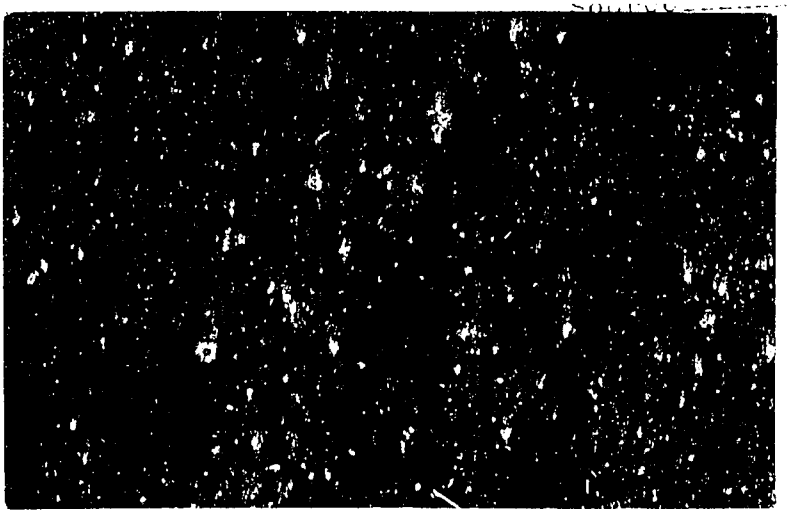
WORKING PAPERS



MICHIGAN STATE UNIVERSITY

MAQUILADORAS, WOMEN'S WORK, AND UNEMPLOYMENT IN NORTHERN MEXICO

by

Susan Tiano
Department of Sociology
The University of New Mexico

February 1984

Working Paper #43

Abstract: Although Mexico's Border Industrialization Program (BIP) was formulated to relieve unemployment in northern cities, critics claim that it has not served this end. The main reason for this failure, many maintain, is that unemployment in the North, as in the nation as a whole, is a male problem. Yet, women constitute the bulk of the BIP labor force. This paper employs aggregate data on men's and women's labor force participation to demonstrate that this claim is based on several inaccurate assumptions. Average unemployment rates for the Northern region, as for the nation as a whole, are higher among women than men of comparable ages. Joblessness is especially pronounced among younger women, that sector of the labor force from which the majority of BIP workers are recruited. The program does not appear to have enhanced women's labor market situation relative to men's; rather, the same conditions which weaken women's employment status in other parts of Mexico also operate in the North, despite any job opportunities the program might offer. This essay draws upon propositions from Marxist-feminist theory to interpret these empirical trends.

About the Author: Susan Tiano received her Ph.D. from Brown University and is presently Assistant Professor of Sociology at the University of New Mexico. Her major research interests include women in development, urban women's labor force participation in Latin America, and class and gender consciousness.

MAQUILADORAS, WOMEN'S WORK AND UNEMPLOYMENT IN NORTHERN MEXICO[1]

A recent pattern in the internationalization of capitalist production involves transferring the labor-intensive phases of manufacturing from more to less industrialized nations, such as Mexico, which possess an abundant supply of low-waged labor. This process has sparked a heated debate among scholars, legislators, industrialists, and workers' leaders. Proponents of "off-shore" manufacturing stress its benefits for the multinational company, which can remain competitive by minimizing its production costs; the Mexican worker, who derives stable employment, a steady income, and a useful skill; and the Mexican state, which expands its tax base and augments its productive infrastructure (Adams, 1976; Bolin, 1971). Critics of the process claim that it increases Mexico's economic dependence on the United States, while enabling multinationals to reap profits by exploiting Mexican workers and by manipulating the Mexican government (Camarena, 1970; Lopez, 1969; NACLA, 1979; Pena, 1980b).

One of the most frequent objections to off-shore manufacturing is that it does not alleviate the unemployment plaguing northern Mexico. A typical explanation for this inability is that the maquiladora (assembly plant) workforce is predominantly female, yet unemployment in Mexico is essentially a male problem (Woog, 1980:101; Fernandez, 1977:141; Martinez, 1978:132). Such a claim reflects an inaccurate but common stereotype about women's labor force participation in Mexico and other Third World nations. This essay will employ aggregate data on women's and men's labor force participation in northern Mexico to evaluate this thesis. It will also use propositions and concepts from Marxist-feminist theory to explain the composition of the maquiladora workforce and to consider the consequences of the Border Industrialization Program for women workers, their families, and the frontier community. I agree that off-shore manufacturing may harm Mexican workers and may discourage economic development in the border region. Nevertheless, I maintain that a thoroughgoing analysis of the process requires understanding the ways capital uses gender to divide the labor force and to create an industrial reserve army.

The Border Industrialization Program

The labor of European and other foreign immigrants permitted the rapid development of United States industry and agribusiness during the nineteenth and early twentieth centuries. Since the sparsely-populated turn-of-the-century southwest could not supply a large agricultural workforce, North American companies recruited labor from China, Japan, and Mexico. Mexican immigrants were particularly well suited to United States agribusiness' seasonal labor requirements, for they could return home during the off season and thus pose little competition to United States workers

(Fernandez, 1977:99). Nevertheless, as growing numbers of Mexican immigrants chose to remain in the United States, U.S. workers demanded and received federal legislation to limit Mexican immigration. When, however, a shortage of cheap labor in the 1940s threatened North American agribusiness, the government initiated the bracero program. This arrangement facilitated a steady but controlled flow of Mexican workers across the border to meet season labor demands (Fernandez, 1977:98-100). The dearth of employment opportunities brought men from all over Mexico to recruitment centers in Hermosillo, Chihuahua, Juarez, and Monterrey. For every bracero who was able to secure papers, a dozen were turned away (NACLA, 1979:125).

Although many returned to their villages, others remained in the rapidly-growing border cities in hopes of legally or illegally entering the United States. Between 1940 and 1964 over four million undocumented workers were apprehended and deported back to Mexico. Their ranks swelled the rapidly expanding cities of northern Mexico. Between 1940 and 1960, for example, Tijuana grew from 20,000 to 165,000, while Mexicali's population more than doubled (NACLA, 1979:126). The border city economies, based predominantly on tourism and commerce, could not absorb their rapidly expanding populations (Fernandez, 1977:123-126). The situation was exacerbated in 1964 when a large proportion of the 200,000 workers left jobless by the termination of the bracero program assumed permanent residence in the border cities (Woog, 1980:50; Bustamante, 1975). Both the Mexican and United States governments were alarmed as the growing unemployment threatened political instability and massive undocumented immigration across the border (Pena, 1980a:8).

At the same time that Mexico was experiencing these demographic problems, United States industry was threatened with an economic crisis. Not only were North American companies losing their hegemony over domestic and foreign markets to Japanese and European firms, but United States workers were increasingly pressing the system for better wages and working conditions (Pena, 1980a:9; 1982a:7). North American companies kept abreast of this competition and avoided United States workers' demands by using the abundant, low-waged labor of Third World workers. Throughout the 1970s the labor-intensive textile and electronics industries established assembly plants in Mexico, the Caribbean, and the Far East. Items 806.3 and 807 of the U.S. Tariff Schedules facilitated this process by allowing United States firms to export components, raw materials, and equipment to their foreign subsidiaries for assembly or processing, and by confining import tariff duties to the value added through processing outside of the United States (Woog, 1980:16-18; Pena, 1980a:11; 1982a:11).

The Mexican border region was an especially attractive site for locating assembly operations. The sluggishness of the economy, the high rates of natural population increase, and the steady stream of migration from the Mexican interior had created a large pool of surplus labor. Mexican workers' daily minimum wage--between $3.52 and $5.52 in 1969--was but a fraction of the $25.12 floor set for United States laborers (NACLA, 1979:133). At the same time, the region's proximity to the United States

minimized transportation and communication costs, and enabled "twin plants" on both sides of the border to share managerial expertise and worker training facilities. The Mexican government encouraged maquiladoras investment to abate the growing unemployment and to foster industrial development. In 1965 it authorized the Border Industrialization Program (BIP) in order to generate employment, augment personal income, increase workers' skills, and reduce Mexico's commercial deficit to the United States (Pena, 1981:11). The program's many economic and legal incentives to foreign investors led to a proliferation of assembly plants in the northern frontier. Within nine years after the authorization of the BIP, 445 maquiladoras employing 77,977 workers had been established in Mexico; ninety percent of these firms and workers existed in the border region. In 1974 the wages, salaries, and benefits of the maquiladora workforce totaled 2.4 billion pesos, while the value of imported machinery, equipment, and components equaled 3.6 billion pesos (Pena, 1980a:12-14). The BIP and its labor force grew more slowly during the subsequent five years: in 1979, the border region contained 472 firms providing 99,122 workers with salaries and benefits totalling 5.6 billion pesos[2] (Pena, 1981:13).

The maquiladora program suffered a setback during the worldwide 1974-75 recession when the contraction of assembly operations left over one-third of the maquiladora workforce (23,000) jobless. Within eight months, thirty-nine North American-owned assembly plants closed down entirely, while many more reduced their workforce as much as fifty percent (Fernandez, 1977:148). North American industrialists took advantage of the crisis to wring further concessions from the Mexican government (Woog, 1980:92,94). Claiming that certain legally-mandated workers' benefits decreased Mexico's attractiveness as an investment site, the firms threatened to relocate in nations with lower labor costs. The Mexican government succumbed to these pressures by exempting maquiladoras from various worker-protection requirements. Companies were permitted: (1) to dismiss "inefficient" workers without severance pay; (2) to adjust the size of their workforce or length of their workday as their needs required; and (3) to retain a worker in "temporary" status for ninety days (NACLA, 1979:143). These concessions and the crisis that led to them reveal both the economic fragility of the maquiladora program and the Mexican government's tenuous position vis-a-vis North American industrialists (Woog, 1980:95; Fernandez, 1977:148).

Many analysts would agree that the BIP has enabled United States multinationals to reduce production costs and thus to compete more favorably with foreign firms (Woog, 1980: passim; Pena, 1980a:2). Motorola, for example, saved four million dollars a year by moving from Phoenix to Nogales (NACLA, 1979:133). Such gains resulted from both wage differentials between the United States and Mexico and the higher productivity rate of maquiladora workers (NACLA, 1979:134)[3]. The 1976 peso devaluation, which brought a fifty percent reduction in real wages, helped boost the sagging profit rate caused by the 1974-75 recession. General Electric's pre-tax savings for operating in Juarez increased from an average $4,000-5,000 per worker before 1976 to $10,000-12,000 after the devaluation (NACLA, 1979:144). These accelerated profit rates also reflect the various investment incentives offered by the BIP. As long as the foreign-owned firm meets certain

conditions[4], it is exempt both from duties and regulations on the importation of raw materials and capital equipment, and from taxes associated with profits, sales, and dividends (Fernandez, 1977:135; Pena, 1982a:11).

The Mexican government has come to view the BIP as its primary strategy for alleviating unemployment and generating income in northern cities (Woog, 1980:passim). It also expects the program to stimulate local investment by encouraging joint ventures between United States and Mexican capital. Yet critics of the program claim that while it serves the interests of North American companies, it does little to help--and probably much to harm--Mexico. As the events surrounding the 1974 recession illustrate, the BIP has made the border region even more economically dependent upon the United States (Woog, 1980:104; NACLA, 1979:135). The program has not stimulated Mexican investment, for American firms' drive to maximize profits by continually relocating their operations in areas with lower labor costs has led them to eschew entanglements with Mexican capital (Woog, 1980:98). Nor has the BIP reduced Mexico's balance of payments deficit, for at least half of Mexican workers' wages are spent across the border (Fernandez, 1977:144). Further, since many companies supply their Mexican subsidiaries with out-of-date equipment, workers are frequently trained in obsolete production methods (Fernandez, 1977:144).

The often contradictory findings of social scientific studies have fueled the fiery debate between the BIP's critics and proponents. The earlier literature tended to center on North America, analyzing the motivations underlying governmental and corporate participation in the program as well as the effects of border industrialization on Mexican immigration and United States unemployment (Pena, 1981:17-18). A surge in scholarship during the latter half of the 1970s directed attention toward the consequences of the BIP for Mexico. While some evaluated export manufacturing as a development strategy (Bustamante, 1975; Bonifaz, 1975; Konig, 1975), others assessed the demographic, economic, and social consequences of border industrialization (Urquidi and Mendez Villarreal, 1975; Secretaria de Industria y Comerica, 1976a,b).

An important research focus is the characteristics and experiences of the maquiladora labor force. Escamilla and Vigorito's (1977) analysis of garment workers in Mexicali was the first to use extensive participant observation and survey research to study maquiladora workers. Fernandez-Kelly (1978; 1980a,b; 1983) built upon this foundation by examining migration patterns, family experiences, and gender socialization among women workers. Research on worker-management conflicts (De la Rosa Hickerson, 1979; Hernandez, 1980; Carillo, 1980) and workers' organizational forms (Pena, 1980a,b) has illuminated the political dimensions of maquiladora employment.

While these and other studies have augmented the growing literature on maquiladora workers, research in this area is still in its infancy. Scholars have only begun to explore the long- and short-term consequences of

maquiladora employment for women workers and their families. They have not yet determined the BIP's effect on female unemployment, women's position in the urban labor market, and their internal and international migration patterns. Pena's (1981) extensive literature review identifies three neglected research foci: (1) the effect of patriarchal structures on workers' participation in informal networks and formal organizations; (2) the influence of gender socialization on maquiladora workers' migratory and occupational histories; and (3) the consequences of the labor process underlying export manufacturing for the urban labor market and for workers' organizational forms. Research on these and other questions will only yield a complete picture of women's work in maquiladoras when guided by and interpreted via theoretically derived hypotheses. The following discussion will employ propositions from marxist-feminist theory to interpret data on women's labor force participation in northern Mexico. While it poses more questions than it answers, it suggests future directions for research and theory building.

The instability of Mexico's current economy amplifies the importance of the present discussion. The staggering inflation[5], surging foreign debt[6], and economic stagnation have caused an extensive flight of capital and an increasingly unbalanced federal budget. The government has responded with an austerity program aimed at reducing inflation and accelerating economic growth. Gross peso devaluation has eroded the economic gains of the middle-class, has spelled severe hardship for the working-class, and has deepened the poverty of the lower-class. The Mexican population will also feel the impact of the credit restrictions, the contraction of government spending, the higher tax rates, and other stabilization measures. Whether such fiscal policies will eventually revive the Mexican economy remains to be seen. Their immediate effects on the Mexican masses, however, are clear: increasing un- and under-employment, loss in real wages, and a spiraling cost of living.

The impact of the crisis on maquiladora investment is a subject for speculation. The recent fiscal measures are consistent with Mexico's present development strategy of industrial growth through foreign as well as domestic investment. Since the BIP is an important component of this effort, the Mexican government will do everything possible to ensure its success. The government may continue its efforts to attract foreign investment by offering incentives analogous to those spawned by the 1976 crisis. Yet such policies may not be necessary, for the crisis itself, as well as the fiscal measures designed to combat it, may increase Mexico's attractiveness as a site for assembly processing. The major factor drawing multinationals to the border region is the abundance of low waged labor. The contraction of job opportunities will swell the ranks of the surplus labor pool. The resulting competition for jobs will drive wages down to the federally-mandated minimum. Perhaps more important, the recent peso devaluations will substantially reduce labor costs by augmenting the relative purchasing power of foreign currency. Thus as long as the economic crisis does not lead to massive social unrest and political upheaval, it may actually stimulate maquiladora investment.

Mexico's economic upheaval will increase the importance of maquiladora employment for women. As the soaring cost of living forces middle-class women to shoulder their own household tasks, many domestic servants will lose their jobs. At the same time, the economic slowdown will curtail opportunities in handicraft production, petty sales, and other branches of the informal sector. The resulting female unemployment will spell hardship for the working-class family. Female household heads and partners of unemployed males will face particularly strong pressures to earn a stable wage. Since maquiladora employment will be the prime option open to many women, they will seek jobs in assembly processing in even greater numbers. Thus the consequences of maquiladora employment for women workers and their families and its effect on women's position in the labor market becomes an even more important research focus.

Unemployment in the Border Region

A frequent theme in the critical literature is that the maquiladora program has not resolved the border region's employment problems. Some attribute this failure to the heavy migration from the Mexican interior in response to the "pull" of the maquiladoras (NACLA, 1979:150; Martinez, 1977). A more frequent claim stresses the "structural imbalance" between the composition of the BIP labor force and the nature of the unemployment troubling nothern Mexico (Fernandez, 1977:141; Woog, 1980:51,101; see also Pena, 1982a:13; Martinez, 1978). According to this argument, unemployment in the region (as in all of Mexico) is essentially a male problem, yet women constitute between 70 and 90 percent of the maquiladora workforce. Thus, the maquiladoras' preference for female labor has prevented the program from accomplishing its primary objective.

The view that unemployment is exclusively a male concern pervades much of the literature on Latin American labor markets. It is based, however, on a stereotypical image of women's ideal roles that bears little resemblance to the real-world circumstances of most working-class Mexican women. The myth that only men work outside the home obscures the very real suffering that un- and underemployment can cause women who must work to support themselves and their families.

This conventional argument implies several inaccurate premises. The claim that unemployment in the border zone, as in Mexico generally, is a male rather than a female problem assumes either that women (1) do not work outside the home (presumably because, since they are adequately supported by husbands or fathers, they have no economic need to do so): or else (2) are consistently able to secure employment through which to support themselves.

The accumulating literature on Latin American women's work contradicts these assumptions. As Boserup (1970) and others have effectively demonstrated, unemployment is a considerable problem for women in developing societies (Chinchilla, 1977:38-56; de Miranda, 1977:261-274; ICRW, 1980). Modernization-related changes frequently displace women from traditional roles in agriculture, handicrafts production, and trade, yet offer them few

alternative opportunities in the "modern" sector. Inadequate education and training, socialization into female sex roles, conflicting familial responsibilities, preferential hiring of men, cultural and legal prescriptions that exclude women from certain occupations, and a host of other factors combine to limit women's employment options. Yet many women must work to support themselves and their families. A growing proportion (one-third to one-half) of households in Latin America and elsewhere are headed by women, many of whom are their families' sole source of support (ICRW, 1980). Others must work to supplement their husband's meager wages. The shortage of job opportunities in many Third World cities forces many of these women to eke out a living in the "informal sector" of the urban economy (Arizpe, 1977:25-37). Because such activities yield neither a secure nor a steady income, and since they contribute little to the domestic product of the city, most economists view them as disguised employment (Boserup, 1970; Youssef, 1976). In sum, it is highly unlikely that unemployment in the border zone--or in any other region of Mexico--is confined to the male population.

Aggregate data on women's employment patterns in Northern Mexico reveal trends consistent with the literature on Third World women's work. As the labor force participation rates depicted in Table 1 clearly demonstrate, a considerable proportion of women in the border states[7], as in Mexico as a whole, work outside the home. Throughout Mexico, 21.5 percent of women age 12 years or older belongs to the waged labor force. Women 20 to 24 years of age are especially likely to be economically active: about one-third of these women work outside the home. Yet it is not the case, as conventional wisdom would have it, that women all drop out of the labor force to assume full-time roles as wives and mothers as they enter their thirties. On the contrary, in the border states as in other areas of Mexico, women's labor force participation remains at a fairly constant level--around 20 percent--through much of the adult years. These data suggest that most women are not merely working for "pin money" as they bide their time waiting for a husband to come along. A more plausible explanation for their consistent rate of labor force participation is that they work out of financial necessity.

The data in Table 2 further challenge the stereotype that Mexican women need not work outside the home because they have husbands to support them. In each of the border states, as in the nation as a whole, between 75 and 80 percent of the economically active female labor force is unmarried. These women's wages are in all probability essential for their own and their children's support. Should they find themselves unemployed they would be under considerable financial pressure to secure a new source of income. Clearly for this sector--actually the vast majority--of the female labor force, unemployment could be a formidable problem.

The alternative justification for the claim that unemployment does not trouble Mexican women is that those women who desire and/or need a job are able to find one. The information in Table 3 refutes this assumption. These data measure open unemployment, which underestimates joblessness by

neglecting the "discouraged worker"[8] who has abandoned his/her job search. Even these underestimates, however, show unemployment to be a considerable problem for women in the border region and in the nation as a whole. The highest unemployment rates are found among women 12 to 14 years of age, the age group most heavily represented in the maquiladora workforce (NACLA, 1979:133). To anticipate the subsequent analysis, it appears as though these women provide an available pool of labor for the assembly plants.

In sum, the argument that unemployment plagues men but not women in northern Mexico is not only unreasonable but is empirically inaccurate. A more plausible reformulation of the thesis might be that because maquiladoras hire predominantly women, they cannot solve more than half of the unemployment in the frontier, namely that affecting women. This argument assumes that (1) by providing jobs for women, maquiladoras lessen or resolve female unemployment; yet (2) because maquiladoras rarely hire men, they do not reduce male unemployment. Further, maquiladoras may exacerbate male joblessness by attracting migrants from the interior who compete with border residents for jobs.[9] In this case, male unemployment in the frontier should be as high or higher than female joblessness, or at least the ratio of female to male unemployment rates should be lower in the border region than in Mexico generally.

A comparison of the employment and unemployment rates in the border region with those for the nation as a whole challenges these assumptions. Maquiladoras do not alleviate the problem of women's employment in the Mexican North. The data in Table 1 show women's average labor force participation rates to be no higher in the border region than in the nation generally. On the contrary, they are somewhat lower, ranging from 16 percent to 20.9 percent as compared to the national average of 21.5 percent. Employment rates among even the younger women who constitute the majority of the maquiladora work force are not consistently higher than the national averages for comparable age categories.

One might postulate, perhaps, that Northern Mexican women are less likely than their counterparts elsewhere in Mexico to enter the labor force because for whatever reason they are more apt to have husbands to support them financially. Yet the data in Table 2 do not justify this presumption. In all but one of the border states, the percentage of married women in the economically active population is lower than the national average. Similarly, the female labor force in the border zone contains a larger proportion of single women than the Mexican average. This suggests that northern Mexican women are even more likely than their counterparts in other regions to work out of financial necessity.

Table 3 provides further evidence that the BIP has not eradicated women's employment problems. Female unemployment rates in the border region are not noticeably lower than the national average. Northern Mexico women beyond the age of 35 have higher rates of joblessness than their similarly-aged counterparts throughout Mexico. Even within the younger age

categories, unemployment rates are consistently below the national average in only one of the three border regions. And just as throughout Mexico, unemployment is most pronounced among women aged 12 to 24 years, so too in the North younger women have the highest rates of joblessness. Maquiladoras have not resolved unemployment among even that sector of the female labor force from which they draw the majority of their workers.

One might question why, when such a large proportion of maquiladora workers consists of women 15 to 25 years of age, unemployment rates are so high among young border state women. The data presented in Table 4 suggest a partial explanation. Women aged ten to twenty-nine make the largest contribution to the migration stream to the border states. Because these data tell us nothing about these women's reasons for moving, they provide no information about the role of maquiladoras in drawing young women to the North. Thus these data cannot support the claim that the BIP augments border unemployment by increasing the labor supply. In fact, such a conclusion seems unwarranted, since the age distribution of female migrants to the border so closely parallels that for the entire nation. These data do demonstrate, however, that the largest proportion of female migrants comes from the age category from which the maquiladoras recruit their labor force. Whether the assembly plants induce these young women to migrate, or merely utilize the labor of movers coming for diverse reasons, it is clear that the steady northward flow of young women helps maintain unemployment levels in the face of job shortages and replenishes the supply of potential maquiladora workers.

The assumption that maquiladoras exacerbate male unemployment in northern Mexican cities is inconsistent with these data. If such a claim were correct, men in the border region would have lower labor force participation rates and higher unemployment rates than the national averages. Tables 1 and 3 do not reveal this pattern. Border state men are somewhat less likely to be in the labor force than their counterparts elsewhere. Yet this difference can be accounted for by men 12 to 19 years of age, many of whom are full-time students. Employment rates for the other age categories are not substantially lower, and in some cases are higher, than comparable rates for Mexico generally. Similarly, with the exception of the 12 to 19 year old category, unemployment rates for border zone men are about equal to or somewhat lower than those for men in other regions.

A comparison of the male and female unemployment rates in Table 3 further challenges the claim that the BIP offers women an employment advantage over men. Women in each of the three northern regions are more likely to be unemployed than their male counterparts in the same age group. These differences parallel the pattern for Mexico as a whole.

To summarize, the empirical evidence fails to support even the more plausible version of the standard argument. The BIP has not strengthened women's position in the labor market. Although unemployment plagues women of all ages, it is particularly high among younger women who constitute the bulk of the assembly plant labor force. Further, the maquiladoras'

preference for female labor has not given women an employment advantage over men: women of most ages are twice as likely as men to experience joblessness. The same conditions that weaken women's employment status in other parts of Mexico also operate in the North, despite whatever job opportunities maquiladoras might offer.

The claim that the BIP has failed to solve border employment problems is therefore correct, but for the wrong reasons. The maquiladora program has not eroded men's employment situation relative to women. On the contrary, the program has not alleviated joblessness among members of either sex. Although unemployment is more pronounced for women, it continues to be a problem for both sexes.

Discussion

Marxist-feminist theory illuminates the links between women's employment and unemployment patterns and their work in the maquiladoras. Marx maintained that in each historical period the labor process--the relationship between the worker, his/her tools, and the object of labor--reflects the development of the forces and social relations of production. Assembly processing typifies the machine dominated period of "modern industry" in which the worker becomes an extension of the machine, reducing all laborers to the same low level of skill (Beechey, 1978:181). Although specialization no longer provides a basis for the division of labor, argued Marx, age and sex differences remain through "traditional habit" to intensify exploitation by fostering competition (Marx, 1967:420). The sexual division of labor and the patriarchal ideology that buttresses it relegate women to a secondary status in the modern industrial labor force (Eisenstein, 1979). Sex-role socialization that lowers women's aspirations and discriminatory treatment throughout the educational and occupational cycle tend to segregate women within low paying, deskilled, marginal occupations (Benston, 1969). By relying upon the labor of young, unskilled women, and by encouraging competition among them and between them and other sectors of the labor force, modern industry maintains a docile work force and holds wages to a minimum (Beechey, 1978:181-183).

Integral to this arrangement is the industrial reserve army, a pool of surplus labor to be drawn upon when necessary to meet the system's labor needs. During periods of capitalist expansion, members of this reserve can be quickly incorporated into the production process in a manner that maintains current wage rates and production levels. When recessionary periods contract capital's labor requirements, the industrial reserve reabsorbs those expelled from the labor force. Marx contrasted three forms of the industrial reserve. The "floating reserve" consists of workers in the center of capitalist production who pass from job to job as mechanization and technological change eliminate some occupations and create others. The "latent reserve" includes workers squeezed out of the rural areas as agriculture is mechanized and land ownership is increasingly concentrated. The "stagnant reserve" comprises irregularly employed, marginal workers living on the brink of poverty (Braverman, 1974:386-390).

Women are in a particularly vulnerable position within the industrial reserve army. Taught to view themselves primarily as wives and mothers, their ambivalence about their roles as "wage-workers" makes them willing to enter and to leave the labor force according to the system's requirements (Saffioti, 1975:83). Such flux is possible because the household and family sphere is flexible enough to release women when the expanding economy demands their extra-domestic labor, and to absorb them when economic contractions make their labor superfluous. While women are found in all three branches of the labor reserve, they tend to occupy the lowest levels of the floating sector and to swell the ranks of the stagnant sector (Beechey, 1978:190). Their substantial unemployment leads to an intense competition for the jobs available to them, thus providing a ready supply of female laborers willing to work for low wages.

These considerations help explain women's participation in the maquiladora workforce. The penetration of capital into the Mexican countryside has created a large, latent labor reserve, forcing many to migrate to cities in search of employment. The region's proximity to the United States and the success of some border residents in legally or illegally securing jobs across the border has made northern cities particularly attractive destinations for rural migrants. Further, the northern Mexican population enjoys a higher standard of living than people in other parts of Mexico. Yet the inability of the border zone economy to provide enough jobs for the rapidly-expanding population has produced a large, surplus labor pool. Because immigration quotas have restricted the flow of Mexican workers toward the centers of capitalist expansion within the United States, U.S. companies wishing to utilize their labor have been forced to relocate to Mexico. The incentives offered through the BIP have increased northern Mexico's attractiveness relative to the Caribbean or the Far East, where capitalist accumulation has also created large latent labor reserves.

Given the nature of assembly processing and the composition of northern Mexico's industrial reserve army, it is not surprising that women constitute the bulk of the maquiladora labor force. While men may find their way at least temporarily into the labor reserve, women are especially likely to fill its ranks. The fact that open unemployment rates among border women are often twice as high as those of men reflects this phenomenon. The monotony and pressure of most assembly operations make this expression of "modern industry" unappealing to workers with other alternatives. Yet because patriarchal definitions of "appropriate" roles for women tend to exclude them from many occupations, and because few women have the necessary training for "better" female jobs such as nursing or teaching, many women's employment options are highly limited.

Over three-fourths of the economically active women in the border region are unmarried; most of these women work out of financial necessity. For the woman who must support herself, her children, and other family members, maquiladora employment is preferable to domestic service or prostitution, which may be her only other options. Maquiladora management can therefore

nand pick their work force, turning away some twenty applicants for every worker hired (NACLA, 1979:134). Such intense competition for assenbly plant jobs keeps wages low and workers docile. Further, feminine socialization tends to increase women's submissiveness to (ofter patriarchal) management[10] and to lessen their propensity to organize as women or as workers.[11] Thus women form a tractable labor force for United States-based multinationals.

Because the BIP assembly plants are extensions or subsidiaries of United States companies, they are vulnerable to the cyclical fluctuations of advanced capitalist economies. The 1974-75 recession, for example, led many firms in northern Mexico to curtail or to discontinue their operations, laying off over one-third of the maquiladora workforce. Yet within three years, the number of BIP firms and the size of their labor force had risen to their pre-recession levels (Pena, 1980a:12). The industrial reserve army expanded and contracted to take up the slack created by these economic cycles. While no studies have documented the survival strategies of those thrown out of work, it is likely that many returned to full-time domestic service in their own or others' households, or engaged in other income-generating activities in the "informal" sector (see Arizpe, 1977). The flexibility and absorptive capacity of the domestic sphere and the duality and ambivalence of women's roles may have lessened the trauma arising from such massive upheavals in the labor market.

This theoretical framework illuminates the links between the maquiladoras and aspects of the labor process such as unemployment, women's labor force participation, and migration. Opponents of the maquiladora program argue that it augments unemployment by attracting migrants to the region. They claim that maquiladoras cannot resolve the region's employment problems because they predominantly hire women. Both claims reveal a misunderstanding of the dynamics of capital accumulation and the creation and the function of the industrial reserve army. The border region suffered widespread unemployment before the maquiladora program was established. This joblessness to a large extent reflects the capital accumulation process that has forced the rural population off the land and into the latent reserve army. Many have migrated to border cities in hopes of securing waged employment in the urban economy or in the United States. The existence of a surplus labor pool in the border region led to the BIP and the spread of assembly plants. To put the matter simply, it is not that the existence of maquiladoras caused unemployment in the region, but rather that the presence of large masses of unemployed workers led to the proliferation of maquiladoras. Similarly, those advancing the traditional argument miss the boat by viewing the region's continued unemployment problems as merely reflecting the maquiladoras' preference for women workers. Rather, the large untapped female labor reserve which makes women especially attractive as maquiladora workers is a cause, not a consequence, of the proliferation of assembly plants.

These considerations help explain why most maquiladora workers are recruited from the younger sector of the female reserve. On the one hand, youthful women constitute the largest proportion of the industrial reserve army. Not only do they have the highest unemployment rates of all age-sex categories in the region, but they are most likely to enter the migration stream that continually replenishes the labor reserve. The excess of young female labor relative to their opportunities for paid employment creates a pool of potential maquiladora workers with few job alternatives. Those who "win" the resulting competition for assembly plant jobs are often willing to perform repetitive, deskilled tasks for minimum wages, and may be reluctant to jeopardize their jobs by engaging in worker-management conflicts. Young women's vulnerable position within the female reserve thus makes them ideal workers from management's point of view.

On the other hand, the preferential hiring of younger women reflects the widespread notion that single, childless women make better workers than married mothers. The patriarchal ideology underlying this view consists of several related stereotypes. Most women past their mid-twenties are assumed to be involved in stable marital unions. Those who work outside the home presumably do so merely to supplement the primary breadwinner's salary. Since, it is assumed, a woman's primary commitment is to her home and family, and because a husband expects his wife's devotion to housework and child rearing, women usually quit their jobs as their children are born and their domestic responsibilities grow. Mothers who remain in the labor force are expected to have conflicts between their domestic and extra-domestic roles that make them unreliable workers. Further, many fear that widespread participation of married mothers in the labor force would erode the traditional family, the very foundation of Mexican society. Subscription to these stereotypes makes maquiladora management reluctant to hire any but young, unmarried women.[12]

Critics and proponents of the BIP have heatedly debated the consequences of the maquiladora program for the young women hired, for the frontier family, and for the border region communities generally. Many of their often contradictory claims have yet to be empirically verified. Clearly the situation is more complex than either side is willing to admit. A host of intervening factors such as the type of product, the nature of the parent company, the history of previous labor-management conflicts, and the age and location of the firm influence the effects of maquiladora employent, making wholesale generalizations impossible. While detailed analysis of these and other variables is beyond the scope of this discussion, the foregoing theoretical considerations suggest hypotheses for future research.

Maquiladora employment may offer certain advantages for young women, given the scarcity of alternative opportunities in Northern cities. Assembly work is preferable to domestic service, petty trade, or prostitution, which may be the only other options available to working-class women. Nevertheless, since many maquiladora jobs--particularly those in the electronics industry--require a secondary education, they tend to exclude a

substantial proportion of the female labor force. Those who have the educational qualifications for such positions may have been able to find more rewarding service sector jobs.

Those women who join the maquiladora workforce may find their work situation unrewarding. The heavy competition for these positions tends to drive wages down to the federally-mandated minimum which is barely sufficient for subsistence. Assembly jobs are unlikely routes to upward mobility either within the same factory or into other better paying industrial occupations. The repetitive tasks involved in assembly processing are unlikely to impart skills useful for other types of employment. Even if maquiladora workers did acquire useful training, they would have trouble obtaining skilled or semi-skilled jobs in heavier industries, for these tend to be reserved for men. Further, it is possible, as some critics maintain, that some multinational companies employ out-of-date production methods and machinery in their off-shore plants (Fernandez, 1977:144).

Nor is it likely that maquiladora employment provides much job security. As the contraction of the maquiladora industries in 1974-75 demonstrates, the assembly plants' ties to parent companies make them vulnerable to economic recessions in the United States and elsewhere. The periodic need to curtail or to halt production may lead maquiladoras to temporarily or permanently lay off large sectors of their workforce. Furthermore, some maquiladoras have earned the epithet "runaway shops" by transferring their operations to new sites in pursuit of cheaper labor. When, for example, increasing labor unrest led the Mextel firm to flee Mexicali for the Orient, 3,000 workers lost their jobs (NACLA, 1979:138). Yet even those maquiladoras that become stable members of the industrial community and are able to maintain steady production levels do not provide long-term job security for their workers (Fernandez-Kelly, 1983:38). Since many tasks involve working with caustic chemicals and/or peering through microscopes, many workers develop health or vision problems that force them to quit their jobs (Grossman, 1979). The high turnover rate among maquiladora workers (Carillo, 1980; Hernandez, 1980) and the fact that most maquiladora workers are younger than 25 years of age (Woog, 1980; Pena, 1982b:15) suggest the insecurity of assembly processing.

Many claim that maquiladoras contribute to familial instability by encouraging lifestyles and values antithetical to feminine roles. This traditionalist argument implies that maquiladora employment affords a stable economic alternative to marriage and childrearing. Perhaps the most unsatisfying aspect of this argument is its stereotypical equation of "family" with traditional marriage and its resulting neglect of the female-headed household. Yet it is dubious, even when applied to conventional unions, for maquiladora jobs are unlikely means to a stable lifetime career. Further, the typical minimum-wage maquiladora salary, eroded through peso devaluation and inflation, does not provide economic well-being and independence. One could just as plausibly argue that by

excluding or removing all but young women from their labor force, maquiladoras solidify traditional family bonds by limiting the mature woman's economic alternatives to financial dependence upon a husband.

So few studies exist on the subject that it is difficult to generalize about lifestyle and attitude changes among maquiladora workers.[13] Nor can one predict with any certainty how resulting value changes would affect their domestic role performance. On the one hand, workers in the hierarchically-organized maquiladora perform minutely regulated tasks under the watchful eye of a (typically male) supervisor. These conditions could generate a submissive attitude toward authority at the workplace that could carry over into the domestic sphere. On the other hand, the maquiladora could provide a politicizing context within which workers could communicate their collective grievances and develop the solidarity necessary for feminist and/or working-class consciousness and militancy (Pena, 1982a: passim). Whether such politicization would interfere with a partnered woman's familial loyalty probably depends on her mate's level of political consciousness. While it could lead her to rebel against the domination of an authoritarian partner, it could also generate mutual working-class solidarity across gender lines that would contribute to a more egalitarian relationship.

Some counter the traditionalist argument by claiming that maquiladoras reinforce the stability of the family unit. Advocates of this view maintain that by affording jobs and wages to female household members, maquiladoras provide the additional income often essential to the family's financial well-being. They hold that local maquiladora employment reinforces intergenerational family bonds by enabling young, single women to remain home rather than migrating to secure waged work. Yet this assumption of wage adequacy and job stability exaggerates the beneficial effect of maquiladora employment on the family's financial situation. Not only would the female household head have difficulty supporting her family on a maquiladora worker's minimum wages, but she might find herself laid off sporadically in her younger years and permanently as she approached middle age. For similar reasons, partnered women could not depend upon maquiladora employment as a long-term income source. Thus, to the extent that the maquiladoras' preference for a younger workforce eventually would mean unemployment for the middle-aged woman, it would spell financial insecurity for the female-headed or low-income nuclear family.

Saffioti (1975) argues that when economic contractions release workers into the reserve labor force, it is the family that must cushion the blow of unemployment by economically sustaining the jobless worker. The thrust of her argument is that the existence of the family is an important if not essential precondition for the efficient functioning of the reserve Army of Labor. Yet one could just as easily focus on the effect of massive fluctuations of the industrial labor army on family well-being. Although the family might be able to at least temporarily sustain the jobless worker, the resulting drain on its resources might erode family bonds. Applying this argument to the present discussion, the unemployment resulting from

plant relocations or recession-born contractions of the maquiladora labor force could strain the frontier family's economic resources, thereby impairing its functioning. Thus, because of the inherent economic instability in the maquiladora program, the goal of familial economic stability may be unrealistic.

The consequence of the BIP for the frontier community as a whole are similarly less beneficial than proponents of the program would have it. As demonstrated earlier in this discussion, the maquiladora program has not exacerbated male unemployment either absolutely, or relative to female joblessness. Neither has it resolved the employment problems plaguing women in the border region. The maquiladora program has offered young women with schooling of the primary or secondary level an occupational alternative to domestic service, petty trade, or prostitution. Despite the presence of maquiladoras, however, young women continue to have the highest open unemployment rate of all of the frontier labor force.

Considering the maquiladoras within the context of the social and economic arrangements of which they are a part, we begin to understand why female unemployment persists despite the establishment of the BIP. As was previously demonstrated, the existence of a large pool of surplus female labor is the factor attracting maquiladoras to northern Mexico. Female unemployment engenders maquiladoras by ensuring a steady supply of labor and creating a competitive situation that holds wages to a minimum. An equilibrium is maintained between the level of unemployment and the amount of maquiladora investment. If the BIP and its labor force were to grow so rapidly as to substantially reduce the pool of surplus female labor, this would eliminate the major incentive attracting maquiladoras to the border zone. Multinational companies would look to other regions with larger labor surpluses as sites for new off-shore plants, building few new maquiladoras in northern Mexico. Some established maquiladoras would transfer their operations to other locations in pursuit of more abundant low wage labor. The resulting decline in maquiladora investment would limit the creation of new maquiladora jobs while eliminating some existing ones. Yet at the same time that the maquiladora workforce was failing to expand or contracting, the steady stream of women migrants to the border region would continue to augment the female labor reserve. These trends would cause female unemployment to rise up to or above its original level. Thus while the growth of the maquiladora program might temporarily decrease female joblessness, such reductions would not be long lasting. By eliminating the essential condition for further maquiladora investment, substantial long-term reductions of the female labor reserve would ultimately bring the demise of the maquiladora program. Ironically, a requirement for the maintenance of the maquiladora program is the very condition which the program was implemented to eliminate.

It was previously argued that young women's disproportionate representation in the northern Mexican labor reserve reflects the patriarchal social relations that assign women to subordinate positions in the labor market. Maquiladoras benefit from this arrangement, for it

ensures them an abundant supply of low wage labor. Yet they also reinforce these relationships through selective hiring practices that exclude all but young women from their workforce. The fact that maquiladora jobs are predominantly offered to women, while positions in heavier industry are reserved for men, perpetuates the sex segregation of the northern Mexican urban labor market. Discriminatory hiring practices confine women to the most poorly remunerated, insecure, deskilled jobs in manufacturing; they also reinforce a patriarchal ideology and system of relationships that restrict women's entrance into "better," tertiary sector jobs. By excluding women from all but those occupations deemed "appropriate" to their sex, gender segregation both limits the range of employment alternatives open to women, and reduces their incentives to train for better paying, skilled occupations. The result is a vicious circle in which women have neither the opportunity nor the qualifications to fill a substantial percentage of the jobs available in their society. By restricting the economy's demand for female labor and limiting the supply of women qualified for many jobs, sex segregation ultimately increases female unemployment. In this way, maquiladoras not only fail to resolve women's employment problems, but actively contribute to them.

Sex segregation of the frontier labor market augments the female reserve, and erodes the working conditions of those able to secure maquiladora employment. By restricing the range of employment opportunities, sex segregation forces workers to compete for the remaining available positions. The overabundance of workers relative to the number of jobs places workers at a disadvantage vis-a-vis management: those who fail to comply with terms legislated by management are easily replaced. Workers have little choice but to work for low wages under less than optimal conditions. Many are unwilling to participate in strikes, work stoppages, or other protest activities that could jeopardize their jobs. As a result, maquiladora workers typically have neither the organizational strength nor the bargaining power to improve their working conditions. The lack of strong and effective unions among the maquiladora workforce is not so much a result of Mexican women's "inherent conservatism," as some have argued[14], as a reflection of their structural vulnerability in the labor market.

The maquiladoras' preferential hiring of women reinforces patriarchal ideologies that maintain women's inferior position in the labor market. The resulting segregation of the industrial workforce strengthens sex role stereotypes about women's work aptitudes. The virtual absence of men from all but supervisory positions contributes to the common image that only women possess the inherent qualities necessary for assembly processing. It is widely believed that the manual dexterity and patience that "naturally" suit women to minute, repetitive, and boring tasks are integral aspects of women's "essential" nature. The fact that the maquiladora workforce consists primarily of women is offered as proof of the stereotype's accuracy. The absence of women from skilled occupations in heavy industry is taken as evidence that women are not suited for this type of work. Few note the circularity of the argument; such stereotypes are held with an emotional ferver typically immune to logical reasoning. This stereotype

becomes a rationalization for maintaining the sex segregation of the industrial work force and confining women to deskilled maquiladora jobs. The long-term consequences of these sex role stereotypes are especially damaging to women. They reinforce a patriarchal ideology stressing inherent differences between the sexes that perpetuates women's subordinate position in society.

The labor market segregation that confines women to low paying deskilled jobs in maquiladoras and elsewhere has even more far-reaching effects: it ultimately retards the socioeconomic development of the border region. By preventing a majority of the female population from developing and applying skills and talents, such segregation entails a large-scale waste of human resources. Certainly work in the maquiladora sector is a more constructive use of women's labor than prostitution, domestic service, or unemployment. Yet exclusive reliance on the BIP to generate employment has reduced public and private sector initiatives to design and to institute alternative programs that could better utilize women's skills.

At the same time, the uniformly low wages paid to maquiladora workers have limited the amount of dollars injected into the economy. When a considerable proportion of the population earns a bare bones wage, the ability of the consuming public to purchase goods and services is thereby limited. Such restricted markets cannot sustain more than a minimal level of local production and ultimately curtail the economic growth of the community.

To summarize, the role of the BIP in the Mexican north can only be understood in relation to the social and economic arrangements of which it has become an integral part. The composition of the maquiladora labor force and the effects of the program on women workers and their families, the female population generally, and the border region as a whole reflect these social relations. Without a fundamental and widespread transformation of the patriarchal system that disadvantages women within the Mexican labor market, the maquiladora program cannot be more than a partial, stop-gap solution to the frontier's unemployment problems. Yet it is unlikely that those responsible for the program would support such changes, for they have a stake in the existing system: the patriarchal social relations that create the female labor reserve ensure a reliable supply of low wage labor for the assembly plants. In fact, the maquiladora program itself reinforces the current status quo by deepening the sex segregation of the labor market and by perpetuating the patriarchal ideologies and stereotypes that reflect and reinforce the existing social structure.

It is possible that in the long run, the maquiladora program may inadvertently transform the current arrangements. Assembly processing brings workers together under one roof, permitting the face-to-face interaction essential for developing a sense of solidarity and mutual identification as women and as workers. The unfulfilling nature of assembly work could generate the discontent that underlies political activism. As a means to a feminist working-class consciousness, then, assembly processing

is clearly superior to the isolation of domestic service, petty trade, or prostitution. Such an outcome presupposes a cohesive, politicized workers' organization to channel individual discontent into purposeful collective action. If maquiladora workers are able, despite their economic marginality and structural vulnerability, to organize and politicize themselves, they may be able to press for social changes of benefit not only to them, but to Mexican women everywhere.

NOTES

1. This paper was originally prepared for the 23rd Annual Meeting of the International Studies Association, Cincinnati, Ohio, March 1982. I wish to thank Peter Evans and David Maciel for their insightful comments on earlier versions.

2. According to Pena (1981:31), inflation and peso devaluation caused the real wages of BIP workers to decline during the 1974-79 period.

3. Maquiladora workers have been estimated to be 25-40 percent more productive than United States workers. One explanation for this high productivity is that the number of supervisors per worker is two to three times larger than is typical in the United States (NACLA, 1979:134).

4. Foreign-owned plants must be located within a 12.5 mile strip along the U.S.-Mexico border; must export 100 percent of the finished product out of Mexico; and must employ predominantly (90 percent) Mexican citizens (Fernandez, 1977:135).

5. The 30 percent hike in consumer prices during the first half of 1982 equalled the rise for the entire previous year (Weintraub, 1982:18). Nor does the upward spiral show signs of abating in the near future, leading economists to project a 75 to 100 percent inflationary rate for the next several years (Camp, 1982:23).

6. Mexico's foreign debt surged from $1.6 billion in 1977 to $11.7 billion in 1981 (Blair, 1982:21).

7. The general and occupational censuses do not present separate data for the 12.5 mile strip paralleling the United States-Mexican border which is the primary site for the BIP. The general census disaggregates data by state, while the occupational census offers data for groups of states. The border states containing the frontier municipalities include: Baja California Norte, Coahuila, Chihuahua, Nuevo Leon, Sonora, and Tamalipas. Tables 4, 5 and 6, which are based on the 1970 national census, contain data for these six states. The occupational census employs three regional categories relevant to the present analysis: (1) "Northern," comprising the states of Chihuahua and Durango; (2) "Northeastern," including Tamalipas, Nuevo Leon, and Coahuila; and (3) "Northwestern,' containing Baja California Norte, Baja California Sur, Sonora, Sinaloa, and Nayarit. Tables 1 and 3 employ this classification. Admittedly, these categories are less than ideal for purposes of the present discussion, for they include territory external to the border region. A more precise analysis limited to the frontier municipalities awaits further research.

8. Evidence from the United States demonstrates that the "discouraged worker" effect is more pronounced among women than men.

9. Migration could contribute to male unemployment even though the majority of migrants are not men. If men and women are equally represented in the migration stream, but maquiladoras hire mostly women, migration could augment male joblessness.

10. For a description of ways multinationals play upon Third World women's sex-role socialization to ensure conformity to company procedures, see Rachel Grossman (1979:2-16).

11. Devon Pena warns against the narrow view of female workers as a passive, manipulated labor force. Rather, under some conditions women are capable of intensely resisting capitalist domination both as individuals and as members of cohesive informal networks (Pena, 1981:23; 1982b:26-27).

12. These stereotypes have considerable resiliancy despite much evidence to the contrary. It is a myth that most women past their twenties are married to men able to support them economically. Instead, about one-third of the households in Mexico, as in most of the world, are headed by single women (ICRW, 1980). Further, many women have spouses whose wages are insufficient for family support. This helps explain why, as the data in Table 4 demonstrate, some 30 percent of economically active women are either married or in free unions. The notion that women with children do not participate in the labor force is also false. On the contrary, the average economically active woman has two children (IX Censo de Poblacion, Cuadro 31).

13. In her study of maquiladora workers in Cuidad Juarez, Fernandez-Kelly (1980:17) found that the attitudes and values of the women interviewed conformed closely to those prescribed by traditional definitions of femininity. There was little evidence of working-class or feminist consciousness or solidarity.

14. Anna Macias (1982) summarizes these arguments and criticizes them by chronicling the evolution of the Mexican feminist movement.

Table 1. Labor Force Participation by Age and Sex, for Republic of Mexico and Northern, Northwestern, and Northeastern Regions, 1979.

		Total	12-19	20-24	25-34	35-44	44-54	55-64	65+
National									
	#	19,839,222	3,390,612	3,120,226	4,772,140	3,704,271	2,529,468	1,440,234	861,310
	rate	45.5	25.3	56.8	59.5	59.0	55.3	49.4	29.7
Men	#	14,976,232	2,358,533	2,162,013	3,612,320	2,900,574	2,019,930	1,192,144	716,408
	rate	71.3	35.4	82.5	95.9	96.7	93.4	85.1	53.2
Women	#	4,862,990	1,032,079	958,213	1,159,820	803,697	509,538	248,090	144,902
	rate	21.5	15.4	33.4	27.3	24.5	21.1	16.3	9.3
Northern									
	#	918,007	141,473	161,727	215,339	192,922	115,590	61,943	28,307
	rate	41.24	19.55	56.48	57.76	56.30	51.01	44.58	21.52
Men	#	670,775	91,421	102,813	152,771	152,243	91,409	54,638	24,774
	rate	64.25	25.53	78.05	93.34	94.27	87.28	83.92	43.14
Women	#	247,232	50,052	58,914	62,568	40,679	24,181	7,305	3,533
	rate	20.92	13.70	38.10	29.92	22.46	19.84	9.89	4.77
Northeastern									
	#	1,721,544	283,527	272,028	408,561	336,611	214,661	125,032	79,201
	rate	43.66	24.05	56.40	58.05	57.63	50.31	46.58	26.90
Men	#	1,333,033	166,142	190,306	321,881	273,771	180,452	106,729	72,176
	rate	70.09	32.04	78.93	96.85	97.52	94.17	78.71	52.57
Women	#	388,511	97,385	81,722	86,680	62,840	34,209	18,303	7,025
	rate	19.03	16.29	33.88	23.34	20.72	14.55	13.78	4.47
Northwestern									
	#	1,566,264	237,658	252,136	384,044	309,253	200,136	117,545	63,119
	rate	41.74	20.11	57.30	55.44	56.55	51.61	46.46	26.81
Men	#	1,258,994	160,915	175,338	306,242	269,887	179,252	107,321	58,083
	rate	68.40	26.94	84.34	95.17	97.09	93.78	83.91	52.16
Women	#	307,270	76,743	76,798	77,802	39,366	20,884	10,224	5,036
	rate	16.07	13.13	33.08	20.97	14.53	10.62	8.17	4.06

Source: Encuestra Continua Sobre Ocupacion, Secretaria de Programacion y Presupuesto (SPP), Coordinacion General del Sistema Nacional de Informacion, Serie 1, Vol. 7, Trimestre 1, 1979, Mexico, Febrero, 1980.

Table 2. Marital Status of Economically Active Women in Frontier States and Republic of Mexico, 1970

Place	Total Ec. Active	Married	Free Union	Widowed, Divorced, Separated	Single
Mexico (Estados Unidos Mexicanos)	2,466,257	587,092	151,544	392,530	1,335,091
	100%	23.80%	6.14	15.92	54.13
Baja California	48,693	11,826	3,266	7,015	26,586
	100%	24.29%	6.71	14.41	54.60
Coahuila	47,081	9,705	1,681	6,675	29,020
	100%	20.61%	3.57	14.18	61.64
Chihuahua	73,708	16,664	4,323	11,550	41,171
	100%	22.61%	5.87	15.67	55.86
Nuevo Leon	107,195	17,785	2,605	11,462	75,343
	100%	16.59%	2.43	10.69	70.29
Sonora	50,549	9,536	3,278	6,632	31,103
	100%	18.86%	6.48	13.12	61.53
Tamalipas	69,349	14,006	4,267	10,452	40,624
	100%	20.20%	6.15	15.07	58.58

Source: IX Censo de poblacion

Table 3. Levels and Rates of Open Unemployment by Age and Sex, for Republic of Mexico and Northern, Northwestern, and Northeastern Regions, 1979.

		Total	12-19	20-24	25-34	35-44	44-54	55-64	65+
National									
	#	662,635	266,516	162,360	117,589	57,745	33,766	17,382	6,297
	rate	3.34	7.86	5.49	2.53	1.58	1.33	1.22	.74
Men	#	418,136	153,606	100,853	78,052	40,018	24,491	14,815	5,321
	rate	2.79	6.51	4.67	2.16	1.38	1.21	1.24	.74
Women	#	244,499	112,910	61,507	39,537	17,727	9,275	2,567	976
	rate	5.03	10.94	6.42	3.41	2.21	1.82	1.04	.67
Northern									
	#	34,819	13,592	8,396	4,952	3,342	2,887	1,267	383
	rate	3.79	9.61	5.19	2.30	1.73	2.50	2.05	1.35
Men	#	23,475	7,556	5,836	3,958	2,028	2,445	1,267	383
	rate	3.50	8.27	5.68	2.59	1.33	2.67	2.32	1.55
Women	#	11,344	6,036	2,558	994	1,314	442	---	---
	rate	4.59	12.06	4.34	1.59	3.23	1.83	---	---
Northeastern									
	#	66,724	28,598	13,491	11,564	7,116	3,449	1,723	783
	rate	3.88	10.09	4.96	2.83	2.11	1.61	1.38	.99
Men	#	41,541	17,047	6,288	7,654	4,597	3,449	1,723	783
	rate	3.12	9.16	3.30	2.38	1.68	1.91	1.61	1.08
Women	#	25,187	11,551	7,203	3,910	2,519	---	---	---
	rate	6.48	11.86	8.81	4.51	4.01	---	---	---
Northwestern									
	#	39,636	14,801	7,402	8,186	4,189	2,443	1,662	953
	rate	2.53	6.23	2.94	2.13	1.35	1.22	1.41	1.51
Men	#	30,883	11,918	6,211	5,734	3,211	1,683	1,173	953
	rate	2.45	7.41	3.54	1.87	1.19	.94	1.09	1.64
Women	#	8,753	2,883	1,191	2,452	978	760	489	---
	rate	2.85	3.76	1.55	3.15	2.48	3.64	4.78	---

Source: Encuestra Continua Sobre Ocupacion, Secretaria de Programacion y Presupuesta (SPP), Cordinacion General del Sistema Nacional de Informacion, Serie 1, Vol. 7, Trimestre 1, 1979, Mexico, Febrero, 1980.

Table 4. Population Who Have Changed Their Place of Residence, by Age and Sex, for Republic of Mexico and Frontier States, 1970.

Place	Total	Less Than 9	10-19	20-29	30-39	40-49	50-59	60+
Mexico	7,406,390	949,160	1,439,440	1,585,174	1,258,222	921,485	585,400	667,509
Men	3,572,268	477,787	675,083	749,684	618,456	458,609	285,049	307,600
% of total # male migrants		13.37	18.90	20.99	17.31	12.84	7.98	8.61
Women	3,834,122	471,373	764,357	835,490	639,766	462,876	300,351	359,909
% of total # female migrants		12.29	19.94	21.79	16.69	12.07	7.83	9.39
Baja Calif.	361,847	41,405	71,575	77,389	65,813	49,679	29,285	26,758
Men	179,092	20,605	34,390	35,912	32,963	26,651	15,291	13,280
% of total # male migrants		11.51	19.20	20.05	18.41	14.88	8.54	7.42
Women	182,755	20,800	37,185	41,477	32,850	23,028	13,937	13,478
% of total # female migrants		11.38	20.35	22.70	17.97	12.60	7.63	7.37
Coahuila	148,588	17,475	24,713	25,953	24,107	19,372	14,923	22,045
Men	71,933	8,798	11,990	11,929	11,512	9,461	7,262	10,981
% of total # male migrants		12.23	16.67	16.58	16.00	13.15	10.10	15.27
Women	76,655	8,677	12,723	14,024	12,595	9,911	7,661	11,604
% of total # female migrants		11.32	16.60	18.29	16.43	12.93	9.99	14.43

Table 4. (Continued)

Place	Total	Less Than 9	10-19	20-29	30-39	40-49	50-59	60+
Chihuahua	188,344	21,346	35,298	36,514	31,129	25,053	17,546	21,458
Men	92,792	10,762	17,342	17,157	15,203	12,798	8,890	10,640
% of total # male migrants		11.60	18.69	18.49	16.38	13.79	9.58	11.47
Women	95,552	10,584	17,956	19,357	15,926	12,255	8,656	10,818
% of total # female migrants		11.08	18.79	20.26	16.67	12.83	9.06	11.32
Nuevo Leon	424,083	46,897	86,894	98,218	73,014	51,848	31,805	35,407
Men	206,867	23,791	41,437	47,694	36,598	25,597	15,126	16,624
% of total # male migrants		11.50	20.03	23.06	17.69	12.37	7.31	8.36
Women	217,216	23,106	45,457	50,524	36,416	26,251	16,679	18,783
% of total # female migrants		10.64	20.93	23.26	16.76	12.09	7.68	8.65
Sonora	171,798	17,897	32,095	36,436	31,691	23,927	14,819	14,933
Men	89,168	9,127	15,729	17,693	17,073	13,460	8,197	7,889
% of total # male migrants		10.24	17.64	19.84	19.15	15.10	9.19	8.85
Women	82,630	8,770	16,366	18,743	14,618	10,467	6,622	7,044
% of total # female migrants		10.61	19.81	22.68	17.69	12.67	8.01	8.52

Table 4. (Continued)

Place	Total	Less Than 9	10-19	20-29	30-39	40-49	50-59	60+
Tamalipas	343,859	34,318	56,576	68,851	64,112	48,075	32,558	39,369
Men	168,749	17,349	26,917	31,500	31,420	24,504	16,774	20,285
% of total # male migrants		10.28	15.95	18.67	18.62	14.52	9.94	12.02
Women	175,110	16,969	29,659	37,351	32,692	23,571	15,784	19,084
% of total # female migrants		9.69	16.94	21.33	18.67	13.46	9.01	10.90

Source: IX Censo de Poblacion

REFERENCES

Adams, Milton.
1976 "Industrially Speaking." Saludos 3(17).

Arizpe, Lourdes.
1977 "Women in the Informal Labor Sector: The Case of Mexico City." In Wellesley Editorial Committee (eds.) Women and National Development: The Complexities of Change. Chicago: University of Chicago Press, 1977, pp. 25-37.

Beechey, Veronica.
1978. "Women and Production: A Critical Analysis of Some Sociological Theories of Women's Work." In Annette Kuhn and AnnMarie Wolpe (eds.) Feminism and Materialism. London: Routledge and Kegan Paul.

Benston, Margaret.
1969 "The Political Economy of Women's Liberation." Monthly Review 21(4):13-27.

Blair, Calvin.
1982 "Industrial Policy, Subsidies, and Income Distribution in Mexico." El Foro Mexicano (December):19-22.

Bolin, Richard.
1971 "Border Industries: A Rebuttal." Mexican American Review 39(3).

Bonifaz, Alma Chapoy.
1975 "Empresas Maquiladoras." In Empresas Multinacionales. Mexico, D.F.: Ediciones "El Caballito."

Boserup, Ester.
1970 Woman's Role in Economic Development. New York: St. Martin's Press.

Braverman, Harry.
1974 Labor and Monopoly Capital. New York: Monthly Review Press.

Bustamonte, Jorge.
1975 "Maquiladoras: A New Face of International Capitalism on Mexico's Northern Frontier." Paper presented at the Sixth National Meeting of the Latin American Studies Association, Atlanta, GA, March 23-24.

Camarena, P.
1970 "The Runaways: Multinational Companies on the Mexican Border." The American Federationist (November).

Camp, Roderic.
1982 "Technocracy, Representation, and Criticism: Mexico in the Next Six Year." El Foro Mexicano (December):23-25.

Carrillo, Jorge.
1980 "La utilizacion de la mano de obra feminina en la industria maquiladora: el caso de Ciudad Juarez." Preliminary research report, El Colegio de Mexico, Programa de Estudios de la Frontera y los Estados Unidos. Mexico, D.F.: El Colegio de Mexico.

Chinchilla, Norma.
1977 "Industrialization, Monopoly Capitalism, and Women's Work in Guatemala." In Wellesley Editorial Committee (eds.) Women and National Development: The Complexities of Change. Chicago: The University of Chicago Press, pp. 244-260.

De La Rosa Hickerson, Gustavo.
1979 "La contratacion colectiva en las maquiladoras." Professional Thesis in Law, Escuela de Derecho, Universidad Autonoma de Ciudad Juarez.

de Miranda, Glaura Vasquez.
1977 "Women's Labor Force Participation in a Developing Society: The Case of Brazil." In Wellesley Editorial Committee (eds.) Women and National Development: The Complexities of Change. Chicago: University of Chicago Press, pp. 261-274.

Eisenstein, Zillah.
1979 "Developing a Theory of Capitalist Patriarchy and Socialist Feminism." In Zillah Eisenstein (ed.) Capitalist Patriarchy and the Case for Socialist Feminism. New York: Monthly Review Press, pp. 5-40.

Escamilla, Norma and Maria Antonieta Vigorito.
1977 "Consideraciones sociologicas del trabajo feminino en las maquiladoras fronterizas." Research report, Escuela de Ciencias Sociales y Politicas, Universidad Autonoma de Baja California, Mexicali, Baja California Norte.

Fernandez, Raul.
1977 The United States-Mexican Border: A Politico-Economic Profile. Notre Dame: University of Notre Dame Press.

Fernandez-Kelly, Maria Patricia.
1978 "Mexican Border Industrialization, Female Labor Force Participation, and Migration." Paper presented at the Annual Meetings of the American Sociological Association, San Francisco, CA. September.

1979a "Las maquiladoras y las mujeres, I." Los Universitarios, #139-140, March.

1979b "Las maquiladoras y las mujeres, II." Los Universitarios, #141-142, April.

1980 "The 'Maquila' Women." In Patricia Flynn, et al. (eds.) Latin American Women: One Myth--Many Realities. New York: NACLA, pp. 14-20.

1983 For We are Sold, I and My People: Women and Industry in Mexico's Frontier. Albany: State University of New York Press.

Grossman, Rachael.
1979 "Women's Place in the Integrated Circuit." Southeast Asia Chronicle, (66):2-17.

Hernandez, Alberto.
1980 "Politico y practica laboral en la industria maquiladora: el caso de Ciudad Juarez." Unpublished research report, Programa de Estudios de la Frontera y los Estados Unidos. El Colegio de Mexico, Mexico, D.F.

International Center for Research on Women.
1980 "Keeping Women Out: A Structural Analysis of Women's Employment in Developing Countries." Prepared for the Office of Women in Development, U.S. Agency for International Development, April.

Konig, Wolfgang.
1975 "La economia de la subcontratacion internacional," Foro Internacional 16(2).

Lopez, David.
1969 "Low-Wage Lures South of the Border." The American Federationist (June).

Macias, Anna.
1982 Against All Odds: The Feminist Movement in Mexico to 1940. Westport, CT: Greenwood Press.

Martinez, Oscar.
1977 "Chicanos and the Border Cities: An Interpretive Essay," Pacific Historical Review 46(1).

1978 Border Boom Town: Ciudad Juarez Since 1948. Austin: University of Texas Press.

Marx, Karl.
1967 Capital, Volume I. New York: International Publishers.

North American Congress on Latin America.
1979 Beyond the Border: Mexico and the United States Today. New York: NACLA.

Pena, Devon, G.
1979 "Trabajo feminino y sindicalismo en las maquiladoras fronterizos," Historia y Sociedad, #23 (Fall).

1980a "Female Workers and Trade Unionism in the Mexican Border Industrialization Program." Paper presented at the 8th Annual Meetings of National Association for Chicano Studies, Houston, TX, April 17-19.

1980b "Las Maquiladores: Mexican Women and Class Struggles in the Border Industries." Aztlan: International Journal of Chicano Studies Research 10(2).

1981 Maquiladoras: A Select Annotated Bibliography and Critical Commentary on the United States-Mexico Border Industry Program, Center for the Study of Human Resources, The University of Texas, Publication #7-81.

1982a "The Class Politics of Abstract Labor: Organizational Forms and Industrial Relations in the Mexican Maquiladoras," Chapter 1 of unpublished dissertation, University of Texas at Austin.

1982b "Emerging Organizational Strategies of Maquila Workers on the Mexico-U.S. Border." Tenth Annual Meetings of the National Association for Chicano Studies (NACS), Arizona State University, Tempe, AZ, March.

Saffioti, Heleieth.
1975 Female Labor and Capitalism in the United States and Brazil." In Ruby Rohrlich Leavitt (ed.) Women Cross-Culturally: Change and Challenge. The Hague: Mouton, pp. 59-94.

Secretaria de Industria y Comercio.
1976a Indicadores socioeconomicos de las zonas fronterizas. Mexico, D.F.: SIC.

1976b Monografias socioeconomicas de las ciudades fronterizas. Mexico, D.F.: SIC.

Urquidi, Victor I. and Sofia Mendez Villarreal.
1975 "Importancia economica de la zona fronteriza norte de Mexico," Foro Internacional 16(2).

Weintraub, Sidney.
1982 "Economic Sources of Political Instability in Mexico," El Foro Mexicano (December):16-19.

Woog, Mario.
1980 El Programa Mexicano de Maquiladoras. Guadalajara: Instituto de Estudios Sociales, Universidad de Guadalajara.

Youssef, Nadia.
1976 "Women in Development: Urban Life and Labor." In Irene Tinker and Michele Bo Bramsen (eds.) Women and World Development. Washington, D.C.: Overseas Development Council, pp. 70-77.

M I C H I G A N S T A T E U N I V E R S I T Y

WORKING PAPERS ON WOMEN IN INTERNATIONAL DEVELOPMENT

Published by the Office of Women in International Development at Michigan State University and partially funded by the Ford Foundation and a Title XII Strengthening Grant

EDITOR: Rita S. Gallin, Office of Women in International Development and College of Nursing

EDITORIAL BOARD: Marilyn Aronoff, Department of Sociology
Ada Finifter, Political Science
Peter Gladhart, Departments of Family and Child Ecology and Resource Development
John Hinnant, Department of Anthropology
Susan Irwin, Department of Anthropology
Akbar Mahdi, Department of Sociology
Nalini Malhotra, Department of Sociology
Anne Meyering, Department of History
Ann Millard, Department of Anthropology
Barbara Rylko-Bauer, Department of Anthropology
Judith Stallmann, Department of Agricultural Economics
Paul Strassmann, Department of Economics
Diane Turner, Department of Anthropology

MANAGING EDITOR: Margaret Graham, Office of Women in International Development

EDITORIAL POLICY: The series of Working Papers on Women in International Development publishes reports of empirical studies, theoretical analyses, and projects that are concerned with development issues affecting women in relation to social, political, and economic change. Its scope includes studies of women's historical and changing participation in political, economic, and religious spheres, traditional roles within and outside the family, gender identity, relations between the sexes, and alterations in the sexual division of labor.

MANUSCRIPTS (in duplicate) should be submitted to the editor, Rita S. Gallin, Ph.D., WID Publication Series, Office of WID, 202 International Center, Michigan State University, East Lansing, Michigan 48824. They should be double-spaced and include the following: (1) title page bearing the name, address, and institutional affiliation of the author(s); (2) one-paragraph abstract; (3) text; (4) notes; (5) references cited; and (6) tables and figures. To further the rapid dissemination of information, a timely schedule of manuscript review and publication is followed.

TO ORDER PUBLICATIONS OR RECEIVE A LISTING OF WORKING PAPERS, write to the Office of WID, 202 International Center, Michigan State University, East Lansing, MI 48824.