Unions, FES, Delhi
B.B. Patel, 1995, Retraining of Rationalised Workers: Status and Emerging Tasks in Implementation of NRF Pilot Projects in India, Gandhi Labour Institute, Ahmedabad
B.P. Guha, 1996, Voluntary retirement: Problems and Prospects of Rehabilitation, FES & Shri Ram centre for Industrial relations and Human Resources, SRC, Delhi
Bagaram Tulpule & Ramesh C. Datta, New technology in Indian Manufacturing: an evaluation of CNC Machines, Economic and Poltical weekly, July 28, 1990
Chakraborty P., Electronics Industry in India, Electronics For You, December 1993
D Ernst, The Global race in Microelectronics: The innovation and Corporate Strategies in a period of Crisis, Frankfurt; Campus, Verlag, 1983
D. Ernst, Innovation, International Diffusion of technologies and developing countrys- comments, Conference on innovation diffusion, Venice, 1986
D. Ernst, New Information Technologies and Developing countries: Implications for Human resource development, EPW, Vol 20, No.35, 1986
Ernst, D, Automation, Employment and Third World - Case of Electronics Industry, Economic and Political Weekly, July 12, 1986, Bombay
B Wellenius, A Miller, C J Dahlman eds Developing the Electronics Industry, World Bank, 1993
FES & Maniben Kara Institute, 1994, Voluntary Retirement Scheme and Workers Response, FES, Delhi
- Market segmentation and performance of Firms; Case study of Indian television Industry in the 80s, EPW, Nov 28, 1992
Krishna Kumar, Hybrid Micro-circuits technology: An Indian perspective, electronics Information & Planning, february, 1996
Labour Bureau, 1985, Socio -Economic Conditions of Women Workers, Ministry of Labour, Government of India, Shimla
N Vittal, Electronics Industry on the Upswing, Economic Growth and Social Change, sept 1995 (Secretary, DOE)
Omesh Saigol et al, Problems and Prospects of Industrial development in a Metropolitan city, Mittal Publications, New Delhi, 1994 (RTL:X9:77.2/9 n9 n4)
Dipayan Datta Chaudhari, Problems of Electronics Industry in West Bengal: a case study, New technology.
Jeffrey James & Ajit Bhalla, Microelectronics, flexible specialization and small scale industrialisation in the Third world, New tech.....

Productivity, Indian Computer peripherals industry: Printer, Productivity, Vol.31, No. 4, Jan-March 1991


GOL, National Electronics Policy 1985


Subhrajit Guhathakurta, Electronics policy and the television Manufacturing Industry: Lessons from India's Liberalisation efforts, Economic development and Cultural change, University of Chicago, 1994

Workers Solidarity Centre, no date, The Workers Solidarity Centre Against Job Losses and Closures, Bombay


Our data thus reflects this situation where for minor illness, 81% of the households paid for their own treatment, usually going to the local clinic or using home remedies while only 18% used ESIS hospitals even for minor illness. For major illness a large number 69% did not pay for health services i.e. they were covered by the health insurance system, while 23% continued to pay five years ago as well as now. The data does not show any shift from either private to public health services or vice versa.

Education

Overall this was one area where households of women electronic workers had not made a drastic adjustment. There were no households where education for children had been stopped completely. Parents said we will starve, beg do anything but somehow will provide our children with good education. Although they did not stop education completely, these households did have to make adjustments to cope with the increase in expenses. 16 percent of the households had transferred children from private schools to municipal schools, while around 30 percent continued to send children to municipal schools.

The ability to provide for the future of their children is however precarious as we will see in the next section. Amongst households of workers who had lost their jobs there were a larger number who had been forced to cut expenditure on the education of their children as well as resort to other methods to handle school expenses such as loans etc.