Harnessing women's work: restructuring agricultural and industrial labor forces in the Dominican Republic.

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The recent period of crisis and adjustment in Latin America and the Caribbean is fueling a fundamentally gendered process of labor force restructuring in both agriculture and industry. An analysis of ongoing changes in the Dominican Republic finds that one of the most striking shifts in the labor market landscape involves women's increasing incorporation into nontraditional agriculture and export manufacturing. The Dominican state and corporations collaborate in devaluing and harnessing women's labor in these sectors, enhancing private profits and the success of export-led development strategies. This study deepens our understanding of gendered labor force restructuring by analyzing the rarely noted, but substantial, incorporation of women in new agro-enterprises and by comparing the ways in which a female labor force has been actively constructed in nontraditional agriculture with more familiar patterns in export manufacturing. Firms in both sectors rely on women to fulfill labor-intensive and exacting tasks, juggling traditional gender ideologies to encourage the employment of mothers while maintaining the gender subordination that cheapens women's labor. In export processing, the concentration of firms in free trade zones stimulates the creation of a distinct new labor force. The dispersed nature of new agro-enterprises encourages the reliance on a broader pool of less-privileged workers and leads to a more generalized challenge to existing gender roles. In both agriculture and industry this process proves highly contradictory for women workers, for firms, and ultimately for state sponsors.

Key words: Caribbean, gender, labor force, economic restructuring, development policy, nontraditional agriculture, free trade zones.

Ongoing restructuring in Latin America and the Caribbean is fundamentally altering the nature of employment and the composition of labor forces in agriculture and industry. This production reorganization is predicated on the differential incorporation of women and men into expanding nontraditional sectors. While there is an extensive literature documenting the incorporation of women into industrial export processing, little research has been done on the related increase in women's participation in nontraditional agriculture - in the production of domestically oriented processed foods and export oriented off-season vegetables, exotic tropical fruits, and ornamental plants? I focus on this hidden dimension of women's labor force incorporation, stressing the characteristics of women workers and the ways in which new jobs are being constructed as gendered work. By extending the analysis into the countryside, I develop a more spatially and sectorally nuanced view of the gendered process of labor force restructuring.

Recent restructuring in Latin America and the Caribbean has been configured by the 1980s debt crisis, widespread acquiescence to International Monetary Fund (IMF) and World Bank structural adjustment programs, and expanding regional and global free trade agreements. Although newly adopted export-led development strategies have proved more successful in some countries than others, neoliberal policies throughout the hemisphere have shifted resources toward nontraditional sectors. Mexico and Brazil now hold a major share of the world export assembly market; less significant in terms of global trade, but more important in domestic terms, are export manufacturing sectors in smaller countries like the Dominican Republic, Haiti, Jamaica, Guatemala, and Costa Rica (Klak 1995; Schoepfle and Perez-Lopez 1992). Similarly, while Mexico, Brazil, and Chile are now among the leading world exporters of fresh and processed fruits and vegetables, expanding nontraditional agro-export sectors in the Dominican Republic, Guatemala, Honduras, Costa Rica, and Panama are of greater local significance (Barham et al. 1992; Clapp 1995; Llambi 1994). This multisectoral restructuring has critical, though varied, implications for domestic labor forces (Humphrey 1996; Momsen 1993; Tardanico 1993).

As is well documented, women provide a disproportionate share of labor in new industrial export sectors around the world. According to Joekes (1987b, 81), recent Third World industrialization "has been as much female-led as export-led." Noting a similar pattern, Standing (1989) argues that we are witnessing a "global feminization of employment." The entrance of large numbers of women into proliferating maquiladora industries along the U.S.Mexican border and in Caribbean export-processing zones provides a striking regional manifestation of this global trend (Schoepfle and Perez-Lopez 1992;

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Tiano 1994; Yelvington 1993). Early studies assumed that women's involvement in export manufacturing would continue to rise and focused narrowly on whether this work was good or bad (see Lim 1990). In fact, the quantitative impact of export processing on women's employment has often been overstated, since assembly industries (1) provide a modest share of overall female jobs, (2) are concentrated in a relatively few countries, and (3) often eventually replace female workers with men and/or machinery (Beneria 1989; Wilson 1992). Even where women's employment is increasing, its impacts are ambiguous, because it may intensify, decompose, and/or recompose existing forms of gender subordination (Elson and Pearson 1984). As Helen Safa (1995) suggests, to understand whether paid work allows women to successfully challenge their subordination in public and/or private arenas, we must analyze a complex set of structural and ideological factors.

Though less often recognized, the dramatic expansion of nontraditional agro-exports has similarly transformed production and labor markets in Latin America and the Caribbean. The limited research that exists suggests that women play a predominant role in the production of many new crops. Arizpe and Aranda's (1981) classic study found that Mexico's growing strawberry export industry relies largely on female workers. A study of nontraditional agriculture in Guatemala, Honduras, and Costa Rica reveals that women make up more than half of the labor force in harvesting, processing, and packaging (Alberti 1991). Initial observations suggest that women comprise a similarly important share of new agro-export workers in other countries of the region (Ayala 1993; Collins 1993; Thrupp 1995).

Our limited knowledge of the experience of women working in nontraditional agriculture hinders our understanding of the gendered nature of current labor force restructuring. This study helps address this lacuna, analyzing the characteristics of women workers in nontraditional agriculture and the ways in which new gendered spheres of work are being constructed by employers and the state. To develop a more nuanced view of labor force restructuring, I contrast the spatial and contextual pattern of female incorporation in new agricultural areas to the more familiar situation of women in export manufacturing. The article focuses on the Dominican Republic, which stands at the forefront in the hemispheric employment of women in rapidly expanding nontraditional agricultural and industrial sectors. My discussion of Dominican export processing draws on government statistics and existing studies. Given the scarcity of available data, my analysis of nontraditional agriculture supplements these existing sources with original research carried out in 1989-90, including interviews with 44 company managers representing all major commodity areas and a random sample of 146 workers in two key commodity areas, fresh pineapples and processed tomatoes.

Restructuring in the Dominican Republic

Policy Changes and the Labor Market

Since 1980, the Dominican Republic has struggled to maintain national solvency, with foreign debt payments absorbing 66 percent of gross national product. To reschedule its loans, the Dominican state has realigned domestic policies according to the standard IMF and World Bank structural adjustment demands. In 1982, the state reversed its commitment to nationally generated growth and imposed severe austerity measures - increasing taxes, freezing wages, and slashing government services. A 1984 IMF standby agreement stipulated government subsidy and price control reductions, currency devaluations, privatization measures, easing of import restrictions, and the establishment of export incentives. IMF agreements signed in 1991 and 1993 deepened these neoliberal policies (Ceara Hatton 1984, 1990, 1993). As elsewhere in the region, the consolidation of an export-led development strategy transferred local resources from public to private sectors and from domestic to export production (Deere et al. 1990; Dietz and Pantojas-Garcia 1994; McAfee 1991). Dominican living standards have plummeted as a result, and the country has witnessed some of the worst "IMF food riots" in the world (Walton and Seddon 1994).

As depicted in Table 1, new workers streamed into the Dominican labor force during the 1980s crisis to bolster falling incomes.(2) Though Dominican women are traditionally seen as secondary earners, women's labor force participation rates appear to have experienced the greatest gains, outpacing increases in men's labor force contribution. Owing to their greater economic responsibilities, female heads of households increased their employment the most, followed by women working to supplement the income of other household members (Duarte et al. 1989, 144). While heightened financial need fueled Dominican women's labor market entrance, not all women could find work. Female unemployment increased dramatically during the 1980s, though men's joblessness appears to have declined. As the crisis eased in the 1990s, male and female participation and unemployment rates have fallen.

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Dominican labor force trends partially reflect regional patterns during the crisis and adjustment period. Throughout Latin America and the Caribbean women from middle- and working-class households have [TABULAR DATA FOR TABLE 1 OMITTED] been sent into the work force to shore up falling incomes (Beneria 1992; Cornia, Jolly, and Stewart 1987). But though female labor force participation rates rose in most of the region during the 1980s, in many countries women's gains did not outstrip those of men, as in the Dominican Republic (IDB 1990, 222). National labor force patterns have clearly been affected not only by people's financial need, but also by the ability of crisis torn economies to absorb additional workers. In some countries, like Jamaica, women's labor force participation actually declined during the 1980s, because of the restricted labor absorption capacity of the ailing economy (Safa and Antrobus 1992).

Paradoxically, the rise in Dominican women's labor market presence during the economic downturn is partially explained by their traditional exclusion from key economic sectors, as it is these sectors that have been the hardest hit by the recent crisis. In the Dominican Republic, as in most of the world, the labor market is segregated by gender. Men have enjoyed preferential access to jobs in key areas, with employment split largely among the state, manufacturing, and agricultural sectors (Duarte et al. 1989). Though men have long benefited from this privileged job access, these sectors contracted sharply during the crisis. Fiscal austerity measures slashed male-dominated state jobs, and job growth in domestic agriculture and industry was curtailed by escalating costs, credit shortages, and mounting competition in previously sheltered national markets (Ceara Hatton 1993).

Nontraditional Export Expansion and Employment

In addition to squeezing some economic spheres, structural adjustments have created new income-generating opportunities in nontraditional export sectors in the Dominican Republic and neighboring counties. A process of "export substitution" has been supported by local governments, international lenders, and shifting regional trade agreements. In the Dominican context, the state has promoted new exports to shore up the debt-ravaged economy and to compensate for rapidly declining earnings from traditional sugar, coffee, cocoa, and tobacco exports. National development strategy has been redirected toward (1) light manufacturing within the context of free trade zones, (2) nontraditional agricultural and agro-industrial production, and (3) tourism.(3)

Despite the free market rhetoric of this export-led development push, producers of new industrial and agricultural exports benefit from generous state subsidies, including import and export duty exonerations and 20-year tax holidays, freedom to repatriate profits and exchange only the funds needed to pay local expenses, and preferential access to scarce low-interest public loans (U.S. Embassy 1992). The construction of free trade industrial enclaves in the greater Santo Domingo metropolitan area and major provincial capitals has been heavily subsidized. Half of the free zones are state-owned, and companies typically rent buildings at a quarter of their market value (Thoumi 1992, 168). Infrastructure costs in new agro-export ventures located throughout the country are similarly subsidized, though most firms do not benefit from free zone facilities (with the notable exception of cigar and cigarette manufacturers).(4) Many nontraditional agro-enterprises profit from subsidized access to public land via the inexpensive rental of government property or state-underwritten contracts with agrarian reform recipients (Raynolds 1994b).

In this hospitable climate, new agricultural and industrial exports have soared. The Dominican Republic has spearheaded a regional expansion in new exports to the United States and has been the leading exporter of nontraditional commodities under the U.S.-Caribbean Basin Initiative (Brown 1991). As noted in Table 2, Dominican foreign exchange earnings from nontraditional exports doubled between 1980 and 1991, rising from U.S. $114 to $333 million. In the face of dramatic declines in sugar export revenues, the percentage of foreign revenue contributed by these new commodities increased from 11 to 37 percent.

Earnings from nontraditional agro-exports climbed from U.S. $19 million in 1976 to $74 million in 1985, fueling the first wave in the new Dominican export boom. Shipments of fresh off-season vegetables, specialty horticultural products, and tropical fruits saw the most dramatic increase. Sales of processed goods expanded more slowly, but brought in half of agro-export earnings. In the mid-1980s the Dominican Republic was being heralded as the region's most successful nontraditional agro-exporter (Burgaud 1986, 35). Exports ran into production and marketing problems in the late 1980s (Raynolds 1994a) but are rebounding and are likely to continue to grow, given the increasing appetite of wealthy foreign consumers for fresh and exotic produce. Although early Dominican agro-exports maintained the country's traditional focus on U.S. markets, recent growth depends largely on preferential access to European markets gained with the 1991

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acceptance of the Dominican Republic into the Lome convention.(5)

Dominican free trade zone expansion in the late 1980s overtook the gains made in agro-exports and fed the second wave of the nontraditional export boom. By 1991, there were 385 firms in 26 free trade zones, together bringing in U.S. $239 million in foreign exchange. The Dominican [TABULAR DATA FOR TABLE 2 OMITTED] Republic is now one of the world's fastest-growing export processing sites, ranking fifth (after China, Mexico, Singapore, and Korea) in its number of free trade zone workers (Kaplinsky 1993, 1855). Dominican free zones specialize in the production of textiles and apparel. Most free zone exports are destined for the United States, and the Dominican Republic has become the major regional supplier of assembled products for its northern neighbor (Schoepfle and Perez-Lopez 1992).

The impressive rise in new Dominican exports is aided by state-facilitated access to a large supply of inexpensive labor. The Dominican government maintains tight wage controls, arguing that this is essential to the country's comparative advantage. During the 1980s, Dominicans went from being some of the best-paid workers in the region to some of the worst. Though minimum wages rose from D.R. $125 to $700 per month over the decade, at the official exchange rate this represented a decline from U.S. $125 to $111 (Ceara Hatton 1990). By 1988, minimum wages (including benefits) in the Dominican Republic had fallen to U.S. $0.55 per hour, lower than in competing locations like Mexico ($0.88), Costa Rica ($1.15), Honduras ($0.83), Guatemala ($0.93), and Jamaica ($0.88) (Bobbin Consulting Group 1988). Dominican unemployment was also higher than in most of the region, facilitating the availability of workers for export production. My interviews with agro-export managers and recent interviews with free zone managers (Mathews 1995) confirm that rock-bottom Dominican wages and high unemployment are major factors attracting corporations to the country. Threats of firm relocation continue to check periodic minimum wage increases.

Unions have been strictly controlled in the new export sectors, further curtailing worker demands and wages. The fight to unionize is guaranteed by Dominican law, but workers found organizing during the 1980s were systematically fired and blacklisted by companies in the free trade zones and in new agro-export sectors. By 1990, unions in the free zones represented a small percentage of workers and were largely inactive (Perez 1993; Safa 1997); unionization has been even more limited in nontraditional agro-enterprises (Raynolds 1994b). The government has been implicated in ignoring worker complaints and blocking the formation of unions, practices that even the Dominican president admitted violate the law.(6)

An increasingly important segment of the Dominican labor force has been integrated into nontraditional production.(7) As noted in Table 3, the number of workers in agro-industrial and assembly industries almost doubled between 1980 and 1991. This raised the share of the employed population engaged in nontraditional enterprises from 8 to 11 percent, given the stagnation in domestic manufacturing and traditional agro-exports. During the 1980s, the sugar industry - traditionally the country's largest employer - eliminated roughly 10,000 sugar mill jobs held by Dominican men and 20,000 cane cutter jobs held predominately by male Haitian migrants (Murphy 1989). With sugar's decline, nontraditional agriculture absorbed an increasing share of the rural work force (Sanchez Roa 1989). Free trade zones have become the most rapid area of job creation in the country, and employment in export processing now surpasses that in domestic manufacturing (U.S. Department of Labor 1993, 10).

Women play a critical role in Dominican nontraditional exports, helping to explain both rising female employment and these sectors' economic success. As noted above, a number of local labor market features encourage this incorporation, including women's rapid entrance into the labor force, women's exclusion from traditional key sectors, and women's high unemployment. Women are typically willing to work for less than Dominican men, with female wages averaging only 57 percent of male wages (Duarte et al. 1989, 129). While low-waged Haitian migrants compete with Dominican women in some sectors, migrants are legally barred from employment in nontraditional sectors. Some might conclude that women's employment is explained by their being cheap and available, but we must go beyond this facile answer to examine how women's labor is cheapened and made available (Pearson 1988; Safa 1995). Below I analyze how a female work force has been constructed via the reinterpretation of traditional gender ideologies and the restructuring of local labor forces.

Agrarian Labor Force Restructuring

Women in Nontraditional Agriculture

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Women's incorporation into nontraditional agriculture is a critical, though rarely recognized, feature in the changing labor market landscape of the Dominican Republic. In the Dominican context, agriculture traditionally has been defined as a male domain. Though women have long made important contributions to peasant agriculture - particularly in the care of livestock and in harvesting and postharvest crop handling - these activities go unpaid and largely unrecognized.(8) Dominican women's participation in paid agricultural work historically has been very low; in 1985 only 14 percent of economically active rural women were employed in agriculture (Mones et al. 1987). Breaking with this tradition, women are being hired in increasing numbers to cultivate, harvest, pack, and process new crops. Unfortunately the parameters of women's incorporation into nontraditional agriculture can only be estimated, given the lack of national statistics on the companies or workers who comprise this sector. As outlined in Table 4, my research suggests that women make up roughly 42 percent of the paid nontraditional agricultural labor force. This sector provides a central arena of female employment that is likely to expand, since women appear to be concentrated in the most dynamic commodity areas.

Table 3

Number of Dominican Workers Employed, by Sector

	1980	1985	1991
Agro-industry	119,782	113,046	124,196
Free trade zone	18,339	35,720	134,998
Total nontraditional(a)	138,121	148,766	259,194

Source: Oficina Nacional de Estadistica and Consejo Nacional de Zonas Francas data, cited in FundApec (1992). a The totals are only an approximation of the nontraditional sector, since they include the failing traditional sugar sector and exclude the growing nontraditional fresh produce export sector.

[TABULAR DATA FOR TABLE 4 OMITTED]

Women make up an important share of the food-processing labor force in the Dominican Republic, though their involvement varies greatly by firm and commodity. The majority of female agro-industrial workers are in vegetable and horticultural processing, producing items such as canned tomatoes and beans, frozen okra, and condiments. My research suggests that women comprise well over half of the work force in this area.(9) For example, in tomato processing, which is one of the strongest segments of Dominican agro-industry, 53 percent of workers are female. Women's presence appears to be substantially lower in fruit and nut processing. A number of firms produce items such as citrus juice and dried coconut, but they are capital intensive and absorb a small share of the total, as well as the female, agro-industrial work force. These data suggest that women are concentrated in labor-intensive food industries, a conclusion reinforced by the finding that women represent closer to 20 percent of agro-industrial workers if we include highly mechanized nonfood sectors like animal feed preparation and tanneries (FundApec 1992, 241).

The majority of women workers are involved in the production of fresh produce exports, the most rapidly growing segment of Dominican nontraditional agriculture. Given limited agricultural mechanization, firms in this sector tend to be more labor-intensive than agro-industries and rely heavily on women's labor. As suggested in Table 4, the largest share of women work in pineapple, melon, avocado, and other fresh fruit and nut enterprises. For example, women made up over 55 percent of the workers on the pineapple plantation that spearheaded the Dominican fruit export boom. Companies producing fresh vegetables and horticultural crops like tomatoes, peppers, and beans account for a smaller share of female employment, though women still make up roughly a third of the work force. The highest concentration of female workers appears to be in ornamental plant and cut flower production, but as firms in this sector are small they generate relatively few jobs.

Gender and the Labor Process

There is a clear gender division of labor in nontraditional agricultural firms, with the most striking feature being that supervisory and professional jobs are reserved almost exclusively for men. In part this is due to the limited education of Dominican women in technical fields (Rodriguez 1992). Yet there is more to it. Agro-industry managers report a much

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higher resistance to hiring women as plant supervisors and administrators than as technical staff (FundApec 1992, 119). As one manager bluntly explains, "men make better bosses because they push the workers more." This commonly echoed view suggests that the gender hierarchy within the firm is more strongly rooted in managers' interest in using Dominican cultural notions of patriarchal domination to maximize the labor extracted from workers than in a concern for women's technical competence.

Even among production workers there is a clear division of tasks by gender. In tomato processing roughly an equal number of males and females work in production, yet women predominate in the most rapidly paced assembly line operations, where both dexterity and speed are required. Women are responsible for washing and selecting the tomatoes for ripeness and color and preparing, filling, labeling, and putting the lids on the cans. Men watch over the processing machinery and prepare and store cardboard cartons. Only in washing, cooling, and boxing the cans do women and men work together. Managers draw on socially constructed gender traits in explaining this division of labor. They suggest that tasks done by both sexes require no particular talents. Managers explain that some jobs are given only to men because of their "greater strength and facility with machinery," while women are given other jobs because "they are more careful and conscientious" and "are better able to coordinate rapid eye/hand movements." These gendered attributes are assumed and job assignments are made without measuring workers' individual capabilities. Male equipment overseers are paid extra; other workers are defined as "unskilled" and paid base wages, regardless of their dexterity, conscientiousness, or strength.

The gender division of labor in fresh produce packing is similar to that in food processing. For example, women and men are found in almost equal numbers in the largest export pineapple packing operation, yet they work together only in the initial checking and cleaning of fruit. Women then take over the most exacting manual tasks: rejecting pineapples that do not fulfill elaborate visual standards for color, shape, and texture; classifying and sorting exportable fruit into six size categories; and packing pineapples into 18 kilogram boxes without the aid of a scale. Men predominate in preparing cartons and storing full boxes. Again, male managers assign tasks based on assumed characteristics, arguing that men "naturally" specialize in tasks requiring greater strength and that women are "naturally" better suited to more discriminating tasks. Because these traits are seen as innate, they are not rewarded as skills. But managers ideologically and economically undervalue women's work when they characterize, as a "natural" female ability, the multifaceted observational capacities and stamina required, for example, in packing variably sized produce into boxes of equal weight rapidly and consistently for 12 hours. And they often contradict their assessment of the "unskilled" nature of women's jobs - describing how some women are better at these tasks than others and how women may greatly increase their performance with dedication and practice.

While women are much less likely to be hired in field operations, the division of labor in this area perhaps best illuminates how women's work can be redefined. On the largest pineapple plantation, women make up 26 percent of field labor. Keeping with the traditional gender division of labor, men prepare land, plant pineapple stock, and apply chemical inputs. Yet women work alongside men hoeing weeds, picking pineapples, and collecting seeds. And women predominate in cultivating and harvesting planting stock in the nursery fields. Managers have difficulty rationalizing this task division since much of what women do is clearly not within the traditional female domain. Male managers credit men's strength for their assignment to cultivation and women's presumed "careful work habits" for their assignment to seed collection and nursery operations. But the ambiguity in this gender matrix is highlighted when managers attribute women's involvement in harvesting to "tradition," and yet admit that picking and loading spiny pineapples at a tractor-set pace is one of the most physically arduous jobs on the plantation. And gendered rationalizations are forgotten when managers submit that women are involved in hoeing simply because this is an area of extensive labor demand. Plantation managers clearly try to maintain local gender norms in task assignments, but when necessary they will hire whomever is available, even if it means redefining gendered notions of appropriate work.

Although there is little overt gender wage discrimination in new fresh produce enterprises, women's overall earnings are typically well below men's because of their limited access to better-paying supervisory and technical jobs and their concentration in the most seasonal harvesting and packing activities. Wages for production workers vary by firm, but are generally less than the legally stipulated minimum. Firms often pay low piece rates, which rarely add up to a legal wage despite long workdays. Given the seasonal nature of agriculture, most employment is temporary, lasting perhaps half the year. Production workers on the largest pineapple plantation were paid U.S. $2.87 per day in 1990, less than two-thirds the legal minimum. Plantation management circumvented local wage legislation by registering workers as "casual

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laborers" rather than "full-time employees," even though they worked year-round. In an effort to woo further investments, Dominican state officials overlooked this flagrant violation of the law and even provided unsolicited assistance to corporate managers in identifying and blacklisting activists seeking to unionize workers. The one union known to operate in a new agro-enterprise is a company union that has helped reserve full-time jobs for men and exclude seasonal female packing shed workers from union benefits.

Agro-industries generally pay better than fresh produce firms, and most workers appear to earn the legal minimum (see also FundApec 1992, 13). Male and female production workers are generally paid equally, though differential job assignments and men's greater access to upper-level positions often translate into higher overall male earnings. Food-processing jobs are typically seasonal because they are tied to the harvest cycle. In peak periods, many companies run three shifts to maintain production around the clock; in the off-season, plants shut down and workers are laid off. In tomato processing, for example, production jobs last only three months and work is not guaranteed, even during this period, if produce supplies are low. Few unions operate in these seasonal agro-industries.

Labor Force Construction and Women Workers

In meeting their labor needs, nontraditional agro-enterprises have actively constructed a female labor force, challenging the historically limited employment of Dominican women in agriculture. Rural women have not been pawns in this labor force restructuring, but have sought out new employment in order to expand their income-generating options in a period of heightened economic need. Given the traditionally circumscribed job prospects for women in rural areas, large numbers of women have in recent decades been forced to migrate to urban centers in search of work (Duarte 1986).

Nontraditional agro-enterprises are easing some of the pressure fueling urban migration by creating employment opportunities around the country. While 16 percent of new ventures are clustered in and around Santo Domingo and 26 percent are in the distant agricultural districts of Montecristi, Santiago, and Azua, the remaining firms are dispersed throughout the countryside. With more than half of the jobs generated in this sector located outside of these four key regions, nontraditional enterprises are creating a dispersed network of rural employment centers.(10) Little is known about the gendered process of proletarianization associated with the production of new crops, but some initial observations can be made by analyzing the characteristics and work histories of female employees in industrial tomato and fresh pineapple production, two of the most dynamic commodity areas.(11)

The expansion of nontraditional agriculture appears to be encouraging women's entrance into the labor force and women's movement out of precarious informal work. My research finds that whereas a third of female workers are new to the labor force, the majority of women have prior work experience. Some have held formal jobs, but most women have worked in the informal sector, toiling as domestic servants or street vendors. For the vast majority of women, their current employment entails an increased involvement in agriculture, since few have had prior agricultural jobs and the majority have no background in farming.

Dominican women take on. unfamiliar work in new agro-enterprises because, as they attest, it is better than their alternative income-generating opportunities. Almost all of the female tomato and pineapple workers I interviewed say that they prefer their present jobs to both their prior work and their current alternatives. Reflecting the limited employment options of rural women, most female workers suggest that they have only one viable alternative - to work as domestic servants. Many women have held this traditionally female job and share the view of one former domestic, who reports that "domestic service pays worse, requires longer workdays, and is more demeaning than any agricultural job." Most women who have worked as domestics, and the few who have had formal sector jobs, also report having had to migrate to get this work. For these women, a key advantage to their current employment is its proximity to family. Some women report having worked as local street vendors, work they value for its independent entrepreneurial nature. But as women suggest, vending is a risky business and the economic viability of this activity depends on access to capital or cheap credit, neither of which is available to them.

Women working in nontraditional agriculture come from very poor backgrounds, originating largely from marginal peasant and landless wage laborer households. As is typical for this poor rural population, most women have less than a sixth grade education and many have never been to school at all. Though many live where electricity is available, roughly half of the women in nontraditional agriculture have no electricity at home. Reflecting their severe poverty, over 40 percent of

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female workers eat only two meals a day and over 60 percent typically go without meat, a highly valued component of the local diet. Women workers generally live in more rudimentary conditions and have a less nutritious diet than their male co-workers.

Female nontraditional agricultural workers appear to be poorer than their male counterparts in large part because of their household circumstances. Male and female workers are not significantly different in age and are drawn from across the spectrum of the working-age population. But while the vast majority of men come from households benefiting from the energy and earnings of two adults, more than a third of female workers are single heads of households. My research finds that fully three-quarters of women workers are mothers, with an average of three children. Women without partners must make their meager wages stretch to support their children, as well as themselves. Though better off financially, women with resident partners often provide half of household income, given limited spousal earnings.

Female workers in nontraditional agriculture typically describe their employment as something they "must do to support their children." While Dominican gender ideology suggests that the world of paid employment, particularly in areas like agriculture, is a male domain, the upkeep of children is women's responsibility. For the majority of women workers, fulfilling their primary obligation to their children requires that they venture into male terrain, thereby redefining employment as part of their domestic role.

Dominican women often suggest that they gain some economic autonomy and nonmaterial benefits from their employment. One study found that when compared to their unemployed neighbors, female agro-industrial workers express greater independence in household decision making and greater confidence in their ability to leave abusive marriages (Finlay 1989, 77). But mixing work and family creates serious contradictions. For while women take on a large share of the economic provider role, this is in addition to their traditional home and family responsibilities. Most women in nontraditional agriculture continue to see their primary responsibilities as domestic - caring for children and other family members, cooking meals, hauling water - tasks that are performed after the long workday. If possible, women call on their female kin to fulfill these traditional duties of wives and mothers.

For the large number of women raising children on their own, any benefits derived from their employment are typically overshadowed by the accompanying hardships. This is the case for Juana Diaz, a 25-year-old vegetable company field-worker who supports her three children on her U.S. $2.95 per day wage with no help from her former husband or other kin. Though she is identified by her supervisor as one of the company's fastest and most experienced laborers, Juana Diaz takes little pride in her work since, despite her valiant efforts, the livelihood this job accords her family is tenuous. As she explains:

I eat lunch [the Dominican main meal] every other day, since I have no money . . . besides, who could eat knowing the children are home with nothing. I must lock the children in the house during the [12 hour] workday to keep them safe, with no one to look after or feed them. My eldest is eight and should be in school, but she must see to the little ones . . . even in my one-room shack the three year old gets in trouble. (Interview, 20 December 1989)

This young mother clearly evaluates her employment as it is reflected in the eyes of her children, children who often go hungry, who lack adult supervision, and who will probably like herself never go to school.

The redefinition of paid employment as part of a mother's duty to her children creates a tremendous challenge for Dominican women, particularly for those like Juana Diaz who must shoulder it alone. Rising to that challenge, rural women are expanding their historically limited areas of employment and seeking out the best-paying jobs available, even if they are in traditionally male realms like agriculture. In their struggle to feed their families, few female workers recognize that they are fundamentally redrawing the parameters of "women's work" and establishing a potential basis for increasing women's economic autonomy.

Constructing a low-waged female labor force is a complicated and potentially contradictory process for nontraditional agricultural firms, as well as for workers. Companies profit from Dominican patriarchal traditions that limit women's alternatives and make them disproportionately responsible for home and family. Women's restricted employment options ensure that they will accept low-waged and unconventional jobs, particularly if this work permits them to forgo migration and remain near their families. Managers assert that women are often more responsible workers than men, showing up

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more regularly, particularly if they are mothers since they have more acute financial needs. These managers admit that women's extensive domestic duties may threaten their job performance, but refuse to take women's needs as workers seriously because to do so would upset the ideological schema that makes them secondary workers. For example, one agro-export company built community clothes-washing and childcare facilities, yet went to great lengths to define these activities as "women's projects" within a local Mothers' Club rather than acknowledging them as legitimate employee benefits. In harnessing women's work, firms often engage in such ideological juggling: balancing their efforts to recast women as acceptable wage workers with bolstering the gender subordination that makes women's labor inexpensive.

Industrial Labor Force Restructuring

Women in Export Manufacturing

Women's increasing employment in industrial export processing is the most conspicuous and well-researched feature of recent gendered labor force restructuring in the Dominican Republic. Industrial work has traditionally been defined as a male sphere, and women hold only a quarter of domestic manufacturing jobs (ONE 1989, 308). Yet, as in much of the world, the majority of Dominican industrial export workers are women.(12) Since the mid-1980s, the free trade zone boom has made this the fastest-growing area of female employment, providing more than 100,000 jobs for women - more than either domestic manufacturing or nontraditional agriculture. According to the official data reported in Table 5, women currently make up 58 percent of free zone workers. The concentration of women in this sector appears to be declining owing to a shift in commodity areas and the deterioration in local job prospects for men (Safa 1997, 33).(13) All the same, export manufacturing remains the most important arena of formal employment for Dominican women.

Numerous studies suggest that high female participation in export processing in the Dominican Republic is, as elsewhere in the world, due largely to the labor-intensive nature of assembly industries (Elson 1994; Joekes 1987a, 1987b; Kritz et al. 1988). As noted in Table 5, Dominican free zones specialize in relatively labor-intensive areas, particularly in garments and textiles. Firms in this sector outnumber all others and generate the greatest share of employment. In fact, 65 percent of all women in the free trade zones are employed by garment and textile companies. Though small in number, companies producing electronic, tobacco, and mechanical products appear to have the highest concentration of female workers, with women making up close to 65 percent of the labor force, Only in shoe and jewelry enterprises do women account for less than half of all workers.

Gender and the Labor Process

In new manufacturing, like new agricultural, ventures the hierarchical division of male/female jobs mirrors relations of patriarchal dominance in the larger Dominican society. Women greatly outnumber men among low-level free zone production and office workers, but are rarely found in better-paying administrative, professional, or supervisory jobs (FundApec 1992, 119). Only 7 percent of women work off the production line, whereas 13 percent of men have upper-level positions (CNZFE 1994, 28). Free zone managers strongly prefer hiring men for administrative or supervisory jobs; they are more indifferent regarding the gender of technicians (FundApec 1992, 118). These hiring preferences suggest that, as in agro-industries, male managers are less concerned about women's technical skills than they are about keeping women out of positions of authority.

In a recent study of the criteria for assembly worker recruitment in the Dominican Republic, free zone managers ranked gender second only to work experience in importance (Mathews 1995, 105). In a striking reversal of their hiring preferences for upper-level positions, most managers favor employing women for assembly jobs (FundApec 1992, 118; Mathews 1995, 100). Managers explain this predilection in terms of socially constructed gender traits similar to those referred to by agro-export managers, including women's greater manual dexterity, patience for repetitive tasks, and acquiescence to highly regimented work conditions (Mathews 1995, 101). Though rarely tested, these attributes are used to assign men and women different tasks.

Free trade zone hiring practices, like those in nontraditional agriculture, reproduce existing Dominican traditions of male privilege, with managers manipulating assumed gender traits to explain the predominance of female workers and legitimize their view of women as being unskilled and unentitled. Export processing firms classify the vast majority of their workers as "unskilled." Yet managers' suggestion that workers develop competence over time and their strong preference

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for hiring experienced workers belie the notion that there is no skill in assembly work (Mathews 1995, 102). Most female workers perform repetitive manual tasks like sewing lace inserts on bras, stitching sweat bands, wiring transformer bobbins, or screwing switches on alarm systems. Workers typically need only a few weeks of on-the-job training to become adept at these tasks (Mathews 1995, 188). But, as found in fresh produce packing, the real challenge in most assembly work lies in keeping up a rapid pace and maintaining acceptable quality standards throughout the long workday.

As in nontraditional agriculture, women in the free zones earn less than men as a result of differential job assignments and [TABULAR DATA FOR TABLE 5 OMITTED] only secondarily wage discrimination (FundApec 1992, 132). Most female assembly workers are paid according to a piece rate system and struggle to keep up with grueling quotas in order to earn minimum wages (FundApec 1992, 21). Base wages in export manufacturing parallel those in food processing and are generally above those paid by fresh produce firms. Wages and benefits for free zone production line workers were less than those in domestic firms for most of the 1980s, but appear now to be somewhat higher (Portes, Itzigsohn, and Dore-Cabral 1994, 31). Because assembly wages are pegged to the legal minimum wage, the Dominican state essentially creates the benchmark for valuing women's work in the free trade zones.

Many export processing companies further reduce costs by hiring temporary workers not covered by wage and benefit legislation, requiring overtime work without additional pay, and failing to meet basic health and safety standards (FundApec 1992, 142; Joekes 1987a, 44). There is little union presence in the free zones to uphold workers' legal rights, as export processing companies have routinely fired union activists (Ramirez 1995), and male-dominated national unions are only beginning a serious drive to organize female assembly workers (CNTD 1994; Safa 1997). The Dominican state is implicated in ignoring rampant labor violations in the free zones, as in agriculture, in its zeal to increase nontraditional exports (Pineda 1990).

Labor Force Construction and Women Workers

Dominican free trade zones fuel a process of proletarianization that only partially mirrors that associated with nontraditional agriculture. One of the biggest differences is that the development of free trade industrial enclaves has generated a relatively concentrated pattern of employment growth. Despite the rapid proliferation of free zones in recent years and their location in 14 out of the Dominican Republic's 29 provinces, export manufacturing remains quite centralized. Fully 80 percent of export processing jobs and firms are located in the greater Santo Domingo metropolitan area or in the provincial capital cities of Santiago, San Pedro de Macoris, and La Romana (ONE 1993, 7). Although the expansion of free trade zones has located an important share of industrial jobs outside the capital, it has encouraged heavy migration to these three cities (Nanita-Kennett 1992).

Given their concentration in free zones, Dominican assembly industries appear to have been able to construct a more stable and experienced work force than have dispersed nontraditional agro-enterprises. The initial export processing boom drew largely on female migrants with limited labor market experience (Duarte 1986). Whereas assembly industries continue to hire inexperienced female migrants from surrounding rural areas (Santana 1992, 46-49), firms appear to rely increasingly on experienced workers from the cities in which the zones are located (Mathews 1995, 205). Like their agricultural counterparts, new manufacturing exporters typically hire women already in the local labor force. But in addition to drawing workers from other sectors, assembly industry managers report that over half of their new hires have prior free zone experience (Mathews 1995, 206).

The female labor force being constructed in export manufacturing differs from the male-dominated local manufacturing work force. Assembly firm managers report virtually no movement of workers from domestic industry to the free zones (Mathews 1995, 209). Female production workers often move from one export processing firm to another, but their employment opportunities outside the zone may be limited (Pineda 1990). Like their agricultural counterparts, some women workers report that their only real job alternative is to enter domestic service, work they consider highly undesirable (Safa 1995, 108). Yet, other women, partly because of their age and education, appear to be able to move from free zone work into self-employment and jobs in tourism, a move that may prove quite beneficial (Sara 1997).

Export processing firms hire a younger and narrower age cohort than agricultural firms, with 70 percent of workers being between 20 and 35 (CONSA 1989, 37). By hiring young workers, firms are able to reap the rewards of recent public investments in education. Sixty percent of free zone workers have high school diplomas (FundApec 1992, 124), in a

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country in which only 10 percent of adults, and very few agro-export workers, have completed high school. Taking advantage of their disadvantaged labor market position, firms hire female assembly workers with significantly more schooling than their male counterparts (FundApec 1992, 124).

In the Dominican Republic, most women engaged in export manufacturing are mothers, making them similar to their counterparts in nontraditional agriculture but strikingly different than the majority of export processing workers outside the Caribbean (Joekes 1987b). Paralleling the situation in new agro-enterprises, two-thirds of female assembly workers have children and roughly half are married or in consensual unions (Safa 1995, 105). Like their agricultural counterparts, roughly a third of women in export processing are the sole providers of household food, with many more contributing half of family income (Joekes 1987a, 58). Though poor, female assembly workers appear to be somewhat better off than women in nontraditional agriculture, since they have similar household obligations and yet typically have less-seasonal jobs and slightly higher wages.

Dominican women working in nontraditional agriculture and industry face many of the same contradictions between their increasing need to support their families economically and their continued responsibilities for home and children. Given long workdays and extensive overtime requirements in the free zones, many mothers call on female kin to help with domestic tasks and are often forced to send young children away to live with relatives (Pineda 1990). Despite such hardships, female assembly workers appear, like their agricultural counterparts, to gain a sense of financial independence, greater household authority, and even some satisfaction from their waged work (Safa 1995). In the words of Teodora Espinosa, a free zone lingerie factory worker:

I think that even though things are very hard in the zone I like to work and be with my coworkers in the factory and support myself, even if only poorly, to be independent . . . I am like the majority of workers, earning the minimum [about U.S. $4.60 per day] . . . even though we earn so little it is worse to be dependent on someone else or work as a servant in a house. (Pineda 1990, 55-56, my translation)

As Safa (1995) suggests, while Dominican women's economic contribution to the household may erode the "myth of the male breadwinner,"' the degree to which they can successfully challenge male domination is often limited by their economic vulnerability and extensive family responsibilities.

For export manufacturing companies, like their agricultural counterparts, constructing a low-waged female labor force is a contradictory and tricky process. Firms take advantage of and actively encourage shifting gender norms by offering educated Dominican women increased job opportunities. Yet at the same time firms strive to maintain the local gender hierarchy by (1) creating new gendered work spheres, (2) limiting women's wages and opportunities for advancement, and (3) ideologically undervaluing women's work. The tension between shifting and solidifying gender norms is, as in the agro-export sector, captured by managers' assertions that Dominican women, especially mothers, are more responsible workers than men because of their commitment to family upkeep (Joekes 1987a, 64; Mathews 1995, 102). Free zone firms benefit from the traditional familial devotion of Dominican women that underwrites their loyalty as workers, and yet these firms refuse to acknowledge that women's family obligations often conflict with their long workdays. For example, few export manufacturers provide daycare centers to ease the burden on the thousands of mothers working in assembly jobs (CNZFE 1994). Nontraditional industrial firms, like those in agriculture, strive to maintain a delicate balance: adjusting local gender roles to encourage women's employment, while bolstering the patriarchal subordination of women in the home and in the work force that allows them to so profitably harness Dominican women's labor.

Conclusions

In the Dominican Republic, state institutions and corporations have worked together to harness women's work to fuel private profits and the success of the new export-led development strategy in both agriculture and industry. A cheap and disciplined work force has not "naturally" gravitated toward these sectors but has been actively constructed via firm recruitment efforts and state policies depreciating the cost of labor. State and private interests have reoriented traditional gender coordinates to facilitate women's entrance into nontraditional jobs. Yet new employment spheres have been constructed as gendered work that reinforces the subordination of female labor. The undervaluation of women's work to shore up national competitiveness is not unique to the Dominican Republic, nor is it peculiar to the initial period of structural adjustment. In fact, with the movement toward regional integration it is likely to take on hemispheric proportions.

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Extending the analysis beyond the growth of female labor in export manufacturing to include women's integration into nontraditional agriculture deepens understanding of ongoing labor force restructuring. In the Dominican context, nontraditional agricultural and industrial firms appear to construct a common pattern of gendered work roles for women, yet draw on spatially and socially distinct labor pools. Whereas the free zones have dramatically altered the employment prospects for predominantly urban, relatively young, and well-educated women, the ramifications of these changes appear relatively concentrated. New agro-enterprises appear to be doing much to generalize gendered labor market shifts - extending changes geographically into the countryside and socially to include women who vary in age, have low levels of education, have limited formal sector work experience, and often come from the very poorest circumstances.

One of the striking similarities between women in nontraditional agriculture and industry in the Dominican Republic is that most are mothers, unlike their counterparts in much of the world. In Asian countries, where women in export production are largely single, tensions focus on issues of maidenly virtue and the role of daughters (e.g., Ong 1987; Wolf 1992). In the Caribbean context, where most female export workers have children, the nexus of change in gender ideology revolves around the social redefinition of the role of mothers. Ongoing changes are currently felt most sharply by mothers who struggle to reconcile their work and family identities. Yet companies that attempt to exploit the familial devotion of mothers, while dismissing their concrete family commitments, also engage in a tricky balancing act. And it may be the Dominican state that is left holding the ball, as its depreciation of current and future generations is increasingly threatening state legitimacy.

The process of labor force restructuring, which has driven female employment in expanding nontraditional sectors throughout Latin America and the Caribbean, does not represent an unqualified economic or political gain for women. In the Dominican context, structural adjustments have simultaneously increased women's employment and intensified their poverty, redefining employment as something women must do to support their children. Rural and urban women have risen to this challenge, seeking out the best-paying jobs available, even if this means entering traditionally male spheres and redefining the parameters of women's work. Whether women can parlay their labor force participation into greater economic or political power remains to be seen. On the home front, women's employment does not translate directly into greater power, but it is likely to bolster their ability to negotiate more egalitarian household relations. In the labor market, women are likely to have to fight to protect their new jobs should export production relocate or should male labor become increasingly competitive. Recognizing the gendered character of labor force restructuring requires understanding how gender ideologies may be manipulated to harness, but also potentially to undermine, female labor forces.

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1 Nontraditional agriculture in the Dominican Republic is legally defined as including (1) all agricultural exports except sugar, coffee, cocoa, and tobacco and (2) agro-industrial commodities for local and export markets.

2 In reviewing these figures, recall the data collection problems common in the region and the tendency to underestimate women's productive work. Apparent trends should be seen as suggestive, as sources use slightly different data collection methods and criteria for gauging economic activity.

3 It is beyond the scope of this paper to address the gendered labor force dynamics in tourism. See Momsen (1994) for an analysis of these issues in the Caribbean. In the Dominican context, tourism is growing rapidly, increasing women's job opportunities and redefining women's traditionally heavy involvement in commercial and personal services (Duarte et al. 1989, 103-48; FundApec 1992, 55-88).

4 A few other agro-industries have located in the zones to take advantage of more lenient customs procedures, and four firms have been legally recognized as geographically separate "special" free trade zones.

5 For an analysis of Lome's ramifications for the Caribbean, see Watson (1995); for its implications for the Dominican Republic, see Raynolds (1997).

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6 Dominican and U.S. unions have charged the free zones with violating labor standards required by U.S. trade laws. Threatened with the loss of U.S. markets, the Dominican government adopted a new labor code in 1992 (U.S. Department of Labor 1993).

7 While this article focuses on direct employment, some production is done via household subcontracting (Raynolds 1994a).

8 Challenging the limited female activity reported in the Dominican agricultural census, a feminist national survey found that 84 percent of rural women are economically active, the vast majority working as unpaid household farm laborers (Dottin, Arango, and Lizardo 1987).

9 These figures should be treated with caution, since they are based on a sample of firms and depend on managers' appraisals of their labor forces.

10 This analysis is based on the sample of firms included in Table 4.

11 This discussion is based largely on interviews with a random sample of 107 workers in these areas, including 39 women.

12 Regionally, women's share of export processing jobs ranges from 60 percent in Haiti to 90 percent in Jamaica and Barbados (Schoepfle and Perez-Lopez 1992, 143-44).

13 The disparity between earlier survey results, which found that 64 to 81 percent of zone workers were women (Joekes 1987a, 55; Kritz et al. 1988), and the data in Table 5 is probably due to incomplete sampling as well as to a drop in female participation.

References

Alberti, A. 1991. Impact of participation in nontraditional agricultural export production on the employment, income, and quality of life of women in Guatemala, Honduras, and Costa Rica. Report submitted to U.S. Agency for International Development, Guatemala. Washington, D.C.: Chemonics.

Arizpe, L., and Aranda, J. 1981. The "comparative advantages" of women's disadvantages: Women workers in the strawberry export agribusiness in Mexico. Signs 7:453-73.

Ayala, A. 1993. Empleo feminino y salud ocupacional. In Desafios en la agroexportacion no tradicional: Impactos ambientales y sociales, ed. W. Waters, 89-96. Quito: Memorias de los seminarios.

Banco Central. 1995. Medicion del empleo mediante encuestas de hogares y caracteristicas del mercado de trabajo (1991-1994). Santo Domingo: Banco Central.

Barham, B.; Clark, M.; Katz, E.; and Schurman, R. 1992. Non-traditional agricultural exports in Latin America: Toward an appraisal. Latin American Research Review 27(2):43-82.

Beneria, L. 1989. Gender and the global economy. In Instability and change in the world economy, ed. A. MacEwan and W. Tabb, 24-58. New York: Monthly Review Press.

-----. 1992. The Mexican debt crisis: Restructuring the economy and the household. In Unequal burden, ed. L. Beneria and S. Feldman, 83-104. Boulder, Colo.: Westview Press.

Bobbin Consulting Group. 1988. Sourcing: Caribbean option. Columbia, S.C.: Bobbin Consulting Group.

Brown, R. 1991. Trends in CBI agricultural trade. Paper presented at the Latin American Studies Association Meeting, 5 April, in Washington, D.C.

Harnessing women's work: restructuring agricultural and industrial labor forces in the Dominican Republic.

Burgaud, J. 1986. The new Caribbean deal. London: Economist Publications.

Ceara Hatton, M. 1984. Tendencia estructurales y coyuntura de la economia Dominicana 1968-83. Santo Domingo: Nuevas Rutas.

-----. 1990. De Guzman a Balaguer: De la "demanda inducida" a la "reactivacion desordenada." El Siglo, 31 March, 6D.

-----. 1993. De reactivacion desordenada hacia el ajuste con liberalizacion y apertura. Paper presented at Research Workshop on the Dominican Republic, City University of New York, 23 April, in New York.

Centro Dominicana de Promocion de Exportaciones (CEDOPEX). 1980-91. Boletin estadistico (various editions). Santo Domingo: CEDOPEX.

Clapp, R. 1995. Creating competitive advantage: Forest policy as industrial policy in Chile. Economic Geography 71:273-96.

Collins, J. L. 1993. Gender, contracts and wage work: Agricultural restructuring in Brazil's Sao Francisco Valley. Development and Change 24:53-82.

Confederacion National de Trabajadores Dominicanos (CNTD). 1994. El movimiento sindical y las zonas francas en Republica Dominicana. Paper presented at Seminario Estrategia Sindical en Zonas Francas y Maquilas, 14-16 February, in Santo Domingo.

Consejo Nacional de Zonas Francas de Exportacion (CNZFE). 1994. Informe del sector de zonas francas correspondiente al 1994. Santo Domingo: CNZFE.

-----. 1990-94. Internal documents. Santo Domingo.

Consultoras Asociadas S.A. (CONSA). 1989. Estudio sobre zonas francas y mano de obra femenina en el Caribe. Santo Domingo: CONSA.

Cornia, G.; Jolly, R.; and Stewart, F., eds. 1987. Adjustment with a human face. Oxford: Oxford University Press.

Deere, C. D.; Antrobus, P.; Bolles, L.; Melendez, E.; Phillips, P.; Rivers, M.; and Sara, H. 1990. In the shadows of the sun. Boulder, Colo.: Westview Press.

Departamento Tecnico Agroindustrial. 1990. Internal registry of firms qualifying under Law #409. Santo Domingo.

Dietz, J., and Pantojas-Garcia, E. 1994. Neo-liberal policies and Caribbean development. 21st Century Policy Review 2(1-2):17-40.

Dottin, M.; Arango, A.; and Lizardo, M. 1987. La trabajadora invisible: La participacion economica de la mujer. In La mujer rural Dominicana, ed. Centro de Investigacion para la Accion Femenina (CIPAF), 167-84. Santo Domingo: Editora Buho.

Duarte, I. 1986. Trabajadores urbanos: Ensayos sobre fuerza laboral en Republica Dominicana. Santo Domingo: Editora Universitaria del la Universidad Autonoma de Santo Domingo.

Duarte, I.; Baez, C.; Gomez, C.; and Ariza, M. 1989. Poblacion y condicion de la mujer en Republica Dominicana. Santo Domingo: Instituto de Estudios de Poblacion y Desarrollo.

Elson, D. 1994. Uneven development and the textiles and clothing industry. In Capitalism and development, ed. L. Sklair, 189-210. London: Routledge.

Elson, D., and Pearson, R. 1984. The subordination of women and the internationalization of factory production. In Of

Harnessing women's work: restructuring agricultural and industrial labor forces in the Dominican Republic.

marriage and the market, ed. K. Young, C. Wolkowitz, and R. McCullagh, 18-40. London: Routledge.

Finlay, B. 1989. The women of Azua: Work and family in the Dominican Republic. New York: Praegar.

Fundacion APEC de Credito Educativo (FundApec). 1992. Encuesta nacional de mario de obra. Santo Domingo: FundApec.

Humphrey, J. 1996. Responses to recession and restructuring: Employment trends in Sao Paulo metropolitan region, 1979-87. Journal of Development Studies 33(1):40-62.

Inter-American Development Bank (IDB). 1990. Economic and social progress in Latin America: 1990 report. Washington, D.C.: Johns Hopkins University Press.

Joekes, S. 1987a. Employment in industrial free zones in the Dominican Republic. Washington, D.C.: International Center for Research on Women.

-----. 1987b. Women in the world economy. New York: Oxford University Press.

Kaplinsky, R. 1993. Export processing zones in the Dominican Republic: Transforming manufactures into commodities. World Development 21:1851-65.

Klak, T. 1995. A framework for studying Caribbean industrial policy. Economic Geography 71:297-317.

Kritz, E.; Evans, E.; Llona, A.; and Perea, M. 1988. Dominican Republic: Labor market situation. Washington, D.C.: Anita F. Allen Associates and International Science and Technology Institute.

Lim, L. 1990. Women's work in export factories: The politics of a cause. In Persistent inequalities, ed. I. Tinker, 101-22. New York: Oxford University Press.

Llambi, L. 1994. Comparative advantages and disadvantages in Latin American nontraditional fruit and vegetable exports. In The global restructuring of agro-food systems, ed. P. McMichael, 190-213. Ithaca, N.Y.: Cornell University Press.

McAfee, K. 1991. Storm signals: Structural adjustment and development alternatives in the Caribbean. Boston: South End Press.

Mathews, D. 1995. Export processing zones in the Dominican Republic: Their nature and trajectory. Ph.D. diss., University of Sussex.

Momsen, J. 1993. Women and change in the Caribbean. Bloomington: Indiana University Press.

-----. 1994. Tourism, gender and development in the Caribbean. In Tourism: A gender analysis, ed. V. Kinnaird and D. Hall, 106-20. New York: John Wiley and Sons.

Mones, B.; Grant, L.; Rosado, T.; and Hernandez, P. 1987. Proletarizacion fememina y el limitado mercado laboral agricola. In La mujer rural Dominicana, ed. Centro de Investigacion para la Accion Femenina, 167-84. Santo Domingo: Editora Buho.

Murphy, M. 1989. Respuestas Dominicanas frente a la crisis azucarera. Santo Domingo: Fundacion Friedrich Ebert.

Nanita-Kennett, M. 1992. Industrial free zones in the Dominican Republic. Caribbean Geography 3:200-204.

Oficina National de Estadistica (ONE). 1989. Republica Dominicana en cifras. Santo Domingo: ONE.

-----. 1993. Industrias de zona francas en la Republica Dominicana. Santo Domingo: ONE.

Harnessing women's work: restructuring agricultural and industrial labor forces in the Dominican Republic.

Ong, A. 1987. Spirits of resistance and capitalist discipline: Factory women in Malaysia. Albany: SUNY Press.

Pearson, R. 1988. Female workers in the First and Third Worlds: The greening of women's labor. In On work, ed. R. E. Pahl, 449-68. New York: Basil Blackwell.

Perez, M. 1993. Secretario dice empresas ZF irrespetan codigo de trabajo. Listin Diario, 19 June.

Pineda, M. 1990. La vida mia no es facil: La otra cara de la zona franca. Santo Domingo: Centro de Investigacion para la Accion Femenina.

Portes, A.; Itzigsohn, J.; and Dore-Cabral, C. 1994. Urbanization in the Caribbean Basin: Social change during the years of the crisis. Latin American Research Review 29(2):3-38.

Ramirez, A. 1995. CNTD acusa Secretaria de Trabajo esconder realidad sobre las zf. Listin Diario, 18 April.

Ramirez, N. 1993. La fuerza de trabajo en la Republica Dominicana. Santo Domingo: Instituto de Estudios de Poblacion y Desarrollo.

Raynolds, L. T. 1994a. Institutionalizing flexibility: A comparative analysis of Fordist and post-Fordist models of Third World agro-export production. In Commodity chains and global capitalism, ed. G. Gereffi and M. Korzeniewicz, 143-61. Westport, Conn.: Praeger.

-----. 1994b. The restructuring of Third World agro-exports: Changing production relations in the Dominican Republic. In The global restructuring of agro-food systems, ed. P. McMichael, 214-38. Ithaca, N.Y.: Cornell University Press.

-----. 1997. Restructuring national agriculture, agro-food trade, and agrarian livelihoods in the Caribbean. In Globalising food: Agrarian questions and global restructuring, ed. D. Goodman and M. Watts, 119-32. London: Routledge.

Rodriguez, N. 1992. Sexismo y discriminacion en la educacion tecnica en la Republica Dominicana. Santo Domingo: Centro de Investigacion para la Accion Femenina.

Safa, H. 1995. The myth of the male breadwinner. Boulder, Colo.: Westview Press.

-----. 1997. Where the big fish eat the little fish: Women's work in the free-trade zones. NACLA Report on the Americas 30(5):31-36.

Safa, H., and Antrobus, P. 1992. Women and the economic crisis in the Caribbean. In Unequal burden, ed. L. Beneria and S. Feldman, 49-82. Boulder, Colo.: Westview Press.

Sanchez Roa, A. 1989. Campesinos crisis agropecuaria e inflacion. Santo Domingo: Editora Corripio.

Santana, J. 1992. Reestructuracion neoliberal, zonas francas y proceso de urbanizacion en la region del Cibao: El caso de Santiago, Republica Dominicana. Santo Domingo: Facultad Latinoamericana de Ciencias Sociales.

Schoepfle, G., and Perez-Lopez, J. 1992. Export-oriented assembly operations in the Caribbean. In Trade issues in the Caribbean, ed. I. Tirado de Alonso, 125-58. Philadelphia: Gordon and Breach.

Standing, G. 1989. Global feminization through flexible labor. World Development 17: 1077-95.

Tardanico, R. 1993. Dimensions of structural adjustment: Gender and age in the Costa Rican labour market. Development and Change 24:511-39.

Thoumi, F. 1992. Economic policy, free zones and export assembly manufacturing in the Dominican Republic. In Trade issues in the Caribbean, ed. I. Tirado de Alonso, 159-74. Philadelphia: Gordon and Breach.

Harnessing women's work: restructuring agricultural and industrial labor forces in the Dominican Republic.

Thrupp, L. A. 1995. Bitter-sweet harvests for global supermarkets. Washington, D.C.: World Resources Institute.

Tiano, S. 1994. Patriarchy on the line: Labor, gender, and ideology in the Mexican maquila industry. Philadelphia: Temple University Press.

U.S. Department of Commerce. 1989. Caribbean basin investment survey databank. Washington, D.C.: U.S. Department of Commerce.

U.S. Department of Labor. 1993. Foreign labor trends: Dominican Republic (1992-1993). Washington, D.C.: U.S. Department of Labor.

U.S. Embassy. 1992. Foreign economic trends in the Dominican Republic. Santo Domingo: U.S. Embassy.

Walton, J., and Seddon, D. 1994. Free markets and food riots. New York: Basil Blackwell.

Watson, H. 1995. Global powershift and the techno-paradigm shift: The end of geography, world-market blocs, and the Caribbean. In Postintegration development in the Caribbean, ed. M. Aponte Garcia and C. Gautier Mayoral, 74-146. Rio Piedras, Puerto Rico: Center for Social Research.

Wilson, P. 1992. Exports and local development: Mexico's new maquiladoras. Austin: University of Texas Press.

Wolf, D. L. 1992. Factory daughters: Gender, household dynamics and rural industrialization in Java. Berkeley: University of California Press.

Yelvington, K. 1993. Producing power: Ethnicity, gender, and class in a Caribbean workplace. Philadelphia: Temple University Press.