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RP No. 25

ECONOMICS OF THE PROPERTY
TAX IN RURAL AREAS OF COLOMBIA

by

L. HARLAN DAVIS

At the time of this study the author was a research associate with the Land Tenure Center. All views, interpretations, recommendations, and conclusions expressed in this paper are those of the author and not necessarily those of the supporting or cooperating organizations.

INTRODUCTION

Land is one of the principal forms of wealth in Latin America. Generally speaking, it is also a source of political power, prestige, and social status. One of the striking characteristics of almost every Latin American country is the concentration of land ownership into a few large units on one end of the scale and a vast number of small units on the other. As a result of this pattern there are wide disparities in the distribution of political power and income producing wealth.

Property taxation is an instrument that has been used in some countries to appropriate, in annual increments, a part of the wealth in land. The tax is usually conditioned on the ownership of property and is commonly measured on the basis of land area, the annual rental value of land, or the exchange or market value of property. In that property taxes are used to support public bodies which provide social services to the entire population, they help to alter the distribution of wealth and income. Reduction of inequalities in wealth and income through the tax-expenditure combination is a stated goal in some countries; in others, it is more of an unconscious, but generally accepted, policy.

In some countries, particularly the United States and Great Britain, taxes on real property have been the mainstay of finance for local government. They not only provide a reliable source of revenue, but they are also well suited to local administration and management. Moreover, it has been argued by some that in the U.S. property taxes are

uniquely linked to home rule and local autonomy--institutions which political scientists have long considered essential ingredients of a successful democracy.¹ This claim, as Netzer observes, is based in part on comparative and historical study, both in the U.S. and elsewhere: "Local government is most important where property taxation is heavily relied upon."² The property tax is oftentimes the only levy which the numerous autonomous units have to support the services desired by the local community. Take it away and local governments, if they continue to exist, must depend on the higher levels of government to provide their revenues. Consequently, the policy whims of the higher units are those which the lower units are compelled to follow. Also, the tax rates are generally flexible enough so that local people can raise them at their own discretion through democratic action to provide the new service required.

A recent literature has suggested the utilization of land taxes also as a regulatory tool, particularly in underdeveloped countries, to implement changes in the use and control of wealth in land. Progressive land taxes and differential taxes on absentee ownership have been advocated to encourage the subdivision of large estates. On the other hand, tax exemptions and concessions have been recommended for owners who have invested in improvements in an attempt to encourage capital development of land.³

Theoretically, land taxes can also be utilized to enforce a more intensive utilization of land and related factors in the production process. When a general tax on real property is levied, land resources cannot be readily liquidated or mobilized as some other assets. The

supply of land is relatively inelastic. Since the tax represents a fixed cost of production, owners will be induced to utilize land and other production factors more intensively to offset the costs of tax to their income stream.⁴ This 'income effect' will bring forth a greater volume of farm products marketed.

Perhaps it has been these considerations which have led some policymakers in Latin America to give increasing emphasis to the property tax in recent years. They have perhaps seen the tax as one way to tap the repository of wealth in land and to revitalize local government in order that it may provide the public services that are needed for rapidly growing populations. Perhaps they also have seen the tax as one way to increase farm production and to bring about peaceful and evolutionary reforms instead of the more radical, revolutionary reforms that have taken place in some countries.

Colombia is a case in point. In recent years there has been a spate of proposals and laws designed to utilize the property tax as a positive tool of rural economic development. Progressive land taxes have been proposed; differential tax rates on utilized land have been legislated; tax rates have been increased; and other fiscal devices have been advocated in an attempt to stimulate capital formation in the rural sector and to change the existing pattern in the allocation of wealth in land.

However, it has been held by many students of Colombian affairs that, generally speaking, the property tax has been neither an effective instrument to generate public revenues for rural services nor has its

application for nonfiscal purposes been successful.⁵ To this indictment it might be added that it would appear that, because of the way the tax is presently structured, it abounds in inequities. Since the rate is proportional the tax works out in practice to be regressive in its incidence or income, as will be later shown. It is poorly related to the ability to pay and to benefits received. Collection and assessment practices also contribute to the inequity problems.

Taylor and Richman attribute the problems of the property tax, in part, to generally poor administration, including the lack of trained personnel to implement and effectively enforce the levy.⁶ They also point to the lack of up-to-date property assessments and the logistical and technical problems of establishing adequate property assessments on which the tax is based. For example, they have suggested that "expenditure made on property tax assessment would be returned a hundredfold."⁷

However, other scholars see these problems as only symptomatic of a broader structural dilemma of Colombian society. For example, Hirschman has observed that the large landholders and others who wield most of the power in the political system are too shortsighted to tax themselves effectively even if over the long run public services might be increased and the threat of direct expropriation of their lands might be diminished.⁸

It was out of this context of theoretical propositions and practical policy issues that this study grew. Two rural municipalities (roughly equivalent to counties in the United States) in the coffee-producing zone of Colombia were selected for the research. The areas

are typical of a large part of the countryside in that they are both dominated by a large number of small farms and a few larger estates. In one municipality a cadastral reassessment of all properties was recently completed, whereas in the other assessments were obsolete.

It was the problem of this research to investigate the role of the property tax in the financial structures of these municipalities and to find out how taxes are collected and how they were spent. Special attention was given to the assessment problem, since many feel that the difficulty of obtaining assessment data is one of the principal obstacles to a more effective utilization of the property tax in Colombia. Thus, an attempt was made to analyze the reassessment program in that municipality where it was recently completed and to determine if tax collections were higher and to measure the quality and equity of the program.

This study then turned to the problems of who pays property taxes in terms of income categories (another measure of the equity of the levy), and, finally, to the problem of whether the tax has produced any discernible effects on land utilization, farm production, and other selected performance factors.

Historical Background of the Property Tax

Taxes on land have existed in one form or another since the colonial period in Colombia. However, the direct tax levied on the value of real property, the impuesto predial, is a relatively recent development. It may be seen as one of the liberal measures which grew out of the politically dynamic period which started in 1840. It was

this year in Colombian history that marked the rapid spread and popularity of classical liberalism.

Rising from the ranks of commerce and budding industry was a group who challenged the followers of Bolívar. The latter favored the retention by the Church of its colonial privileges and a strong executive with centralized power. The new intransigent group urged separation of Church and State, and a federal system of government under which they would elect their own governors and local officials, and under which each state of the union would have administrative autonomy.⁹ This group, the liberals, emerged victoriously in their struggle in 1858 with the ratification of the Constitution of the Confederation Granadina. This constitution created a federal system of sovereign independent states under which local officials were to be elected instead of appointed and it gave each state the political power to establish its own administrative structure including its system of taxation.¹⁰

This was the origin of the direct tax on real property. Under the new constitution each state could promulgate its own fiscal code with levies distinct from the national system. Since the property tax was not included in the latter, it was readily taken advantage of as a source of revenue by the states. In the state of Cundinamarca, for example, the fiscal code published in 1859 established the norms for assessments of real property, the system of collection, and the adjudication of protests by property taxpayers.¹¹

There is no general consensus as to the causes for the rise in the popularity of the property tax within the federal system of

government. One important reason was undoubtedly the fact that the central government was not utilizing the levy and, therefore, state governments saw it as a lucrative source of revenue to finance their own operations. Perhaps another reason was that the proponents of the federal system saw the property tax as particularly well suited to local government administration and the reenforcement and perpetuation of decentralized rule and decision making.

The federal administrative system did not last long in Colombia. Because of the difficulties of communication and intense regionalism, the federal system became, in effect, a confederated system of government. Some regions of the country became militantly conservative, others militantly liberal. Landowners developed their own armies and during the 1860's and 1870's the country was a scene of intense internal conflict.

As a result of the problems created by the federal system, Rafael Núñez, a popularly elected liberal, promulgated a new constitution in 1886 which returned the country to a unitary, centralized type of government. Since that time major property tax decisions and policies have been made by the national government.

As a transitory measure, the new constitution allowed the lower levels of government to continue to levy the same taxes that they levied under the federal system. Law 48 of 1887, however, made this provision more specific vis-a-vis the property tax. It ordered all states or departments which had not done so to establish a tax on real property, the proceeds of which were to be divided equally between the departments and the municipalities.¹² Further, this law made it clear that

the departments could not establish new taxes of any kind without the express authorization of the national congress.

In early 1908 the congress granted the departments a series of new revenue sources and consequently--via Law 20--turned over the proceeds of the property tax exclusively to the municipal governments.¹³ The same law set the rate of the tax at two mills and specified that it should be "regulated" by the departmental assemblies.

The tax rate remained at two mills until 1941 when a surcharge of ten percent of the total property tax revenues of local governments was established to defray the costs of the central assessment program.¹⁴ Later, in 1951, rates were increased by two mills to finance rural police activities and to provide additional funds for municipal development programs. This surcharge, at the outset designated for the national government, was later turned over to the municipalities. Except for a few urban areas and the regional development corporations (i.e. the Cauca Valley Corporation, the Magdalena Valley Corporation, and the Regional Development Corporation of the Sabana de Bogotá) which have been given special authorization to add two mills, the four mills level plus the surcharge for assessments costs is the total property tax burden in rural areas today.

In the modern history of Colombia an attempt has been made to utilize the property tax both as a measure to provide revenue for local governments as well as to encourage improved utilization of land resources.

One of the early proposals concerning the latter application of the property tax was made by the influential Currie Mission of 1950. To cope with the problem of latifundia and the uneconomical use of large

estates, the mission recommended that the land tax be made progressive with rates varying from four mills on "current market value assessments" of lands yielding a "normal return" up to four percent on lands not being utilized or yielding no returns.¹⁵ The mission also proposed a tax on capital gains which would penalize those investors who were holding land primarily for speculative purposes. The mission suggested that this package of taxation would be sufficient to force large landowners to sell off some of their properties and at the same time drive land prices down, which would result in a more equitable distribution of land ownership.

Because of the political strength of the large landholders on the one hand and, on the other, the immediate difficulties of defining and determining "normal" and "subnormal" returns and establishing current market value assessments, the mission's proposals were never implemented.¹⁶

Another major attempt to employ the land tax for socio-economic control took place in 1957. The military junta which had overthrown the Rojas Pinilla dictatorship ordered, through Decree 290, a crash study and classification of all rural land into four categories. The law specified that each landowner must cultivate at least 25 percent of his best-quality Type I soil, and 15 percent of his Type II soils. Type III land was to have been cleared at a rate of ten hectares per annum and Type IV land, the poorest quality, was to have been maintained in pasture and woodland.¹⁷ Owners not complying with this obligation were to pay a supplemental property tax amounting to two percent of the "official appraised value" of their land the first year and up to ten percent of the appraised value four years later and each year thereafter.¹⁸ But

before the government could enforce its mandate it faced the formidable task of studying and classifying land and arriving at realistic appraisals on which to levy the penalty tax--one of the problems in accepting Currie's proposals on property taxation made in 1950. Only a few pilot areas of the country were selected for the crash land studies and the penalty provisions were never effectively enforced.¹⁹ Moreover, the decree was essentially repealed when the new government, which came to power in 1958, obtained congressional authorization to modify existing legislation on the formation of the cadaster to assure that property would be "technically appraised."²⁰

Hirschman has pointed out the problems of utilizing the land tax for nonfiscal purposes in Colombia.²¹ In the first place, large landholders are too shortsighted to tax themselves effectively even if this would in the future reduce the threat of expropriation. Also, the land tax has little political appeal and support as compared to more direct methods to change land use and occupation patterns. Moreover, tax rates, he suggests, may be too low in most cases to have any significant incentive effects.

Hirschman maintains that also important, however, is the lack of cadastral information for large areas of the country and accurate up-to-date property assessments. Progress of the centralized agency responsible for property appraisals has been hampered because of the lack of trained personnel, insufficient funds, and the technical obstacles encountered in carrying out its program in the rugged terrain of Colombia. Low assessment levels also inhibit the effective application of the net wealth tax (patrimonio) which is a part of the national income tax structure.

This tax, which falls on assessed land values, has rates varying from 0.1 percent of taxable assets valued at 20,000 pesos up to 1.5 percent on land assets valued at over 800,000 pesos. It was suggested by a United Nations technical mission in 1952 that this tax in itself would provide sufficiently for incentives to proper land utilization if assessment levels were realistic and if the tax were adequately enforced.²²

In 1954 the government of Rojas Pinilla ordered all landholders to assess their own properties for tax purposes and threatened that the value declared by the owners would be that used by the government to compensate the landlord in the event his property were expropriated by the state.

But the decree was not complied with in most areas of the country, probably because of the "lack of credibility of threat." Nor was the government in a position to enforce its mandate because of its inability to pay for the large tracts of land that it would have to acquire. The net result of this effort was only a disruption of the assessment program being implemented by the Instituto Geográfico.²³

The most recent attempt to expedite land evaluation was made in November 1963. Decree 2895 ordered those property holders of farms greater than 100 hectares in size or with cadastral assessments exceeding 20,000 pesos to establish their own appraisals every two years, with the first one to be made by February 1964. This decree again contained the threat that the government would make no payment to landholders, in the case of expropriation, greater than the valuation declared by the property owners themselves or alternatively the official cadastral value. "In the case of expropriation, experts in charge of estimating prices of properties that have not been valued in accordance with Article 1 of

this decree (by the Instituto Geográfico) cannot assign a value greater than that established by the property owner himself, in accordance with this decree. This value will also be taken into account by the judge in charge of the legal proceedings of the case."²⁴

With the enactment of the Agrarian Reform Law of 1961, which reiterated the government's power to expropriate privately held land for public purposes, the government obviously held an effective tool for enforcing its decree. But it did not. A recent unpublished study by the Instituto Geográfico Agustín Codazzi shows that only about one percent of all property owners complied. Total assessments on taxable property increased by only about 12 percent. The 1964 Agricultural Census shows that there are some 43,000 properties (excluding the National Territories where there are many large estates) over 100 hectares. Only 12,000 owners, or about 28 percent of the total, complied. If value were taken as a base for measurement (i.e., those farms exceeding 20,000 pesos in value), compliance would probably be lower. Data which are being processed by the Instituto Geográfico on the 1966 self-declarations show compliance for the 1966 period generally lower than it was for the 1964 period, although tabulation of these data is not yet complete.

Landowners have obviously become inured to the threat of expropriation. They apparently realize that the government is not willing or able to enforce its threats contained in the self-assessment legislation. As Currie himself pointed out in a second major report on Colombia in 1960: "Most of the proposals to increase the effectiveness of the property tax have either been too difficult to implement or too easy to evade."²⁵

A recent proposal by the central government would increase all cadastral appraisals by ten percent, until such time as the Agustín Codazzi Institute could complete the technical appraisal program of the country.²⁶ Such a program would seemingly be more enforceable than voluntary assessment declarations, but the inherent danger in "across-the-board" increases in property values is the inequities that might result--especially if lower valued, or smaller properties, are now assessed at a higher percentage of their market values than are higher valued, or the generally larger properties. Serious consideration has not been given in Colombia to proposals such as that advanced by Strasma, where owners would declare the value of their properties with the option that they would be sold on the market at the appraised value that they voluntarily declared.²⁷ However, if history is any prologue of the future, self-assessments or voluntary declaration programs hold little possibility of being successfully implemented.

The Current Financial Role of the Property Tax

The Colombian property tax is a levy on the commercial value of land and the improvements on land. Market value subject to taxation is determined by the Instituto Geográfico through cadastral assessment surveys. The administration and the collection and expenditure of the tax is the responsibility of local governments.

The property tax is one of the most important sources of public revenue from the agricultural sector of the economy. Outside of the nationally imposed net worth tax (patrimonio) it represents the major levy on land and improvements on land in rural areas.

It is a principal means of support for local governments. In 1963 total property tax collections of over 202 million pesos accounted for some 43 percent of all municipal tax receipts, although they represented only 15 percent of municipal income from all sources.²⁸ In Colombia, municipal income is relatively important in that it comprises about one-third of total public sector tax revenues. As will be shown later, the property tax is significantly more important in rural government finance than it is for the country as a whole. Rural governments receive relatively small amounts from the industry and commerce tax and municipal enterprises, which are important revenue sources in urban areas compared to the levy on real property.

The importance of the property tax is increasing. In 1954 it represented only 12 percent of total municipal income and 35 percent of the municipal tax take. Bird has calculated the income elasticity of the tax from 1954 to 1963 at 1.20, which means that property tax receipts as a percentage of national income have increased slightly over the above-mentioned period.²⁹ This is attributed largely to the rapid rise in assessed values of property in the larger cities, as assessments in rural areas have probably not kept pace with the increase in commercial land values during the past decade.

But even though the property tax is relatively important it accounts for less than .4 percent of Colombia's gross domestic product which amounted to over 50 billion pesos in 1963.³⁰ In the U.S. total property tax receipts made up some 3.4 percent of gross national product in 1963.³¹

Also in Colombia per capita property taxes outside urban areas are extremely low. For the country as a whole, per capita taxes are estimated at 28 pesos; for the largely rural department of Chocó, however, they are only four pesos; and for Cundinamarca, the department which contains the two municipios that are focused on in this study, they were only 15.³² In fact, it is estimated that on the average, municipal governments outside of the larger cities in Colombia raised no more than a total of 30 pesos per capita from their own sources in 1965.³³ Since financial help from other levels of government is relatively limited, the rural areas face a dilemma in terms of revenues needed to finance public services.

On the one hand better schools, roads, and public welfare programs are needed if there is to be development in rural Colombia. And on the other hand a growing population requires these services in greater quantity than heretofore. The present administration recently presented a bill to the congress which would increase the general rate of the property tax by two mills (on present cadastral assessments) to be earmarked for primary education.³⁴ Anticipating a conclusion in the following pages, such a measure could be one step forward in increasing the revenue productivity of the property tax, but this is only one of the several problems that must be dealt with to provide the public services needed in most rural areas of Colombia.

Objectives of the Study

The general objective of this study is to examine and analyze the property tax institution in rural areas of Colombia. Two municipalities (roughly equivalent to counties in the U.S.) were chosen as laboratories

for the research: Anolaima where the centralized assessment agency completed and put into force a general revaluation program in 1964 and El Colegio where there has not been an appraisal of properties for tax purposes since 1956. A period from 1956 to the present may not seem long by U.S. standards, as far as property valuations are concerned. But in Colombia the general price level has risen by more than ten percent per annum during the past decade. Land prices have probably risen even more, therefore seriously eroding the tax base.

The specific objectives of the study are:

- (1) To describe the role of the property tax in the fiscal structure of these two municipalities and to discuss how property taxes are collected and how they are spent;
- (2) To determine the effectiveness of the reassessment program in that municipality where it was recently put into force in terms of increasing taxable capacity and tax receipts, and to analyze the quality and equity of that program; and,
- (3) To analyze the effect of the higher property tax burden on land utilization, farm production, and other selected performance factors in that municipality where reassessment was recently completed.

Because of the heterogeneity of Colombian agriculture and the diversity of the various regions within this complex country, the conclusions of this study cannot be meaningfully projected to the national level. However, the two rural municipalities selected are typical of

many subtropical areas of Colombia's interior and the findings of this research should provide an important indication of the economics of the property tax in these areas; and indeed some indication of the national situation.

The Data

General information on the two municipalities was compiled from descriptive materials on the highland areas of Cundinamarca, from unpublished sources of the Coffee Federation, and from the government of the Department of Cundinamarca. Background was obtained also from formal interviews and informal discussions with local residents.

The financial information on the two municipalities was compiled from unpublished documents in the National Statistics Agency (DANE). These data were compared with those obtained from the Comptroller's Office of Cundinamarca and the local governments themselves to establish their reliability. All property tax data were obtained from the Comptroller's Office and checked and reconciled with data from the two municipalities.

The assessment data were provided by the Instituto Geográfico Agustín Codazzi. Information was taken from deeds and from appraisals made by the Agricultural Credit Bank (Caja Agraria) to establish the market value of properties in the two municipalities. Some of the limitations of these data are discussed in the following pages.

Primary data were secured from a sample of farm families in the two areas. The sample was drawn from property tax assessment cards on file with the Instituto Geográfico Agustín Codazzi. Anolaima had 5,046 property assessment cards. A three percent sample

was drawn which represented 151 interviews to be executed. It should be noted that some farmers had more than one property card (or more than one farm), in which case an attempt was made to get information on their total holdings. Oftentimes other units were in the farmer's wife's name or some other family name, which made it impossible during the selection of the sample to determine the number of parcels for any given landholder. There were 4,684 cards in Colegio and a three percent sample of these cards represented 141 interviews. As was the case for Anolaima, when a farmer had several holdings, information was obtained on all of them if possible.

Lack of farm records and the inability to remember may have distorted somewhat the data that farmers furnished. Interviewers may have also miscommunicated questions on the schedule as well as misinterpreted answers from farmers, all of which could alter the true picture.

FOOTNOTES TO INTRODUCTION

¹This argument is presented in both Harold M. Groves, Financing Government, Sixth Edition (New York: Holt, Rinehart, and Winston, 1964), p. 70, and Dick Netzer, Economics of the Property Tax (Washington, D.C.: The Brookings Institution, 1964), p. 170.

²Dick Netzer, Economics, p. 170.

³The use and potential use of land taxes for nonfiscal purposes are discussed in a number of publications including Walter W. Heller, "A Survey of Agricultural Taxation and Economic Development," and Phillip M. Raup, "Agricultural Taxation and Land Tenure Reform in Underdeveloped Countries"; both articles published in Agricultural Taxation and Economic Development, edited by Wald and Froomkin and published by Harvard University in 1954. Other useful references on the theoretical use of land taxes for social control in underdeveloped countries include Parsons, Penn, and Raup, Land Tenure (Madison: University of Wisconsin Press, 1956), Haskell P. Wald, Taxation of Agricultural Land in Underdeveloped Economies (Cambridge: Harvard University Press, 1959), and John Strasma, "La Tributación en la Agricultura," in Seminario Internacional Sobre Tributación Agrícola, Santiago, Chile, 1963, pp. 31-59.

⁴Haskell P. Wald, Taxation, pp. 219-220.

⁵Milton Taylor and Raymond Richman, Fiscal Survey of Colombia (Baltimore: Johns Hopkins Press, 1965), Chapter 6; also A.O. Hirschman, Journeys Toward Progress (New York: Twentieth Century Fund, 1963), pp. 116-138.

⁶Milton Taylor and Raymond Richman, Fiscal Survey, Chapter VI.

⁷Ibid., p. 132.

⁸A.O. Hirschman, Journeys, p. 135.

⁹The evolution and the philosophy of Colombia's dominant political parties is discussed in John D. Martz, Colombia, A Contemporary Political Survey (Chapel Hill: The University of North Carolina Press, 1962), Chapter II.

¹⁰Carlos Angel and Guillermo Sanz M., El Régimen Fiscal de la Propiedad Raíz (Bogotá: Imprenta Municipal, 1964), p. 14.

¹¹Ibid.

¹²Oscar Bonilla Echeverri, Monografía Sobre el Impuesto Predial (Bogotá: Mimeographed, 1960), p. 26.

¹³Carlos Angel and Guillermo Sanz M., El Régimen, pp. 25-27.

¹⁴This surcharge has been passed on by most municipal governments to local property holders. An additional surcharge of ten percent on total property tax proceeds was authorized in 1954 for parks and planting of trees in departmental capitals in those municipalities with budgets exceeding one million pesos. Many municipalities, however, have not taken advantage of this levy.

¹⁵Lauchlin Currie, et al, The Basis of a Development Program for Colombia (Baltimore: Johns Hopkins Press, 1950), p. 554.

¹⁶A.O. Hirschman, Journeys, p. 120.

¹⁷Decree 290 of 1957.

¹⁸Ibid.

¹⁹As of 1963 there was no record of any penalty collection despite the fact that the law was passed in 1957--Taylor and Richman, Fiscal Survey, p. 124.

²⁰Law 19, 1958, Diario Oficial 29835, December 9, 1958.

²¹A.O. Hirschman, Journeys, p. 134.

²²Ibid., p. 121.

²³Ibid., p. 124.

²⁴Decree 2895, 1963.

²⁵Lauchlin Currie, Programa del Desarrollo Económico del Valle del Magdalena y Norte del Colombia (Bogota: Editorial Argra, 1960).

²⁶El Espectador, December 20, 1966.

²⁷John Strasma, Market-Enforced Self-Assessment for Real Estate Taxes (Madison: Land Tenure Center, University of Wisconsin, 1965).

²⁸Richard M. Bird, "Local Property Taxes in Colombia," reprinted from the Proceedings of the Fifty-eighth Annual Conference on Taxation sponsored by the National Tax Association, 1965, p. 482.

²⁹ibid., p. 483.

³⁰ibid., p. 500.

³¹Dick Netzer, Economics, p. 2.

³²Bird, "Local Property Taxes," p. 498.

³³Dick Netzer, "Some Aspects of Local Government Finances," Economic Development Series, Development Advisory Service, Cambridge, Harvard University, September 1966, p. 26 (mimeographed).

³⁴El Tiempo, October 7, 1966.

The standard unit of weight for payment for cotton was 100 pounds. Sackfuls of cotton were weighed on various types of scales, the platform type being the most common. Since the sacks were weighed with the cotton the gross weight was discounted for the weight of the sack. According to an article in the press,⁸ five pounds was the proper deduction for each weighing, which includes two pounds for the sack, two pounds for moisture and one pound for foreign material. According to the same article the usual discount was 15 to 25 pounds. The writer was told by an airplane pilot that a neighboring farm discounted 15 pounds, and one habitador said that he had quit working for a finca because it had discounted 20 pounds. The largest discount actually observed was 10 pounds. It was obvious that a large amount was discounted on other farms also, although there did not appear to be any consistency in the amount.

The wage rates averaged \$1.08 per quintal for the cuadrilleros, and \$1.30 for the voluntarios,⁹ according to the administrators. The wages reported by the workers averaged 7 cents less for the cuadrilleros and 13 cents more for the voluntarios.

Most, if not all, of the sugar cane is cut with the machete. Generally, it is heaped in piles from which it is then loaded into trucks, tractor-drawn trailers, or ox carts. Two or more workers usually work together. Apparently the cut cane is not weighed, but

⁸Prensa Libre, September 19, 1966.

⁹Most of the cuadrilleros also received rations, while most of the voluntarios paid 30 to 40 cents daily for food.

nine-tenths of Colegio's 108 square kilometers is being utilized for agricultural production. Soils in the area are mostly alluvial and well drained except for some small areas of the valley floors which are utilized for livestock production.

Anolaima is the fifth most populous of Cundinamarca's 108 municipalities. According to the 1964 census by the National Statistics Agency (DANE), total population was 23,885. The 1951 census showed a population of 22,837 which, compared to the 1964 count, would indicate an annual compounded growth rate of less than 0.4 percent. Since the crude growth rate (total births less total deaths) is approximately 687 a year, or almost three percent of the 1964 total population, it must be concluded that out-migration is significant.

Colegio's 1964 population was estimated at 15,671 compared to 12,720 in 1951. This implies a compounded growth rate of about 1.6 percent a year but, again, the crude growth rate as a percentage of the 1964 population was over three percent which indicates considerable out-migration.

The migratory trend out of the municipalities was confirmed by the interviewees included in the survey. It was not uncommon for two or three children of a rural family to be in Bogotá working or, in the case of the more wealthy, attending school. Opportunities for employment, except for agricultural day labor, are almost nonexistent in the areas. And, as it will be shown later, educational facilities leave much to be desired. One bright spot of the out-migration trend is that it relieves some of the pressure on the already overcrowded land resources.

All of the coffee workers, most of the sugar cane workers and one-fourth of the cotton workers said that they were paid for the seventh day as required by law. According to the administrators, this payment was on the basis of what they earned during the week. Some administrators paid for one extra jornal for each 6 worked, regardless of how many days it took the workers to accomplish the six jornales. Seventy percent of the coffee workers, one-half of the sugar cane workers, and 8 percent of the cotton workers were paid for the official holidays. The coffee and sugar cane fincas also were more likely to pay for holidays of the finca, to give some compensation when the worker was ill, to supply free medicine, and to allow the picking of fruit. Thus, although the cotton fincas paid the highest wages, the perquisites received by the workers on the sugar cane fincas and especially on the coffee fincas made up for part of the difference.

These perquisites, as well as the difference in the climate, were probably the reason that a fairly high percentage of the workers interviewed on coffee fincas said they preferred work there, while a much lower percentage of workers interviewed on cotton fincas said they preferred to work on cotton fincas. However, five habilitadores said the workers preferred cotton fincas because of the higher pay. Two habilitadores said the workers preferred fincas in Tiquisate because of better housing conditions. Those migratory workers interviewed on the cotton fincas showed less preference for the particular finca on which they were working than did those on the other fincas. Apparently, many who claimed

Indifference were not satisfied with the conditions on the finca on which they were working but knew of none better. Reasons for preference of one finca over another were: higher pay, payment for seventh day, free coffee and atole (a drink made of corn), free medicine, good water, easy work, shorter hours, better living conditions, and better housing.

Earnings of the workers depended upon the amount of work they performed. The workers interviewed were paid for averages of 1.05, 1.09, and 1.15 jornales per day on the cotton, sugar cane, and coffee fincas, respectively. This included the contributions of the wife and children. Therefore, one reason that average numbers of jornales per day was slightly higher on the coffee farms than on the other farms is that more members of the family accompanied the workers and took part in picking.

Personal observation and conversations with administrators indicated that the amount of coffee and cotton picked averaged 70 to 80 pounds per day per male adult worker. Some women picked more coffee than their husbands. The amount picked varied greatly depending upon the yield of the coffee bushes and the ability and ambition of the worker. One administrator on a cotton farm said that he had one family of cuadrilleros, consisting of several brothers, who each picked 130 to 150 pounds per day, and that if all his workers were of this caliber he would need to hire only about one-half as many workers. It is said that, at a cotton forum in August, the "famoso cuadrillero de Guatemala" picked only 40 pounds per day. One of the alcaldes said that the workers were able to pick only 50 pounds per day.

the outer bean husk, nor for drying, they are forced to sell to the intermediarios at a reduced price.

Farm people in these areas are much more subjected to the vicissitudes of the world market than are their neighbors in the highland areas of Colombia. In the highland areas goods and services are often exchanged in a relatively closed system, but where coffee is important, economic ties have been firmly established to the outside world and are becoming increasingly complicated. Coffee produced in Colegio may be consumed in Wisconsin and a nickel drop in its per pound price may mean financial disaster for many local residents.

The poorer rural people live in thatch-roof huts that have no floors or sanitary facilities. The kitchen is detached from the rest of the building and the people usually eat outside on benches--when it is not raining. A typical house for a six- or seven-member family will have a sitting or living room and two bedrooms. Many, however, will have a well-kept cement patio where coffee is dried.

The diet of the less well-off consists of plátano, yucca, beans, and occasionally some meat. Although many rural people raise some swine, poultry, and even sometimes a cow, the products of the livestock are seldom consumed at home. For the most part they are sold at the local market or to wealthier neighbors; only the lower-price items and coffee beans which are graded out are consumed by the family.

In Anolaima almost half of the land area is controlled by about six percent of the farms according to data from the Instituto Geográfico. On the other hand, 94 percent of the farms are less than ten hectares in size and control the other half of the land area. In Colegio the situation

is much the same. About 97 percent of all farms are under ten hectares in size yet control a little more than 50 percent of the total land area. The remaining land area is controlled by the other three percent of the farms.

Many of the larger estates are held by wealthy Bogotanos who visit them only once or twice a week or even less frequently. The haciendas are administered by entrusted mayordomos, or hired farm managers, who are responsible, among other things, for the hiring and firing of day labor.

The maldistribution of land in the municipalities has its historical roots in the colonial period. Prior to the Spanish Conquest these areas were inhabited largely by the Panches Indians--a subculture of the famous Chibcha tribes which were found in most of the highland regions of Colombia. Following the defeat of these indigenous people by Jiménez de Quesada in the middle sixteenth century, large land grants were handed out to the conquerors and the natives were forced to small subsistence plots on the sides of the hills.⁴ Cheap indian labor was used to exploit the large units on which cereals, corn, some fruits, and livestock were the principal enterprises.

By 1878 there were still relatively few large units according to fragmentary historical evidence. Spanish settlement grew rapidly particularly after the spread of the cultivation of coffee for export in the early 1900's, and coffee production, a labor-intensive activity, forced some subdivision of the larger estates. This process was furthered by inheritance, but concentration of ownership obviously still exists.

The Institution of Local Government:
Its Structure and Operation

Property taxes are both collected and spent locally in Colombia by municipal governments. An understanding of the structure and operation of local government, therefore, is necessary to an understanding of property tax problems.

Because of the colonial legacy of centralism and the influence of the French image of centralized authority, local government in Latin America has never been a strong force if measured by U.S. or Western European standards.⁵ Following the wars of independence, which started around 1810, new constitutions stressed the powers of provinces and municipalities. However, in practice, in few cases was power entrusted to local units. Where it was, strong men, or caudillos, through party organization soon took things in their own hands which became the "bane of Latin American democracy."

As pointed out earlier, Colombia even experimented with a federal system of government during the brief interlude between 1860 and 1886, at which time local governments elected their own chief executive officers and were granted considerable power and autonomy. But since 1886 and the institution of centralized authority, municipalities have had few powers and little autonomy. They are not separate units in themselves but only extensions or appendages of the national government.

The municipality is the lowest form of formal government in Colombia. Its closest counterpart in the U.S. is a county unit of the kind particularly found in the western part of the midwest. While most municipalities are

subdivided into corregimientos (or zones) and further by veredas (or districts) these divisions have no legal or political status, unlike the many subcounty governments in many areas of the United States.

The National Municipal Code specifies how each local government unit shall be organized and governed.⁶ It delimits taxing and spending powers, the implications of which will be discussed in more detail in the following pages. Moreover, each departmental government usually publishes a código which further inhibits the freedom of action of municipalities.

Thus, each local unit is similarly structured and administered even though conditions from area to area may basically differ--as indeed is often the case in Colombia. There is little or no autonomy to experiment with new forms of administration such as the manager or commissioner type of municipal government, even though they may be better suited to local conditions.

While the national code is specific on what municipalities can and cannot do, particularly concerning financial matters, it is vague on service responsibilities. Nor does the department code, in the case of Cundinamarca, say a great deal more. As it concerns public services the national code states in Article 169: "Municipal Councils shall develop the income and expenditure budget for the services of the district." Later in the same article it states that: "The Council shall agree on the improvements, morality, and prosperity of the municipality, respecting the rights of others and the dispositions of the Constitution, laws, and ordinances, and decrees of the executive and of the governor."⁷

As a result of this legislative ambiguity concerning local services there is some confusion as to who is responsible for what. Nominally, local governments are responsible for school construction, local roads and feeder roads, and where possible, the provision of public health facilities. But the departmental and national government have stepped in in some instances and are providing these services, particularly in road construction and maintenance and the provision of health services. As a result there appeared to be, at least in the municipalities under study here, an attitude on the part of local officials to wait before proceeding with needed public works projects to see if the departmental or national government would provide the services. Oftentimes the higher units of government do not provide assistance and the project is never initiated.

Local Government Structure

The chief official representing the executive branch is the mayor. This official is appointed by the departmental governor and it is not uncommon for him to be from an area completely different than the municipality to which he is appointed. Mayors are frequently rotated-- probably in an attempt to provide more political patronage jobs. For example, the municipality of El Colegio has had nine mayors in the past six years.

Also in the executive branch, rural municipalities have a personero, the legal representative, a treasurer, and a number of other minor officials depending on the size and importance of the local unit. These officials are likewise appointed, but in this case, by the local municipal council.

The municipal judge, also an appointed official by the district courts, represents the judicial branch. The council, elected at the local level, represents the legislative branch. Oftentimes, some of the council members do not reside in the municipality, but in the larger cities.

The council, the only branch in which voters can directly place their demands, is oftentimes a defunct unit. Since the plebiscite of 1957 which established the National Front Government, 50 percent of its members must be from the Liberal Party and the remaining 50 percent from the Conservative Party. Furthermore, the council must approve all legislative actions by a two-thirds majority vote. The political animosity between the two factions and the two-thirds majority requirement make effective decision making difficult, if not impossible.

The municipality of El Colegio is a case in point. According to local government officials (in December 1966) the council had not approved the budget, one of its most important annual functions, in the past six years. Thus, according to Colombian law the mayor must approve this document by decree and, but with minor exceptions, it must be the same as that of the past years. That is to say, no new public works programs can be initiated nor can debt be incurred for needed expenditures. Therefore, the public works sector of the municipality has been virtually static since 1960 despite the staggering need for new and expanded public works programs.

The situation in Anolaima is much the same. While the council has been able to agree on the budget, the document reflects few substantive changes in the way of expanded public programs from year to year.

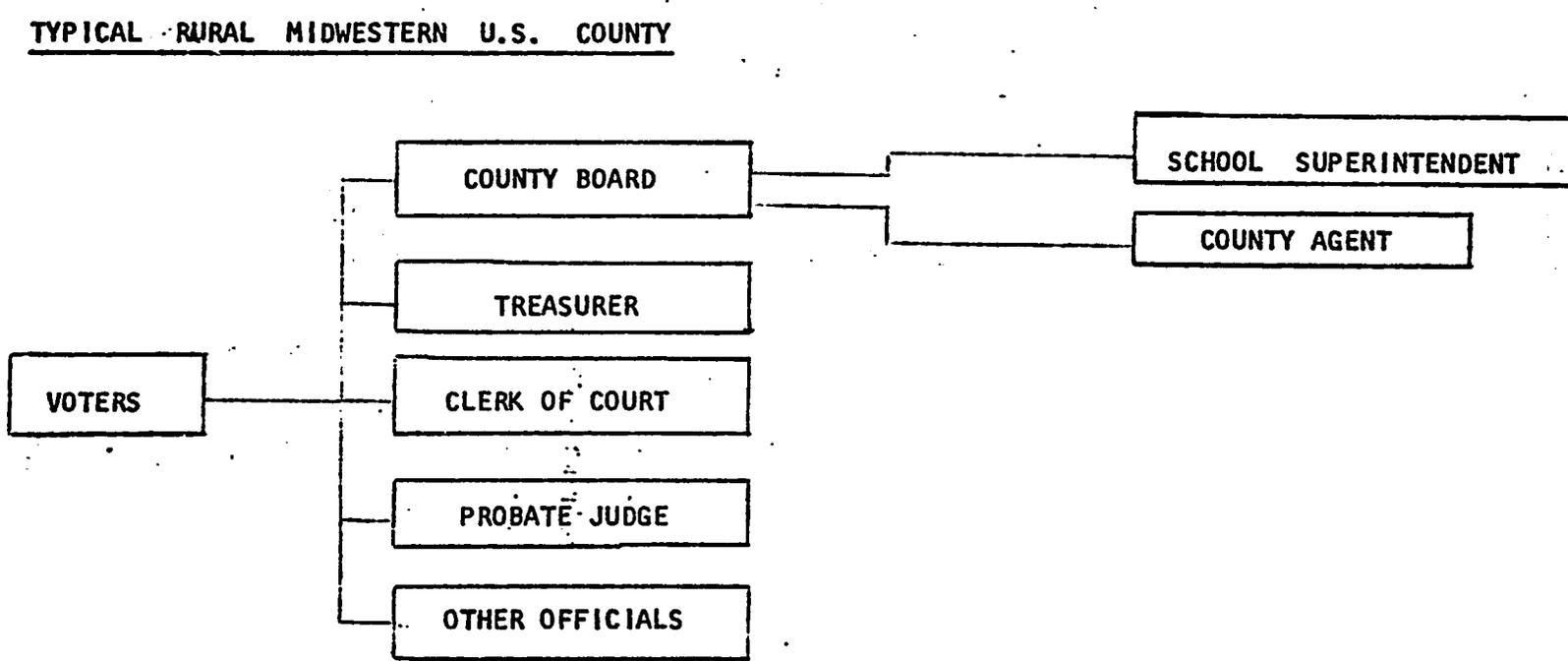
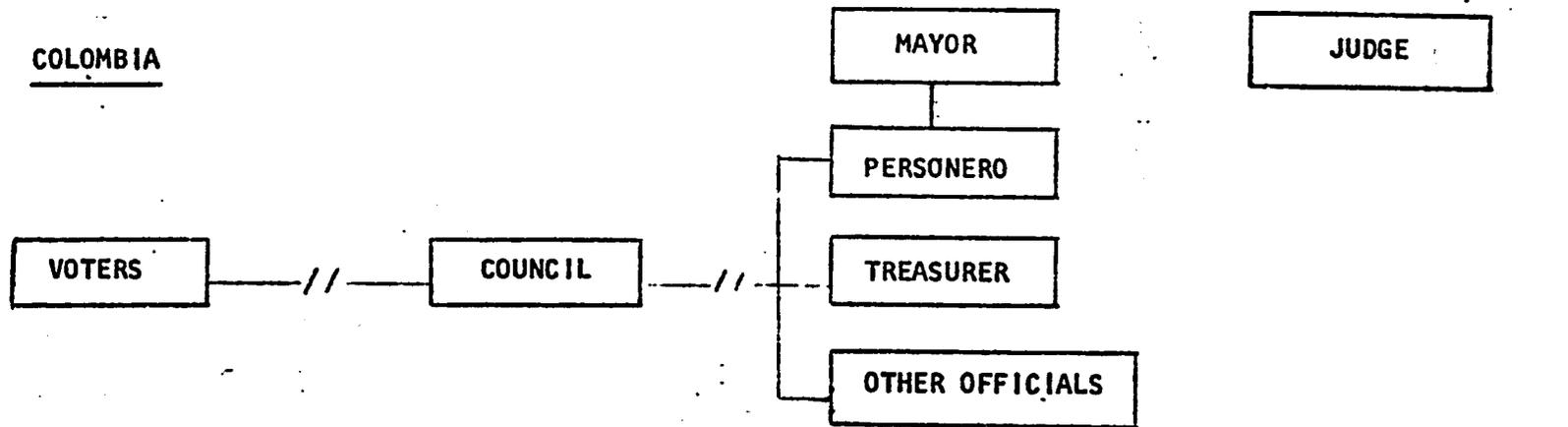
Political apathy among council members and, consequently, a deadlocked legislative body is not peculiar to the municipalities under study here. A careful reading of any daily newspaper reveals that this is a nationwide phenomenon. Bogotá's influential daily, El Tiempo, had this to say about the problem in an editorial on May 27, 1967:

Notices from hundreds of Colombian municipalities are dispiriting. Citizens from all over the country report that local municipal councils are doing absolutely nothing. It is not that they are doing a bad job; it is that they are doing nothing. . . . The cancer, the real cancer, of the councils is the political mentality of its members. This mentality is why they (council members) were candidates in the first place-- why the cacique helped them to win and why they are now managed completely by him Certainly there are some councils who are doing their jobs, but they are few. By and large they do not even meet and when they do it is to fight among themselves. And our municipalities--our poor municipalities-- they should revolt!

An effective local unit is important to stimulate interest in the governmental process in general and to develop responsible political leaders and democratic institutions. On the other hand, it should provide social capital projects, including roads, schools, and health facilities which are essential to economic progress. But given the situation described above, it is not surprising that so little gets done in this area, as will be brought out in more detail in the following pages.

The following chart depicts the formal organization of local government in Colombia compared with that in a typical county in the United States. As it is shown, the Colombian voter can place his demands only on the council. When the unit is inoperative (depicted by broken lines) other officials are not subject to his pressures; if voters are not satisfied with, say, treasury operations, they have no way of demonstrating their feelings. Even if it is operative they cannot directly place their

LOCAL GOVERNMENT ORGANIZATION IN
COLOMBIA AND THE U.S.



demands on administrative officials and have no way of influencing the mayor, the chief administrative official in the municipality.

On the contrary, in the typical rural midwestern U.S. county the local citizen, through the ballot box, can pressure any official--to the point of removing him from office when and if he does not perform in accordance with voters' standards.

Informal Power Structure

There appear to be other barriers which inhibit the effective operation of local government in addition to those already discussed. Key informants in both municipalities claim that a political caudillo, or cacique, is really the local informal governor, and not the mayor.

According to Busey, the cacique system, or political caudillismo, is widespread throughout Latin America.⁸ This phenomenon, he claims, has its roots in medieval paternalism. Under the institution of Iberian feudalism, the typical patrón controlled large land areas and was the master of many people who provided slave labor. The latter looked to their masters for guidance, depended on him to solve their personal problems, and to provide sustenance in times of need. Though it is not always true, the contemporary patrón, or cacique, in some cases may have lost his wealth in land. Also, in some cases, a burgeoning urban population, an emerging middle class from industry and commerce, and reforms in labor laws and contractual arrangements, have greatly diluted and even displaced the power of the cacique.⁹ However, in many areas, particularly isolated rural areas, he remains the informal governor. And, while he has abdicated his social responsibilities, he has not relinquished his

political leadership. His influence and that of his elite associates is felt in many important decisions at the local level and their power is exerted and maintained through a variety of tactics.

The question may be raised as to why voters continue to tolerate a local government that is obviously managed and manipulated to the advantage of a few. And, why do not others disgruntled with the local legislative body list themselves as candidates for the council? These questions are beyond the scope of this study and require more research; however, some tentative observations are offered.

In the first place, it is suggested that dissidents fear reprisals and social and political sanctions by the leadership of the municipality. Public political brawls are not uncommon and can be evidenced frequently. Usually they are between political dissidents and politicians of the establishment. Also, examples were cited by key informants of dissident who tried to open businesses and were boycotted by local people.

In the second place, all Colombian citizens over 21 years of age are required by law to vote and generally they must vote for the candidates listed by the political machine or not vote at all. If they choose the latter course they may be prosecuted under Colombian law.

FOOTNOTES TO THE RURAL COMMUNITIES

¹The crude birth rate was calculated from data in the Boletín de Estadística 183 of June 1966 from DANE. Population data are from the 1964 census, DANE and the 1951 census, DANE.

²DANE, Directorio Nacional de Explotación Agropecuarios, Vol. I, Department of Cundinamarca, 1960, p. 92.

³Based on interviews with local truckers and middlemen who buy in the market place.

⁴Jesús María Henao, History of Colombia (University of North Carolina Press: 1938), is one source, among others, of the historical development of these areas during the colonial period.

⁵See Harold F. Alderfer, Local Government in Developing Countries (New York: McGraw Hill Book Company, 1964), p. 18.

⁶See Title IV, Capítulo I of the Código Político y Municipal.

⁷See Código Article 193, p. 93.

⁸James L. Busey, Latin American Political Institutions and Processes (New York: Random House, 1964), p. 7.

⁹John J. Johnson, Political Change in Latin America, The Emergence of the Middle Sectors (Stanford: Stanford University Press, 1958), pp. 19-26.

THE PROPERTY TAX IN LOCAL GOVERNMENT FINANCE

The administration of the property tax in Colombia is unlike that in most rural areas in the United States. In the U.S. the property tax is considered a residual levy. By and large, assessments are made locally; they are reviewed and equalized; and, finally the rate is set. The rate is established on the basis of the amount of tax revenues needed to make up the difference in total income required locally and total expenditure. In Colombia, as will be shown, local governments have little to do with rates, the tax base, or assessment administration.

The Revenue Importance of the Property Tax

The property tax was the single most important source of revenue in the two municipalities in 1965, accounting for 41 percent of total income in Anolaima and 40 percent of Colegio's total revenues. No other source of tax or nontax revenue was nearly as important as the levy on real property as the data in Table 1 show.

The role of the property tax in both municipalities compares favorably with the average municipality in Colombia. Bird has estimated that the property tax on the average accounts for only 15 percent of total local government revenues.¹ However, his estimation takes into account the data from the larger cities of the country where property tax revenues are overshadowed by income from other sources, particularly the empresas públicas, or public service agencies.

In the U.S., local governments in recent years have on the average obtained about 87 percent of their total revenues from property taxes, and in the United Kingdom and Australia approximately 100 percent of local

TABLE I

ROLE OF THE PROPERTY TAX RELATIVE TO OTHER SOURCES OF LOCAL GOVERNMENT INCOME, ANOLAIMA,
EL COLEGIO, 1965

	Total Revenue	Property Taxes	Other Direct Taxes	Indirect Taxes	Municipal Service Charges	Budgetary Carry- Overs	Other Sources
Anolaima	1,036,560	422,215	32,492	73,993	44,562	274,934	188,364
Colegio	491,569	200,685	22,302	60,674	39,754	26,859	141,295
Percentage Distribution							
Anolaima	100	41	3	7	4	27	18
Colegio	100	40	5	12	8	6	29

Source: Unpublished data from the Departamento Administrativo Nacional de Estadística.
Property tax data are from the Comptroller's Office of Cundinamarca and checked with
the local governments.

revenues are from the levy on real property.² The property tax might be utilized to a greater extent by local governments in Colombia if they had the autonomy to decide on questions of this nature. Land is the obvious taxable resource and there is little danger that it would migrate under heavier taxation pressures. But the rates are fixed by the national government at 4.2 mills and cannot be raised beyond this level without a legislative act of the national congress. Even if the municipalities wanted to use the instrument to a greater extent it would not be within their power to do so. Departmental, or state governments, are authorized to "regulate" the tax, which means in effect to establish certain exemptions, but they are not allowed to adjust rates to meet local revenue needs.³

Other sources of revenue in the two municipalities include a host of small revenue-producing nuisance taxes such as those on industry and commerce, municipal service charges, budgetary carryovers, and other sources, which is largely outside help. Municipal service levies, or charges, are those for water, sewage, and electricity. These charges make up a large share of income for city governments but in most rural areas where these facilities exist only in the principal municipal village, this source of revenue is generally not significant.

The "fiscal conservativeness" of the municipalities shows up in Table 1 in the column "budgetary carryovers." This item reflects past and present years "savings" in the operating budget. In spite of the staggering need for new public goods, the municipalities have funds sitting idly. This was true not only for 1965, but for 1963 and 1964 also. Around 27 percent of Anolaima's total income is surplus and in

El Colegio six percent of total revenues consist of budgetary carryovers. Neither municipality has had a loan for public works projects in recent years.

Accurate data beyond the past decade are not available, but since 1956 the relative importance of the property tax has changed little, although both total income and property tax income have increased in the municipalities. (See Table 2.) Since property tax rates have not changed during the past ten years, the responsiveness, or revenue elasticity, of the tax may be explained by adjustments in the tax base. The sharp increase in tax revenues from 1962 to 1964 in Anolaima is attributable to reassessment, about which more is said later.

Property Tax Effort

The property tax effort reflects the extent to which the local governments are actually using their capacity to raise revenues through the instrument. The tax effort for the two municipalities from 1960 through 1966 is presented in Table 3. The theoretical tax yield is calculated by multiplying the base by the legal rate of 4.2 mills. Collections are separated into current year and interest charges and taxes collected from previous years.

As the data show, Anolaima has collected an average of only 55 percent of the current year levy from 1960 through 1966; total average collections over the same period were only 82 percent. Collections increased substantially in 1963 and, because of taxes collected from previous years, actually exceeded 100 percent of the theoretical tax yield. It is suggested that one of the reasons for this is that rural

TABLE 2

THE REVENUE IMPORTANCE OF THE PROPERTY TAX IN ANOLAIMA AND EL COLEGIO, 1956-1966

Year	ANOLAIMA			EL COLEGIO		
	Total Revenues	Property Tax Revenues	Percent	Total Revenues	Property Tax Revenues	Percent
1956	267,984	117,259	44	279,185	128,191	46
1957	292,232	140,327	48	278,128	127,034	46
1958	284,653	147,440	52	278,450	153,353	55
1959	259,548	155,974	60	229,456	148,606	65
1960	416,214	146,837	35	306,710	151,468	49
1961	334,721	166,288	50	423,418	149,336	35
1962	497,165	166,430	33	372,331	181,290	49
1963	699,434	240,500	34	463,791	186,113	40
1964	1,206,502	329,652	27	506,848	186,417	37
1965	1,036,560	422,215	41	491,569	200,685	40
1966	874,416	437,558	50	491,006	198,338	40

Source: Total Revenues from 1956 through 1959 are published in Anuario de Estadística Fiscales y Financieras, Departamento Administrativo Nacional de Estadística (DANE). Revenues from 1960 through 1966 are from unpublished sources of DANE. Property tax revenues are from unpublished sources of the Comptroller's Office of the Department of Cundinamarca. Total revenue data for 1966 for both municipalities are preliminary.

TABLE 3

PROPERTY TAX EFFORT, ANOLAIMA AND EL COLEGIO, 1960-1966

Year	Theoretical Tax Yield	Current Year Collections	Percent	Previous Year Collections	Percent	Total Collections	Percent
ANOLAIMA							
1960	180,600	103,354	57	43,483	24	146,837	81
1961	191,847	110,300	58	55,988	29	166,288	87
1962	200,986	110,919	55	55,511	28	166,438	83
1963	210,263	131,658	63	108,842	51	240,500	114
1964	560,646	242,187	43	87,465	16	329,652	59
1965	561,001	330,332	59	91,883	16	422,215	75
1966	561,666	302,489	<u>54</u>	135,069	<u>24</u>	437,558	<u>78</u>
Average Percentages			55		27		82
EL COLEGIO							
1960	193,077	107,455	56	44,013	22	151,468	78
1961	199,389	104,107	52	45,229	23	149,336	75
1962	205,978	115,053	56	66,237	32	181,290	88
1963	215,849	121,500	56	64,612	30	186,113	86
1964	243,181	136,619	56	49,798	20	186,417	76
1965	255,319	137,311	54	63,374	25	200,685	79
1966	260,221	126,928	<u>49</u>	71,410	<u>27</u>	198,338	<u>76</u>
Average Percentages			54		26		80

Source: Unpublished data from Instituto Geográfico and Comptroller's Office of Cundinamarca.

people, realizing that properties were being reassessed, feared that back taxes owed would be based on the new valuations. Also, in order to present an appeal of new valuations people were forced to pay back taxes.

Total tax collections increased again in 1964, the year the new valuations went into effect, but the percentage of the actual tax bill fell substantially and still has not recovered to the previous levels. Some local people apparently resented the higher tax burden and have simply refused to pay or perhaps were financially unable to pay.

Dividing the average theoretical tax yield from 1960 through 1966 by average total collections over the same period gives an average or effective tax rate of only 3.4 mills--considerably below the legal rate of 4.2 mills. The difference between the effective rate and the legal rate is attributable to noncompliance. Since the reappraisal, the average tax rate has been only 3.1 mills.

In El Colegio average current year collections amounted to only 54 percent of the theoretical tax bill and total collections were only 80 percent of the total amount due to the municipality. The average tax rate from 1960 through 1966 amounts to 3.3 mills.

A study completed by Jorge Franco Holguín⁴ in 1962 on taxation of agricultural land in rural municipalities within the jurisdiction of the Regional Development Corporation of the Sabana de Bogotá also showed tax delinquency to be high in the areas with which he was concerned. The some 44 municipalities on which the study focused were collecting an average of only 65 percent of the total theoretical billing. Obviously, tax delinquency is not restricted to Anolaima and Colegio, but is endemic in other rural municipalities as well, where evidently it even may be higher.

Local government revenues are obviously reduced substantially as a result of delinquency. Also, in an inflationary environment the longer tax payments are delayed the more the local units lose in real terms. Finally, compliance among some taxpayers and noncompliance among others is a source of inequity.

The reasons for the poor rate of collections in rural municipalities are many. In the first place, effective enforcement is nonexistent. This in turn is attributable in part to the clumsy legal procedures required to enforce taxes. The Colombian property tax is in personam rather than an ad rem levy.⁵ That is to say, the tax is assessed against the owner or life possessor of land rather than against the land itself. Thus, to bring suit against a delinquent taxpayer to attach his property not only must he first be found, but also it must be established legally that he is the liable owner or the life possessor. Determining land ownership in Colombia has always been problematical as it is common practice to hold property without title. This hinders enforcement and legal proceedings.

Municipal treasurers who represent administrative tribunals responsible for property tax enforcement have little time or training to prosecute delinquent taxpayers. In neither El Colegio nor Anolaima had the treasurer prosecuted a delinquency case during his tenure in office.⁶ Moreover, the penalties are relatively light for delinquent taxes and sometimes not enforced. If a farmer is short of cash it would pay him to forego payment of the property tax for a year rather than take a loan from a local bank. This is especially true if he knows that there is little danger that his property will be attached and sold.

The rigidity of the levy also discourages compliance. Property taxes in Colombia, as they are in the U.S., are a fixed, and theoretically, inescapable cost which must be met semiannually from farm income. The ability to meet this obligation is largely dependent upon the amount of income secured by property owners. Crop failures as well as reduced prices for farm products means that the farmer's ability to pay taxes is reduced. Unfortunately, the tax burden itself is not reduced during a poor farming year and if income is not sufficient for the basic needs of the family the tax cannot be paid.

There are logistical difficulties involved for the farmers themselves as far as expedient compliance is concerned. Tax bills and payments are not conveniently sent through the mails as they are in the U.S. In some cases, people must travel for several hours by foot or horseback to pay their taxes. Then, as was confirmed during several visits to the local treasurer's office, they may wait for an hour or more before they can meet their obligations.

Who Pays Property Taxes

In an attempt to find out who pays property taxes, 1965 and 1966 property tax receipts of those farmers included in the survey were examined in the treasurer's office in the municipality of El Colegio. Complete data were not obtained for the farmers in Anolaima.

Some 74 percent and 66 percent of the 141 farmers in the survey had complied in 1965 and 1966 respectively. The receipts were stratified according to assessment categories to determine if delinquencies were more frequent among the larger-valued farms than of the smaller-valued farms.

No relationship was found between delinquency and value; noncompliance was about the same percentage in all assessment categories.

Expenditure Patterns

It was not possible to separate property tax expenditures from other expenditures in the municipalities. But, in that property tax revenues account for almost half of total income, the general expenditure pattern is a good indicator of the way property tax proceeds are utilized.

One of the striking features of the data on the expenditures pattern is the inordinately small amount of investment in education. (See Table 4.) This is by far the largest expenditure of local governments in the U.S., accounting for some 45 percent of all investments in 1962.⁷ But in Anolaima it accounted for only five percent of total expenditures and in El Colegio only 13 percent in 1965. The equivalent in per capita terms was 1.90 pesos in Anolaima and 3.60 pesos in El Colegio, or in 1965 U.S. dollars, 11 cents and 22 cents respectively, in the two municipalities. (See Table 4.) Colombian municipalities are required by law to devote at least ten percent of their budgets to education; however, it is obvious that this legislation is not being complied with.⁸

Health and welfare expenditures were also minor investments in the two municipalities. There are public hospitals in both areas but they are financed and managed by the departmental governments. Public services include outlays for electricity, sewage, and water, and other services made available largely in the municipal seat, but not for rural people.

TABLE 4

GENERAL DISTRIBUTION OF EXPENDITURES IN ANOLAIMA AND EL COLEGIO, 1965

	Total	Admini- stra- tion	Justice Public Order	Tax Collec- tion	Public Services	Educa- tion	Health Welfare	Economic Develop- ment	Other
Anolaima	890,198	75,330	71,244	64,009	54,606	47,125	68,895	403,720	104,269
El Colegio	425,109	17,216	61,164	40,528	20,647	55,890	5,890	158,527	65,247
Percentage Distribution									
Anolaima	100	8	8	7	6	5	9	45	12
El Colegio	100	4	14	10	5	13	2	37	15

Source: Unpublished data from DANE and the Comptroller's Office of Cundinamarca.

The largest investment by the two municipalities is in "economic development." This accounted for 45 percent of all expenditures in Anolaima and 37 percent of all expenditures in Colegio in 1965. Close study of the municipal budgets and extensive interviews with local government officials led to the conclusion that this was a catch-all category under which is included the payment of the annual costs of livestock fairs, support of the municipal bands, holiday festivities and celebrations, and a substantial portion of the salaries of local government employees. It was estimated from data from the National Statistics Agency (DANE) that salary payments from the some 30 employees make up almost 40 percent of all expenditures in Anolaima. In Colegio, personnel costs are estimated at over 45 percent of total expenditures. This category also includes some local road construction and repair, but major roads throughout the municipality were constructed and are maintained by the departmental government.

Relatively large outlays are made for the fixed costs of administration, justice and public order, and tax collections. These items accounted for some 23 percent of all expenditures in Anolaima and 28 percent of Colegio's total 1965 outlays. Public order throughout the country is the legal responsibility of the national government, but municipalities generally employ local "inspectors" whose practical responsibilities are minimal but whose salaries are relatively high compared to going wages in the countryside. Also, the mayor and the local judges are paid by the departmental government. However, the municipalities are responsible for the mayor's "appointment clerk" and other secretarial and clerical services. Expenditures for tax collections include the costs of running

the treasurer's office, staffed by five personnel in Anolaima, and three in Colegio. Expenditure patterns for 1962, 1963, and 1964 followed a similar pattern.

The fixed costs of administration are high in part because of the inefficiencies of management and the large outlays for personnel, many of whom have political patronage jobs. But, the high overhead costs can also be attributed to the small size of the local units themselves. The administration of local government involves certain overhead costs and small units are unable to take advantage of the economies of scale. That is to say, the fixed costs are spread over fewer units of population than would be true of a larger, more populous municipality. This problem shows up both in the form of a low quality of public services and relatively high per unit costs of services.

The low per capita expenditures in public works, including education, roads, and health facilities, might suggest that these services are being provided by higher levels of government. While the departmental government does provide some health services and some road construction and maintenance, these, as well as other local services, are inadequate by any standard of measure. As will be shown next, services are almost nonexistent in rural areas of the municipalities and leave much to be desired in the municipal villages.

Expenditure Benefits

If the benefit principle of apportioning the local government tax burden were strictly applied, one might question whether most rural people in Anolaima and El Colegio should pay any taxes. It is difficult to

TABLE 5

PER CAPITA EXPENDITURES BY CATEGORY IN ANOLAIMA AND EL COLEGIO, 1965

	Total	Admini- stration	Justice Public Order	Tax Collec- tion	Muni- cipal Services	Educa- tion	Health	Economic Develop- ment	Other
Anolaima	37.20	3.20	3.00	2.60	2.30	1.90	2.90	16.90	4.40
El Colegio ,	27.60	1.12	4.00	2.70	1.30	3.60	.38	10.30	4.20

Source: Unpublished data from DANE and the Comptroller's Office of Cundinamarca. Population data from 1964 census of DANE, published in Censo Nacional de Población, October 1965, pp. 12-13.

measure benefits received with any degree of accuracy, but overall indications are that rural people generally benefit little from the property tax, or for that matter, any local government expenditures. The small amount of investment made locally is concentrated in the municipal seat, even though a large portion of the local tax revenues, particularly property taxes, are paid by the rural residents.⁹

There are about 35 kilometers of cobblestone trails suitable only for animal passage in Anolaima and even this becomes difficult during the rainy season. El Colegio has about 30 kilometers of such roads. Rural people must ship their products over these trails by mules or horses, which is not only time consuming, but also expensive when they do not own animals themselves. Likewise, farm inputs must be shipped over the same trails. Indeed, it is not surprising that so few use chemical fertilizers and other improved inputs difficult to transport in view of the costs and time involved to transport them to their farms. Research in other areas of Colombia is also showing transport may be one of the major determinants to a farmer in increasing production for markets.¹⁰

These trails are constructed and maintained by the municipal government, although in Anolaima there are also about 40 kilometers of secondary roads which are maintained by the departmental government. Not one kilometer, however, is paved. Streets in two of the four villages in the area have been paved by the local government but this is of relatively little benefit to farm people.

A departmental paved highway of about 15 kilometers passes through the municipality of Colegio to Viotá, where coffee is bought and stored by the Coffee Federation. Approximately 30 more kilometers of secondary

unpaved roads are maintained by the departmental government, most of which are passable with only four-wheel drive vehicles during the rainy season. Perishables, including some fruits, are often left to spoil during the rainy season because of the impossibility of transporting them to the market place.

Public health services are concentrated in the municipal villages. Anolaima's public hospital has 72 beds--about one bed for every 331 people. Colegio's public hospital has 71 beds, or about one bed for every 216 residents. Two medical doctors are stationed at the hospitals, but usually there are two or three interns who provide assistance. In both areas the policy was recently adopted of charging a 50-peso entry fee for medical services. Because of the expense involved and the difficulty of obtaining medical treatment, many local people rely on yerbateros, or medicine men, whose herb treatments oftentimes complicate instead of alleviate sickness. The hospitals were constructed and are maintained largely by the departmental government. Local governments make only a small contribution toward the maintenance of these facilities. (See Table 4.) Also, there are no welfare programs for the poor and destitute.

Electric power is not available in rural areas except for those few who can afford their own generating plant. Electric lights, water, sewage facilities, telephone, telegraph, and mail services are available in the villages but generally not in the rural areas. Indeed, these services in the villages leave much to be desired. Lights are frequently cut off for long periods during the peak load hours; water is unclean; and telephone service is available for only a few hours daily.

Education, considered by some economists as the key to development, presents an equally dramatic problem. Based on a recent study by the Ministry of Education,¹¹ Anolaima has 95 school rooms for a primary school-age population of 2,609. Twenty-nine rooms are available for 408 urban children (about 14 per room), whereas only 66 rooms were available for the 2,201 rural students (about 31 per room). However, rural classrooms do not accommodate the eligible students, as at the present it was estimated that almost 400 eligible children cannot attend classes because of the lack of facilities. Of the total school rooms available, only 23 were classified as being in good condition (well constructed with adequate equipment); 51 were considered as acceptable; and 21 were considered in very poor condition. The present deficit of school rooms was estimated at nine, all in the rural areas. If school rooms which are in "very poor condition" are replaced, an additional 20 will be needed. Over the period 1963 to 1973, five more rooms should be constructed to take care of the increase in primary school-age population.

The above-mentioned study estimates the cost of each school room at 39,600 pesos, which means that to cover the present deficit, local governments should be investing approximately 356,400 pesos in primary school construction. Replacing school rooms in "very poor condition" will cost 792,000 pesos and investment to take care of the increase in primary school-age population approximately 198,000 pesos.

The situation in El Colegio is evidently worse. Over 1,500 eligible primary students cannot attend school because of lack of classroom space alone. With 52 school rooms available, 19 were classified as being in good condition, 30 as acceptable, and three in very poor condition, for

TABLE 6

SELECTED PRIMARY EDUCATION STATISTICS, ANOLAIMA, EL COLEGIO, 1964

	Anolaima	El Colegio
Primary School-age Population	2,609	2,897
Total Number Primary Students	2,239	1,394
Eligible Students not Attending School	370	1,503
Total Primary Classrooms	95	52
Urban	29	15
Rural	66	37
Present Urban Classroom Deficit	-	-
Present Rural Classroom Deficit	9	39
Costs of Filling Present Deficit	356,400 ¹	1,544,400 ¹
Cost of Replacing "Very Poor Classrooms"	792,000 ¹	118,800 ¹
Investment Over Next Ten Years	198,000 ¹	475,200 ¹

Source: Ministerio de Educación, Estudio Socio-Educativo, Mimeo, Bogotá, 1964.

¹Colombian pesos.

a primary school-age population of 2,897. The present deficit of classrooms is estimated as being 39; likewise, all in the rural areas. The cost of replacing the rooms (at 39,600 pesos a room) in very poor condition would amount to approximately 118,800 pesos; to construct the present deficit of school rooms, 1,544,400 pesos; and to handle the increase in the growing primary school-age population, 475,200 pesos.

Obviously, there is little hope of meeting these costs out of the present local government allocations to education. If the municipality of El Colegio devoted its entire budget over the next three years to construction of facilities, the amount so allocated would be insufficient to cover the present deficit in classrooms. Moreover, even if this investment program were implemented, there is no assurance that qualified teachers, in short supply in most rural areas, could be found to staff the new facilities.

Although secondary educational facilities are available in the villages in both municipalities, a complete high school education cannot be obtained locally. In both areas only four of the six years required for a diploma are offered. In order to get a high school diploma, then, a rural student would have to complete his primary education in the municipal seat, which may be as many as 20 to 30 miles from his home; he would then take four years of high school, also in the village, and from there he would have to go to Bogotá to complete his secondary education. This is beyond the financial reach of all but the well-off rural families.

The difficulties and costs of an education explain the generally low level of education of rural people and the high rate of illiteracy. Based

on calculations from 1964 census data, almost half of the population seven years and over in Colegio is illiterate. The corresponding proportion in Anolaima is almost one-third.

Qualitatively, at least, the lack of education, roads, and health facilities, go to the very root of the problem of 'economic backwardness.' In the first place, educational and training programs increase skills and the quality of manpower to increase productivity. New roads reduce transportation costs and facilitate and expedite marketing. Improvements in health are necessary to build up working capacity and increase the quality and quantity of manpower to accelerate development. Moreover, projects carried out at the local level demonstrate the relationship between investment and rising standards of living. Local projects with clear 'demonstration effects' marshal support for the overall development effort. Without doubt, the lack of local economic infrastructure in Colombia is one of the principal obstacles to development of the rural sector.

Attitudes Toward Local Services

An indication of how people feel about local public services may be appreciated from the survey data. Farm families interviewed were asked an open-ended question as to their perception of the greatest problem of their vereda, or rural community.

Lack of educational facilities was the most frequently mentioned problem in both municipalities. Poor roads were also mentioned by a large percentage of the respondents as were the lack of water supplies and health facilities. Lack of farm credit was mentioned by 22 of the 152 families in Anolaima, but only by ten of a total of 141 in Colegio. Other

farm-related needs, including lack of land, technical help, and fertilizers were mentioned by a relatively small percentage of the respondents in both municipalities. This was also true of electricity.

It is evident from the data, that farmers are confronted with a wide range of problematical conditions. That the responses were relatively well distributed indicates that there is no general consensus, but generally farm problems were considered subordinate to those needs generally supplied by the public sector.

Citizen Participation in Tax Administration

Local people have little to say about how property taxes are collected and spent in Colombia, as suggested earlier. In the first place, there is little autonomy at the local level concerning tax questions. But, also, the structure and operation of municipal government is such that it does not allow people to be brought effectively into the decision-making process.

Evidence of the low level of participation may be appreciated from the survey data. Only 52 percent of the sample of farmers interviewed had voted in municipal elections in Anolaima. In El Colegio 46.9 percent had voted. This may appear to be a reasonably high percentage voting, even by U.S. standards, but it must be taken into account that in Colombia all citizens 21 and over are required by law to vote. Measured against this standard, the percentages are low. Moreover, many people may have indicated to the interviewers that they had voted even though they had not, out of fear that the interviewers represented an official agency.

TABLE 7

MAJOR PROBLEMS OF COMMUNITY AS INDICATED BY FARM FAMILIES, ANOLAIMA,
EL COLEGIO¹

Problems	Anolaima		El Colegio	
	Number Mentioning	Percent	Number Mentioning	Percent
Lack of Educational Facilities	29	19.1	34	24.0
Poor Roads	28	18.4	26	18.5
Lack of Farm Credit	22	14.5	10	7.8
Water Supply	21	13.8	18	12.8
Lack of Health Services	18	11.8	22	15.6
Other Farm-related Problems	16	10.5	12	8.5
Electric Lights	8	5.3	5	3.5
Other	6	3.9	11	7.9
No Problems or No Opinion	4	2.6	3	2.1
Totals	152	100.0	141	100.0

¹When more than one response was given the first one stated was taken by the interviewer. Percentages may not total 100 because of rounding.

In Anolaima 45 percent knew the name of the mayor but in Colegio the corresponding percentage was considerably lower. This is not surprising in that nine mayors have been appointed to El Colegio in the past six years. The mayor in Anolaima, on the other hand, has been in office more than three years.

TABLE 8

INDEX OF PARTICIPATION IN LOCAL GOVERNMENT, ANOLAIMA, EL COLEGIO

Index	Anolaima		El Colegio	
	Number	Percent	Number	Percent
Voted Municipal Elections	80	52.5	66	46.9
Could Name Mayor	69	45.1	42	29.9
Could Name 1-3 Councilors	52	34.2	46	32.8
Could Name 4-7 Councilors	6	3.9	8	5.7
Could Name All Councilors	5	3.3	3	2.1
Reported Contact With Local Officials	58	38.1	47	30.9
Participated in Local Government Meetings	8	5.5	14	10.0

The mayor was better known in Anolaima than local council members, despite the fact the latter are, in theory, the people's representatives. In Colegio also a small percentage could name one to three council members. As the data show, the number who could recall the names of more than three councilors, in both areas, was extremely small.

Other indices of participation were equally low. Only 58 respondents in Anolaima and 47 in Colegio reported any contact with local officials, despite the fact that these officials must be contacted to pay property taxes, other local levies, to process legal cases, and a number of other things. Only eight persons interviewed in Anolaima and 14 in

Colegio reported participation in local government meetings. By and large, these were community action leaders who had, themselves, requested the meetings in order to try to obtain funds from the local government for community projects. Generally, local governments do not hold open meetings in which any citizen may participate and discuss and debate an important issue.

Professor Penn, among others, has long held that local people must have a voice in the planning and execution of policies by which they are affected if these policies are to be successfully implemented.¹² For example, in the case of local taxation, people should have a voice in the formulation of policy as to how taxes are collected and spent if this policy is to be accepted and implemented by local people--in accordance with local public interest.

In the two areas on which this study focused it was evident that local people have little to say about these matters, which could help explain many of the problems of property tax administration. The local citizen sees that policies are far outside his reach and he can really do little to influence them. And, on the other hand, local government officials have a long leash--they have little or no reason to worry about the public pressures that might be brought to bear against them.

FOOTNOTES TO THE PROPERTY TAX IN LOCAL GOVERNMENT FINANCE

¹Richard N. Bird, "Local Property Taxes in Colombia," 1965, p. 489.

²Dick Netzer, Economics of the Property Tax (Washington, D.C.: Brookings Institution, 1966), p. 12.

³See Rafael Quinones Neira, Código de Régimen Político y Municipal (Bogotá: Editorial Temis, 1963), p. 46.

⁴See "Consecuencias de la Tributación a la Tierra en la Sabana de Bogotá," Bogotá, mimeographed, 1962, p. 11, Estudio para la Corporación Autónoma Regional de la Sabana de Bogotá.

⁵George J. Eder and John Commie, Taxation in Colombia, World Tax Series, Harvard Law School, Chicago, Commerce Clearing House, 1964, p. 129.

⁶In the city of Bogotá, Taylor and Richman reported that only four properties had been attached and sold during the past four years, yet 298 attachment proceedings took place, which indicates the difficulty of tax enforcement. Fiscal Survey of Colombia, p. 146.

⁷Local government in this context refers to counties, municipalities, townships, school districts, and special districts. See William J. Shultz and C. Lowell Harris, American Public Finance (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1965), p. 33.

⁸Decree 2365 of 1956.

⁹The rural property tax base in Anolaima in 1966 was 107 million pesos and the urban base was only 26 million pesos, or 24 percent of the rural base. In Colegio the rural base was 48 million pesos and the urban base only 13 million pesos, or about 27 percent of the rural base.

¹⁰Herman Felstehausen, "Service Structure in Antioquia," research report in process.

¹¹Ministry of Education, Estudio Socio-Educacional y Plan de Construcciones Escolares, Cundinamarca (Bogotá: October, 1964) pp. 215-370.

¹²See "Public Interest in Private Property" (Land), Land Economics, May 2, 1961, Madison, University of Wisconsin. Also "The Rural Community and Its Relation to Farm Policies," draft chapter for forthcoming book to be published by Iowa State University.

ASSESSMENT ADMINISTRATION

One of the objectives to which this study was directed was to determine the effectiveness of the reassessment program in that municipality where it was recently put into force in terms of increasing taxable capacity and property tax revenues, and to analyze the quality and equity of that program. The present section is addressed to this objective. The property tax base of the two municipalities is first examined; secondly, the quality and equity of the reassessment program is analyzed; and, finally, the revenue importance of reassessment is discussed.

The Property Tax Base

Property tax effort, as it was pointed out in the last chapter, reflects the extent to which governments are actually using their capacity to raise revenues through the property tax instrument. The property tax, or tax base, is a quantitative measure of the capacity to raise revenue through property taxes.¹

The property tax base of the two municipalities consists of land and improvements on land. Personal property such as household goods, bonds and bank deposits, etc., are not included in the tax base as they are in many localities in the U.S. The tax base is determined by the Instituto Geográfico Agustín Codazzi--in theory--according to its commercial, or market value.

The property tax base (rural and urban) for the two municipalities from 1956 through 1966 is shown in the following table in current and real terms. As the data show, the tax base in El Colegio has been seriously eroded by inflation.

TABLE 9

PROPERTY TAX BASE, ANOLAIMA, EL COLEGIO, 1956-1966

Year	Anolaima		El Colegio	
	Current ¹ Prices	Real ¹ Terms	Current ¹ Prices	Real ¹ Terms
1956	36.9	49.3	39.7	53.1
1957	40.4	45.3	40.4	45.3
1958	41.0	41.0	41.7	41.7
1959	42.2	37.4	45.2	40.0
1960	43.9	35.4	45.9	37.0
1961	45.6	31.9	47.4	33.2
1962	47.8	31.0	49.0	31.8
1963	50.0	25.7	51.3	26.3
1964	133.4	62.8	57.9	27.1
1965	133.5	58.9	60.7	26.3
1966	133.7	52.1	61.9	27.3

Source: Compiled from unpublished data from the files of Instituto Geográfico Agustín Codazzi. Deflator used is that for general government consumption and is from Banco de la República's Cuentas Nacionales, unpublished.

¹Millions of pesos.

Only small annual adjustments have been made in the base which are attributable to the "conservation" or "maintenance" process. When properties are transferred, if the sales price is greater than 20 percent of the existing valuation the sales price becomes the new valuation for tax purposes. Since the turnover of properties in most rural areas of

Cundinamarca is on the order of five to seven percent,² the tax capacity of the municipalities is increased slightly each year because of this practice.

The tax base in Anolaima would likewise have been eroded by inflation except for the revaluation of properties in that municipality in 1964. The gross property tax base increased by more than 166 percent from 1963 to 1964 as a result of the reappraisal program. Average rural property assessments were raised from 7,021 pesos to 26,895 pesos and per hectare assessments from 2,829 pesos to 7,549 pesos. Urban property assessments increased from an average of 7,695 pesos to 20,221 pesos.³ This compares favorably with the municipality of Colegio where average rural per property assessments in 1964 were only 10,000 pesos and per hectare assessments 4,243 pesos. However, in spite of the reassessment program the tax base in Anolaima remains limited. That is to say, even if collections were 100 percent efficient on the present base, total property tax revenues would amount to only 561,661 pesos, or U.S. \$34,564 at the present rate of exchange.

Although important at the national level, exemptions in the two municipalities are a relatively small percentage of their tax bases. Approximately 12 percent of the total assessed value of properties is exempt nationwide. Exemptions from tax include all governmental properties, church properties (Catholic Church only), properties of universities and cultural institutions, charitable organizations, and certain housing and homestead projects.

In Anolaima, exemptions were about five percent of total assessed values and in El Colegio they were 1.6 percent. Officials of the central

assessment agency indicated that the percentage of exempted properties in El Colegio would more than likely rise following reassessment in that municipality, as at the present many of the properties eligible for exemption are not listed at all. The exemptions were distributed as follows in the two municipalities:

TABLE 10

EXEMPTIONS FROM PROPERTY TAXES IN ANOLAIMA AND EL COLEGIO, 1966

	Anolaima		El Colegio	
	(000)	(%)	(000)	(%)
National Government Properties	619.8	9.8	-	-
Departmental Government Properties	514.9	8.2	-	-
Municipal Government Properties	2,943.1	46.9	445.5	44.2
Church Properties	2,183.5	34.9	436.5	43.2
Other	1.5	.2	127.5	12.6
Total	6,262.8	100.0	1,009.5	100.0

Source: Compiled from unpublished data from the files of the Instituto Geográfico Agustín Codazzi.

Assessment Administration

Prior to 1941, assessment administration in Colombia was the responsibility of local cadastral assessment boards. This meant in most rural areas, however, that landowners themselves declared the value of their property for tax purposes, which declaration was simply recorded by the local boards. The lack of uniformity among districts, assessment

Inequities, and the generally low assessment levels led to the enactment of Law 128 of 1941 which transferred all assessment responsibilities to the National Geographic Institute.⁴ The same law established a surcharge of ten percent on municipal tax collections to finance the costs of the cadastral assessment program.

As pointed out in the Introduction, since 1941 two attempts have been made to circumvent the costly and time-consuming process of individual property assessment. Neither, however, have been successful and the Instituto today is largely responsible for property assessment.

Three types of appraisal systems are employed by the Instituto to arrive at the legally stipulated "commercial value" of property. The Type I Survey is, for the most part, a simple inspection of a property by an assessor who records a taxable value based on his own experience. Types II and III are a long meticulous process which involve aerial photography, soils surveys, economic surveys, and a primary and secondary price leveling to arrive at commercial value. The latter are referred to as technical cadastral, fiscal-judicial surveys; in other words, they describe the legal aspects of properties (i.e., boundaries, history of ownership, etc.) as well as their fiscal characteristics or taxable values. The Type II Survey, which was put into effect in Anolaima in 1964, for tax purposes, involves essentially the same procedures as the Type III Survey.

Up-to-date assessments can be an important factor in increasing property tax revenues for local government operations. But assessment administration also bears importantly on the equity problem of the land tax levy. Obviously, inflation is one source of inequality. The tax

obligations of those property owners in municipalities appraised prior to 1961 is considerably less than it is, say, for those located in areas where revaluation programs have been completed in the past two or three years.⁵ Another is that some local residents pay taxes while others do not, as was shown in the last chapter.

But in Colombia, where there is such a wide diversity of landholdings and farming patterns within any given jurisdiction, inaccurate assessments among different classes of taxpayers would also appear to be considerable. If smaller-valued properties are appraised at a higher ratio of their market value than is so of larger-valued properties, assessments are regressive.

Inequities can undermine public confidence in the property tax institution and may dampen the willingness to pay. Also, if the tax is capitalized into farm values, overassessed properties will decline in value and underassessed properties increase in value. Regressive assessment practices could exacerbate the already maldistribution of wealth in rural areas.

Quality and Equity of Assessments

In what follows, an attempt is made to determine the quality (i.e., the ratio of assessed to commercial value of property) and the equity of farm assessments in Anolaima and El Colegio. Assessments should be both of better quality and more equitable in Anolaima, where all properties were last reappraised in 1964, than in Colegio.

A tool commonly employed to determine the assessment level⁶ of rural properties is the ratio of their assessed values to market values. Market

values are generally taken from deeds or other transaction documents of properties that have changed hands over a given period of time. However, it is widely held in Colombia that deeds do not always represent authentic sales prices of properties. To minimize the transfer tax and to maintain a low value of property on assessment roles for purposes of the impuesto predial, something less than the true selling price of farms is commonly listed on deeds. As long as the selling price of real estate is not greater than 20 percent of the original assessed value, the latter remains in effect for purposes of the property tax levy. Thus, it behooves purchasers to list on deeds the lowest possible price. Sellers benefit from this practice as they lower the costs of the capital gains levy. It was suggested by officials of the central assessment agency that local notaries often encourage this practice, for which they charge an extra fee.

Therefore, to establish the relationship between commercial value and the assessed value it was necessary to obtain other data on the market value of rural properties in the two municipalities. The local office of the Agricultural Credit Bank (Caja Agraria) appeared to be the best source for this information. The bank makes a rather detailed appraisal of most properties before it considers a loan to a prospective client.

The problem, however, with the data from the Caja as well as those from the deeds is that they were only available for relatively small units. The average size farm, based on the information from the Caja, was only 4.3 hectares and that based on data from the deeds was 1.9 hectares in Anolaima. In Colegio the average size farm appraised by the Caja was 3.1 hectares while the average farm size based on the data from

the deeds was only 1.6 hectares. The larger haciendas are seldom transferred to different family names, consequently deeds and other transfer documents are nonexistent; and, the Caja appraisers value only that part of a larger farm on which improvements will be made with the loan requested. Moreover, as it concerns the deeds, Instituto officials claim that these documents are not always routed to their office by local registrars, despite this legal requirement. These limitations, then, should be borne in mind in interpreting the data presented here.

In Anolaima, 440 property transfer documents were reviewed although sales data were taken from only 220. Deeds which represented only partial transfers, those which indicated sales or transfers among the same family names, and those which suggested a forced sale were not considered. The deeds reviewed represented all those that had been processed by the Instituto Geográfico (for assessment purposes) during 1966. By and large they represented 1966 sales, although a small portion was from the final months of 1965. One hundred fifty-one appraisals made by the local Caja Agraria Office during 1965 and 1966 were compared with data from the deeds.

In El Colegio, sales data from 125 deeds were taken out of a total of 201. This information was compared to 148 appraisals made by the local Caja Agraria Office during 1965 and 1966.

Both value mean and simple average assessment ratios were calculated for the two municipalities. The former represent total sales, or the total market value divided by total assessments, whereas the latter is the summation of the individual assessment ratios divided by the number of observations.

The simple average ratio is most useful for expressing the level of assessment and the degree of inequality within a taxing jurisdiction as each property sale has equal significance or weight with respect to the legal objective of commercial valuations. The value mean ratio, on the other hand, is useful for determining the assessment level among the two municipalities.

To determine the degree of inequality of assessments, the coefficient of dispersion with the simple average ratio as the basis of the determination was calculated.⁷ When this coefficient is relatively high, say 30 percent, it means that the average farm owner can expect a tax bill which is 30 percent more or less than it should be, given the goal of uniform assessment.⁸

The following table shows the assessment ratios of rural property in Anolaima. Data from the Caja show the value mean ratio at 72.6 percent and the simple average ratio at 79.9 percent. Individual ratios varied from nine to 240 percent and generally there was a wider range in the ratios for properties of small value than for the larger-valued properties. According to the less reliable data from deeds, the value mean ratio was 89.7 and the simple average ratio was 102.1.

In Colegio the value mean ratio of rural properties according to Caja Agraria data was 40.2 percent and the simple average ratio 45.0 percent. (See Table 12.) Based on the information from the deeds, the ratios were 64.3 and 70.6 respectively.

Because of the revaluation program completed in 1964 in Anolaima, then, assessed values are considerably higher than in El Colegio. However, assessment levels in Anolaima still do not approach the legal objective

TABLE 11
ASSESSMENT RATIOS OF RURAL PROPERTIES, ANOLAIMA, 1966

	Value Mean Ratio	Simple Average Ratio
Caja Agraria Data	72.6	79.9
Data from Deeds	89.7	102.1

TABLE 12
ASSESSMENT RATIOS OF RURAL PROPERTIES, EL COLEGIO, 1966

	Value Mean Ratio	Simple Average Ratio
Data from Caja	40.2	45.0
Data from Deeds	64.3	70.6

of commercial valuation. This may be attributable to two factors. Properties may not have been assessed at their full market value, in the first place. However, inflation undoubtedly has also eroded the tax base since it was revalued in 1964.

The data above suggest that property tax yields could be more than doubled in Colegio with reassessment if the rate of collection did not fall. It might be expected that in view of the inflation of the past ten years, assessment levels in El Colegio would be considerably lower. The practice of assigning new assessed values to property when it changes hands, however, is an important factor in preserving the average ratios. But, in that only small properties are generally transferred this practice may contribute to the problem of regressive assessments.

Also, that properties in one municipio are assessed at 80 percent of their market value and those in another at less than half their commercial value is a source of inequity among taxpayers. Because of assessment administration, farmers in Anolaima have, on the average, property and net worth tax obligations almost twice as great as their neighbors in Colegio. Inaccurate assessments among taxpayers within the same municipality are also found.

The coefficient of dispersion in Anolaima, based on data from the Caja, was 37 percent, while that based on information from the deeds was 33 percent. This indicates that a large share of the property tax burden is misplaced, attributable to assessment practices.

In order to determine the direction of this inequality, the average commercial value of properties (based on data from the Caja and the deeds) according to assessment ratio classes was calculated. As Table 13 demonstrates, there was a tendency to regressive assessment--for lower-valued properties to be assessed at higher ratios than was true of higher-valued properties. Data from the Caja show that the average market value of properties assessed between one to 20 percent of their commercial value was 93,333 pesos, whereas the average market value of those in higher ratio classes was lower. The average market value of those in the class 120 and over was only 25,530 pesos. One factor which may explain, in part, the overassessment of smaller-valued properties is the practice of the Instituto Geográfico of assigning a "size coefficient" which increases the assessed value of small farms relative to larger farms. This is based on the rationale that smaller farms are in greater demand than large units.

TABLE 13
AVERAGE MARKET VALUE OF RURAL PROPERTY BY ASSESSMENT CLASS RATIO, ANOLAIMA,
1966

Assessment Class Ratio (Percent)	Average Market Value ¹ (Caja Agraria Data)	Average Sales Value ¹ (Data from Deeds)
1-20	93,333	-
20-40	32,400	14,545
40-60	40,080	16,384
60-80	44,428	27,196
80-100	41,578	19,354
100-120	26,517	12,462
120-over	25,530	9,695

¹Colombian pesos.

Those properties in the medium assessment class ratio range (from 20-80 percent) show a more complex relationship. No satisfactory explanation can be offered for this phenomenon unless it can be attributed to the possibility that assessors are more familiar with the appraisal of properties in this range than either of those of small value, which they apparently overassess, or those of higher value, which they underassess.

The less reliable data from the deeds show a similar relationship to those from the Caja Agraria. No sales fell into the 1-20 class but average sales value of those properties in the 20-40 class was 14,545 pesos, whereas those in the 120 and over class were only 9,695 pesos.

In Colegio, inequalities were evident to a greater degree. The coefficient of dispersion calculated from the Caja Agraria appraisals was 45 percent, while that from the deeds was 38 percent.

Table 14 shows the degree of regressivity of assessment. According to the Caja data, the average market value of farm units in the assessment class ratio of 1-20 percent was 28,554 pesos, whereas those in the category of 120 percent was only 9,000 pesos. The data from the deeds show a similar relationship. Again, it is emphasized that the data were available for only relatively small units. Had information been available on larger units, the regressivity of assessment could have been even more marked.

Thus, based on the data above, it would appear that reassessment may reduce inequities--but not substantially. The Caja Agraria data showed a coefficient of dispersion of 33 percent in Anolaima and 45 percent in Colegio. In Anolaima a large portion of the tax burden continues to be misplaced even after reassessment, and it appears that the inequity falls heaviest on the smaller-valued properties.⁹ Obviously, there is much room for improvement in present assessment practices.

Where farming patterns are so diverse and where units so radically differ as they do in Colombia, assessments may never reach perfection. Also, cadastral assessments are only a form of appraisal and an appraisal, in turn, is an opinion of the value of property. Differences in opinion on values will continue to remain. However, data presented here show that assessments are far enough from perfection that improvement is possible and desirable. This becomes increasingly important when and if greater reliance is put on property taxes.

However, not only must present assessment practices be improved, but, evidently, assessments should be made more frequently. According to the Fiscal Code of Cundinamarca, properties in the department should be

TABLE 14
AVERAGE MARKET VALUE OF RURAL PROPERTIES BY ASSESSMENT CLASS RATIO,
EL COLEGIO, 1966

Assessment Class Ratio (Percent)	Average Market Value ¹ (Caja Agraria Data)	Average Sales Value ¹ (Data from Deeds)
1-20	28,554	13,937
20-40	25,490	17,214
40-60	21,756	18,248
60-80	18,744	8,668
80-100	17,560	7,437
100-120	11,333	7,817
120-over	9,000	2,500

¹Colombian pesos.

reassessed every two years for tax purposes.¹⁰ But, the fact that properties in El Colegio have not been reappraised since 1956, makes the point that this legislation is not effectively enforced.

Based on past experience, there appears to be a strong case for leaving assessment at the present centralized level. Assessment at the local level prior to 1941 proved largely unsatisfactory, as have attempts at self-declarations of property values. However, local governments should also have some assurance that properties will be assessed with regularity.

One student of the local tax problem has recommended a simple equalization formula to adjust upwardly outdated assessments. This would complement the present program.¹¹ Such an innovation would not only increase present property and net worth tax levies, but also offer the

benefit of making assessment levels more uniform among municipalities. However, to date this recommendation has not been accepted.

In practice, few appeals are made. Unfortunately, documentation on the number and kinds of protests filed in Anolaima had been misplaced. However, one of the officials who heard protests in the municipality estimated the number to be less than 50. Spot checks of several other municipalities recently revalued also showed appeals in most cases to be less than one percent of the total number of farms listed.

The reason that appeals are so few is probably attributable to the difficulty of establishing the fact that the original assessment was in error and did not, in fact, approximate commercial value. Most farmers would probably have to hire a lawyer to establish this somewhat nebulous situation and for some property owners, particularly the smaller ones, the out-of-pocket costs of legal fees may not be worth the benefits.

Revenue Importance of Reassessment

The revenue importance of reassessment may be appreciated from Table 2 which showed total property tax revenues from 1956 to 1966. In Anolaima property tax revenues increased from 166.4 thousand pesos in 1962 to 329.6 thousand pesos in 1964 and to 422.5 thousand pesos in 1965. The increase from 1962 to 1964 amounted to 163.2 thousand pesos and from 1962 to 1965 to approximately 255.8 thousand pesos;¹² percentage increases were 98 percent and 154 percent respectively.

The revenue importance of reassessment is further appreciated when property tax revenues in the two municipalities are adjusted for changes in the price level and in population. In real terms per capita property

tax revenues in El Colegio have declined from 27.20 pesos in 1956 to 12.30 pesos in 1966. (See Table 15 which follows.) On the other hand, because of the revaluation of properties in Anolaima in 1964, which adjusted the tax base for changes in the price level, per capita tax revenues have increased slightly.

It is generally agreed that from the standpoint of a governmental unit a good local tax source should be stable. A tax source is stable when revenues do not decline significantly even in the face of an economic downturn. From the standpoint of the local taxing unit the property tax generally ranks high in this regard compared to progressive income taxes or sales taxes. In the face of an inflationary situation, however, the opposite is true. Sales taxes and progressive income taxes can be counted on to provide a relatively stable source of income, while property tax revenues, in real terms, may decline.

Thus, taking into account increases in the price level, the property tax, especially in Colegio, has measured up poorly to the criterion of a stable source of income during the ten-year period. Because the total property tax base was reappraised in Anolaima in 1964, which took into account increases in the price level, property tax revenues were a more stable source of income in that municipality than in Colegio.

It would be useful also to know the increment in the national net worth, or patrimony levy, resulting from reassessment. As pointed out previously, this is a progressive levy which falls on assessed values, and the proceeds therefrom should have increased when properties were reassessed and new values assigned in Anolaima.

TABLE 15

PROPERTY TAX REVENUES, TOTAL LOCAL GOVERNMENT REVENUES, PER CAPITA PROPERTY TAX REVENUES, AND PER CAPITA TOTAL REVENUES IN REAL TERMS, ANOLAIMA, COLEGIO, 1956-1966

Year	Anolaima				El Colegio			
	Property Tax Revenues	Per Capita Property Tax	Total Revenues	Per Capita Revenues	Property Tax Revenues	Per Capita Property Tax	Total Revenues	Per Capita Revenues
1956	156,973	6.7	358,784	15.4	171,607	12.5	373,741	27.2
1957	157,493	6.7	327,982	14.0	142,574	10.2	312,152	22.4
1958	147,440	6.3	284,653	12.1	153,353	10.8	278,450	19.6
1959	138,265	5.8	230,095	9.8	131,742	9.1	203,418	14.1
1960	118,512	5.0	335,927	14.2	122,250	8.3	247,546	16.9
1961	116,529	4.9	234,562	9.9	104,650	7.0	296,718	20.0
1962	108,141	4.5	323,044	13.6	117,797	7.8	241,930	16.1
1963	123,650	5.1	359,606	15.1	95,687	6.2	238,452	15.6
1964	155,276	6.5	568,300	23.8	87,808	5.7	238,741	15.5
1965	186,326	7.7	457,440	19.0	88,653	5.6	216,932	13.9
1966	170,587	7.0	340,902	14.1	77,324	4.9	191,425	12.3

Source: Data from DANE and Comptroller's Office of Cundinamarca. Deflator used is that for general government consumption and is from Banco de la República, Cuentas Nacionales, unpublished, 1958 = 100.

No separate data, however, have been kept on the net worth tax since 1963 by the national government, which meant that arriving at a reliable estimate was difficult. But based on a rough estimate it would appear that new income from the patrimony tax was relatively small. In 1965 total receipts from the income and patrimony taxes combined in Anolaima and El Colegio were only 108,862 pesos and 109,402 pesos, respectively.¹³ If the patrimony portion of this total is as much as 20 percent,¹⁴ this means it amounted to only 21,772 pesos in Anolaima in 1965. Moreover, not all of the net worth levy falls on real property, although in rural areas most of it does. If the proceeds of the patrimony tax were the same in 1964 as in 1965 it would, therefore, be safe to conclude that the new income from this levy resulting from reassessment, even if as high as the 166 percent increase in the total base, would not be substantial.

The costs of assessment are borne by the Instituto Geográfico; however, as pointed out previously, local governments make an annual contribution of five percent of their total property tax take to the Instituto for reappraisal. Generally, for rural governments this does not nearly cover the cost of the reappraisal which takes place on an average every six years in rural areas, and their investments are many times over returned by reassessment. Instituto Geográfico officials estimated the average costs of assessment of rural parcels in the municipality of Anolaima at 65 pesos.¹⁵ Urban properties were assessed at a cost of about 20 pesos per unit. Total appraisal cost, derived by multiplying the number of farms (4,960 in 1963) by the average appraisal costs and the number of urban units by 20 pesos was, therefore, approximately 348,340 pesos. The increase in total collections from 1962 to 1964 was 163,214

pesos, which indicates that the total costs of reassessment are returned in about two years from new property tax receipts alone, at the relatively low level of collection of 59 percent of the total tax bill in 1964. Again, 1963 was not used as a benchmark year from which to measure the increase in tax revenues because, as already pointed out, it was not an average year.

If collections were 100 percent efficient at the municipal level, reassessment costs would be returned in about one year. The total theoretical property tax yield in Anolaima in 1964 following reassessment was 560,646 pesos. The total tax bill at 100 percent efficiency in 1963 was 210,263 pesos (see Table 3). Subtracting 210,263 pesos from 560,646 pesos gives 350,383 pesos, which indicates that assessment costs of 348,340 pesos are returned in a little less than a year. The above figures do not account for the increment from the net worth tax resulting from reassessment, but, as pointed out previously, new taxes from this source appear to be relatively minor in amount.

Just as it has been suggested, then, by those who have studied Colombia's property tax problem, it would appear that expenditures made on property tax assessment would yield a substantial return, even at the present low level of collection. However, an important consideration also is the utilization made of these new revenues. Based on the information presented earlier, it would seem that serious consideration should be given to reforms on the expenditure side before costly and burdensome reforms on the revenue side are implemented.

FOOTNOTES TO ASSESSMENT ADMINISTRATION

¹These concepts are developed and utilized in Measures of State and Local Fiscal Capacity and Effort, Advisory Commission on Intergovernmental Relations, U.S. Government Printing Office, Washington, D.C., October 1962.

²According to an unpublished report of the Instituto Geográfico.

³With the exception of increases in per hectare assessments, these measures are only approximate in that the number of properties, both urban and rural, changed after reassessment. Urban properties increased from 487 to 1,297, which indicates that many properties hitherto classified rural were made urban after reassessment. Rural properties, however, decreased from 6,596 to 4,975, indicating that parcels belonging to one owner were consolidated. The measures of average property increases (rural and urban) presented in the text are total assessed values before and after reassessment divided by total number of properties before and after reassessment, which biases the urban and rural estimate.

⁴Raleigh Barlowe, "Land Taxes and Rural Economic Development in Colombia," Mimeographed, February 1960, p. 13; and Angel and Sanz, El Régimen, p. 17.

⁵Approximately 40 percent of all Colombian municipalities were last appraised prior to 1961. Inflationary pressures, however, have seriously eroded the tax base in these areas. If it is assumed that assessment levels are as high as even 50 percent in these municipalities, revaluation might double their tax yields. Instituto Geográfico Agustín Codazzi, Plan Cuatrienal de Catastro (Bogotá, 1966), p. C-2.

⁶"Assessment level" is used interchangeably with sales to assessment ratio in this paper.

⁷The coefficient of dispersion is the sum of individual deviations of assessment ratios from the average ratio divided by the number of individuals in the group. This figure is then divided by the average assessment ratio to arrive at the coefficient of dispersion. In summary:

$$\text{Mean Deviation} = \frac{\text{Summation } (Y_1 - \bar{X})}{n}$$

Where: Y_1 = Individual Ratios

\bar{X} = Average Assessment Ratio; and

n = Number of Observations

$$\text{Coefficient of dispersion} = \frac{\text{Mean Deviation}}{\bar{X}}$$

⁸In the U.S. when the coefficient of dispersion exceeds 20 percent assessments are considered poor. See Dick Netzer, Economics of the Property Tax, p. 176.

⁹Appendix IV shows the average assessed per hectare value of properties by size for the two municipalities. This information, based on the property tax cards of the Instituto, says little about the regressivity of assessments as it does not account for the fact that farm holdings and improvements account for a larger percentage of the total value of the smaller-valued units than is so for the larger-valued units. However, it is included to show the marked diminution of per hectare assessments of the larger-valued properties.

¹⁰See Fiscal Code of Cundinamarca, Imprenta Departamenta Antonio Nariño, 1964.

¹¹See Bird, "Local Property Taxes in Colombia," pp. 482-501.

¹²1963 was not chosen as the benchmark year from which to measure the percentage increase in per property collections because it was not an average year. People feared that back taxes owed would be based on new valuations being put into effect in 1964. Also, people who wished to protest their new valuations in 1963 were forced to pay back taxes which increased the total yield of taxes in excess of the theoretical levy.

¹³Unpublished report provided by the Ministry of Finance, Division of National Taxes, Collection Subdivision, May 8, 1966.

¹⁴This estimate was made by officials of the Ministry of Finance. Prior to 1963 when separate data were maintained the patrimony tax was about 21 percent of total income and complementary taxes, so the above estimate should not be too far off.

¹⁵Per property costs of a special pilot cadastral program recently completed in Nemocón, a rural municipality north of Bogotá, were 61 pesos exclusive of aerial photography. Adding the latter, according to best estimates, would increase costs another 15 pesos, which would bring total per property costs to around 76 pesos. Although this is slightly higher than the per property costs calculated for Anolaima, costs have gone up since 1963 when valuations were completed in that municipality. Also, special personnel were hired and trained for the Nemocón project which may have increased per property costs. Therefore, the estimated cost for Anolaima seems reasonable.

ECONOMIC EFFECTS OF THE PROPERTY TAX ON FARM ENTERPRISES

As pointed out earlier, a significant theoretical literature has developed in recent years which holds that property taxes may be used as an instrument to bring about a more efficient utilization of land and a higher level of agricultural production--often expressed goals of rural development and agrarian reform programs. The argument is briefly restated here.

Land is a factor of production relatively fixed in supply. Property, on which a tax is levied, is not readily mobilized or liquidated as are some other production factors. Theoretically, the property tax cannot be shifted either forward or backward. Landlords cannot pass the tax to tenants as it affects neither the supply nor demand for rental properties. The supply of land will not diminish as it is relatively inelastic and given competitively determined rents, landlords are not in any better position to obtain a higher rental value for land after the imposition of a tax than they were before. This proposition, of course, does not hold when the assumption of free competition in the determination of rental values is lifted. Under such conditions the tenant may have no alternative but to accept the burden of the tax passed on to him by the landlord.

With respect to forward shifting, on the other hand, if and when a tax is levied on an economic surplus it does not affect the payments made to bring forth the factors of production. Therefore, if there is no reduction in the quantity of factors employed, then supply of produce

from land is not affected; nor is its price. In fact, output may be increased as a result of the imposition of a new tax.

A higher tax burden represents a reduction in income which farmers (either owners, or sharecroppers or tenants if the tax is shifted) will try to recapture by increasing production for market in order to counterbalance or offset the costs of the tax. This may take one of several forms. More labor may be hired to increase output. It may take the form of adoption of new technologies, such as improved seeds, fertilizers, or other new practices to increase production. It may mean using land hitherto unutilized or transferring from, say, extensive livestock operations to intensive crop farming. Implicit in this proposition is the assumption that owners may not be maximizing returns, which is often held to be the case in Latin America, both among small and larger farmers, but especially the latter.²

If they are maximizing, the tax, if sufficiently severe, may force them out of the industry altogether. If agriculture is seen as several industries instead of one, however, this does not necessarily mean that they cease to be farm operators. This may mean that if they are extensive livestock producers, they may be induced to change to a cropping enterprise--that is to say, to a more intensive utilization of their properties.

This, the inducement to increase output and intensify land utilization through the application of property taxes, is referred to as the "income effect."³ A tax levied on an economic surplus, or that which remains after the payment is made to bring forth the necessary factors of production, may have an income effect, but should have no disincentive, or "substitution effect."

When it does take more than the economic surplus, it could theoretically produce a disincentive effect. But, it is always possible that disincentive effects may be more than offset by the beneficial income effect.

The incentive effects of most kinds of property taxes are generally considered to be greater than those of some progressive tax schemes.⁴ A progressive levy on, say, farm income indicates a tax liability that varies with level of output. In the extreme case, in the case of a steeply progressive levy on income, the marginal costs of producing and selling a larger volume of output may be greater than the marginal returns therefrom. Obviously, under such conditions it would not pay the farmer to exert the added effort to increase his income. On the other hand, most property taxes are generally considered fixed charges against land and, therefore, do not affect marginal returns in a given period. They are an inescapable lump-sum cost and output is not affected by them, unless, of course, they are so burdensome as to force farmers out of business altogether.

Also, because the tax is a fixed charge against land, it may encourage those farmers who are not interested in intensifying operations to sell some of their property. This may bring about a better distribution of land. Moreover, if the tax is capitalized in the value of land, it could reduce land prices and, hence, increase transactions of property. These effects could reduce the pressures for radical land distribution programs and alleviate the concomitant social and economic dislocations therefrom.

The salutary theoretical effects of an increased tax burden has other implications for the entire economy. Increasing the food production

may mean better terms of trade or lower food prices for the non-agricultural sector, which would lead to larger savings and investment and allow more rapid growth. It could make more profitable the opening of new industry to accelerate economic growth. It may mean savings of scarce foreign exchange needed for the importation of capital equipment for industry, hitherto used for importation of domestic foodstuffs. Or, if the new "agricultural surplus" is high enough, it may mean that domestically produced food supplies can be exported to world markets, hence increasing the supply of foreign exchange.

Researchers have not defined the level of taxation at which farmers are induced to intensify land use, technology employed, and yields, to offset the costs of higher land taxes or to produce the desired "income effects." However, it is not likely that this level has been reached in Colombia--even after reassessment. As was shown previously, legal rates are relatively light at 4.2 mills; delinquency is high; and, finally, the ratio of assessed to market value following revaluation is quickly eroded by inflation, all of which militate against the possibility of discerning any economic pressures. This is confirmed by the data presented in the following pages.

Basic Characteristics of Farm Families and Enterprises

Before proceeding to an analysis of the economic effects of property taxes, several socio-economic characteristics of the farm families in the two municipalities will be examined. The purpose here is twofold: (1) to present a profile of the average taxpaying farmer in the two municipalities; and, (2) to establish the general similarities

between the two groups, in that the analysis which follows on the economic effects of property taxes assumes relative homogeneity among Anolaima and Colegio farmers--with the exception of the higher tax burden on Anolaima farmers.

Age and Family Size

The distribution of the ages of the heads of household in the two areas is presented in Table 16. The highest number of respondents fell into the 50-54 age category in both municipalities. In the case of Anolaima, this was 15.8 percent and in Colegio 16.4 percent of all farmers interviewed. Ages were relatively normally distributed in both cases as the data show.

The average number of children of the heads of household was 5.7 in Anolaima and six in El Colegio. However, all children were not living at home. No attempt was made to determine the number of children with the family and the number who had left the family.

The mean of the sample of size of the household was six persons in Anolaima and 5.4 persons in Colegio. The standard deviations were 4.4 and 3.8 respectively, indicating a relatively wide variation in the number of people at each residence visited. Commonly, relatives and friends were living with the families interviewed. Thus, the above data are not representative of the immediate family size, but a joint or an "extended family." When there is only one adult male, he generally provides for the entire household.

TABLE 16

AGE DISTRIBUTION OF HEADS OF HOUSEHOLD, ANOLAIMA, EL COLEGIO, 1966

Age Group	Anolaima		El Colegio	
	Number	Percent	Number	Percent
Under 25	1	.7	2	1.4
25 - 29	4	2.6	1	.7
30 - 34	5	3.3	2	1.4
35 - 39	9	6.0	18	12.8
40 - 44	13	8.6	16	11.4
45 - 49	21	13.8	22	15.6
50 - 54	24	15.7	23	16.3
55 - 59	18	11.8	15	10.7
60 - 64	21	13.8	18	12.8
65 - 69	16	10.5	12	8.5
70 - 74	9	6.0	4	2.8
75 - 79	8	5.3	6	4.3
80 and over	3	1.9	2	1.4
Total	152	100.0	141	100.0

Education

About 38 percent of the farmers in Anolaima indicated that they could not read nor write; the corresponding percentage in El Colegio was 36. This percentage is slightly lower than the proportion indicating that they had no schooling at all. (See Table 17.) This would imply that some farmers may have learned to read and write even though they had no formal education.

TABLE 17

LEVEL OF EDUCATION ACHIEVED BY ANOLAIMA AND COLEGIO FARMERS

Years of Schooling	Anolaima		El Colegio	
	Number	Percent	Number	Percent
0	62	40.8	55	39.1
1	14	9.3	18	12.8
2	14	9.3	24	17.1
3	26	17.2	20	14.2
4	18	11.9	14	10.0
5	13	8.6	5	3.6
6	2	1.4	0	0.0
7	0	0.0	2	1.5
8	2	1.4	0	0.0
9 and over	1	.7	2	1.5
	152	100.0	141	100.0

The mean level of education of the farmers interviewed in Anolaima was 1.9 years and that in Colegio was 1.7. The mode was 0 years in both municipalities. Standard deviations were 1.6 and 1.1.

Farm Credit

The Caja Agraria (Agricultural Credit Bank) was the principal supplier of farm loans in both municipalities, providing 57 loans to the sample of Anolaima farmers and 53 loans to the Colegio farmers interviewed. The Coffee Bank was a relatively important source of credit in Colegio but was not active in Anolaima. Other sources of credit in the

two municipalities included private banks and individuals. The Land Reform Institute (INCORA) has recently initiated a supervised credit program in Anolaima, but as yet has only five or six clients in the entire municipality. Some 42 percent of the Anolaima farmers interviewed indicated that they had not received any credit in 1965. In Colegio 31 percent of the farmers had not received a loan.

Individuals providing farm credit charge 20 percent and more on short-term loans. These are commonly local storekeepers or intermediarios who have accumulated enough capital for relending. Crops are commonly sold through the same middlemen who provide credit; in such cases, the principal and interest charges are deducted from the sale of the crop.

Most loans are made for "production" by the Caja Agraria for a period of one year or less. Interest charges are eight percent. Charges on long-term credits exceeding one year are generally six percent. In addition to these, there are also charges for preparation of the legal documentation and for legal stamps.

Size and Value of Holdings

The average size farm in the sample in Anolaima was 5.54 hectares and that in Colegio was 5.01 hectares. In the former area, farm size varied from less than one-third hectare to 242.0 hectares. In Colegio, parcel size varied from less than one-third of a hectare to 167 hectares. Data on farm size were taken from property tax assessment cards, but farmers visited also were asked in the questionnaire to indicate the size of their unit. Oftentimes, there was a conflict between the

TABLE 18
 SIZE DISTRIBUTION OF LOANS RECEIVED BY FARMERS FROM CAJA AGRARIA IN
 ANOLAIMA AND COLEGIO, 1965

Size of Loan (pesos)	Anolaima		El Colegio	
	Number	Percent	Number	Percent
0-2,000	34	59.6	26	49.0
2,000-4,000	10	17.5	11	20.7
4,000-6,000	7	12.2	5	9.4
6,000-8,000	2	3.5	3	5.6
8,000-10,000	2	3.5	1	1.8
10,000-12,000	1	1.7	2	3.7
12,000 and over	1	1.7	5	9.4
Totals	57	100.0		100.0

information provided by the respondent and the tax information; in such cases, the latter was used.

Most of the farms visited were owner-operated, except the larger units, which were administered by mayordomos, or farm managers. In all cases an attempt was made, however, to interview the owner, who could usually be found on weekends. Most of the farms visited had registered titles, or if they had only recently been acquired, titles were in process.

The taxable value of farms visited may be appreciated from Table 19. As the data show, most of the farms in both areas fell into the lower assessed categories, but there was a greater number in the lower groups in Colegio than in Anolaima. This is attributed to

TABLE 19

ASSESSED VALUATIONS OF FARMS INCLUDED IN SAMPLE, ANOLAIMA, EL COLEGIO

Valuations (pesos)	Anolaima		El Colegio	
	Number	Percent	Number	Percent
0-5,000	20	13.2	59	41.8
5,000-10,000	19	12.6	36	25.5
10,000-20,000	45	29.7	27	19.1
20,000-40,000	38	25.1	9	6.4
40,000-60,000	14	9.3	2	1.4
60,000-80,000	7	4.7	1	.8
80,000-100,000	3	2.0	4	2.9
100,000-120,000	2	1.4	0	0.0
120,000 and over	4	2.7	3	2.2

the revaluation of properties in Anolaima which, as discussed previously, increased the tax base in that area by more than 166 percent. The impact of the new valuations on farm income is shown below.

Impact of Taxes on Farm Income

Tables 20 and 21 which follow show the impact of property taxes on net cash farm income by categories in the two municipalities. It should be pointed out that these data reflect what each farmer should be paying. That is to say, the data are the assessed value of a farm, multiplied by the legal tax rate, and do not take into account delinquencies.

TABLE 20

IMPACT OF PROPERTY TAXES ON NET CASH FARM INCOME, ANOLA IMA

Income Group (pesos)	Number	Average Income (pesos)	Average Property Taxes (pesos)	Taxes as Percent of Income (percent)	Average Size Farm (hectares)
0-500	29	197.79	56.62	28.62	1.49
500-1,000	18	786.72	46.61	5.92	1.72
1,000-2,000	20	1,655.10	96.75	5.84	3.38
2,000-4,000	27	2,851.11	98.29	3.44	3.08
4,000-6,000	18	5,227.38	110.66	2.11	3.41
6,000-12,000	22	8,385.39	152.91	1.82	5.52
12,000-24,000	12	18,249.58	198.85	1.03	12.83
24,000-48,000	5	29,032.75	913.50	3.14	69.35
48,000 and over	1	500,000.00	3,469.00	0.69	106.50

TABLE 21

IMPACT OF PROPERTY TAXES ON NET CASH FARM INCOME, EL COLEGIO

Income Group (pesos)	Number	Average Income (pesos)	Average Property Taxes (pesos)	Taxes as Percent of Income (percent)	Average Size Farm (hectares)
0-500	16	201.43	28.51	14.15	1.78
500-1,000	10	736.20	21.60	2.93	1.54
1,000-2,000	17	1,429.00	18.05	1.26	1.57
2,000-4,000	28	2,851.17	24.07	.84	1.93
4,000-6,000	26	4,911.65	62.80	1.27	3.63
6,000-12,000	18	8,453.61	97.00	1.14	3.22
12,000-24,000	16	17,449.87	84.06	.48	5.61
24,000-48,000	6	35,953.50	125.25	.34	15.92
48,000 and over	4	177,488.85	832.66	.46	61.80

Net cash farm income in this case refers to cash income less cash outlays. It does not take into account income attributable to subsistence consumption, that attributable to imputed rent of buildings and costs of depreciation and other costs.

The tax is a relatively small percentage of income, especially among the higher groups where average farm size is largest. Among the lower income groups, where average farm size is smallest, it is relatively burdensome. This is particularly true in Anolaima where reassessment was recently completed. The theoretical tax burden on the smallest income group was 28 percent; on the largest group it was only .69 percent. In El Colegio the tax burden was lighter among the smaller income groups as well as the intermediate and larger groups.

With the exception of the lowest income groups, the data are further evidence of what has been said up to now. Because of low rates, the tax burden is a relatively small percentage of income and this fact, coupled with tax delinquency, means there is little opportunity for the nonfiscal effects to operate. This is particularly true among larger farmers, where the tax burden is lightest.

The data also suggest regressivity of the tax on income. However, the income concept used here to measure regressivity may be open to question. Net farm income, which takes into account subsistence consumption, depreciation, imputed rent, etc., may be a more valid measure for this purpose, particularly in countries such as Colombia. In other words, smaller farmers may be consuming more, percentage wise, of their

output than larger farmers. Therefore, when this is counted as a part of income, the regressivity of the tax may be less than it is on the income measured in net cash terms. More research is needed to establish this point, but the data above do clearly show the marked regressivity of the tax on cash income.

If regressivity on income is a widespread feature of the Colombian property tax, the question may be raised as to whether property, without taking into account the income therefrom, is an adequate and valid measure of ability to pay.⁵ For it is generally (but not always) the smaller farmer who has a relatively higher ratio of property value to income and, consequently, is the victim of this inequity. But, the ethical question aside, it seems paradoxical to penalize relatively more the small family farm in Colombia, which is seen as a source of needed food supply as well as an outlet for a growing labor force until the industrial sector can provide alternative employment opportunities.

One possible remedial action would be to base the tax on income from land, instead of on land itself. The tax could be either proportional or progressive on income. However, in the Colombian case where there are many large estates, or latifundia, which are underutilized⁶ and where incomes are not maximized, this is not a suitable alternative. Another possible action would be to tax presumptive income from land.⁷ The problem here is that some base would need to be computed on which to base presumptive income. This could be soils conditions, average yields, or some other reasonable measure of

productivity. But, as pointed out earlier, these are the data that are lacking in most areas of the country. An added problem is the administration of such tax schemes, which, undoubtedly, would be significantly more complicated than the system.

It may be suggested that farmers below a certain income level should be exempted altogether from the property tax. But, what should this level be and, again, how is it to be determined? Also, besides discouraging efficiency, this could all but eliminate the tax base in areas of the country where minifundia agriculture predominates and where incomes are low. Moreover, there is a case to be made (admittedly not a strong one in the Colombian environment) that all property owners should make some contribution to the costs of maintaining government, albeit a token payment.

Therefore, at the present time, income would not seem to be a valid nor practical measure of ability to pay. This leaves the following alternatives which might be considered jointly or separately to reduce the tax burden of the smaller farmer. First, assessment procedures might be improved so the larger-valued properties are not favored over the lower-valued, generally smaller farms. This was discussed above and needs no further elaboration here.

Second, a progressive land tax based strictly on property values might be levied. A scale could be devised so that rates could be relatively light for smaller-valued properties. Rates would then increase on the scale as farm value increased. It might be argued that such a policy would then penalize relatively more the incomes of the

larger under-utilized latifundia than it would other property owners (of small, medium, and even larger holdings). But, where land is relatively scarce and serves an important social as well as an economic function, this inequity would seem to be a more desirable one than its converse, i.e., penalizing the smaller intensively utilized farm.

Finally, the income level of the smaller farmer might be raised. This might involve land redistribution programs, technical assistance, making credit available, and the provision of more public services like education and roads, which would benefit the producer. Not only would such an effort reduce the tax burden, relative to the income of the smaller farmer, but it may also have wider implications for the development of the entire economy.

Effects of Taxes on Land Utilization, Technology Employed and Crop Yields

In an attempt to determine whether the additional tax burden, as a result of reassessment in Anolaima, had produced any discernible economic effects, three performance factors in each municipality were examined. These included the intensity of land utilization, technology employed, and selected crop yields for 1965 and 1966. The problem in each case was to calculate a mean value for each of these factors and to examine these values to determine if they were significantly different in the two areas. Student's t tests to determine the statistical difference in means and proportions were applied.

Land Utilization

The first test employed was to determine if there were any differences with respect to intensity of land use in the two municipalities. Each farmer interviewed was asked to indicate the total area of his farm, the area in crops (annual and permanent), the area in improved pasture, the area in unimproved or natural pasture, and the area in other than the above. The index of land use intensity was the amount of land in the first two items mentioned: namely, crops, and improved pasture.

Of the total hectares in the sample in Anolaima, 77.6 percent was used for crops and improved pasture, whereas in Colegio the percentage was 81.0. (See Table 22.) These proportions were not significantly different at the .05 level. The mean percentages, or the average of the proportions of each farm in crops and improved pasture in the two municipalities, were similarly closely related, but this figure in Colegio was slightly higher than that in Anolaima.

As the data show, there was little difference in intensity of land use in the two municipalities. On the average, a high percentage of land was being exploited in both areas. This is generally the case in Colombia where small farms predominate. Size is so limited, generally, that farmers plant a large portion of their parcels in crops in order to make a living. Moreover, interplanting, or double-planting is common. Besides the interplanting of plantain and coffee for example, it is common also to have corn and yucca in the same plot. Intensive land use without adequate conservation, needless to say, has a debilitating effect on soils.

TABLE 22

LAND UTILIZATION, ANOLAIMA, EL COLEGIO

	Anolaima	El Colegio
Hectares Crops	595.2	533.1
Hectares Improved Pasture	59.2	40.5
Hectares Crops and Improved Pasture	654.4	573.6
Percent of Total Hectares Crops and Improved Pasture	77.6%	81.0%
Mean Percentage of Land in Crops and Improved Pasture	78.1%	82.0%
Land in Unimproved Pasture	123.6	118.0
Other	22.4	15.7
Percent of Total in Unimproved Pasture and Other	22.3%	19.0%
Mean Percentage in Unimproved Pasture and Other	21.9%	18.0%

It is quite common, however, even on the smallest unit to find a potrero, or a small pasture plot, even when cattle or other livestock are not maintained. This is not land in fallow or rotation, but generally in native pasture. In some cases, cut grass from these plots is sold to neighbors who do have livestock, but this is not always the case. The plot sits idle and is not utilized at all. Several smaller farmers were asked why these areas were not being used more intensively. Generally, they indicated that they hoped to be able to obtain a milk

cow or other livestock, and, therefore, wanted to maintain a pasture area for feeding purposes. On the larger farms, generally, a few head of livestock are maintained on the areas not cropped, but in some cases the land is not exploited at all. As the data show, some 22 percent of the hectares in the sample were not being cropped, while in Colegio the percentage was 19 percent.

Although this study assumes relative homogeneity among the variables affecting land use in the two areas, it could be that this is not the case. Soil conditions, for example, may be more adaptable to intensive type agriculture in Colegio than in Anolaima. Unfortunately, basic soils data needed for comparative purposes are not available. However, if it is assumed that basic conditions are relatively similar among the two areas it is evident that the higher property tax burden resulting from reassessment in Anolaima, was not sufficient to force farmers to utilize land any more intensively than in Colegio farms, where property valuations are outdated.

Technology Employed

The second test was to determine if there were any significant difference in the level of technology employed in the two municipalities. A number of improved practices were listed in the questionnaire and the respondent in each municipality was asked to indicate if he were presently employing the practice. Of the nine practices listed, four were concerned strictly with coffee production. This is not unreasonable, however, in that coffee is the main cash crop in both areas. An average technology score was developed by assigning a value of one for

each practice employed by a farmer and a zero when the practice was not employed. The total possible score for any farmer was nine.

The data in the following table show the number and percentage of the sample in each municipality employing the various practices. A large number in each area are using organic fertilizers. These include not only animal fertilizers, but also a mulch, which is manufactured by allowing coffee bean shells to ferment. Many farmers indicated that this type of plant food was considerably better than chemical fertilizers.

A large percentage also sold their coffee shelled and dried. Many had acquired small hand-operated shelling machines and had built small porches or patios, attached to the residence, for drying the beans. Large farmers sometimes have elaborate and expensive machinery used for this purpose.

Other items and practices listed were employed to a relatively small extent. Bourbon and caturra coffee varieties, for example, which coffee technologists claim will more than triple present yields, were adopted by only eight farmers in Anolaima, and 13 in Colegio. These new species do not require shade and perhaps this is one of the reasons why farmers may not adopt them. Presently, shade is provided by plantain, which serves in addition to its utilitarian purpose, also as a food source and a source of income. Small farmers may be reluctant to change from old coffee varieties to the new, more productive varieties, if it means uprooting a source of food.

There is an extension agent employed by the Coffee Federation in both areas, but he gets to a relatively small number of farms during a

TABLE 23

TECHNOLOGY EMPLOYED BY ANOLAIMA AND EL COLEGIO FARMERS

Kind of Practice	Anolaima		El Colegio	
	No. Using	Percent	No. Using	Percent
Weed Killers/ Insecticides	47	30.9	52	36.8
Chemical Fertilizers	62	40.1	61	43.3
Organic Fertilizers	131	86.2	134	95.0
Burbon or Caturra Coffee Varieties	8	5.3	13	9.2
Improved Seeds	30	19.7	27	19.1
Coffee Sold Dried	87	57.2	106	75.2
Two Clippings Annually Coffee Crop	50	32.9	56	39.7
Two Cultivations Annually Coffee Crop	105	69.1	110	78.0
Improved Pasture	13	8.6	10	7.1
Technology Scores (Average)		3.5		4.0

month's period. Aside from transportation problems of visiting remote farms, he must spend some time in the local office (usually two days a week during market). Also, he is responsible for evaluating some of the applications made to the Coffee Bank for credit. Aside from this source, there are few other channels of information on new techniques, which helps explain why the level of technology employed is so low.

The average technology score in Anolaima was 3.5 and that in Colegio 4.0. This difference was not significant at the .025 level of probability.

Crop Yields

Three crops were selected to determine if there were any difference in yields in the two municipalities. These were coffee, a permanent crop; plantain, a semi-permanent crop; and, corn, an annual crop.

The question may be raised as to how quickly yields of permanent crops may be increased. Even if the increased property tax in Anolaima were sufficiently burdensome to expect the theoretical nonfiscal effects to operate, would two years be sufficient for farmers to increase yields of permanent crops such as coffee? Interviews with technicians of the Coffee Federation in the local areas indicated that, generally speaking, yields could be increased with present varieties by 25 to 50 percent in one year with improved technologies, including appropriate clippings, more frequent cultivations, and the application of chemical fertilizers. As discussed previously in this study, the "announcement effects" of the higher tax were made in 1963, when Instituto officials made farm-to-farm visits to revalue the properties. Therefore, sufficient time should have passed for the tax to produce the desired incentive effects, -if indeed it were going to produce any.

Table 24 shows the average yields, in cargas, of the crops selected for comparative purposes. It should be pointed out that the data reflect the average yields only for those farmers with the selected crops. Yields varied little between the two municipalities. Farmers in both areas are limited to the crops adaptable to the region, to hand labor, by and large, and to the same technologies.

There is little reason, therefore, to expect that, on the average, they should differ if other effects are neutral as this study assumes.

TABLE 24

AVERAGE PER HECTARE YIELDS OF SELECTED CROPS, 1965, 1966, ANOLAIMA, EL COLEGIO

Crop	Anolaima		El Colegio	
	1965	1966	1965	1966
	cargas*			
Coffee	3.61	3.84	3.98	4.13
Corn	7.79	7.79	6.78	7.07
Plantain	9.76	9.92	9.16,	9.18

* Carga = approximately 275 pounds.

Yields did vary greatly among producers within the same municipality. The range in coffee yields, for example, was less than one-half carga up to 30 cargas. Some of the more progressive farmers have adopted more modern technologies and new varieties, which, as already pointed out, more than triple yields, over the commonly found Arabic variety. Similarly, corn and plantain yields varied greatly among producers within the same area. On some farms these crops are planted primarily for subsistence consumption, while on others they are planted on a commercial scale.

In 1965 coffee yields in Anolaima per hectare were 3.61 cargas, corn yields 7.99, and plantain 9.76. In El Colegio, coffee yields were 3.98 cargas per hectare, corn yields 6.78, and plantain 9.16. These differences were not statistically significant at the .05 level.

In 1966, coffee yields in Anolaima were slightly higher at 3.84 cargas, corn 7.79, and plantain 9.92. In Colegio, coffee yields were

4.13 cargas, corn 7.07, and plantain 9.18. Again, the difference in the means was not significant at the .05 level.

Effects of Taxes by Assessment Categories

Quite apart from the effects of reassessment on selected performance factors in the two municipalities, an attempt was made also to determine if there were any relationships between total assessments and land use intensity, technology employed, and yields. As pointed out previously, in addition to the property tax, farmers are subjected to a net worth levy (patrimony), varying from 0.1 percent on assessed taxable land values from one to 20,000 pesos to 1.5 percent of taxable values which exceed 300,000 pesos. The question here, then, is whether farmers whose properties in the higher assessed categories are using land more efficiently, employing more technology, and increasing yields, to offset the higher tax costs.

Also, an attempt was made here to determine if there were any relationships between per hectare assessments and the performance characteristics mentioned above. The question in this case is whether farmers, where tax burdens per hectare are greater, are making better use of land, employing more technology, and increasing yields.

Simple regression analysis was used in both cases to determine the relationships between the assessed values, considered as the independent variables, and the performance factors, considered as the dependent variables.

Changes in total assessed valuations, expressed in hundreds of pesos, explained only a small portion of the variance in the performance

factors in both municipalities. Regression coefficients were small. With respect to intensity of land utilization the regression coefficient was actually negative, indicating that for each one hundred pesos in land values, the percentage of land used in crops and planted pasture actually declined. The higher-valued farms, which are generally the larger units, utilized land less intensively than the smaller units. Assessed values explained also only a small part of the changes in the use of technology and crop yields averaged for 1965 and 1966. The values of the coefficients of determination were likewise small.

The relationship between per hectare assessments and the performance factors were also weak in both areas. Again, the regression coefficients were extremely small in all cases, indicating that per hectare assessed values, expressed in hundreds of pesos, explained only a small proportion of the variance in the respective performance factors. For example, in Anolaima, for each one hundred pesos per hectare, land use intensity increased by only .0001 percent. The technology scores decreased slightly (as did coffee yields) as per hectare values increased. None of the regression coefficient values were significant at the .05 level. Coefficients of determination were also, again, small.

Smaller farms, which are generally the highest valued per hectare, have less access to improved technology than larger-valued and generally larger-sized farms, which may help explain the inverse relationship between assessments and the technology score. Coffee yields may decline slightly because new varieties and techniques have not been adopted on the smaller farms. Generally, interplanting of crops and concomitant

soils depletion is greater also on the smaller, near-subsistence units, which may explain the relationship between coffee yields and per hectare assessments.

The homogeneity within the groups or the lack of significant farm-to-farm variation among the variables examined might explain, in part, why simple regression showed the relationships considered above to be weak. But, other measures would have given similar results if in fact, on the average variance of the selected performance characteristics among farmers is small.

It should not be concluded from this that there are not some progressive agriculturists within the areas studied who are not obtaining higher yields, employing more technology, and using land more efficiently than is generally the case. As already pointed out, in some instances new varieties have been adopted and other relatively modern technologies are being employed, resulting in yields two and three times those commonly found in the areas. The reasons why performance is high in these special cases is a topic for further and more detailed research; however, some observations are offered.

Several case studies were made on farms (both large and small) where productivity was above average, and it was concluded that the owners had higher levels of education. In cases of the larger farmers, they had obtained their training outside of the local system and, generally, in Bogotá. Their children were following the same pattern. Larger farmers depended little on any of the local services. Both large and small farmers studied had received more farm credit and technical assistance from the Coffee Federation extension agents and, therefore, had adopted

new seeds and varieties and other improved practices. They had more livestock (cows, swine, and poultry, and pack animals) than was the case of the average farmer. They had access to more direct marketing channels, generally selling their coffee themselves to the federation rather than to a middleman, and transporting other products to Bogotá or other central points and, thereby, eliminating one middleman. One of the smaller farmers was selling oranges directly to the largest supermarket in Bogotá. In all cases, their farms were closer to a public roadway and generally closer to a village, which reduced transport costs and facilitated access to new and improved inputs. Finally, they were more involved in community affairs, oftentimes leaders themselves in acción comunal. In El Colegio one of the smaller farmers was an alternate member. The tax level, however, both in absolute terms and as a percentage of income, in the four cases studied in each area, varied greatly and, therefore, seemed to be an insignificant variable as far as the performance factors were concerned.

This list is not complete nor conclusive. As pointed out above, additional research is needed to establish more systematically the reasons and motivations for higher performance in special cases. However, if it is true that education, roads, technical assistance, and other public services are important stimulants to increased productivity, it should be recalled from a discussion in the earlier part of this study, that, generally speaking, these are the services which are not available in the rural areas.

In any case, it seems safe to conclude that, on the average, farmers in the higher assessed categories are not performing any more efficiently

than those in the lower categories, according to the criteria employed. The higher property tax burdens per hectare, as well as higher total property taxes and net worth taxes, have had little influence on farm decisions of the nature considered here.

FOOTNOTES TO ECONOMIC EFFECTS OF THE PROPERTY TAX ON FARM ENTERPRISES

¹Wald, Taxation of Agricultural Land in Underdeveloped Economies, p. 103.

²The point that incomes are not maximized is made by Solon Barraclough and Arthur Domike in "Agrarian Structure in Seven Latin American Countries," Land Economics, Vol. XLII, No. 4, November 1966. They say on page 401 that, "the two most important tenure groups--the minifundia and the latifundia--both appear to use resources wastefully." Later on the same page they noted "Agronomists estimate that the large scale producers of cocoa and coffee in Brazil could double production of many existing plantations with only nominal improvements in management and investment." Specifically, with regards to the Colombian scene, Emil Haney will show, via linear programming methods, in a Land Tenure Center research project now underway, that small farmers in one rural area could increase yields by as much as three to four times.

³Wald, Taxation of Agricultural Land, p. 80.

⁴Ibid., p. 212.

⁵In a recent examination of the U.S. property tax, this same question is raised also by Frederick D. Stocker in his discussion of Professor Grove's paper, the latter of which is entitled "An Evaluation of the Property Tax as a Part of the Fiscal System," published in Rural Taxation Problems, papers presented by the North Central Research Committee and the Farm Foundation, Chicago, Illinois, November 1962, p. 23.

⁶Dale Adams in "Land Ownership Patterns in Colombia," Inter-American Economic Affairs, Vol. 18, No. 3, Winter 1964, discusses this problem in more detail.

⁷This was recommended by Taylor and Richman in Fiscal Survey of Colombia, see p. 133.

SUMMARY AND CONCLUSIONS

An effective system of property taxation has been widely recommended to underdeveloped economies. The tax on property is seen as an instrument to generate revenue for needed public works as well as to encourage more efficient land utilization and a higher level of agricultural production. In Colombia an attempt has been made to use the property tax to accomplish both of these goals. But it is generally held that because of weak administration, low rates, and assessments that are quickly eroded by inflation, the effectiveness of property taxes has been significantly reduced. This was confirmed by the research for this study.

During the period between 1858 and 1887 when Colombia experimented with a decentralized governmental administration, the direct tax on land was extensively utilized by the various states. Shortly following the return to a unitary centralized government the collection and expenditure of property taxes was turned over to local municipal governments. The rate of the levy was first set at two mills by the national government but later it was increased to four mills which is the present rate. The tax base is determined generally according to the market value of real property by a centralized assessment agency--the Instituto Geográfico Agustín Codazzi.

Two rural municipalities were chosen as the focal areas for this research: Anolaima, where a general property tax reassessment program was completed and put into effect in 1964, and El Colegio where assessments are outdated. The general problem of the study was to determine

the role of the property tax in the financial structure of the local governments and to examine the reassessment program from the point of view of its effects on property tax receipts as well as the quality and equity of the program. Later in the study an analysis was made of the economic effects of property taxes on farm enterprises in the rural areas under study.

The property tax is the single most important source of income for the local governments, accounting for some 41 percent of Anolaima's total revenues and 40 percent of El Colegio's revenues. But, even though relatively important in local government finance, per capita property tax revenues are low. Taking into account changes in the price level since 1958, per capita property tax revenues amounted to only 7.0 pesos in Anolaima and 4.9 pesos in El Colegio in 1966.

Tax rates in the two municipalities are low, delinquency is high, and the tax base is relatively small, all of which limit the revenue productivity of the levy on real property. Although the legal rate of taxation is 4.2 mills, the effective rate has been only 3.4 mills in Anolaima and 3.3 mills in El Colegio since 1960. This is attributable to the low ratio of collections to legal liability which has averaged some 82 percent in Anolaima and 80 percent in El Colegio since 1960.

The revenue productivity of the tax could be increased by as much as 20 percent per annum by eliminating tax delinquency. This would involve, at the outset, more enforcement of present regulations including the strict imposition of interest charges and perhaps fines on delinquent taxpayers. The implementation of legislation to change the property tax from an in personam to ad rem levy might facilitate judicial proceedings

to attach land on which taxes have not been paid. As it now stands the burden of proof of ownership or life possession of land on which taxes are due lies with the state. The government, therefore, must locate the delinquent taxpayer, and prove he is the liable debtor before land can be attached. This complicates procedures, particularly where administrative court officials have neither the time nor training to pursue such a laborious process. Changing the rule so officials could directly attach land, regardless of the whereabouts of the owner or the status of his rights, would facilitate the legal process and as a consequence make property owners more responsive and responsible to their tax obligations. Providing more benefits to the taxpayer may increase voluntary compliance.

Rural people, particularly, benefit little from local government expenditures despite the fact that they pay the largest share of property taxes, the main source of municipal income. The few services that are made available by the municipal government benefit largely residents of the villages. Moreover, people have little to say about how taxes are collected and spent--an observation based on an index of participation in local government affairs. This is attributable to the structure of local government itself, but also to existing political problems and the apparent manipulation of local government to the advantage of a few. The inability of people to make their needs and demands known may explain many of the problems of property tax administration as well as those of the local governmental unit.

Based on the most reliable data available, the average ratio of assessed to market value of properties is now about 72.6 percent in Anolaima, where reassessment was recently completed and put into effect.

This compares favorably with the assessment level in Colegio which was estimated at 40.2 percent. But property valuations are not substantially more equitable following the reassessment in Anolaima, in that larger valued properties are still assessed at a lower ratio of their market value than is so of smaller valued properties. Every effort should be made to improve the equity of appraisals, which becomes particularly important if and when greater reliance is placed on local property taxes.

One of the propositions which this study set out to support was that reassessment will increase local property tax capacity and tax revenues. Data presented showed this to be the case; revaluation in Anolaima increased the tax base by 166 percent and tax revenues increased from 163 thousand pesos in 1962 to 329 thousand pesos in 1964, the year that the new valuations were put into effect. The costs of reassessment are returned in about two years from the new property tax receipts alone, even at the presently high level of delinquency.

However, the problem of increasing the revenue productivity of the property tax through reassessment, as well as through other measures such as the elimination of delinquency and higher rates, pales in importance before the broader dilemma facing the areas on which this study focused and, apparently, many others in rural Colombia. This is succinctly stated by Netzer on page 1 in his publication entitled "Some Aspects of Local Government Finances":

It makes little sense to improve the revenue sources of sub-national governments and to assign important responsibilities to them unless they have an adequate structure--unless they are organized so that they can effectively provide public services. Such a structure

does not exist in Colombia today. The outstanding characteristic of the present structure is the disproportion between the large amount of local government and the small amounts of actual services provided to the public by local government. Local government is important in Colombia, relative to other countries, because local government consumes about one-third of the total tax collections of all levels of government. However, it uses much of this not for actual public services but for administrative overheads. At the municipal level, the very largest cities do provide utility and other urban types of services; however, in at least 850 of the country's municipalities the municipal government employs people but provides no significant services.

The overall conclusions, then, of the first part of this study is that the property tax problem, from the revenue and expenditure point of view, is only symptomatic of the broader problem of local government in Colombia. An adequate administrative structure is lacking at the local level and until this problem is confronted, it makes little sense to improve the revenue structure.

This implies that serious consideration should not be given to a relatively costly and burdensome program of assessment, or any property tax reform measure, without an assurance that enough benefits can be obtained therefrom to more than offset the expected costs. And "benefits" in this case cannot be construed or measured as simple peso returns. The real question is whether new taxes will be spent to benefit local people or will they be used for administrative overhead, or sit idle. Will the local governments really allocate scarce capital resources more efficiently than would private individuals? The evidence presented in this study raises serious doubts about these possibilities.

Basic reforms in the structure of local government must be implemented before tax reform will be fully effective. Structural reform

would also appear to be necessary prior to the successful implementation of other piece-meal technical innovations that may be recommended to improve local government, including the upgrading and professionalization of personnel and reforms in the judiciary system. For it is a small political elite who would stand to lose from these innovations, and, as it now stands, any change which would threaten their position is likely to be frustrated. It is an accepted maxim that those in power are not likely to initiate, or even tolerate peacefully an action that would deprive them of their privileged position. It will be no easy task to carry out reform of local government structure for it would affect the vested interests at the grassroots level all over the country. Therefore, there is no simple prescription or solution to this complex problem.

One possibility that might merit consideration is to turn over local government revenues on a systematic basis to the acción comunal groups in order that these funds would be used for needed public services. This might involve dividing up the municipalities according to acción comunal districts and on the basis of their taxable capacity--say, their property tax base--assigning to them a percentage of the total income of the municipality. This way local groups could spend funds according to their own needs and desires. However, most acción comunal groups also do not have an adequate administrative structure through which funds could be channeled for new projects and for maintenance or projects once they are completed. If the groups themselves were given the power of taxation they would still lack the administrative apparatus to collect and spend these revenues. The authority to establish

this mechanism would involve the further proliferation of governmental units and the requirement to spend a large proportion of total municipal income for the fixed costs of administrative overhead. Most rural areas could scarcely afford this luxury. A further problem is that *acción comunal* groups do not exist in many areas of the country.

At the other extreme, consolidation of municipalities might be considered, particularly the smaller, less wealthy units. This would offer the advantage of reducing per capita administrative overhead and at the same time some economies of scale in the supply of public services may be realized. There are at least two different methods of handling governmental functions under such a scheme. One is to create administrative areas of two, three or more adjacent municipalities where certain functions such as roads, schools, and health facilities would be under one administrative head. The costs of providing these services would then be apportioned upon some reasonable basis among the municipalities within the area. The other possible method is to combine two or three adjacent units, or simply redraw municipal boundary lines.

Besides a greater savings in fixed costs, the latter might offer the advantage of diluting the power of present political bosses and consequently "depersonalizing" local government. However, a new elite might well emerge and usurp power so that eventually the new larger unit would end up in much the same predicament as are the present units. This probability might be diminished, however, by granting more autonomy to the local units. Giving local citizens the right to decide on their own officials might make these officials more responsible

and responsive to public interests than to the private interests they now serve. Being able to decide locally on the level of taxation and expenditure might well result in a higher level of both.

Netzer (quoted above) suggested the elimination altogether of municipal governments. The departmental governments would take over the service functions of the present municipalities and the latter would disappear. From a strict economic point of view this recommendation has merit. Administrative overhead and other fixed costs would be significantly reduced and economies of scale in the provision of public works may be even greater than in the case of the consolidation of two or three municipalities. But by the same token, such a measure might take government even further away from the people than it is at the present.

The scheme to be ultimately employed might vary from area to area given the different conditions including the size of the departments and municipalities and their relative wealth or taxable capacity. For this reason, more research into this important area is required. But that there are advantages to corporation and a greater degree of flexibility and autonomy at the local level is amply demonstrated in the case of the Autonomous Regional Corporation of the Cauca Valley (CVC). This decentralized unit of government was established some ten years ago with extraordinary authority, including property taxing powers, for the purpose of promoting the unified development of the Cauca Valley. It cuts across the traditional lines of subnational governments. As political units, municipalities continue to exist as do the departmental governments, but some of their functions are taken over by the CVC and

In addition new services are provided which have never before been available to most rural residents. The CVC was a "new experience" for Colombia.

The story has been fully described by Jeanne and Antonio Posada in CVC: Challenge to Underdevelopment and Traditionalism, a research publication supported by the Land Tenure Center of the University of Wisconsin. This book traces the obstacles and pitfalls in the establishment of the agency. It discusses the dedication of a group of local people, a "modernizing elite," who relentlessly struggled against the traditionalists to accomplish their purpose. It outlines the progress made in power generation, land reclamation, irrigation, and agricultural development. The agency has not involved itself on a large scale in some of the more conventional public services such as formal education, road building, etc., but it has demonstrated its ability to do such as could other similarly organized regional units.

Most importantly from the standpoint of policy implications the book sets forth the role of basic structural change, corporation, and local autonomy in bringing about social and economic development. As the Posadas point out, the transition from traditionalism to a modern society is far from completed--the shift in economic, social, and political power is still embryonic. But a momentum has been generated that will be difficult to halt. Colombian policymakers and others interested in the economic welfare of the country might learn some important lessons from a closer study of this experience.

The second section of this study compared selected performance factors in Anolaima and El Colegio, and attempted to measure whether or

or not there was any difference in these factors in the two municipalities. Anolaima farmers have a higher tax burden as a result of a reassessment program which was completed in 1964, and the problem was to measure whether land was being utilized more intensively, whether more technology was being employed, and whether yields were higher, in an attempt to offset the costs of higher taxes. El Colegio was the control municipality where properties have not been reassessed since 1956.

It was shown that the property tax is a relatively small percentage of net cash farm income, particularly among larger farmers. This fact, coupled with tax delinquency and assessed values which are quickly eroded because of inflation, means that there is little opportunity for the theoretical nonfiscal pressures of property taxes to operate. Data presented on land utilization, technology employed, and yields of three selected crops, showed this to be the case. El Colegio farmers were actually using land slightly more intensively than Anolaima farmers, according to the survey. This was also true of technology employed. The data showed no significant difference with respect to yields of three selected crops.

A series of simple regression equations were computed using assessed values as the independent variable and selected performance characteristics as the dependent variables. Generally, the relationships were weak, indicating that the relatively higher property taxes and a higher net worth levy were insignificant as far as land utilization, technology, and yields of coffee, corn, and plantain are concerned. Intensity of land use actually declined as valuations increased,

which implies that higher valued or larger farms are not used as highly as lesser valued or generally smaller units.

Simple regressions were also computed, using per hectare assessed values as the independent variables and the performance factors as the dependent variables. It was found that, although weak, an inverse relationship existed between per hectare valuations and technology and coffee yields. The higher valued units per hectare are generally the smaller units, and in many cases, these units have less access to improved techniques. And, because of continued use of traditional varieties, high land use and soils depletion, coffee yields are lower.

In addition to the administrative problems described above, there may be other barriers which inhibit the utilization of land taxes as an effective incentive instrument to be used in rural development and agrarian reform programs in Colombia. First, the strength of the "profit motive" among farmers may be such that it inhibits the nonfiscal efforts of higher taxes from operating. In other words, in an environment where a large share of farmers are near the subsistence level, it may take a stronger force than taxation to make them change to new land use patterns and adopt new technologies to increase yields. In this environment, the farm may be seen as a means of livelihood rather than a business operation. That is to say, farmers may fear that change from the traditional patterns of intercropping or the application of new seeds and fertilizers would mean starvation. Hence, increased tax costs may be taken out of savings or it may mean a reduction in permanent income. The new tax simply may not be paid.

On the other hand, the large landlord, especially absentees, may not be interested in devoting more time and effort to the management of their farms even if an increased tax burden means a reduction of farm income. This type of farmer may make his living from a business in Bogotá and the farm may be held only for prestigious and speculative purposes and as an instrument through which losses can be claimed for national tax purposes. Holding land for social purposes and as a hedge against inflation, is common in Colombia, as is absentee landlordism.

Second, it is possible that the rewards for new effort would not accrue to those who made the effort, or the rewards may not be worth the new effort made. It is possible, for example, that increasing production for market would require farmers to buy new animals for transport and the out-of-pocket costs would be more than the reward or the amount needed to offset the tax. It is commonly held among farmers in the two municipalities that the intermediarios, or middlemen, will take only a limited amount of product, as they prefer to handle small amounts with a large profit margin to large amounts with a low margin. Increasing marketable production may imply the obligation of taking on an additional member of the extended family.

Third, custom and ignorance may be a barrier to increasing marketable production needed to offset the costs of a higher tax burden. Many farmers in the two municipalities, for example, indicated that they would not use fertilizer because it "burned" and, therefore, damaged the crops. Also, it was commonly heard that new higher-yielding coffee varieties, such as borbon and caturra would not be adopted

because these varieties did not require shade. Shade is usually provided by bananas, or plantain plants, which provide food to the family, and the loss of food supply is seemingly a threat to the very existence of many families. Likewise, many farmers could increase coffee yields through such practices as clipping and cultivating twice a year, but Coffee Federation officials claim that few people adopt these practices because "customs of the campesino are difficult to change."

Finally, the inputs needed to respond to higher taxes, including new seeds, fertilizers, and credit, may not be readily available. Also, the unconventional factors, including education, roads to transport products efficiently, technical assistance, and markets, cannot be taken as given, as was discussed earlier. When these inputs needed to increase production are not available, even confiscatory taxation may not produce the desired nonfiscal effects.

In this type of environment, then, land taxes may be less than the ideal instrument to accomplish agrarian reform goals. This is not to imply that they cannot be applied for this purpose. Nor, of course, can data presented above prove or disprove this thesis. They indicated only that the tax burden may not as yet be high enough to produce any discernible economic effects, and this is quite different than saying that it will not.

What are the prospects for utilizing property taxes in Colombia in the future as an instrument to assist in the implementation of changes in land use and occupation? Given the present structural, administrative, and institutional barriers, the prospects do not appear bright. Conventional measures may be more expedient and more efficient

to accomplish this goal. These might include the provision of more credit, technical assistance, and public works, such as roads and educational facilities, to intensify land use and production. Land redistribution programs may be the quickest way to bring about changes in the present ownership pattern of property.

Finally, this study suggests that such measures may be more politically appealing than land taxes. If the Colombian government does not have the will or the authority to carry out a program of agrarian reform through conventional means, it is not likely to accomplish the same ends through enforcement of property taxation. Indeed, strengthening the property tax and related institutions in order that more revenues are invested in local public works needed for rural economic development, seems a sufficiently large order for the foreseeable future.