

SOCIOECONOMIC DIFFERENTIATION AMONG SMALL CULTIVATORS ON PARAGUAY'S EASTERN FRONTIER*

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Until the 1970s, Paraguay's eastern frontier was known primarily for its vast virgin forests and its domination by semifeudal enterprises engaged in extracting yerba maté and timber. After the 1970s, however, the extension of transportation networks, construction of the massive binational Itaipú hydroelectric works, and the release of state lands for private purchase paved the way for large-scale in-migration, settlement, and transformation of the region into a zone for commercial agriculture. In less than two decades, the rapid expansion of soybean production into this area has catapulted Paraguay into the ranks of the world's major exporters of soybeans.

This process has been described by some as the "internationalization" of Brazil's agricultural frontier because of the large proportion of Brazilians who have settled in the region.¹ Brazilians began entering the region in large numbers during the 1960s, with immigration peaking in the late 1970s. Estimates of the number of immigrants vary widely, and many are patently unreliable. An informed estimate for 1981 placed the number of Brazilian settlers in the Paraguayan departments of Alto Paraná, Canindeyú, and Amambay at 320,000 (Kohlhepp 1983). The most reliable current estimates set the number of Brazilian settlers at 250,000 to 300,000.² According to the 1982 population census, foreigners accounted for almost a quarter of the population of Alto Paraná and nearly half the population of Canindeyú (DGEC 1986). Kohlhepp, however, estimates the

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1. Brazilian capital has also figured prominently in the development of the region. That aspect of the "internationalization" of Brazil's frontier will not be treated here.

2. This estimate is based on personal communications from local researchers and development workers, embassy officials, and religious authorities in the eastern border zone.

proportion of Brazilians in the population of these two departments and Amambay at 60 percent (1983, 17). In rural areas, the latter figure is undoubtedly the more accurate. Of these Brazilian settlers, 60 to 70 percent are thought to be of German ancestry.³

Integration of these immigrants into Paraguayan society has become a key issue for critics of Paraguay's development strategy.⁴ A central concern is the immigrants' economic performance relative to that of Paraguayan settlers in the same zone. Although concerns and arguments vary, a dominant perspective has emerged among students of Paraguayan development on the process of social differentiation in the eastern border zone. This perspective emphasizes a dichotomy of Paraguayan peasants and Brazilian farmers as the defining feature of agricultural class structure in eastern Paraguay. Paraguayan settlers, it is commonly held, originate from the small-scale and landless peasants of central Paraguay and are drawn to the frontier by the promise of unused land. They come as subsistence producers with little experience in market agriculture or modern agricultural technology. Brazilian settlers, in contrast, are typically described as farmers—perhaps small-scale operators but predominantly involved in capitalist, not peasant, agriculture. Although the Brazilian settlers may have been dispossessed of their land in Brazil as a result of capitalist expansion, they nonetheless enjoy greater experience in commercial agriculture and greater access to capital and modern technology than Paraguayan settlers. As a result, Brazilians are commonly perceived as "more successful" when success is defined in commercial terms (World Bank 1978; Fogel 1982; Kleinpenning 1984). As the successful commercial—and Brazilian—enterprises expand, Paraguayan peasants are unable to compete and are voluntarily or involuntarily dispossessed of their land (Fogel 1982; Kleinpenning 1984). Capitalist expansion, having driven up the value of land, thus destroys Paraguayan peasants' traditional option of occupying unused lands (Zarza 1988), and hence Paraguayan settlers are being transformed into a dispossessed subproletariat (Fogel 1982).

In sum, according to the prevailing view, Paraguayans are becoming marginalized and dispossessed in their own country as the land they clear is purchased by better capitalized Brazilians and consolidated into

3. This figure was provided by the German Embassy in Asunción, based on a survey of clergy in the eastern border zone.

4. The Paraguayan state has long permitted and even encouraged the establishment of immigrant colonies within its territory, and integration of these immigrants has been discussed by Paraguayan intellectuals and politicians for some years. Several long-standing colonies populated by European groups are located in the eastern border department of Itapúa. Several Japanese colonies have also been founded in the eastern border zone. Although integration of these immigrant groups and their economic success raise significant questions, the present study focuses only on the most recent wave of Brazilian immigration.

large mechanized farms and agribusiness enterprises (Laíno 1977; Nickson 1981; Fogel 1982; Kohlhepp 1983). The Paraguayan government and even some critics of its development policies note that the influx of capital and the greater "know-how" of Brazilian farmers has boosted national income (e.g., Nickson 1981; Baer and Birch 1984). But the overwhelming message is that the Paraguayan state has "sold out," and whether with complicity or not, Paraguay has been transformed into a dependency of Brazil (Nickson 1981; Kohlhepp 1983; Wilson, Hayes, and Margolis 1989). This perception of the pattern of development in eastern Paraguay quickly became a nationalistic rallying point for opposition to the policies of the regime of Alfredo Stroessner (e.g., Laíno 1977).

While this view captures some important aspects of socioeconomic development in eastern Paraguay, it oversimplifies the complex patterns of social differentiation among the rapidly evolving population of small producers. Although Paraguayan observers closest to the situation carefully distinguish Brazilian farmer-settlers from a semiproletarianized sharecropper or day-laborer population (Fogel 1982; Palau and Heikel 1987), few analyses have given serious attention to differentiation within the population of Brazilian immigrants. Similarly, little discussion has been devoted to differentiation within the group of Paraguayan settlers or to the ways in which Paraguayan settlers may successfully enter the expanding commercial economy of the region.

The purpose of this article is to examine in greater detail the patterns of socioeconomic differentiation among Paraguayan and Brazilian settlers in one part of the eastern border zone. Based on fieldwork in northern Alto Paraná, this analysis will address two key questions. First, to what degree and in what ways are Paraguayan settlers integrated into the expanding commercial agricultural economy? Specifically, how do patterns of agricultural production and market incorporation—and by implication, the "success"—of small-scale Paraguayan agriculturalists differ from those of small-scale Brazilian agriculturalists? Second, what factors account for the significant variations found within and among ethnic groups in these patterns of economic incorporation? The answers to these questions hold significant implications for the emerging agrarian class structure of eastern Paraguay and also for relations between Paraguayan and Brazilian settlers.

PIONEER CULTIVATORS AND FRONTIER EXPANSION

Questions about differentiation between Paraguayan and Brazilian cultivators in eastern Paraguay are related to theoretical debates in the literature on Latin American frontier expansion. Most analysts of the Paraguayan frontier have taken a dualistic approach, arguing that Paraguayan peasant production and Brazilian capitalist production are dis-

crete and fundamentally opposed economic forms and that Paraguayan peasant producers over time are being supplanted by Brazilian capitalist farmers. This argument, although framed in terms of a specific case with powerful nationalistic overtones, reflects an underlying conception of frontier expansion prevailing in much of the literature on Latin American frontiers. While the specifics vary, frontier expansion is typically viewed as a cycle in which geographic areas previously outside the capitalist economy are progressively incorporated into the national and international economy. For example, frontier expansion has been described as a shift from a subsistence to a market-oriented frontier (Katzman 1976) or from noncapitalist to capitalist economic forms (Foweraker 1981).

The most extensive analysis of this process is provided by Joe Foweraker (1981), who describes frontier expansion as a three-stage process. In the first stage, economic relations are predominantly noncapitalist and economic activity is extractive (like mining, rubber extraction, lumbering). The second stage brings settlement, as pioneer cultivators "open" the frontier. The essential features of this stage are defined by the struggle between pioneer cultivators and more powerful capitalist actors who seek to appropriate the value that the former have created by clearing and planting the land. Foweraker calls the social relations that dominate this stage "subcapitalist" because although they feed capitalist accumulation in the national center, they are based on coercive, nonmarket relations. One manifestation of these coercive mechanisms of subcapitalist accumulation is the violence that occurs on the frontier. The third stage encompasses the ascendance of purely capitalist relations of production and integration of the frontier into the national and international economy.

According to Foweraker, in Brazil this cycle has reproduced the minifundia pattern of coastal agricultural zones: pioneer cultivators are unable to defend themselves against powerful capitalist interests, voluntarily or involuntarily give up the land they have cleared, and either are pushed deeper into the forest to start anew or become laborers dependent on the cattle ranches or capitalist enterprises that have taken over the land.

Other analysts employing alternative conceptual approaches have arrived at similar conclusions. For example, anthropologist Maxine Margolis argues that pioneer cultivators are akin to "fugitive" (or r-strategist) nonhuman species, who reap advantages by being "ahead of the crowd" in exploiting a niche but lack the capacity to compete successfully against later, more powerful arrivals (Margolis 1973, 1977). Similarly, pioneers survive as a social group by means of an adaptive strategy of moving on, opening new territories, and repeating the cycle, always just one jump ahead of more powerful capitalist actors.

According to these models, the fundamental dynamic determining the fate of small producers is conflict between large-scale capitalist actors

and small-scale agricultural pioneers for control over the land and its product. Small-scale cultivators and large-scale capitalist enterprises are perceived as distinct, opposed, and unequal in power. Hence the ascendance of the capitalist economy implies the destruction of small-scale, noncapitalist activities. Even in cases where small agricultural producers have reportedly succeeded (Archetti and Stolen 1975, Morán 1981, Llambi 1988), the dualistic nature of frontier expansion is emphasized. Small producers survived as an important social group on these agricultural frontiers as commercial farmers, not as simple commodity producers (peasants).⁵ Their success has been attributed variously to the existence of opportunities for small investments in low-profit activities that are unattractive to larger capitalists, to biological or climatic limitations in the agricultural production process, and to legal and institutional barriers to large-scale investment. In other words, although conditions may exist under which small-scale farmers can outcompete large-scale investors for control over the land, most frontier analysts continue to conceive of capitalist production and simple commodity production as discrete and opposed forms of production, with capitalist forms ascendant.

In contrast to these dualist models, Charles Wood (1983) has suggested a conceptual approach to frontier expansion that is based on analyzing modes of production. This approach views capitalist and commodity production not as autonomous and incompatible but as interdependent parts of a single regional economy. Those adopting this conceptual approach look to the mechanisms by which these modes of production are connected and value is transferred from one (typically the commodity mode) to the other, arguing that noncapitalist modes contribute to capitalist expansion by providing cheap labor and cheap commodities. This line of reasoning holds in particular that peasant households assume the costs of reproducing the labor force through their own subsistence production, thereby reducing the wages that capitalist enterprises must pay temporary labor obtained from the peasant sector. Seasonal or temporary labor migration thus becomes a key mechanism transferring value from peasant to capitalist modes (Portes 1978; Roberts 1978; Meillassoux 1983). Low-cost commodities produced by the peasant sector, such as foodstuffs for local markets, similarly allow capitalist enterprises to pay lower wages and hence increase their profits (Foweraker 1981; Wood 1983).⁶

5. The concept of peasant or simple (petty) commodity production has generated considerable debate, which I will not attempt to resolve here. For the purposes of this article, *simple commodity production* is defined as a form of production based on domestic labor that is engaged in simple maintenance of the household and is incapable of sustained capital accumulation. It can be contrasted with petty capitalist production, which is similarly small-scale and dependent largely on domestic labor but is engaged in sustained capital accumulation.

6. These mechanisms of articulation and the approach based on modes of production have been widely discussed in the past decade. For a review of this literature, see Roseberry (1988).

Although the modes of production approach does not yield specific hypotheses regarding social structural outcomes of frontier expansion, as dualist models do, it suggests several useful empirical directives for analyzing frontier situations. Rather than assuming that peasant and capitalist production are in conflict, this approach focuses on the ways that the two may be interdependent. It emphasizes the need to look for diversity within capitalist as well as noncapitalist production.

These conceptual debates suggest the importance of examining variations in the ways in which producers are connected to labor and commodity markets at the local level and of analyzing how these connections are expressed through differing production, marketing, and investment strategies. The remainder of this article will adopt this approach in order to provide a more detailed picture of ethnic differentiation in eastern Paraguay.

The research reported here is based on material gathered through fieldwork conducted in northern Alto Paraná and Canindeyú during 1987–88. The fieldwork focused on four communities: Santa Fé, Paso Itá, and Minga Porâ in the department of Alto Paraná and Katueté in the department of Canindeyú. Field observations and interviews were supplemented with more detailed data on agricultural production and marketing practices gathered from a sample of small and medium-sized agricultural units in each community. A geographic block-sampling technique was utilized in Santa Fé, Paso Itá, and Minga Porâ, while in Katueté, a random sample was drawn from the membership list of ASAGRAPA (Asociación de Agricultores de Alto Paraná), a small producer association active in the area.⁷ Three teams of interviewers were employed to assist with the survey. All were residents of the area who were familiar with the local communities and fluent in the languages of the community (or communities) where they conducted interviews. To facilitate comparability with other research on agricultural practices in Paraguay, the survey instrument replicated some of the items utilized by Fogel (1974), Campos (1986), and Palau and Heikel (1987).⁸

7. In Santa Fé, maps drawn by local public health workers in their most recent census of the community (January 1986) were used to designate blocks of similar population size. Interviewers were instructed to obtain a designated number of interviews in each geographic block. In Paso Itá and Minga Porâ, a similar technique was utilized, but geographic blocks were designated with information provided by technicians working with ASAGRAPA. Interviews in Katueté indicated few differences between the agricultural and marketing practices of ASAGRAPA members and those of nonmembers with landholdings of similar size. The most significant difference was that ASAGRAPA members had access to the alternative marketing channels provided by the organization, unlike nonmembers. Membership appears to be based on common participation in social networks rather than on economic criteria. Therefore, a random sample was taken from the list of 117 current ASAGRAPA members in Katueté.

8. These surveys contain nearly identical items for measuring agricultural production and marketing practices. In addition, the questionnaire used in this research included items on household structure, migration history, and basic demographic characteristics, as well as

The following section will discuss the processes that shaped frontier expansion in eastern Paraguay, especially those affecting access to the land. The remaining sections will present more detailed data from the field studies in the four communities.

FRONTIER EXPANSION IN EASTERN PARAGUAY

The factors that made possible the rapid development of Paraguay's eastern border zone have been discussed elsewhere and will only be summarized here.⁹ By the mid-1960s, increasing concentration of land and the displacement of small agriculturalists in central Paraguay and in neighboring areas of Brazil had created a ready pool of potential pioneer settlers. These settlers were attracted to eastern Paraguay because of the large tracts of unused government land made available for sale and development beginning in the late 1960s. Rapid development of the area was also stimulated by the extension of transportation networks, the establishment of the city of Puerto Presidente Stroessner (now Ciudad del Este), and the construction of the Itaipú hydroelectric project.

During the 1970s, the region boomed demographically and economically. Figures from the population census show that between 1962 and 1982, the population of the four border departments (Itapúa, Alto Paraná, Canindeyú, and Amambay) increased by 186 percent, while the national population increased by only 63 percent (DGEC 1986). The population of Alto Paraná and Canindeyú together increased from 24,000 in 1962 to 266,000 in 1982. These two departments also experienced the heaviest Brazilian immigration.

Settlement occurred through three different mechanisms. In the first, "official" colonies were established by resettling agriculturalists on state lands under the auspices of the Instituto de Bienestar Rural (IBR), an agency of the Paraguayan government. Formed in 1963 in response to growing unrest and land conflicts, the IBR was charged with stimulating colonization of unused agricultural lands, fostering more equitable distribution of land, and legalizing the position of squatters. The IBR began establishing colonies in eastern Paraguay during the 1960s and became the major Paraguayan institution involved in colonizing the eastern border zone. In the second form of settlement, private commercial enterprises (*colonizadoras*), typically Brazilian or joint Paraguayan-Brazilian, managed colonization. The *colonizadoras* measured and advertised the

items designed to identify ethnicity. A more complete description of the survey methodology can be obtained from the author.

9. For a more complete description of the economic and political factors that stimulated rapid opening and development of the eastern border zone, see Alegre (1977), Baer and Birch (1984), Kleinpenning (1984), Laíno (1977), Nickson (1981), Palau and Heikel (1987), Rivarola (1982), and Ziche (1979).

lots (most often in Brazil) and managed financial transactions with settlers. In the third form of settlement, spontaneous occupation, groups of campesinos organized to occupy unused land belonging to the government or to large landholders (see Zarza 1988). In some cases, invasions involved Paraguayan occupants and in others, both Paraguayan and Brazilian occupants. Although in some cases the squatters were evicted, in others the IBR eventually expropriated the land and legalized the occupation, but usually only after bitter conflict.

These mechanisms of settlement hold major interrelated implications for the socioeconomic composition of individual communities. Settlers in private colonies generally possess larger landholdings and more secure titles than those in other kinds of settlements. They are also predominantly Brazilian for several reasons. First, the institutional structure of private colonization was oriented heavily toward Brazilian colonization. Many colonizadoras were Brazilian, and lots were advertised for sale in Brazil.

Second, because private colonization is a commercial enterprise, the land was settled by those with sufficient cash to purchase lots. Although most of the Brazilian settlers who came to Paraguay to cultivate land had been small farmers prior to migrating, the dramatic difference in land prices on the two sides of the border allowed them to purchase much larger tracts of land in Paraguay with the proceeds from selling their small plots in Brazil. This differential gave some Brazilians a considerable capital advantage. For example, one family now living in the northern part of Itapúa sold a plot consisting of 14 hectares of "poor land" located on a steep, rocky hillside in Brazil and moved to Paraguay in 1983. Initially, they bought a plot of only 50 hectares in Paraguay because, they explained, they "were afraid the Paraguayans would throw us out." After several years, however, their confidence increased, and they sold that parcel (whose value had inflated) and bought a larger farm consisting of 100 hectares. They were also able to purchase a car, a tractor, and farm implements. This family has been unusually successful, but it is not uncommon to find families similar to one in Santa Fé who purchased a parcel of 25 hectares in Paraguay with the proceeds from selling their plot of 4.5 hectares in Brazil.

Although this advantage is substantial, it should be emphasized that not all Brazilians have been in a position to enjoy it. Only about half of the Brazilians surveyed for this study who were not of German descent had owned land prior to immigrating to Paraguay.¹⁰ This distribution is similar to the proportion of Paraguayans who reported owning land prior to migrating to the border zone. But Paraguayan migrants who had sold

10. In contrast, more than 80 percent of the German-Brazilians previously owned land.

small parcels did not benefit from the international differential in land prices, as did Brazilian landowners. Consequently, even Paraguayans who previously owned land are much more likely than Brazilians to seek land through spontaneous occupation.

In general, settlers in private colonies also enjoy greater security of access to land than those in colonies formed through other mechanisms. But because of ambiguities regarding landownership, dishonesty, and graft, even settlers in private colonies have experienced enormous problems in obtaining clear titles to their land. Many paid off part or all of their debts to one alleged owner, only to have another party appear on the scene claiming to be the true owner of the land. Stories abound of families who have paid for their small plots three or four times over. In most of the older colonies, title disputes have now been resolved by the government. But in more recently established communities, conflicting claims continue to fuel tensions and confound the settlers' security of land tenure.¹¹

Settlers who participate in land invasions are threatened with more than losing the land they claim—they can and have suffered imprisonment or worse. Moreover, in colonies where the invasion has been recognized by the IBR and in official colonies, IBR policies themselves have exacerbated land insecurity for the predominantly Paraguayan settlers. For example, the IBR has periodically made retroactive adjustments in land values. By exacerbating debts for land already purchased, these adjustments can force settlers off the land. In one example cited in a national newspaper, a colonist purchased 20 hectares of land at 1,200 *guaraníes* per hectare, for a total cost of 24,000 *guaraníes*. The IBR later augmented the price of land to 3,000 *guaraníes* per hectare. The colonist, who believed the latter price applied, went to pay off his debt, which he believed to be 60,000 *guaraníes*. Instead, he was informed that he owed 160,000 *guaraníes*, in accordance with the new price of 8,000 *guaraníes* per hectare set by the IBR. Having no hope of raising this amount, the colonist (like many others) sold his interest in the land and moved deeper into the forest to clear new land.¹²

By 1988, IBR prices in Alto Paraná had reached 80,000 *guaraníes* (about ninety-four dollars) per hectare. This price has made it virtually impossible for small producers to pay their annual quotas. Often, settlers simply give up trying to meet their payments, in which case the IBR can

11. In one recent case, more than seventeen false titleholders appeared on the scene after the death of the original owner of a massive tract in Canindeyú, claiming part or all of the original tract. Eventually, the IBR began expropriation proceedings. In the meantime, settlers who had been living on part of the land for as long as twenty years were threatened with violent eviction, even though many of them had paid the original owner for land rights. These threats continued even after expropriation.

12. See Alcibiades González Delvalle and Justo Meza, "De espaldas al país," pt. 10, *ABC Color*, 1 May 1977, p. 12.

legally evict them. Although evictions have taken place in some individual cases, many settlers remain on the land in a kind of legal limbo or sell their interest to someone with cash and move on.

In sum, these settlement patterns have combined to create a social landscape of more or less homogeneous ethnic communities with disparate land-tenure patterns and problems. Colonies formed through private colonization efforts are still predominantly Brazilian, and the oldest ones like Katueté, Mbaracayu (also known as Gleba 6), and Pikyry are predominantly German-Brazilian (or German and Polish-Brazilian). In the older colonies, most settlers have land titles, and although plots may vary widely in size, they tend to be relatively large, reflecting the preferences of colonizadoras and the larger sums available to these settlers. Official colonies, although open to Brazilians, remain predominantly Paraguayan. Colonies formed through spontaneous occupation may have mixed Paraguayan-Brazilian populations but tend to be predominantly one or the other due to the barriers presented by different languages, cultures, and social networks. In official colonies as well as those formed by invasion, plots tend to be smaller (commonly 10 hectares or less), and because many settlers cannot pay their annual quotas, a high proportion of them remain squatters.

Reports of Brazilians purchasing land in or near predominantly Paraguayan colonies, whether formed through the IBR or through invasion, are common. Only rarely do Paraguayans purchase land in predominantly Brazilian colonies. But even in colonies composed of Brazilian agriculturalists, the commercial class and governmental and professional elites are typically Paraguayan. The population of Brazilian sharecroppers and day laborers (*boia fria*) that formed a key labor group during earlier phases of settlement has largely disappeared from the communities where my research was conducted.¹³ Some have moved on to new areas, and others have settled as small cultivators. A transitory population of Paraguayan day laborers continues to frequent the area, especially at harvest time. The nationality of the usually absent owners of large-scale tracts, which can cover hundreds or even thousands of hectares, varies widely, including Paraguayans and Brazilians as well as Argentine, Chilean, European, and U.S. individuals and firms.

Agricultural structure in the frontier zone has been defined by characteristics of the two major agroexport industries in the area—cotton and soybeans.¹⁴ Analysts of Paraguayan agriculture have stressed that

13. This group played a major role in clearing the land, often working as sharecroppers or laborers for absentee owners. They also provided labor for sawmills. Earlier reports describe them as extremely impoverished and insecure. See Hay (1982) and Palau and Heikel (1987). A small group can still be found on one large fazenda near Santa Fé, and some of the poorest Brazilian sharecroppers and squatters in the area apparently originated from this group.

14. Previously, some farmers in the zone raised wheat as a cash crop. The government's

cotton is produced by peasants on small plots with limited technology, while soybeans are produced by farmers on large plots with mechanized equipment (e.g., Palau, Fogel, and Heikel 1986; Campos 1987). Although not all soybeans are grown on large, mechanized plots, this dichotomy captures the fundamental distinction between the two sectors: the soybean industry is based predominantly on capitalist relations of production, while the cotton industry exploits the labor of peasant households to obtain a low-price commodity.¹⁵

Although the demographic distribution of production of the two commodities has attracted much attention, the more important differences lie in the mechanisms for transferring value, which are reflected in the marketing structures of the two industries. Both the cotton and soybean industries are dominated by export firms, who purchase commodities directly or indirectly through a chain of intermediaries and provide services and credit to producers. Cotton producers sell their harvest to shopkeepers, truckers, or *patrones* (sometimes landlords or employers but also more powerful or well-off patrons), who also provide them with seeds and credit. These intermediaries, in turn, sell the cotton to exporters.

The soybean industry operates through a number of grain marketing firms (*silos*), who dominate export of the crop. Soybean production was introduced into eastern Paraguay from Brazil, and not surprisingly, Brazilians figure prominently in this activity. Today, the silos have offices in many of the larger colonies in eastern Paraguay, where they purchase soybeans directly from producers. Producers may contract with the silos and depend on them for seeds, agricultural chemicals, and cash advances. The silos also provide combines and other equipment for harvest. Silos prefer to deal with larger producers, leaving the purchase of soybeans from small producers and those in more remote colonies to a fleet of trucker-intermediaries. These truckers are themselves usually under contract with a silo, and some in turn contract with producers. The truckers

wheat program is viewed as a failure, however, and several grain dealers indicated that they would no longer buy wheat from farmers. Very few farmers in the zone grew wheat in 1987–88. During the early phases of clearing the land, the sale of timber was an important source of cash, as was, to a lesser degree, the sale of mint or mint extract. Although a number of lumber mills continue to operate in this part of the border zone, neither of these commodities is a major source of income for agriculturalists today.

15. As one anonymous reviewer pointed out, these marketing structures are not random creations of local exporters. Cotton has been an important cash crop in Paraguay for centuries and has provided a means of absorbing family labor for small-scale producers. Soybeans were introduced only recently in Paraguay and are harvested mechanically on all but the tiniest plots. The differing market structures can be traced to the historical conditions under which the commodities became important export crops and to labor availability and other technical demands. A full discussion of these factors lies beyond the scope of this article, however. For a history and analysis of the cotton industry in Paraguay, see Martínez Cuevas (1984) and Molinas Vega (1987). A comparison of the cotton and soybean sectors is found in Palau, Fogel, and Heikel (1986).

pay lower prices than the silos, putting small and more isolated producers at a competitive disadvantage.¹⁶

Some officials in local silo offices complain privately that the credit relations they oversee lock farmers into a perpetual cycle of debt. Thus to some extent, producers of the two commodities face similar problems of debt and dependence. A critical difference exists in the pricing mechanisms associated with the two commodities, however. Soybean prices fluctuate according to the international market, and the marketing structure is competitive. Producers can gain or lose accordingly and may become adept at playing the silos off against each other.¹⁷ Cotton prices, in contrast, are regulated by the government and are generally set at a low level that is advantageous to exporters but not to producers. During the harvest of 1988, when the relatively scarce supply of labor drove up the price that producers had to pay pickers, many complained that government prices for cotton were so low that it was not worthwhile to harvest. One angry critic compared Paraguayan government policy to the *mita* of colonial times.¹⁸ It may be fair to say that the government has acted as an intermediary for the cotton exporters in maintaining subcapitalist structures of accumulation and labor control.

As will become clear in discussing the four case studies, some small producers have responded to economic conditions in the eastern border zone by emphasizing other commodities or by developing alternative marketing strategies. But the institutional structures of cotton and soybean production and marketing clearly dominate the agricultural economy of this area. Which of these commodities agriculturalists produce indicates whether they are embedded in subcapitalist relations of production (petty commodity production) or capitalist ones.

16. For example, residents of the isolated community of Kilómetro 12 depend almost entirely on intermediaries or a patrón to sell their soybeans or cotton and to purchase inputs. In 1988 these intermediaries charged 11,000 guaraníes per kilo for insecticides in this community when they could be purchased for only 5000 guaraníes per kilo in the town of Hernandarias. While soybeans were selling for 105 guaraníes per kilo in Hernandarias, producers in Kilómetro 12 received 100 guaraníes per kilo at best.

17. The power of the silos, even with these contracts, is contested. During the harvest of 1988, silos found themselves falling short of their own contracts with the major international grain merchants and intense competition among the silos ensued. Rival silos encouraged producers to break their contracts, offering higher prices or equipment or both for harvest or transport. Silo managers jealously guarded their contracts, visiting farmers under contract to them frequently to ensure that the contracted soybeans were not surreptitiously sold to rival silos. In one case, a local silo officer enlisted local police to threaten producers in an effort to force them to sell their harvest to him rather than to a rival silo. The rival meanwhile enlisted regional military officials to help reassure producers that they would be protected and to make sure that they did not break their contracts.

18. Juan Antonio Monges, quoted in *Hoy*, 24 Feb. 1988, p. 14.

TABLE 1 *Characteristics of Four New Communities in Eastern Paraguay*

<i>Community</i>	<i>Year Settled^a</i>	<i>Settlement Mechanism</i>	<i>Estimated Population^b</i>	<i>Major Ethnic Group</i>
Santa Fé	1969	Private (later taken over by IBR)	4500	Non-German Brazilian
Paso Itá	1977	Official	3000	Paraguayan
Katueté	1971–72	Private	4500	German- Brazilian
Minga Porâ	1984	Invasion	450 families	Paraguayan

^aDates are approximate.

^bPopulation estimates are for urban settlement and surrounding rural areas. For Santa Fé and Paso Itá, estimates were based on the most recent surveys by local health workers. Minga Porâ estimates were given by local residents. Estimates for Katueté come from Hay (1982) and local residents. No reliable census data exist, and in all cases, estimates provided by local officials, clergy, and residents varied widely. These figures are deemed to be best estimates, based on interviews and the author's own counts.

THE CASE STUDIES

Although no single community in this zone could be said to be typical, the communities chosen for this study represent the major differences in composition and experience that characterize the zone. Table 1 provides background information on the size, mechanisms of settlement, and ethnic composition of each community.

The most intensive case study focused on Santa Fé because it has a more mixed ethnic population than most settlements. Initially colonized through a private colonizadora, management problems became so severe that the IBR intervened to clear up title disputes. Brazilians comprise the largest population group, with non-Germans predominating over a smaller group of German-Brazilians. Paraguayans comprise 10 to 15 percent of the population, although estimates are complicated by a transitory Paraguayan population of day laborers.

The small, nearby settlement of Kilómetro 12 was also included in the case study of Santa Fé. Located on land now owned by the Empresa Binacional de Itaipú, Kilómetro 12 is made up of relatively recent migrants to the area, both Paraguayan and Brazilian, nearly all of them squatters. The settlement has no bus service, neither teacher nor public health official, and only a few small shops that provide basic necessities. Kilómetro 12 thus exists as a satellite of Santa Fé, but its isolation and land-tenure insecurity place residents at an economic disadvantage. Where applicable, differences between the agricultural practices of this community and the rest of Santa Fé will be pointed out.

Paso Itá, part of Colonia Itaipyte, was formed from lands previously held by the giant Anglo-Argentine yerba company, La Industrial

Paraguay. Although these lands were expropriated by the IBR and parceled out for colonization in 1977, legal battles over the expropriation continue, and virtually all the residents interviewed were technically squatters. The population of Paso Itá is entirely Paraguayan.¹⁹

In Katueté (in the department of Canindeyú), in contrast, the settlers are overwhelmingly German-Brazilian.²⁰ Many speak German at home, and a number of older people speak only German. Despite a continuing turnover in population, the community is well established. Most agriculturalists here are landowners with relatively large holdings.

Minga Porâ, the most recently founded community included in the study, was born in 1984, when a group of colonists invaded lands held by an absentee Argentine owner. After a bitter conflict, the IBR stepped in to expropriate the land. While the IBR has delineated parcels, the official price is so high that virtually none of the settlers could ever hope to buy land. Hence most residents are squatters, and some have already sold their interest in the land to newcomers with ready cash. The community is predominantly Paraguayan, with a small population of Brazilian settlers.

Although many observers emphasize the nationality issue, important ethnic and religious identities also differentiate groups within the eastern border zone. Of particular importance, Brazilian immigrants themselves distinguish between so-called *alemanes* (German-Brazilians) and *brasileiros* (Brazilians).²¹ This ethnic identity is attributed only partly according to descent. Not all Brazilian immigrants claiming German forbears consider themselves or are considered by others to be "alemán." The distinguishing factor is participation in a community based on German cultural identity, the main indicator being use of the German language. Religion also provides a basis for identification, as most German-Brazilians are Lutheran whereas most non-German Brazilians are Catholic.²² These designations were most important in Santa Fé, the most mixed community in this study. In the study, households were classified as Paraguayan or Brazilian according to the nationality of the head of household.²³ Brazilian households in which German is spoken were classified

19. Although local residents report that Brazilians are entering the area, I was unable to locate any of these newcomers.

20. The community and its history is described in detail in Hay (1982).

21. Race was not an important factor in this distinction. Obviously, the racial and ancestry categories overlap. But not all blond, blue-eyed individuals of German descent consider themselves to be alemán. These designations held the most importance in Santa Fé, the most mixed community included in this study.

22. Religious affiliation provides a more complex basis for identity than this general pattern might imply, however. An important schism, even hostility, exists between Missouri Synod Lutherans and other Lutherans. Other Protestant groups are also active in this area, notably the Pentacostalists and the Assembly of God.

23. Inter-marriage is rare in this zone. Only one of the surveyed households contained a Paraguayan-Brazilian couple.

TABLE 2 *Percentage of Landholdings by Size and Nationality of Landholder, Eastern Paraguayan Border Zone, 1981*

Hectares of Land	Eastern Border Zone ^a		Alto Paraná ^b		Canindeyú ^c	
	Paraguayan	Brazilian	Paraguayan	Brazilian	Paraguayan	Brazilian
Less than 5	19.5	6.6	22.6	4.9	14.2	8.2
5 to 10	17.1	20.5	15.0	20.5	16.7	24.3
10 to 20	29.0	28.9	23.7	27.3	33.7	33.8
20 to 50	25.2	30.7	30.5	34.1	25.3	23.0
50 to 100	4.4	7.8	3.3	8.3	4.6	6.1
More than 100	4.1	5.7	3.7	4.8	4.9	4.6

Source: Calculated from the 1981 Agricultural Census (MAG 1985). The table includes only those with landholdings. Landholders of origins other than Paraguayan or Brazilian were omitted.

^aIncludes the departments of Itapúa, Alto Paraná, Canindeyú, and Amambay. In this zone, 15.5 percent of the landholders are Brazilian.

^bIn Alto Paraná, 38.2 percent of the landholders are Brazilian.

^cIn Canindeyú, 32.9 percent of the landholders are Brazilian.

as German-Brazilian; those not speaking German were classified simply as Brazilian, regardless of ancestry.

LANDHOLDING PATTERNS

As might be surmised from the foregoing discussion of settlement patterns, significant differences in land-tenure structure are manifested among these communities and their ethnic groups. Security of title as well as landholding size have been shown to be major determinants of production strategies in Brazilian frontier communities (Wood and Schmink 1979; Morán 1981), and they are clearly related to the opportunities available to Paraguayan and Brazilian settlers.

Aggregate data for eastern Paraguay, given in table 2, substantiate that Brazilians enjoy an advantage based on the size of their landholdings. On a regional level, the most significant difference is found in the smallest landholding category (less than 5 hectares). Whereas relatively few Brazilian landholdings fall in this category (6.6 percent for the region as a whole and 4.9 percent in Alto Paraná), approximately one-fifth of Paraguayan landholdings total less than 5 hectares. The distribution of Paraguayan and Brazilian landholders in larger, clearly commercial-sized categories is about even. Among the smaller landholders, Brazilians have access to more adequate landholdings.

Because the survey was conducted in a small number of communities chosen to represent major variations in settlement patterns and ethnic composition, the survey data cannot be interpreted as representative of land distribution patterns by ethnic group for the region as a

whole. The data nevertheless allow examination of differences by community and the ways in which production strategies differ according to landholding size (and by security of access to land, which in this case correlates highly with landholding size). For statistical analysis, agricultural units surveyed were classified into three categories according to the number of hectares of land planted in annual crops.²⁴ These landholding categories were defined in relationship to the unit's likely potential to meet an average family's subsistence needs. Technicians working with the small-producer association ASAGRAPA estimate that a cultivated plot of 4.3 hectares can provide a nutritionally balanced and varied diet for a household of ten members.²⁵ Using this estimate as a guide, units with less than 4.3 hectares under cultivation (whether in subsistence crops or not) were classified as "infrasubsistence," or too small to provide adequate subsistence for an average family. Units with 4.3 to 8.6 hectares under cultivation were classified as "subsistence." These units are likely to provide for household maintenance, but they offer little potential for capital accumulation. Units having 8.6 to 21.5 hectares were classified as "transitional," providing the potential for excess production and capital accumulation. Units with more than 21.5 hectares under cultivation clearly exceed subsistence production and can be classified as commercial farms. These large farm units were excluded from the data discussed here.²⁶

Table 3 summarizes landholding patterns in the four communities, based on the survey data (data on landholding size by ethnic group is included for descriptive purposes). As is true throughout this region, the two communities formed by private colonizadoras (Santa Fé and Katueté) have the largest average landholdings, while those communities formed

24. The amount of land actually cultivated in annual crops was chosen as an indicator of landholding size rather than total land claimed because the former figure more accurately reflects the realized productive capacity of a landholding. Most small agriculturalists in this zone claim more land than they actually cultivate. Although some of the uncultivated land is typically taken up by the homesite and sometimes by pasture, most of the land not under cultivation is either uncleared or covered with scrubby forest regrowth. For those who lack the resources to buy already cleared land or to hire a bulldozer, clearing the forest is a lengthy and labor-intensive process. Cultivated land provides a better measure of the potential for capital accumulation in the immediate future than does the total area of land claimed.

25. This estimate assumes that the entire 4.3 hectares is planted in subsistence crops. Actual subsistence potential is determined by other factors as well, particularly the quality of the soil and the age and activities of family members. These factors cannot adequately be taken into account without far more detailed household data than are available here. Technicians with ASAGRAPA assume an average household size of ten members. Although this figure may be typical in long-established communities, average household size in the survey communities was much smaller (5.3 persons). Thus these categories should provide a conservative estimate of the potential for surplus production.

26. Of the 144 survey respondents, 128 complete returns for households with landholdings in these categories were obtained. Three of these survey responses, all from Minga Porá, were from households present in the community less than one year. These three households were omitted from analyses where the data refer to the preceding year's harvest.

TABLE 3 *Size of Landholdings and Tenure of Small Cultivators in Four Communities in Eastern Paraguay, 1988*

<i>Community</i>	<i>Mean Size of Holding^a (in hectares)</i>	<i>Percentage of Occupants</i>	<i>(N)</i>
Santa Fé	9.4	25.0	(48)
Paraguayan	7.7	15.4	(13)
German-Brazilian	10.7	25.0	(8)
Brazilian	9.9	29.6	(27)
Paso Itá	5.2	100.0	(26)
Katueté	12.4	0.0	(15)
Minga Porâ	3.9	87.2	(39)
<i>Landholding Size</i>			
Infrasubsistence	2.6	86.0	(43)
Subsistence	6.1	57.5	(40)
Transitional	12.8	26.7	(45)
<i>Ethnic Group</i>			
Paraguayan	5.1	80.3	(76)
German-Brazilian	11.7	9.1	(22)
Brazilian	9.7	30.0	(30)

^aLandholding size calculated on the basis of land cleared and cultivated.

by invasion comprise significantly smaller landholdings. It is noteworthy that Paraguayans in the privately established colony of Santa Fé are concentrated more heavily in the two larger landholding categories (totaling 85 percent), whereas Paraguayans who are squatters (along with Brazilian squatters in Kilómetro 12) are concentrated heavily in the infrasubsistence category (half of those in Paso Itá and two-thirds in Minga Porâ have less than 4.3 cultivated hectares).

These data underscore the importance of mechanisms of settlement in addition to capital availability in determining access to land. As already discussed, access to land relates directly to the potential for surplus production, and hence market participation. As will be shown, land availability also bears a direct relation to specific production strategies.

AGRICULTURAL PRODUCTION AND MARKETING STRATEGIES

Several dimensions of agricultural production strategies distinguish communities and ethnic groups in this zone. The two most important dimensions are the degree to which producers depend on cash crops as opposed to subsistence production and the specific cash crops on which the producer depends. Both of these dimensions relate directly to

households' economic participation as simple commodity producers or as petty capitalist producers.

Almost all agriculturalists in these four communities produce both subsistence and cash crops, and almost all, however small their landholding, raise cotton, soybeans, or both. For most small and transitional producers, sales of cotton and soybeans provide most and often all the cash income from agriculture. In addition, a few individuals sell surplus food crops (primarily mandioca, corn, beans, and rice) or perennials (yerba maté or coffee), but these crops are not major sources of cash income. The other important agricultural activity is production of livestock and livestock products (milk, cheese, lard, and eggs). Except for cotton and soybeans, small producers produce all these items for their own consumption as well as for sale (if they are sold at all). Most households depend heavily on their own production to meet their basic food needs.

The survey provides more specific information about these production patterns. Two indicators of the relative importance of cash-crop production in small-cultivator production strategies can be seen in table 4. The first is the proportion of all agricultural production that is sold, calculated on the basis of market value.²⁷ Because fluctuating market values can produce a misleading picture of the importance of subsistence production for households, a second indicator is also presented: the proportion of all cultivated land planted in either of the major cash crops (soybeans and cotton).

The data in table 4 show less variation in level of production for subsistence than might be expected. Except in the case of Brazilians in Santa Fé, roughly half the agricultural production (measured by market value) is sold. The same pattern holds when market involvement is measured in terms of land devoted to major cash crops. The residents of Santa Fé, whatever their ethnicity, are more heavily involved in cash cropping than are residents of the other communities. Within Santa Fé, the Brazilian population is the most heavily involved in market agriculture.

Nevertheless, the production patterns in the four communities manifest several significant inconsistencies with the dominant perspective on ethnic production patterns. First, on average, one finds relatively little difference in the degree of dependence of Paraguayans and Brazilians on cash cropping as opposed to subsistence production. Although the non-German Brazilians of Santa Fé fit the image of market-oriented

27. The quantity of agricultural goods produced that were consumed on-farm was determined by the survey. On-farm consumption was assigned value based on prices respondents could obtain locally by selling the commodity either directly to neighbors or to shopkeepers or intermediaries. The prices reported by respondents were cross-checked with those of other respondents and against the prices reported by staff members of ASAGRAPA.

TABLE 4 *Production Strategies of Small Cultivators in Four Communities in Eastern Paraguay, 1987–1988*

<i>Community</i>	<i>Agricultural Products Sold (%)</i>	<i>Land Devoted to Cash Crops (%)</i>	<i>Producing Soybeans (%)</i>	<i>Producing Cotton (%)</i>
Santa Fé	61.9	49.8	52.1	50.0
Paraguayan	53.8	48.3	38.5	84.6
German-Brazilian	57.7	45.2	37.5	37.5
Brazilian	67.0	51.9	63.0	37.0
Paso Itá	45.1	40.8	19.2	100.0
Katueté	48.2	33.0	80.0	6.7
Minga Porâ	50.5	42.2	33.3	86.1
<i>Landholding Size</i>				
Infrasubsistence	40.6	33.0	16.3	79.1
Subsistence	60.9	43.4	32.5	77.5
Transitional	60.1	55.0	77.8	44.4
<i>Ethnic Group</i>				
Paraguayan	48.4	42.5	27.6	90.8
German-Brazilian	51.5	36.8	63.6	13.6
Brazilian	69.3	53.7	66.7	43.3

farmers, other Brazilian cultivators depend just as heavily on subsistence production as Paraguayans do. Furthermore, German-Brazilians in Katueté, despite owning the largest average landholdings, devote proportionately few of their resources to the major cash crops or to market production in general. Statistics on the proportion of agricultural value produced that is consumed on-farm reflect in part this group's greater involvement in livestock, especially dairy production. German-Brazilians generally own more livestock than either of the other two groups. German-Brazilians in Santa Fé and especially in Katueté are far more likely than either Paraguayans or other Brazilians to process relatively expensive animal products (milk, cheese, and lard) for their own consumption, as well as for sale. Paraguayans tend to concentrate on relatively low-priced commodities for themselves and for sale. Mandioca, corn, and cotton figure most prominently in their production strategies. But even in terms of land use, German-Brazilians in Katueté devote only a relatively small proportion of their land to the main cash crops.

Production patterns in these four communities also indicate that the popular image of Paraguayans as cotton producers and Brazilians as soybean producers is only partly accurate. Nearly all Paraguayans, wherever they live and however much land they have, raise cotton. But fewer Paraguayans in Santa Fé and Minga Porâ raise cotton than in Paso Itá. This

pattern largely results from the fact that while virtually every household in Paso Itá depends on sales of cotton as its main, if not sole, source of cash income, significant numbers of producers with tiny plots in Santa Fé and Minga Porã turn to off-farm labor as a source of cash income rather than devote their small plots to cotton production. Also, some Brazilians raise cotton rather than soybeans. Over one-third of both the German and non-German Brazilian producers in Santa Fé raise cotton. It is especially important among the Brazilian squatters in Kilómetro 12, where a majority of all producers, regardless of ethnicity, produce cotton rather than soybeans. Similarly, a number of Paraguayans experiment with soybeans. According to the survey, more than a third of the Paraguayans in Santa Fé and a third of those in Minga Porã raise soybeans. But while nearly all Paraguayans who raise soybeans also raise cotton, the Brazilians who raise cotton tend to forego soybean production.

These patterns of crop specialization are closely related to landholding size. Cotton is the cash crop of choice for infrasubsistence producers, whatever their nationality. While Paraguayans in the transitional landholding category generally continue to produce cotton, the proportion of Brazilian producers raising cotton drops off sharply when landholding size clearly exceeds subsistence levels. Although a few infrasubsistence and subsistence landholders have small plots of soybeans, production of this crop is clearly associated with larger landholdings. The relationship of soybean production to landholding size rather than to nationality is most evident in Santa Fé, where virtually no infrasubsistence landholders of any nationality produce soybeans. Among subsistence landholders, a small number of non-German Brazilians raise soybeans. But among transitional landholders, nearly all Paraguayan and non-German Brazilian producers raise soybeans. The difference is that the Paraguayans grow cotton too, while the Brazilians do not.

As indicated earlier, in eastern Paraguay the degree to which producers are integrated directly into capitalist market structures, as opposed to subcapitalist ones, relates directly to whether they raise cotton or soybeans. The dependence of Paraguayans on cotton means that Paraguayan settlers continue to be connected to the market as producers of cheap commodities. This outcome is particularly true in communities like Paso Itá, where cotton is virtually the only cash crop of significance. In Santa Fé, nearly half (42 percent) of the Paraguayans who raise cotton also raise soybeans. They are thus simultaneously involved in both capitalist and subcapitalist processes of accumulation.

As a further check on the specific mechanisms of market integration, the survey also included questions to determine the portion of all agricultural sales marketed through capitalist enterprises, as opposed to traditional intermediaries or other channels. For those agriculturalists who could report how much of their produce was sold and to whom, the

TABLE 5 *Marketing Channels Used by Small Producers in Four Communities in Eastern Paraguay, 1987-1988*

Community ^c	Percent of Total Agricultural Sales ^a			Soybeans Sold under Contract ^b
	Agribusiness (%)	Intermediary (%)	Patrón (%)	
Santa Fé	40.2	32.7	20.0	70.4
Paraguayan	23.0	28.0	46.6	72.7
German-Brazilian	39.5	22.1	23.3	59.5
Brazilian	48.7	38.2	6.3	71.6
Katueté	24.0	27.1	11.9	19.4
Minga Porâ	17.1	69.2	0.0	18.2
Landholding Size				
Infrasubistence	12.0	63.1	8.3	25.0
Subsistence	21.2	48.0	18.9	30.3
Transitional	46.2	25.5	15.7	51.7
Ethnic Group				
Paraguayan	16.5	53.4	21.1	34.2
German-Brazilian	30.7	26.3	13.0	28.0
Brazilian	43.7	38.2	6.3	65.6

^aBased on a subsample of ninety-one survey respondents who gave complete information on marketing mechanisms.

^bBased on a subsample of fifty-three survey respondents who produced soybeans and gave complete information on marketing mechanisms.

^cRespondents from Paso Itá are omitted from the data by community but included in totals by landholding size and ethnic group.

percentage of cash income from sales of agricultural goods derived from sales through each of five major mechanisms was calculated. These mechanisms are sales directly to agribusinesses (silos), sales through intermediaries (including truckers and shopkeepers), sales through cooperatives or producer associations, direct sales to neighbors or relatives, and sales to the patrón.²⁸ Table 5 summarizes the degree to which agriculturalists rely on various channels for marketing agricultural produce. Because sales through cooperatives and directly to neighbors or relatives comprise a relatively small portion of sales, data on these categories have been omitted.

Only in Santa Fé do small-scale agriculturalists sell a significant portion of their produce through modern agribusinesses. This trend reflects the active role and accessibility of silos in this community as well

28. Because only a few respondents in Paso Itá provided complete data on their marketing practices, data on this community are excluded from table 5. Informal interviews indicated that most sales in Paso Itá were made through intermediaries and patrones.

as the dominance of soybeans as a commercial crop. Silos have become highly competitive in Santa Fé and actively recruit clients. Most of the soybeans (70 percent in the survey sample) are produced under contract with a silo (or, in some cases, a trucker), thus locking producers into selling their produce through that particular silo at its price and obtaining credit and production inputs at the price it demands.

Cotton sales are made through truckers, shopkeepers, or *patrones*, regardless of nationality, but the greater participation of Paraguayans in cotton production makes Paraguayans more dependent than Brazilians on these marketing channels. A small proportion of produce is marketed through cooperatives, partly due to the relative absence of such organizations. Only in Katueté are direct sales or sales through cooperatives significant, accounting respectively for 17 percent and 20 percent of all sales. A small number of German-Brazilians in Santa Fé sell milk to a so-called dairy cooperative that is actually structured more like an agribusiness. Producers in Katueté who sell to a cooperative or association sell their crops through a small-producer association with outlets in several local communities and Ciudad del Este. A few producers in Minga Porâ sell part of their excess food crops through this same association.

In sum, although Paraguayan producers in these communities tend to be linked to the market via the traditional intermediaries of the cotton industry and Brazilians via capitalist institutions, three qualifications must be made about ethnic variations in production and marketing strategies. First, the German-Brazilians, even when they enjoy generous land resources, retain a powerful subsistence orientation. As a result of their distinctive production strategy, German-Brazilians enjoy not only a varied base of cash income utilizing several commodities and marketing channels but also a richer subsistence base than the other groups. Second, Paraguayans in both Minga Porâ and Santa Fé are entering the soybean economy and hence diversifying their relationships to the market. Finally, significant variations in patterns exist from one community to another, regardless of ethnicity. More isolated communities, particularly newer communities composed largely of small landholders and squatters, remain subject to the disadvantageous terms offered by intermediaries. Access to small-producer associations or cooperatives, which tend to be organized on a community-by-community basis, enables a few producers to bypass intermediaries and provides a potential advantage to those participating.

OFF-FARM EARNINGS

A second key issue is the dependence of small-scale producers on wage labor. Several observers have argued that Paraguayans are less able

TABLE 6 *Small Producer Viability and Dependence on Off-Farm Earnings in Four Communities in Eastern Paraguay, 1987-1988*

<i>Community</i>	<i>Autoconsumption per capita (guaraníes)</i>	<i>Returns per capita (guaraníes)</i>	<i>% Having Off-Farm Income</i>	<i>% of Income from Off- Farm Income^a</i>
Santa Fé	211,000	435,000	43.8	10.2
Paraguayan	182,000	336,000	61.5	18.3
German-Brazilian	324,000	634,000	25.0	9.2
Brazilian	191,000	424,000	40.7	4.5
Paso Itá	414,000	720,000	26.9	6.4
Katueté	455,000	757,000	46.7	14.0
Minga Porâ	103,000	183,000	72.2	21.6
<i>Landholding Size</i>				
Infrasubsistence	165,000	232,000	74.4	19.9
Subsistence	191,000	443,000	30.0	14.6
Transitional	361,000	651,000	37.8	6.2
<i>Ethnic Group</i>				
Paraguayan	218,000	374,000	54.0	18.3
German-Brazilian	414,000	723,000	40.9	12.9
Brazilian	176,000	420,000	36.7	4.5

Note: Sixty-one households were analyzed.

^aCalculated for those with off-farm income only.

to establish viable small agricultural units and hence become dispossessed, forming a cheap labor pool for capitalist enterprises.

As indicators of levels of this process, four measures will be considered. The first two seek to indicate the relative viability of agricultural units in meeting the maintenance needs of the household, either through subsistence production or cash income. These are the estimated value of production for autoconsumption per capita and the estimated total "returns" per capita (with returns defined as the estimated value of all agricultural goods produced minus production expenses). It should be emphasized that these are relative, not absolute, measures of viability. They simply indicate whether or not Brazilians are more successful in meeting their needs through agriculture. The remaining two measures indicate the degree of involvement in the paid labor force: the percentage of producers with off-farm income, and of these, the proportion of all available resources (estimated value of subsistence production plus all cash income) derived from off-farm earnings. Data on all four indicators are presented in table 6.

Estimates of the value of production for autoconsumption per capita, consistent with the data presented above, indicate that German-Brazilians in Katueté and Santa Fé and Paraguayans in Paso Itá achieve

relatively high levels of subsistence production. The composition of the subsistence packages differs significantly for these groups, however. While much of the value of autoconsumption goods for the German-Brazilians derives from animal products, the Paraguayans derive a greater share of their subsistence "value" from the staples of corn, mandioca, and beans. Hence the diets implied by these relatively high levels of autoconsumption differ considerably.

The recently cleared plots of the squatters in Minga Porâ provide the least adequate subsistence. The data on net agricultural returns per capita show a similar pattern. Even when adjusting for household size and taking into account production expenses, the German-Brazilians and Paraguayans in Paso Itá show relatively favorable levels of production, while those in Minga Porâ suffer the most disadvantaged position.

This disadvantage derives in part from the smaller amount of land that Minga Porâ residents have been able to clear and cultivate. The mean amount of land cultivated by the residents surveyed in Minga Porâ is less than 4 hectares, significantly less cultivated area than in other communities (see table 3). When the land devoted to the main commercial crops of cotton and soybeans is subtracted from this total, the average survey respondent in Minga Porâ is left with less than 2 hectares to devote to subsistence production.

This inadequate land base can be attributed to the newness of Minga Porâ and to the fact that much of the land remains uncleared. Most of the residents surveyed claim around 10 hectares, but less than half of it is cultivated. Moreover, the squatters in Minga Porâ lack both the capital and the manpower to clear the land quickly and get it into production. Heads of households in Minga Porâ are younger on average than those in other communities (thirty-six years old, as compared with forty-six in Paso Itá, fifty for German-Brazilians in Santa Fé, and forty-two for the overall sample). They also have smaller households with fewer adults to help clear and cultivate (2.8 adults per household, compared with an average of 3.2 for all four communities). A critical issue is whether or not this disadvantage will disappear as the community ages and becomes more established.

Not surprisingly, the data on off-farm income show that residents of Minga Porâ depend most on nonfarm income. Nearly three-quarters of the agricultural households surveyed in Minga Porâ earn some off-farm income, which on average accounts for more than one-fifth of their available cash and subsistence resources. Paraguayans in Santa Fé also depend more on off-farm income, with 60 percent reporting some off-farm income (averaging 18 percent of their total cash and subsistence resources). Some differences were found in the sources of off-farm income, however. Most of those reporting off-farm income in Minga Porâ worked as agricultural day laborers or in typical "frontier" activities like

cutting trees or logs. A few worked in construction, and several worked as vendors in Ciudad del Este. Although several Paraguayans from Santa Fé who earned off-farm income worked as day laborers, others held salaried nonagricultural positions. For example, one wife worked as a schoolteacher, and one farmer also worked as a carpenter.

The most striking contrast found among these communities is not between the Paraguayans and Brazilians but between the Paraguayans of Paso Itá, with their limited involvement in off-farm wage labor, and those of Minga Porâ and Santa Fé, who depend largely on off-farm income. In terms of the mechanisms of articulation between small-scale cultivator production and the expanding capitalist economy, the residents of Paso Itá seem to fit the classic description of simple commodity producers: their production strategy is largely focused on subsistence, with production of cheap commodities (cotton) for a traditional export industry. The residents of Minga Porâ, in contrast, can be described as a semiproletariat in the sense that they must depend on wage labor as a result of their insufficient landholdings. But their experimentation with nontraditional crops and marketing strategies indicates a more complex adaptive strategy than this term typically implies.

DISCUSSION

The four communities discussed here reveal major differences in production strategies and market involvement both within and among ethnic groups. Within the population of Paraguayan small-producer settlers, a significant group fits the description embodied in the prevailing perspective, at least insofar as they are predominantly simple commodity producers following traditional production patterns and are left out of the soybean economy. This profile best describes the settlers of Paso Itá. But even in that community, some cultivators experiment with small plots of soybeans. In both Minga Porâ and Santa Fé, Paraguayan settlers employ agricultural production and marketing practices much like those of non-German Brazilians with similar sized landholdings. Although Paraguayan settlers on the whole show greater reliance on more "traditional" marketing channels (patrones and intermediaries) and greater dependence on off-farm earnings, these overall patterns mask important variations among communities.

Significant variations also occur among the population of Brazilian immigrants. The German-Brazilians inhabit the most distinctive economic niche. They enjoy larger landholdings and generally more secure tenure. But they hardly fit the image of the Brazilian farmer found in most of the literature on eastern Paraguay. Most striking is their high level of self-sufficiency. Despite their relative success as commercial farmers, they continue to devote considerable attention to subsistence production.

Their emphasis on livestock production, especially dairy production, gives them a varied subsistence base and a diverse cash base. Moreover, when compared with other soybean producers of similar landholding size, they tend to remain independent of contractual relationships with the silos.

Among non-German Brazilians, two major groups can be distinguished. First are the squatters of Kilómetro 12 and the smallest landholders in Santa Fé. Like their Paraguayan counterparts, these Brazilians are primarily cotton producers who depend on patrones and intermediaries to supply inputs and market their produce. Brazilian smallholders, squatters, and sharecroppers fitting this pattern can be found throughout the area. Like Paraguayan squatters and smallholders, they are highly mobile, and many move back to Brazil to seek new lands in Acre or Amazonia. The second group consists of Brazilians with more generous landholdings, like the transitional-size landholders of Santa Fé and the Brazilian community of Parabrasil described by Wilson et al. (1989). This group most closely fits the usual description of Brazilian farmers in being soybean producers who are deeply involved in the commercial economy and often heavily dependent on silos for credit and marketing.

Although important cultural differences emerge, it is clear that when landholding size is controlled, Paraguayan and Brazilian settlers share many agricultural strategies. The most striking cultural differences are Paraguayans' continued involvement in cotton production, even when they have relatively large landholdings, and German-Brazilians' emphasis on dairy and livestock production and continuing investment in self-sufficiency, even when they have larger, transitional-size landholdings. But the similarities between the agricultural strategies of Paraguayan and Brazilian producers of like landholding size in Santa Fé indicate if not a convergence, at least an ability on the part of Paraguayan settlers to compete in the commercial economy when they have the land resources to do so.

It is in this regard that Paraguayan settlers as a group remain economically disadvantaged. In this region as a whole, Paraguayans are disproportionately concentrated in the smallest landholding category and as squatters rather than owners. While many claim more land than they actually cultivate and thus have a potential for expanded production, their lack of capital and insecurity of land tenure militate against its realization. Responding to these factors, some sell their claim to the land and move on, while others depend to some degree on off-farm income. But despite these disadvantages, Paraguayan settlers have responded to the expanding commercial economy in creative and nontraditional ways. One such response has been to experiment with new commodities, particularly soybeans. Another is experimentation with alternative marketing mechanisms like ASAGRAPA, the association of small producers that has mem-

bers in several communities. One community not included in this study has developed truck gardening, with marketing outlets in Ciudad del Este. Since the overthrow of the Stroessner regime, the politics of land tenure in the area have become highly contested, with small producers and squatters taking a vocal role in demanding improvements in their conditions of land tenure.²⁹ Thus small producers are actively seeking to shape the conditions in which they participate in the market through a variety of means.

In sum, a complex pattern of ethnic and socioeconomic differentiation is evolving in eastern Paraguay. This analysis has been limited to discussing small-scale agricultural producers in one part of eastern Paraguay. It has not considered the transitory population of casual day laborers or large commercial enterprises. Nor does it consider the implications for socioeconomic structure of those who have given up their land and moved on, a group that includes significant, if undetermined, numbers of both Paraguayans and Brazilians. Despite these limitations, the case studies presented here lead to three conclusions regarding the issues raised at the outset.

First, this study has demonstrated that the common dichotomy described as Paraguayan peasants versus Brazilian farmers oversimplifies the complex and dynamic patterns of economic adaptation and differentiation. The crossover and variation in crop choice and production strategies as well as the new marketing strategies employed by some producers indicate a rapidly evolving agrarian structure and also a willingness to experiment and act creatively on the part of small and transitional Paraguayan producers. Moreover, Brazilian immigrants include several distinctive subgroups, some highly disadvantaged as well as others who are advantaged.

Second, the factors that have shaped the fortunes of ethnic groups in Alto Paraná have less to do with culture or nationality than with the terms of access to the land and the institutional structures through which small cultivators market their produce. To date, the most important factor shaping agricultural class structure in Alto Paraná has been the mecha-

29. A rally involving more than a thousand agriculturalists in Ciudad del Este on 20 April 1989 is described in *ABC*, 21 Apr. 1989, p. 27. Since then several smaller rallies have been held in Ciudad del Este. ASAGRAPA and other organizations of agriculturalists have become deeply involved in asserting and defending the rights of the *sin tierras* (the landless). In July and August of 1990, twenty-eight land invasions were reported in the department of Alto Paraná. The combined military and police forces of the Paraguayan government attempted to forcibly evict squatters involved in several of the invasions, destroying homesteads and imprisoning some of the squatters. During the last week of July, news reports indicated that between 170 and 200 squatters were imprisoned in Ciudad del Este as a result of these conflicts. Thirty-eight of the detained went on a hunger strike that lasted eighteen days. The directors of ASAGRAPA, in a personal communication, reported that during the month of July, more than 290 persons had "passed through prison" as a result of the struggle for land.

nism of land settlement, which relates directly to land tenure and security as well as to production and marketing strategies. Virtually every observer of frontier expansion in eastern Paraguay has noted that nationality and mode of access to land are correlated, with Paraguayans depending heavily on spontaneous occupation and hence suffering the disadvantages of insecurity and insufficient land. But this pattern should not obscure the fact that the Paraguayan state and private institutions regulating access to this land are the ones who have maintained these inequalities, not direct competition with Brazilian settlers. As anyone who has visited a community like Kilómetro 12 can attest, Brazilian immigrants often suffer the same disadvantages as Paraguayan settlers.

Finally, although eastern Paraguay is but a small part of one frontier, its patterns of social differentiation indicate the need to utilize models of frontier expansion that go beyond dualistic conceptions of capitalist and peasant production. Most of the settlers in the research communities discussed here defy ready classification in one of these categories. One need only look at the multiple production and marketing strategies of the Paraguayan settlers of Santa Fé and German-Brazilians of Katueté to be convinced that simple dichotomies do not adequately capture the economic realities.

Nevertheless, recognizing that a dichotomy of capitalist and peasant agriculture does not adequately describe current small-producer production strategies in eastern Paraguay says nothing about the eventual outcome of the process of frontier expansion. It is too early to say whether or not petty commodity producers relying on cotton as a cash crop (like the residents of Paso Itá) will be able to survive as the commercial institutions of soybean production expand and the value of land continues to rise. Nor can researchers predict whether or not recently founded communities like Minga Porâ will be able to develop their resources and economic strategies quickly enough to compete effectively in the rapidly expanding market. It is nonetheless evident that small cultivators in eastern Paraguay are a diverse and varied group who take an active and increasingly vocal role in defining the terms by which they relate to the broader institutional structures. In this regard, dualist theories of frontier expansion as well as critical responses need to take into account more fully the dynamic interaction between the creative activities of settlers and the institutional structures of expanding capitalism in determining the shape of emerging social structures.

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