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PROFIT MARGINS IN CHILEAN AGRICULTURE:

A COMMENT ON JAMES O. BRAY'S FUNDO B

BY

WILLIAM C. THIESENHUSEN

This paper has been submitted for journal publication. The author is assistant professor of agricultural economics, University of Wisconsin.

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William C. Thiesenhusen**

The report by James O. Bray in the February 1966 issue of Land Economics (pp. 125-129) is another attempt to explain the current malaise of Chile's agricultural sector. As the reasons for the food shortage which finds Chile unable to sustain her burgeoning population with domestic supplies[1/] are discussed further, it becomes steadily clearer that economists have reached somewhat of an impasse in their arguments.

Documentation mustered by foreign and local social scientists usually supports one of two "root causes" as mainly responsible for the current difficulties of Chile's farm sector which is dominated by the large farm or fundo:[2/] A) Profit margins in agriculture are too low for efficient farm operation due to discriminatory price policies and rising costs of operation. Indeed, rates of return are so low that landlords can hardly be faulted for taking their investment funds out of agriculture.[3/] B) Profits in agriculture are as high as in other sectors (considering the ease of tax evasions for farm owners and low labor costs), but the structure of the society and rural institutions are to blame. Farm owners tend to look upon their property as something other than a productive resource: a hedge against ever-present inflation, a prestige symbol, a vacation hideaway. Largely due to the existing economic structure (not to their deliberate malevolence), landlords are prone to high luxury consumption, absenteeism, sending their profits out of the country and investment

in more real property. Meanwhile, the vast majority of those employed in the agricultural sector are wage workers who have scant incentive or opportunity to increase their contribution to marketable surplus.[4/]

Advocates of Position B assume that under the present system, agriculturists tend to adopt new technologies at a slow rate causing the price inelastic aggregate supply curve for food to move to the right very sluggishly. Those who adhere to Position A believe the price elasticity of the supply of agricultural products to be greater and feel that the supply curve for farm commodities moves rightward with relative ease. Causing those with Position B to regard this framework as "too simplistic," advocates of "A" show some tendency to assume that necessary technology and its adoption would come relatively easily if cost-price ratios were favorable.

These root causes tend to be discussed as though they were mutually exclusive, largely because of the policy conclusions to which each leads. As a minimal program, Position A recommends removing--or at least revising--the confusing array of government price-fixing policies which currently enmesh the Chilean food industry: price ceilings, import subsidies, unfavorable exchange rates, taxes on new plantings. It advises little tampering with existing agricultural institutions. Position B leads to a more profound change: land reform with its usual accouterments of irrigation water redistribution, credit, clear titling, market structure reforms and technical help. Although tax reform is frequently recommended as a middle-of-the-road policy, it can be plausibly hypothesized (although my purpose is not to attempt a proof) that the two

extreme "schools of thought" are less mutually exclusive than most commentators think. It would be fruitful for investigators to explore the possibilities of common ground and overlaps in the seemingly polar positions.

For example, there does seem to be a group of farm owners within Chile that is price responsive and that adopts new technologies quickly (thus both moving toward a more optimum point on the firm's production function and shifting its production function to higher levels). Any Chilean Ingeniero Agrónomo can take a visitor to several magnificent farm operations near Santiago or Talca or Linares and the well-run government experiment station at La Platina. These visits would remind the most casual observer of the agricultural potential of the Central Zone.

But there is another group of landlords that, regardless of prices, seems to prefer to leave land idle, regarding it as a personal savings account. Although more accurately conceptualized as a spectrum rather than by discreet groups, there does seem to be a group of farm owners that holds back Chile's agricultural progress and is notably unresponsive to normal economic incentives. An especially poignant example of this--at the far end of the spectrum--is one large irrigable farm located seven miles from downtown Santiago that has not been farmed for 40 years. Although any agricultural economy has its unprogressive farmers and its late adopters, the problem in Chile is that the group of backward latifundistas seems to be abnormally large. The problem for research is that the size of and gradations within this group are difficult to measure, and there is not even good speculative quantification on what Chilean agriculturists could produce if they put their minds to the task.

This suggests a further as yet untested hypothesis: that in Chile even some poorly managed, inefficient farms can remain in operation because their profit margins are sufficiently high to enable them to do so --or at least are not so low that landlords are forced to sell out.[5/]

This point would seem to be refuted by the case study of a Chilean farm (Fundo B) which Bray presents. By Chilean standards, this fundo is intensively cropped and its management is apparently highly responsive to price incentives. Indeed, it apparently is among the "most advanced" (Bray's term) of Chilean farms (p. 126).[6/] Yet it seems to show a low rate of return. If Fundo B, using top-notch technology and active, intelligent management is feeling the cost-price squeeze, farms that are less well-managed would feel it more acutely.

In this regard, it is instructive to investigate Bray's analysis in more detail. Basing his observations on 1958 data, he concludes "pervasive forces of technical change--especially mechanization and fertilizer--come to large fundos, and lead to more intensive use until halted by market or legal restrictions" (p. 129). From his examination of Fundo B, he argues that those "who assert that the system of land tenure <u>must</u> be reformed (by political action) as a condition for gaining the benefits of technical change are not supported by the Chilean experience" (p. 129). Bray's case farm shows a low net cash income since operating costs--principally labor--are high. Furthermore, prices are low. This combination, Bray implies, serves to incline farm operators to labor extensive and low-risk farm enterprises. According to Bray, consistently low profit margins led ultimately to the subdivision of Fundo B--a land reform dictated by market forces.

While Bray's data may be irrefutable for Fundo B, one can't help but be worried by them. The sweeping nature of his generalizations causes even more concern since only a single fundo at one point in time has been examined. One wishes he had made comparisons to a "Fundo A"--and a number of others besides. If we are to believe Fundo B is representative of Chile's "good" latifundia ("latifundia," used by Bray for Fundo B /p. 125/, is a term which is often reserved for less efficient operations), one wonders how it was selected. Then, too, was Fundo B profitably organized previously and caught in a cost-price squeeze in 1958? If so, drawing conclusions requires knowing the recent past history of Fundo B. Or did Fundo B never make adequate profits? If this is true, then one must search out reasons for its consistently poor performance. Furthermore, it is dangerous to select one year for examination if the analysis does not make allowance for the fact that the year may have been unusual in some respect. In other words, one would have hoped that some information on yields over time had been presented to assure the reader of the agricultural normalcy of 1958.

On several scores, Fundo B in 1958 should not be considered a representative case. At least, the evidence I will present seems to show that the cost-price squeeze isn't as serious a problem for many other Chilean fundos as Bray indicates it is for Fundo B.

My criticism is based on three issues, of which I consider the first most important:

1. Operating costs which Bray presents for Fundo B seem inordinately high.

2. Farm-product prices in Chile in 1958 were, on the average, low.
3. Several farm crops were excluded from total farm yields, thus depressing Bray's budgeted gross income for Fundo B.

The most glaring problem with the Fundo B analysis is the nature of the labor bill. Bray indicates that $79,150 was paid in cash wages and social security tax (p. 126) to a labor force (p. 125) of 10 empleados, 24 inquilinos, 56 resident voluntarios and 150 migratory seasonal workers (commonly called afuerinos). Assuming a work year of 300 days for all but the outside harvest help (on the high side, since some spare time is used for work on the plots assigned to these workers by the landlord and there is a winter lull besides), calculating wage work by afuerinos at three months, and figuring the cash wages of an empleado at three times that of the aforementioned group,[7] about $1.70 in cash would have been received daily by each worker (afuerino, inquilino, voluntario). In fact, this cash figure would likely be higher since Bray's data do not enable us to calculate the government's contributory payment to workers under the Chilean social security program (but we partially compensate for this by assuming the patron's payment entirely reaches the work force in current wages). In addition, Bray notes that inquilinos were paid regalías (in-kind perquisites) valued at $18,500 during the year (p. 126). (Other wage workers usually receive some regalias also, but Bray mentions only inquilinos; for this reason I hesitate to express the $18,500 on a per-day basis.)

These payments seem inordinately high--at least in comparison to 1963-64, the crop year in which I have gathered some data. In 1963

the daily minimum wage for the 1963-64 crop year for rural workers in Santiago Province was set at E° 1.354 (E° = Chilean Escudos). Additionally, a family of five received about E° .65 in social security payments (asignación familiar).[8/] The resultant E° 2 was worth about $.85 at the beginning of the crop season and, due to inflation, about $.61 at harvest time. Part of this minimum could be paid in perquisites but there is a government-set percentage that must be paid in cash. Between 30-50 percent is customarily charged off of the minimum wage by paying in regalías in lieu of cash. Fundo B's cash wages alone are more than twice this minimum (that is, not considering any of the regalias valued at $18,500 which workers received). If Fundo B's cash wage bill were halved, as would probably be more typical in the Central Valley of Chile, this would represent a cut in operating cost (savings to the landlord) of $39,575 (plus, of course, the imputed value of the perquisites--$18,500). Under these conditions the farm's profitability to the landlord could scarcely be questioned.

It is possible, however, that minimum wage adjustments for agricultural workers have not kept up with Chile's chronic inflation. Bray uses 1958 data and it has been shown that between 1953-54 and 1960-61 real minimum wages decreased by about one-third because their upward adjustment lagged behind price inflation.[9/] If we imagine that between 1958 and 1964 there was a lag as much as one-half, Bray's cash wage calculation would be trimmed to $58,863 thus saving $20,298 for the landlord on Fundo B's cash wage bill.[10/] It is, of course, possible that Fundo B's workers were paid more than the legal minimum. Although it

is not typical, this generosity may occur from time to time. Furthermore, on a few Chilean fundos, profit sharing schemes have been enacted (mainly since the beginning of the decade) to give more incentives to workers. But even on farms where profit is shared, total wages don't seem to approach those on Fundo B.[11/]

In studying colonists on several new reform projects in the Central Zone in 1963-64, I gathered wage data on them the last year they served as fundo workers. Perquisites were valued according to a schedule the Labor Ministry uses to determine whether landlords are complying with minimum cash wage regulations. Each figure was adjusted for inflation so it could be compared with 1964 harvest data. It is interesting to note that in 35 cases where the former occupations of the colonists were inquilinos, voluntarios, or afuerinos, total wages (cash plus social security payments received plus in-kind payments) totalled about $.77 a day. About half of these wages were paid in perquisites.[12/] This falls within the $.61 - $.85 minimum wage range cited earlier and indicates that few landlords were willing to pay a wage exceeding the legal standard.

In the face of this evidence it is difficult to follow Bray's reasoning when, on page 127, he notes that the total wage bill of $97,717 is "practically equal to the cash income" and on page 129 he concludes, "wages...of farm workers are low." Receiving wages approaching $2 a day (or exceeding this figure depending on how perquisites are divided) would have meant that these farm workers were probably earning more than the majority of skilled laborers in Santiago.

On the income side of the picture, Bray cites certain indisputable price restrictions which prevent the operator of Fundo B from moving into a more intensive cropping pattern. But from the standpoint of price levels, it was perhaps unfortunate that 1958 was the year chosen to gather data on Fundo B. The implication that yields and price levels in this year were representative appears unfounded. The unrepresentative nature of 1958 is implied, but not spelled out in the 5-year average price ratios which Bray uses to construct Table 1 and in the $104,200 budgeted gross income he calculates. But the $98,500 gross income, used for some comparisons in the article, was figured on the basis of 1958 prices alone.

To clarify this point it is worth noting that the index of total agricultural production (1950=100) rose from 115.3 in 1957 to 128.1 in 1958, or by 11.6 percent.[13/] This represents the biggest yearly increase in the decade and certainly one of the largest in Chile's history. Crop output per unit of land rose from 94 in 1957 to 107 in 1958 (1957-59=100), a level it did not regain between its precipitous drop in 1959 (to 91) and 1963.[14/] As this evidence implies (real) agricultural prices turned downward--from 105.8 in 1957 to 96.4 in 1958 (base 1940).[15/]

It appears that price losses were regained with a slight upturn in 1959 and marked upturns in 1960 and 1961.[16/] Meanwhile, production declined and the widening gap between domestic production and domestic demand had to be filled by imports. This seems to indicate that in a "normal year," prices for agricultural products would have been

considerably higher (and yields probably lower) than for 1958. Bray's budgeted gross income (p. 126) implies that this would have meant a slightly higher gross income for Fundo B in a normal year. (The $98,500 figure would rise to $104,200--p. 126.)

Even though the five year price averages and high 1958 yields would ordinarily combine to put budgeted gross income for Fundo B in its most favorable light, more study seems to indicate otherwise. It seems that the gross income on Fundo B is potentially greater than Bray indicates within the prevailing (or five year average) price structure. For example, the gross income per acre of wheat is considerably higher than the gross income per acre of lemons, olives and oranges (comparison of acreage given in Table I, p. 128 to gross income per crop on p. 127). This can signify a bad crop year for the orchard or young trees which will reach pay-off maturity in a few more years. But for some reason, the lemons, olives and oranges do not seem to figure into Bray's budgeted gross income (Table I). Likewise, the per acre value of plums and pears is less than that of wheat.

In summary, it would seem that in normal years, with all enterprises accounted for, and more realistic operating costs, Fundo B would have realized a healthy profit.

Dorner recently attempted to compare production per hectare with costs per hectare on seven above average Chilean farms in 1963 and 747 above average Wisconsin farms in 1962. He admits that his analysis suffers because it does not include a time dimension. Although he shows that the Chilean farms had a 48 percent lower per acre gross

income than the Wisconsin farms, operating costs in Chile were correspondingly lower. (Net cash income was 50.3 percent of gross cash income on the Chilean farms and 44.3 percent of gross cash income on the Wisconsin farms.) The Chilean farms (on which the landowner and a sample of his workers were interviewed to obtain the data) all showed a healthy profit to the landlord.[17/]

More generally, Fundo B is a farm with one of the most intensive cropping patterns in Chile. Yields of corn, wheat, barley, potatoes on Fundo B (these can be easily compared with average Chilean figures for 1962) show excellent per acre production.[18/] Advocates of a thorough reform who base some of their arguments on grounds of productivity are not attacking the few Fundo B's which they admit do exist in Chile. If all fundos in Chile were cropped as Fundo B, Chile might still show income distribution problems--but certainly would not have difficulties with ever-lagging production. Rather, those who believe a reform is necessary are concerned about the underutilization of land of a far more gross nature--those fundos in the large group referred to earlier that use their land resources in an obviously wasteful manner.

The amount of irrigated land devoted to natural pasture can certainly be considered an index of flagrant land mismanagement. (Fundo B showed no irrigated land devoted to natural pasture.) And it is hard to imagine how the half-step toward more intensive land use implied by seeding artificial pasture would be impeded by price constraints. One random sample study examined land use on 401 farms over one hectare in size in Santiago and Valparaiso Provinces (5% of the agricultural land

in these provinces). These provinces encompass the largest markets in Chile and together they furnish the bulk of the marketed agricultural production in the country. This investigation found that in 1952, one-fifth of the irrigated land in the sample area was devoted to natural pasture or was lying fallow. In cases where the owner managed his property directly, a significantly lower percentage of irrigated land was devoted to natural pasture than when an administrator was in charge or when the owner was absent altogether. After considering a number of factors, the study concluded that nearly half of this irrigated land was in natural pasture simply because the owner lacked the interest to cultivate it more intensively.[19/]

A more recent study concluded that in the agriculturally rich area between Santiago and Cautin over 479,000 hectares or 44.1 percent of the total irrigated acreage was devoted to natural pasture.[20/] Certainly price restrictions do not prevent Chilean agriculturists from renovating their pastures even though a prohibitive tax could and does prevent intensification via growing grapes for wine on irrigable land just as not receiving a contract prevents expansion into tobacco.

Thus two extreme policy decisions might be made in Chile to cope with lagging production:

A. Farm product prices could be markedly raised. If this became the central agricultural policy, the small group of efficient farmers would be likely to respond with increased production. But the larger group of inefficient operators who are not price-responsive would find themselves making more profits without a proportional production increase.

Continuing with this logic, one is forced to conclude that to draw forth a production increase as large as Chile currently requires would require a substantial price increase (the smaller the group of price-responsive farmers the larger the increase in price that would be necessary).

This solution would probably be highly inefficient and would, in addition, worsen income distribution resulting "in a transfer of income from people in the cities to the agricultural sector without major or any benefit to the agricultural workers."[21/] This policy would probably increase tension in both the city (as food prices rose) and the country (as returns to the landlord rose).

B. A massive agrarian reform could be executed which would certainly improve income distribution.[22/] The effect of agrarian reform on production is more questionable, however, and would certainly depend on the amount of land and complementary irrigation water redistributed, the amount and quality of credit and technical assistance available, the post-reform system of land tenure, and the success of input and produce market reforms.

It is probably true, however, that these policies should not be regarded as mutually exclusive. The problem for policy-makers is to know how much of A and B are applicable to the current situation. On this point, a great deal more serious research is needed. One could suggest, in general, that efficient fundos could be protected, agricultural product prices allowed to rise somewhat, a heavy agricultural real estate tax now on the books could be well enforced, and agrarian reform could be enacted to primarily affect the inefficient exploitations.[23/] It is my understanding that the agrarian reform bill introduced into the Chilean Congress on November 22, 1965, aims at these goals.

FOOTNOTES

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**Assistant Professor of Agricultural Economics, Land Tenure Center, University of Wisconsin.

1/ The annual percent increase in agricultural production in Chile trails behind the yearly percent increase in population growth. And with a nearly constant work force employed in agriculture there was an absolute decline in agricultural production from 1960 to 1963. Agriculture has not shown a positive export surplus since 1939. The net agricultural deficit in foreign trade from 1959 to 1963 averaged US $82.9 million, trending upward toward the end of the period. Even so, economists admit increased agricultural production is feasible. The ten-year National Program for Economic Development (1961-1970) projects a 5.5 percent yearly growth in the agricultural sector. (See my "Agrarian Reform and Economic Development in Chile: Some Cases of Colonization," Land Economics, August 1966). James O. Bray has noted that "The United Kingdom...has a comparable area of arable land of probably poorer average quality, a less advantageous climate for agriculture and yet produces...about three times the volume of Chilean output, without specifying the composition of the product in value terms. See his "Demand and the Supply of Food in Chile," Journal of Farm Economics, Volume XLIV, Number 4, November 1962, p. 1005.

1/(Continued). Professor Theodore W. Schultz has claimed, "The natural endowment of Chile is first rate. Next to that of California, middle Chile is probably the best piece of farm real estate in the world. See his "An Endeavor to Clarify the Economic Components Underlying Chilean Agriculture," The University of Chicago, Office of Agricultural Economics, Research Paper No. 6603, p. 3, March 30, 1966.

2/None of the following discussion will treat the tiny farm or minifundium.

3/Examples: Bray, Ibid.; Mamalakis essay in Markos Mamalakis and Clark Winton Reynolds, Essays on the Chilean Economy, Richard D. Irwin, Inc., Homewood, Illinois (A publication of the Economic Growth Center, Yale University), 1965; El Mercurio, "Situación de la Agricultura y Reforma Agraria," April 22, 1966, p. 5.

4/Examples: Chapters by Thomas F. Carroll, David Felix, and Joseph Grunwald in Albert O. Hirschman (ed.), Latin American Issues, Essays and Comments, Twentieth Century Fund, New York, 1961; Albert O. Hirschman, Journeys Toward Progress (Chapter: "Inflation in Chile"), The Twentieth Century Fund, New York, 1963; Marvin J. Sternberg, Chilean Land Tenure and Land Reform, unpublished Ph.D. thesis, University of California, Berkeley, September 1962; Comité Interamericano de Desarrollo Agrícola (CIDA), Estudio Sobre Tenencia de la Tierra en Chile, draft copy, Santiago, 1964; Naciones Unidas (CEPAL-FAO), "Análisis de Algunos Factores que Obstaculizan el Incremento de la Producción Agropecuaria," E/C N. 12/306, Mimeographed, Rio de Janeiro, April 9. 1953.

5/ It is difficult to document the rate at which fundos are being sold--and reasons for such sales. In general, a land market has not developed in Chile. There was, however, a flurry of subdivisions by property owners recently who apparently feared expropriation under the agrarian reform bill pending in parliament. Early in 1966 these were slowed by a new law barring divisions of units over 80 hectares unless fundo workers get 40 percent and the Corporación de Reforma Agraria approves terms and price. In times when owners did not fear reform there is some evidence that large holdings changed hands at a very slow rate, while fragmentation of minifundia was quite common. See Gene Ellis Martin, La División de la Tierra en Chile Central, Nacimento, Santiago 1960; Instituto de Economía, Universidad de Chile, Subdivisión de la Propiedad Agrícola en una Región de la Zona Central de Chile, Santiago, 1960; and Antonio Idiáquez, "Private Sub-Division of Land in Chile," Land Tenure Center Newsletter, Mimeographed, Number 22, Madison, Wisconsin, November 1965-February 1966.

6/ There is some confusion on this point since on page 125 Bray calls Fundo B a "typical large fundo."

7/ Studies of the Land Tenure Center, University of Wisconsin, of Chilean farms seem to indicate this latter assumption is valid.

8/ William C. Thiesenhusen, Experimental Programs of Land Reform in Chile, Unpublished Ph.D. thesis, University of Wisconsin, 1965, p. 154.

9/ Ministerio de Agricultura, La Agricultura Chilena en el Quinquenio 1956-60, Santiago, 1963, p. 177.

10/ Erosion of the minimum agricultural wage has apparently not been this extreme. 1958-59 minimum agricultural wages in Santiago Province were E° .440 while in 1963-64 they had risen to E° 1.354. (The crop year runs from May 1 to April 30 and legal wages are in force for that period.) Using 1958 as base, this indicates a rise to index number 307.7. In the meantime, the consumer price index in Greater Santiago rose 384.1 percentage points between the end of calendar year 1958 and April 30, 1964 and the wholesale price index rose 336.3 percentage points during the same period. See Banco Central de Chile, Boletín Mensual, No. 427, "Salario Diario Mínimo para Obreros Agrícolas," September 1963, p. 1168; and No. 442, "Indice de Precios al Consumidor en Santiago" and "Indice de Precios al Por Mayor," December 1964, p. 1674. In 1964-65 minimum wages for agricultural workers were raised substantially (to E° 2.045 in Santiago Province) and even at the end of the year seem to have pulled ahead of both the consumer price and the wholesale price indices.

11/ Peter Dorner and Juan Carlos Collarte, "Land Reform in Chile: A Proposal for Institutional Innovation," Inter-American Economic Affairs, Vol. 19, No. 1, Summer 1965, pp. 3-22, and Thiesenhusen, op. cit., p. 154.

12/ Thiesenhusen, Ibid., pp. 152, 205, 264, 287.

13/ Universidad de Chile, Instituto de Economía, La Economía de Chile en el Período 1950-1963, Tomo II, Santiago, 1963, Cuadro No. 78, p. 63; Cuadro No. 79, p. 63; Cuadro No. 80, p. 64.

14/ Economic Research Service, United States Department of Agriculture, Changes in Agriculture in 26 Developing Nations, 1948-1963, Foreign Agricultural Economic Report No. 27, November 1965, Table II, p. 23.

15/ Universidad de Chile, Instituto de Economía, op. cit., Cuadro 92, p. 72.

16/ Universidad de Chile, Instituto de Economía, La Economía de Chile en el Período 1950-1963, Tomo I, Santiago, 1963, p. 100.

17/ La Nación, June 21, 1965, Santiago (English translation).

18/ This becomes clear as yields for these crops on Fundo B (Table I) are compared with average yields for Chile given in Naciones Unidas (FAO), Anuario de Producción, Rome, 1962.

19/ Naciones Unidas (CEPAL-FAO), op. cit.

20/ Comité Interamericano de Desarrollo Agrícola (CIDA), op. cit.

21/ Dorner, op. cit.

22/ We can assume that redistribution of wealth implies a redistribution of income. It should be recognized, however, that if land amortization payments are too high and/or taxes are too regressive and/or farm product prices are depressed too low after the reform, the income redistributive features of an agrarian restructuralization can be greatly modified.

23/ Schultz has noted "the obvious inefficiency with which some of the large fundos are managed" and finds the most persuasive argument in favor of agrarian reform in Chile to be the "real scarcity of highly skilled persons...to manage large fundos." He concludes, "farms of ten irrigated hectares can be efficient and economic, given the production

23/(Continued). possibilities that characterize middle Chile. Whereas the supply of entrepreneurial talent to manage large farms is inadequate, the supply of entrepreneurial talent to manage small farms is in most cases more than adequate, especially where there has been sharecropping. Production can be maintained during the transition provided the large farms that are taken over are among the least efficient ...and provided the program provides some training and technical and economic information. Moreover, the production can be increased very substantially in three to five years; for it is obvious, even from casual inspection, that a considerable number of the large farms are presently most inefficient..." Schultz, op. cit., pp. 2, 3, 7. An organizational alternative which might mitigate against a short run drop in food production as the result of reform is found in William C. Thiesenhusen, "Chilean Agrarian Reform: The Possibility of a Gradualistic Turnover of Land," Inter-American Economic Affairs, Volume 20, Number 1, Summer 1966, pp. 3-22.