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THE HUK REBELLION IN THE PHILIPPINES: QUANTITATIVE APPROACHES

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ABSTRACT

A statistical study of conditions related to control of barrios in Central Luzon by Huk rebels. Using several different models, results showed that Huk actions -their terror and coercion--as measured by killings, was a stronger explanation than social conditions. Contrary to the findings of earlier studies, the proportions of Pampangans and of sugar growing were negatively related to Huk control. Tenancy was a factor--land ownership was negatively related to Huk control--but not a dominant one. The findings are borne out by a survey of 1550 Filipinos. showing that persons in Huk areas had about the same attitudes as those elsewhere (but nonresponse was 50 percent, compared with 33 percent elsewhere). Appended extracts from interviews with 12 Huk prisoners suggest a split between at least two factions, idealistic Maoists and simple criminals. /

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PREFACE

This study of alternative models of insurgency grew out of a debate at Rand several years ago over the use of quantitative methods in the analysis of insurgency. This debate focused on Vietnam and the Philippines. During field work on a study of Philippine economic development (H. Averch, F. Denton, J. Koehler, A Crisis of Ambiguity: Political and Economic Development in the Philippines, R-473-AID, The Rand Corporation, January 1970) the authors of the present Memorandum acquired additional data on the modern Huk insurgency that permitted them to build statistical models that would serve as alternatives to those found in previous Rand work. This Memorandum compares the alternatives and tries to bring different kinds of data -- for example, direct survey material -- to bear on the issues at hand.

Quantitative approaches are promising in the analysis of insurgency, but analysis will always be subject to uncertainty and ambiguity. Chandestine organizations have some incentive to avoid generating information about themselves. It is difficult to estimate popular taste and opinion. The authorities themselves are often not equipped to record their own behavior in response to insurgency. The analytical task is to bring the fragments of quantitative and qualitative data from the actors involved in an insurgency into a framework that permits the discussion of alternatives. Without such a framework, it is very easy for policymakers to try to act upon the apparently "hard" message of a particular statistical model. This kind of behavior is documented in M. E. Arnsten and N. Leites, Land Reform and the Quality of Propaganda in Rural Vietnam, RM-5764-ARPA/AGILE, The Rand Corporation, April 1970. The original model was presented in E. J. Mitchell, Land Tenure and Rebellion: A Statistical Analysis of Factors Affecting Government Control in South Vietnam, RM-5181-ARPA (Abridged), The Rand Corporation, June 1967.

SUMMARY

Explanations of insurgent control of given areas have varied from the socio-economic (degree of tenancy) to the quasi-military (insurgent coercion and terror). This study examines alternative statistical models that try to assess the causal factors involved in insurgent control in Central Luzon. Specifically, a pure socio-economic model presented by E. J. Mitchell is reexamined and found improperly specified and without policy significance. We then compare several models that incorporate the operations of the insurgent organization as well as socio-economic variables. All of the formal models suggest that what insurgents do -- their terror and coercion -- is a stronger explanation of current insurgent control than is the socio-economic status of the population.

Interviews of the population concerning their attitudes toward the Huks are then compared with the results of the statistical models. The aim of the comparison was to see if a different form of evidence was consistent with the statistical models. The interview data again suggest that terror and coercion are a more appropriate explanation than socio-economic status and powerful feelings against the government.

For policy purposes it is as important to know why insurgents are in "business" as it is to know how they conduct it. Primary evidence (interviews with captured Huks) on the Huk organization in 1969 suggests it was strongly split between a communist faction and a criminal faction. (More recent press accounts suggest further fractionation, with a China-oriented group, a Moscow-oriented group, and the "criminals" struggling for internal control.)

The general moral of our statistical and survey analysis is that the wider the range of information about an insurgency the larger the

¹E. J. Mitchell, The Huk Rebellion in the Philippines: An Econometric Study, RM-5757-ARPA, The Rand Corporation, January 1969. The same model is presented in the American Political Science Review, Vol. 63, No. 4 (December 1969) pp. 1159-1171.

that propensity and the social conditions on which the rebellion is further supported are not amenable to rapid change.

The models presented here carry a mixed message for policy. The success of the HMB rests in large measure on what they do rather than on the condition of Philippine society; the roles of social variables are equivocal. This suggests that if the insurgents were astute and ambitious, the area they control might be substantially extended. It might also be possible for the government to compress that area by moves designed to checkmate HMB operations. The outcome depends in these models largely on the relative effectiveness of the Constabulary and the insurgents and the relative costs they incur.

A government should regard the policy prescriptions flowing from this kind of analysis as a sketch map rather than as a detailed guide. A danger inherent in the use of regression models is the ease with which they can give a false impression that the effect of some government policy instrument has been captured in an equation. For example, in both Mitchell's work and this study, tenancy appears in the equations. It is a significant variable but does not dominate the results. This does not mean that a substantial government program of land reform would have no impact on the HMB; it might. Regression models based on an unchanging situation may be faulty guides to the impact of substantial change. We cannot be sure because, in this case, no substantial program of land reform has ever been undertaken to enable us to measure its impact.

Even a sketch map, however, is better than mere hearsay. All of the formal models presented here substantially amend the conventional solution about the HMB. These multivariate explanations do suggest areas that a government should probe and explore in more detail and do suggest policy options that might not be considered otherwise. They are thus a part of better policymaking.

The relative effectiveness of the Constabulary depends in part on political factors outside its control.

number of models that can be built that satisfy procedural criteria.

Choosing between particular models requires new and different information outside the models. In other words, the analysis of insurgency is like a detective story: It takes many clues to arrive at a solution.

It is important not to apply the metaphor of Vietnam to the HMB. The current Philippine insurgency bears little resemblance to the early Viet Cong. Actions based on an alleged similarity are likely to be unproductive. When we speak, for example, of HMB "control" of a barrio it should be clear that the government has not been denied access to the barrio and that its social structure has not been rebuilt by the insurgents, as was the case in Vietnam. The HMB themselves often live fairly ordinary lives at home with their families. This rebellion does not fit the models of a "classical" insurgency.

Although it may not be a typical insurgency, the HMB is still a nuisance for the Philippine government. The common view of politicians and the press is that the HMB draws its power from popular discontent with social conditions — particularly land tenure arrangements — and dissatisfaction with the performance of the government. If this is true, the HMB may be a serious threat. Areas of tenancy extend beyond the current area of HMB operations providing, according to this view, promising areas for HMB expansion. By the same token, it would be difficult to reduce the level of HMB control because it is hard for the government to accomplish significant changes in the social conditions alleged to underlie HMB support among the people.

Mitchell's view of the HMB would alter the prognosis, but not the prescription. If, as he contends, it is very difficult for the HMB to enjoy any success outside areas dominated by Pampangans, then the future of the organization is bleak. Pampangans represent only small minority of the Philippine population and are not found in large numbers outside of Central Luzon. Mitchell's model holds out little hope that the government could accomplish much reduction of the area at present under HMB control: the propensity to rebellion has been handed down like an inheritance from father to son, and

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I. INTRODUCTION

During the last several years there has been a growing attempt to apply statistical models and analysis to complex social and political systems. Problems of specification, aggregation, multicollinearity, simultaneity, and the like complicate this attempt, but beyond the procedural problems, there remains the substantive difficulty of choosing between reasonable alternative explanations and, having chasen, of translating models into policy. The purpose of this study is to consider alternative explanations of insurgency in the Philippines, to bring to bear alternative pieces of evidence, and to consider policy implications. In this discussion we shall analyze substance and procedure for several models of this insurgency and present some survey and interview data addressed to the same issue as our statistical models.

Applications range from the analysis of voting behavior to insurgency and beyond. On voting, for example, see V. Capecchi and G. Galli, "Determinants of Voting Behavior in Italy: A Linear Causal Model of Analysis," in M. Dogan and S. Rokkan, Quantitative Ecological Analysis in the Social Sciences, MIT Press, Cambridge, 1969. On rebellion, see E. J. Mitchell, "Inequality and Insurgency: A Statistical Study of South Vietnam," World Politics, April 1968, pp. 421-438. For a thorough critique of Mitchell's results for Vietnam, see T. P. Schultz, Models of Complex Political Systems: Mitchell's Government Control Model for Vietnam, The Rand Corporation (forthcoming). In this study we are particularly concerned with E. J. Mitchell, "Some Econometrics of the Huk Rebellion," American Political Science Review, Vol. 63, January 1970, pp. 1159-1171.

II. THE MODERN CONTEXT OF PHILIPPINE REBELLION

The Philippines has a long history of dissident movements forming, becoming active, and then declining. Since 1900 the nation has experienced no successful revolution, although many believe that the Hukbalahap uprising of 1949-1953 came close to success. Some, impressed by analogies to Vietnam, believe that the contemporary organization, called the HMB or Huk, poses a similar revolutionary threat.

Some form of dissidence has endured for a long time in Central Luzon. However, in 1961 it would have been fair to say that the dissidence in that area had been reduced to a few HMB regulars and their families. At that time there were about 35 reported regulars in Central Luzon, no combat support, 216 service support, and 1,600 mass base. In 1968 there were about 300 reported "regulars" throughout the Philippines and 150 reported in Central Luzon. (The count of the "regulars" included some persons who were active in the 1949-1953 insurgency but were no longer active.) There was a reported "mass base" of about 9,000 in 1960 and 32,000 in 1968, slows with a reported 3,600 combat support. However, such numbers should not be taken too

See A. H. Peterson, G. C. Reinhardt, and E. E. Conger, eds., Symposium on the Role of Air Power in Counterinsurgency and Unconventional Warfare: The Philippine Huk Campaign, RM-3625-PR, The Rand Corporation, June 1963. This work shows Huk "control" extending throughout Central and Southern Luzon, with bases existing in Northern Luzon. Activity was also reported in the southern islands of the archipelago. For a history of the Huks, see Renze L. Hoeksema, Communism in the Philippines, Department of Government, Harvard University, unpublished doctoral dissertation, 1957.

Constabulary files distinguish four types of Huks: (1) regulars — persons who conduct insurgent activities on a full-time basis, (2) combat support — "die hard" followers who are part-time fighters, (3) service support — collectors, messengers, and other persons who work for the Huks but within the laws of the republic, (4) mass base — persons who voluntarily extend sympsthetic assistance and cooperation. Source: Constabulary reports, 1st Zone (Central Luzon). Collating reports across the entire country gives 122 regulars in 1961. Although these reports represent the raw material for reports of Huk strength and control, the underlying intelligence process remains unclear. For example, incentives for agents to deliver true and false information are unknown to us.

seriously. For example, between June 1966 and June 1968 the number of reported combat support and mass base tripled with no reported increase in the number of regulars, and no explanation of why each regular had apparently become so much more efficient a manager of men and resources.

Whatever the size of the organization, an important question in interpreting statistical models is whether the current one is truly the same organization as the Hukbalahap of 1949-1953 and whether the latter was largely the same as the wartime guerrilla force. If it is, then statistical models should be specified that appeal to historical continuity and the transmission of "tastes" for insurgency from generation to generation. If not, then current causes become more plausible.

The continuity argument has been made for Vietnam where VC control has been attributed to their presence in the social structure for several generations. But we should be wary of an easy translation to the Philippines.

III. THE MITCHELL MODEL: AN APPEAL TO CONTINUITY

Mitchell fits a regression model to controlled municipios with the following results: $^{\rm l}$

- (1) "Coercion," as represented by a "contiguity" factor is an important factor in determining control.
- (2) The presence of Pampangos, an ethnic and linguistic group, is a "crucial" condition for HMB success.
- (3) Control is greater where most men are farmers and most farmers are tenants.

The regression model is fitted using 1939 socio-economic data for municipios. Mitchell assumes that the current organization is the direct lineal descendant of the wartime Huks, the Huks who conducted the insurgency in 1949-1953. In fact his historical explanations make sense only on this assumption.²

We can break our discussion of the Mitchell model into two parts: problems of procedure, particularly specification and measurement, and problems of substance and interpretation. Problems of measurement concern, in particular, the matrix of contiguity coefficients used to transform or weight the raw 1939 socio-economic data. The matrix is derived from map measurements, raising the question of the reproducibility of the results and their sensitivity to measurement error.

Mitchell writes his control equation

$$HC_1 = F(HCN_1; X_{11}, X_{21}, ... X_{n1}; e_1), j = 1 ... J$$
 (1)

¹Mitchell, "Some Econometrics of the Huk Rebellion."

The evidence is that the HMB are not the same organization. There are several organizations under different leaders that parade under the HMB name. In 1968 there were two. Press accounts currently suggest three. See below for some interview evidence.

The contiguity coefficients depend upon the 1939 municipal boundaries which are <u>not</u> always the same as the 1960 boundaries. Thus, although the 1967 control data and the 1939 socio-economic variables in Mitchell's model refer to the same names, they do not always refer to the same entities.

where HC is a variable measuring the degree of Huk control. HC is defined as the fraction of barrios in a given municipality listed as "critical" by the Philippine Constabulary in 1967. Controlled municipalities are shown in Fig. 1. The criteria the constabulary uses to assign barrios to the "critical" category are not given. In any case the fraction of barrios controlled does not necessarily represent the fraction of population controlled. Obviously in a given municipality a large number of small population barrios could be controlled or conversely a few large barrios, giving measurement error in the actual amount of control. This suggests that the observations should be weighted by some measure of importance. The natural variable to choose as the weight in this case would be the adult population (see below).

The subscript j in equation (1) indicates a particular municipality; in all there are J. HCN is an index of control in neighboring municipalities. X_1 through X_n are n exogenous variables, e is a random error representing ignored minor variables.

HCN is defined as an ordinary weighted average of Huk control in bordering municipalities:

$$HCN_{j} = \sum_{m=1}^{J} a_{jm}HC_{m}, \quad m \neq j$$
 (2)

$$\sum_{m=1}^{J} a_{jm} \leq 1, j = 1, 2, ..., J, m \neq j$$

The weights were chosen in proportion to the length of the border between the municipality and each neighboring municipality. For example, if the total perimeter of municipio i is 20 km and municipios i and j share a border of 4 km, then $a_{ij} = .2$. The HCN_j are assumed

We were never able to rediscover the source of Mitchell's list in the Constabulary. The data on 1967 "control" that we obtained overlapped but did not match Mitchell's "control" for the same year, and there were some obvious errors on Mitchell's list of controlled barrios. Some of his listed barrios are really sitios — clusters of a score of huts rather than legal entities — and some of the barrios named could not be found on maps or official lists of political units.

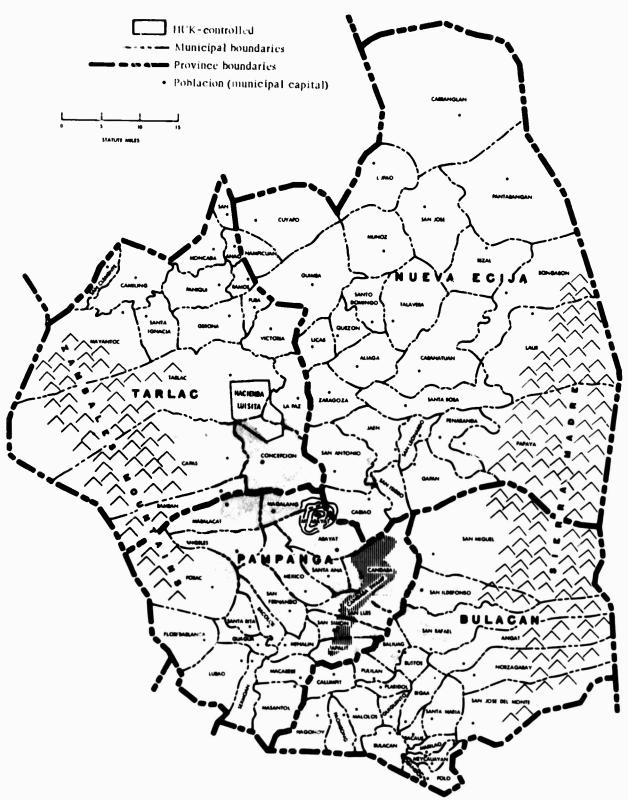


Fig. 1— Huklandia

to reflect insurgent ability to bring resources to bear on municipio j. The pattern of incentives to peasants in a given municipio depends upon the control situation of its neighbors.

Approximating equation (1) by a linear function gives

$$HC_{j} = k \sum_{m=1}^{J} a_{jm} HC_{m} + \sum_{i=1}^{n} b_{ij} X_{ij} + e_{j}, j = 1, 2, ..., J$$
 (3)

Since HC_j appears on both sides of the equation, some manipulation is necessary before equation (3) can be estimated. In matrix notation

$$HC = k AHC + Xb + e$$

where <u>HC</u> is a JXl vector of observations on Huk control, A is the JXJ matrix of weights, X is a Jxn matrix of J observations on n exogenous variables, and <u>e</u> is a vector of random errors. Manipulating and solving for <u>HC</u> yields

$$\frac{HC}{E} = (I - kA)^{-1} \times \underline{b} + (I - kA)^{-1} \underline{e}$$
 (4)

Since the equations are not linear in the parameters, direct application of ordinary linear multiple regression is not appropriate.

Mitchell therefore selects a set of values for k, substitutes them into (I - kA), and multiplies the inverse by the original observations. The value of k that produces the best fitting equation is taken to represent the role that control in neighboring municipalities plays in the control of a given municipality. If this k is large, then control in neighboring municipalities plays a large role in determining control in a given municipality.

Mitchell's estimation procedure deals neatly with two serious problems. The first is simultaneity: control in a given municipio is partly determined by the value of control in other municipios. The value of control in other municipios, in turn, is partly determined by its value in this municipio. Eliminating HC from the right

Note that the rationale for this variable rests in its representing either individual perceptions of insurgent power or insurgent logistics capability. In either case, one wonders at the specification since the insurgents can and do move easily along the relatively dense road network in Central Luzon.

hand side transforms the equation into a "reduced form" in which this simultaneity, which would bias the estimated coefficients, is eliminated. The second problem arises from the presumed impact of HMB control on values of the independent variables. It could be argued, for example, that the extent of current sugar production in a municipio may have been affected by HMB operations and control. Mitchell skirts this difficulty by using 1939 census values for the independent variables, drawing the data from the period before the Huk existed as an organization. Adopting these solutions for the simultaneity problems, however, forces Mitchell back into problems of meaning and interpretation, as we shall see below.

Equations (la), (2a), (5a), and (6a) of Table 1 are the equations Mitchell derived from this procedure. Mitchell's interpretation of these equations is that mentioned above -- a large k supports a "coercion" hypothesis; whether k represents peasant perceptions or fears or organizational ability to create terror remains unclear. The presence of Pampangans is a necessary condition for Huk success. And Huk control is greater where most men are farmers and most farmers are tenants.

We sought to reproduce these results since the original data had been lost. In particular since the matrix A depended on map measurements, we were interested in the effects of measurement error on the results. We began by constructing the matrix A of contiguity coefficients by measuring map distances using a graphic input device. The map distances were then transformed into percentages of common border — the $\mathbf{a_{ij}}$ of matrix A. We then applied exactly the same procedure as had Mitchell, using his reported 1939 data. Figure 2 shows the relations between the contiguity parameter k and \mathbf{R}^2 for our data and Mitchell's. The figure also shows the results of

 $^{^{1}}$ Formally, the values of the other exogenous variables are multiplied by P before being transformed by $(I-kA)^{-1}$ or, in the linear case, before being used to fit the equation. This implies that control must be zero where P is zero.

²Credit should be given to Robert Mobley of Rand who wrote the computer program.

Table 1 A COMPARISON OF HUK CONTROL EQUATIONS (standard errors in parentheaes)

èqua	tion	Number		R ² (Reduced Form)	F (Reduced Form)
(1)	Mitc	hell's maximum	at k = .8, P multiplicative		
	(a)	Mitchell	HC = $-1.53 \div .8$ HCN + P[2.28 FMP - 1.69 OWN + .33 SGT. + 23.0 MNT + 11.6 SWP] (.46) (.26) (.09) (3.5) (4.2)	.88	60.5
	(b)	Recalculated	HC = -5.31 + .8 HCN + P[1.68 FMP96 OWN + .05 SGR + 25.1 MNT + 9.70 SWP] $(.42) (.22) (.06) (3.33) (3.72)$. 84	56.8
2)	k =	O, P multiplic	ative		
	(a)	Mitchell	HC = .94 + $P[4.47 \text{ FMP} - 2.10 \text{ OWN} + .42 \text{ SGR} + 40.3 \text{ MNT} + 16.0 \text{ SWP}]$ (.86) (.47) (.16) (6.7) (8.6)	.75	27.8
	(b)	Recalculated	HC = .91 + P[4.02 FMP - 1.90 OWN + .40 SGR + 41.6 MNT + 17.6 SWP] (.90) (.44) (.16) (7.0) (8.6)	.73	31.2
3)	Our	maximum at k =	.75, P multiplicative, Actual Distance matrix		
			HC = $-5.06 + .75$ NCN + P[2.07 FMP - 1.11 OWN + .08 SGR + 26.2 MNT + 10.1 SWP] (.45) (.24) (.07) (3.48) (3.9)	.85	58.4
4)	Our	maximum at k =	.75, P multiplicative, Purely Random Distance matrix		
			HC = -6.40 + .75 HCN + P[2.38 FMP - 1.25 OWN + .09 SGR + 27.8 MNT + 13.2 SWP] (.50) (.25) (.14) (4.64) (4.52)	.84	54.9
5)	k =	.9, P linear			
	(a)	Mitchell	HC = 3.00 + .9 HCN03P + 2.15 FMP89 OWN + .30 SGR + 14.5 MNT + 16.5 SWI (.03) (2.15) (.19) (.10) (3.2) (4.4)	.71	17.3
	(ъ)	Recalculated	HC = -3.41 + .9 HCN46P + .15 FMP34 OWN + .18 SGR + 11.9 MNT + 9.7 SWP (3.4) (.15) (.16) (.09) (2.23) (5.0)	.68	18.1
6)	k =	O, P linear			
	(a)	Mitchell	HC = -6.13 + .19P + .88 FMP65 OWN + .44 SGR + 20.9 MNT + 18.5 SWP (.09) (.54) (.29) (.18) (5.4) (10.7)	.55	8.3
	(b)	Recalculated	HC = -6.50 + .21P + .89 FMP72 OWN + .40 SGk + 22.1 MNT + 17.9 SWP (.09) (.55) (.27) (.18) (5.5) (10.8)	.55	11.3

FMP

OWN SGR MNT

the percentage of barrios in a municipality under Huk control (1967-1968).

the proportion of the population that speaks the Pampangan dialect (1939).

farmers as a percentage of the population (1939).

owners as a percentage of all farmera (1939).

the percentage of cultivated land planted to augar cane (1939).

lif mountains are in or immediately adjacent to the municipality; 0 if not.

lif a swamp is in or immediately adjacent to the municipality; 0 if not.

a weighted average of HCa in bordering municipalitiea.

SWP

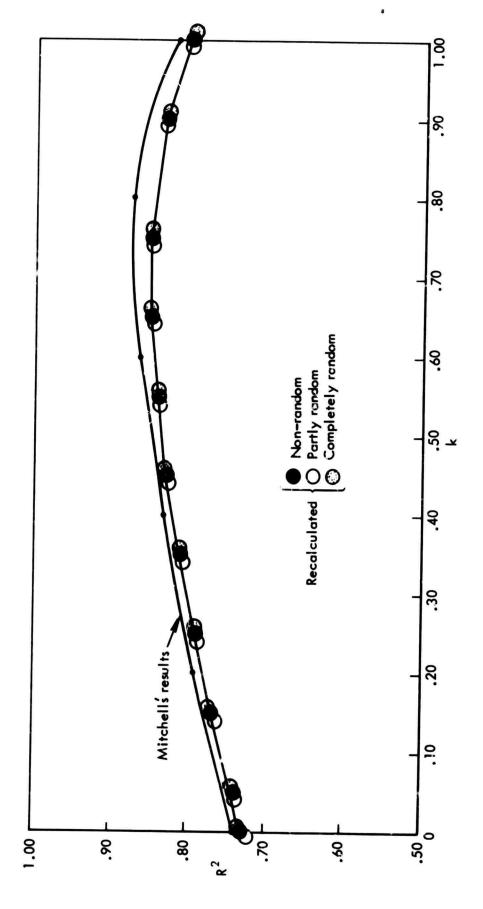


Fig.2—Relation between R²and k (Pmultiplicative)

introducing measurement error by adding a random number to each original distance from which the A matrix was derived. Specifically random numbers within the bounds of \pm 20 percent of the original distances were added to the borders. Since the results were unchanged by this "partial" randomization, we then tried a completely random set of distances, simply substituting a random number between 0 and 100 for every distance. The results are only slightly sensitive to the extent of common border.

The R² in our curves does reach a maximum at .75 rather than Mitchell's .88. Table 1 shows the comparable equations. The equations differ somewhat in their coefficients; our coefficients are usually closer to zero, but they usually retain significance in our equations as well as Mitchell's. Sugar is an exception. (Mitchell's two speculative interpretations about sugar seem ill founded: (1) the allegedly high proportion of farm laborers and migrants on sugar cane estates, (2) the lack of paternalism of the sugar cane landlords. The first speculation is factually wrong. There is not a high proportion of landless sugar laborers in Pampanga. There is no evidence on the second.)

This still leaves us a problem of interpreting this model in a meaningful substantive way. And if the objective is to reduce insurgent control, we have to examine any policy implications of the model.

First consider the coefficient of HCN. Because R^2 is maximized when the coefficient is large, Mitchell argues that his theory of coercion through contiguity is well supported. In our own recalculated equations, the curve of R^2 against k is fairly flat beyond k = .40. In our multiplicative equation at k = .45, $R^2 = .83$; at k = .75 (our maximum), it is .85, not significantly different. And as noted, to explore the meaning of k we experimented with random common borders. Essentially there is never any difference in the results. Equation (4) of Table 1 shows this.

The reason for the stability of the coefficients lies in the specification of the model. Consider the A matrix.

$$(I - kA)^{-1} = I + kA + k^2A^2 \dots$$

A typical element of A is equal to about .3 or less, and k is less than one. The higher order terms in $(I - kA)^{-1}$ vanish quickly. The impact of nonnegative coefficients in the A matrix will always damp down. So no matter what distances we start with, actual or random, when the actual data matrix X is multiplied by $(I - kA)^{-1}$ there will be little difference in the transformed data. We will always get approximately the same equation.

Consequently k has no particular meaning as a measure of contiguity or coercion, it is not at all sensitive to the lengths of shared boundaries of the municipios. Although contiguity interpreted as a logistics, intelligence, or fear phenomenon may have something to do with insurgent control, this particular specification cannot capture it; Central Luzon has an excellent road network and there is no inhibition in moving from municipio to municipio — independent of how much common border there is. Alternatively, if having proportionately greater amounts of border with Huk municipios implies greater amounts of fear by the population, no behavioral theory is presented why this should be so.

consider also the way in which Pampangans enter the Mitchell equation — as a "necessary" condition. The equation gives a better fit than a linear specification, since P is never significant in linear form. The multiplicative form is difficult to interpret meaningfully: How does language spoken affect the influence of swamps and mountains? What is the meaning of the dimensionality of their product? To justify the multiplicative version, selective appeals to history are made to the effect that Pampangans are intensely disliked by the rest of the population. According to Mitchell, "...the impression one obtains is that the cleavage between Ilocano and Pampango is more thorough than between Tagalog and Pampango." Since Tagalogs live to the south of the Pampangans and the Ilocanos to the north, the Huks were presumably contained by ethnic animosities.

On the specific point there is certainly evidence to the contrary. For example, in the 1961 election when a Pampangan, Macapagal, ran for President against a Cebuano, Garcia, the Ilocano provinces delivered an average of 71 percent of the vote for Macapagal compared with 50 percent for the country as a whole. Similarly, Mitchell finds Pampangans lacking in support for the original revolutionary movements of 1892-1898, or at least they only became supporters after Dewey captured Manila Bay. But even if true, what does it mean? Converts to causes are often truer believers than the original protagonists. In a reference not cited by Mitchell, we find the following statement concerning Secretary of War Root's advocacy of the Pampangans' (and Pagasinans') disliking Tagalogs.

But it is sorely difficult to convey in written words what utter nonsense these expressions about the Pampangans and the Pagasinans are to anyone who was in that northern advance in the fall of 1899. [Lawton's advance from Manila.]...It is quite true that the Tagalogs were the prime movers in the insurrection against us, as they had been in all previous insurrections against Spain. But the "Tagalog tribe" was no more alone among the Filipino people in their wishes and views than the "unterrified" Tammany tribe who inhabit the wilds of Manhattan Island at the mouth of the Hudson River are alone in their views among our people.²

The point of our two examples is not that one interpretation of history is correct or incorrect. It is that for any given regression model one can find supporting historical evidence. But one can also find or create alternative explanations. In particular, whenever historians attempt to infer popular tastes and opinions, the room for arguments is immense.

Macapagal was married to an Ilocano, so he apparently carried part of the Ilocano ethnic vote on this basis.

²James H. Blount, American Occupation of the Philippines, 1898-1912, Malaya Books, Quezon City, Philippines, 1968, pp. 243-244.

This is how Lazarsfeld makes the case for wider use of public opinion surveys in historical analysis. See P. F. Lazarsfeld, "The Historian and the Pollster," in S. M. Lipset and R. Hofstadter, eds., Sociology and History: Methods, Basic Books, Inc., New York, 1968, pp. 386-407. As Lazarsfeld puts it, "It would also be helpful if the historians became more aware of their lack of data on matters about which they write with considerable confidence."

In any case, what are the policy implications of this model, given that the contiguity parameter k is meaningless? What operations can the government take to reduce Huk control? From another point of view, what can the Huks do to increase it? Clearly none of the variables can be influenced directly by the insurgents or the authorities. Indirectly, the authorities can of course try to reduce the number of Pampangan farmers or the number of tenants by land reform and industrialization programs, for example. But we have no cost function that relates such government activities to proportions of tenants and farmers in the model and consequently to the Huk control.

Finally we know that there have been very large fluctuations in "control" over the short run. There is no environmental factor or long-run socio-economic variable that corresponds to these fluctuations. This suggests not that the dynamics of rebellion are too "soft" for quantitative analysis, but that we need a different model.

IV. ALTERNATIVE MODELS OF CONTROL -- MUNICIPALITIES AND BARRIOS

Rather than work with measures of coercion based on geography, we feel it is pertinent to examine the actual operations of the Huks in Central Luzon. These presumably have some more direct relation to control than does the geographic contiguity of controlled municipalities. From the Philippine Constabulary we were able to get data on Huk terror and liquidations over time by barrio as well as a new list of controlled barrios. Thus we can construct alternative models to those proposed by Mitchell.

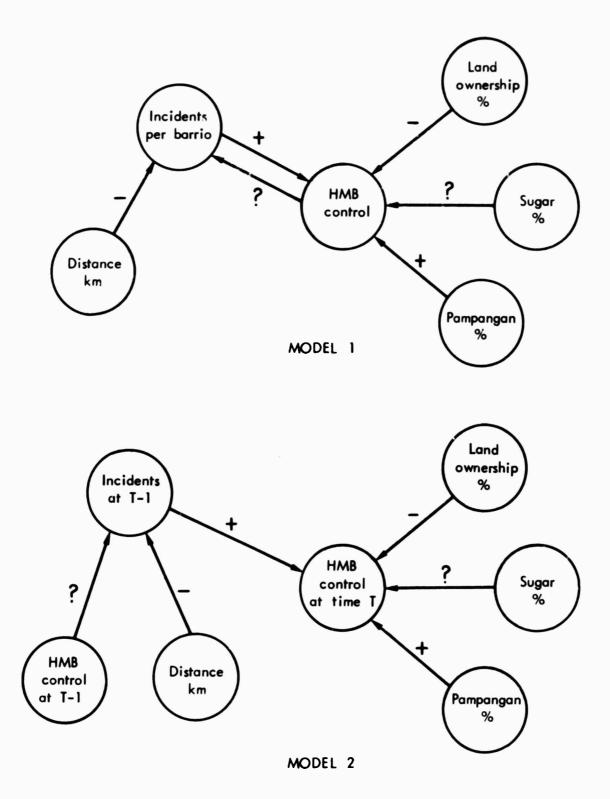
Figure 3 shows two alternative models for Huk control at the municipal level. The first model is a simultaneous equation model where current Huk control is related to current incidents, to 1960 land ownership, to the fraction of sugar grown in the municipality, and to the fraction of 1939 Pampangans. We have related incidents to current control and to distance from Mt. Arayat, which is allegedly the main center for Huk logistics and command and control. The second model is a dynamic one. We relate Huk control in 1968 (time T) to past incidents and to the same social and economic factors as

From now on a "controlled" barrio means one in which the Huks were expected to operate on a regular basis and one in which regular forces feel secure enough to sleep. This is the definition used by the Constabulary officers who compiled our data.

Huk control is not defined in terms of Huk liquidations and terror, but killings are attributed to the Huks on the basis of objective evidence — for example, people killed with armalites or AK-47s — and on the basis of intelligence information.

³By control at the municipal level we mean the fraction of barrios in each municipality listed as "controlled" by the Philippine constabulary. The denominator of the fraction is the total number of barrios in 1960. In some municipios new barrios have been created since 1960.

Percent Pampangans not reported in the 1360 census. We were able to obtain an estimate of the 1960 percentage for 46 out of 57 municipios through the courtesy of Dr. Mercedes Concepcion of the University of the Philippines who gave us access to a 1/2 percent sample of the 1960 census. The correlation between percent Pampangans in 1939 and 1960 for the 46 municipios is .92.



Note: HMB Control means fraction of barrios in municipality listed as controlled by constabulary. The expected signs of the coefficients are shown on the arrows.

Fig. 3 — Alternative models of HMB Control — Municipalities

in Model 1. Past incidents, say at time T-1, depend on distance and on control at time T-1.

Both models were fitted using a weighting scheme for the observations, since controlling some municipios should be more important than controlling others. The weight is the adult population. The results are shown in Table 2. In the first model the only variables that appear as significant in both weighted and unweighted versions are incidents per barrio and owners, but the model does not explain incidents per barrio. In the second model, incidents per barrio at time T-1 are again the major determinant of control, and we are able to explain incidents per barrio at time T-1 as a function of control at time T-1 and distance. This model suggests that terror, as created by liquidations and assassinations, is a major contributor to the dissidence. Whenever Pampangans and owners are significant, they are negatively related to control. The weighted models show control as even more strongly related to incidents than the unweighted versions.

The analysis of control at municipal level is somewhat misleading for if we plot municipalities with some degree of control, Central Luzon appears solidly controlled by the HMB. However, if we plot barrios, controlled barrios exist right next to uncontrolled ones. Figure 4 shows three alternative models for barrio control in Central Luzon. They represent different assumptions about how control is

The Constabulary did not to our knowledge keep lists of "critical" barrios in 1965. There was little reason, since there was not much insurgency. All lists of critical barrios are derived from the basic Constabulary intelligence documents. The Constabulary intelligence officers in the first zone used the 1965 documents to construct a list of critical barrios for that year.

 $^{^2}$ In Table 2 the first model was estimated by two-stage least squares. The second model, since it is formally recursive, was estimated by ordinary least squares. Since there is little relation between ${\rm HC}_T$ and ${\rm HC}_{T-1}$, when we fitted model 2 using two-stage least squares and treating ${\rm HC}_{T-1}$ as jointly determined, no variables were significant.

By barrio control we mean a binary variable: (0) if the barrio is listed as uncontrolled, (1) if the barrio is listed as controlled. Data on barrios are much more difficult to obtain than data on municipalities. The manuscript census for 1960 has been burned, and it was the only source from which detailed data on all barrios could have

Table 3

ALTERNATIVE MODELS OF MUNICIPAL CONTROL^a (standard errors in parentheses)

INCIDENTS PER BARRIO = .10 + .20 $^{\circ}$ HC - .002 DISTANCE, $^{\circ}$ F = 29 with 2,1 D.F. (.16) (.22) (.004) $^{\rm HC}_{
m T}$ = -.009 + 3.80 INCIDENTS PER BARRIO - .002 OWN + .0007 SGR - .002P (.126) (.17) (.0005) (.0005) Model 1:

Model 1: OBSERVATIONS WEIGHTED BY ADULT POPULATION

INCIDENTS PER BARRIO_T = .18 + .13 HC_T - .004 DISTANCE, F = 166 with 2,1 D.F. (.003) $^{\mathrm{HC}_{\mathrm{T}}}$ = -.014 + 3.07 INCIDENTS PER BARRIO_T - .001 OWN - .002 SGR - .23P (.010) (.070) (.070)

 $^{dC}_{T}$.05 + 1.10 INCIDENTS PER BARRIO $_{T-1}$ - .0014 OWN - .0011 SGR + .0014P, $_{R}^{2}$ = .49, F = 12 with 4,52 D.F. (.06) (.26) INCIDENTS PER BARRIO_{T-1} = .10 + .0053 HC_{T-1} - .0027 DISTANCE, R^2 = .58, F = 38 with 2,54 D.F. (.0010) Model 2:

Model 2: OBSERVATIONS WEIGHTED BY ADULT POPULATION

 $^{HC}_{T}$ = -.06 + 1.20 INCIDENTS PER BARRIO_{T-1} + .0019 OWN + .0004 SGR - .001P, R = .52, R = 14 with 4,52 D.F. (.05) (.25) INCIDENTS PER BARRIO_{T-1} = .08 + .005 HC_{T-1} - .002 DISTANCE, R^2 = .59, F = 39 with 2,54 D.F. (.04) (.0009) T-1 (.001)

Notes

We retain the same notation as in Table 1 wherever we have the same variable. Time "T" refers to 1968 and "T-1" to 1965.

b In two-stage estimates, the F statistic is that derived in P. J. Dhrymes, "Alternative Asymptotic Tests of Significance and Related Aspects of 2 SLS and 3 SLS Estimated Parameters," Review of Economic Studies, April 1969, pp. 213-226. This statistic is defined only for overidentified equations.

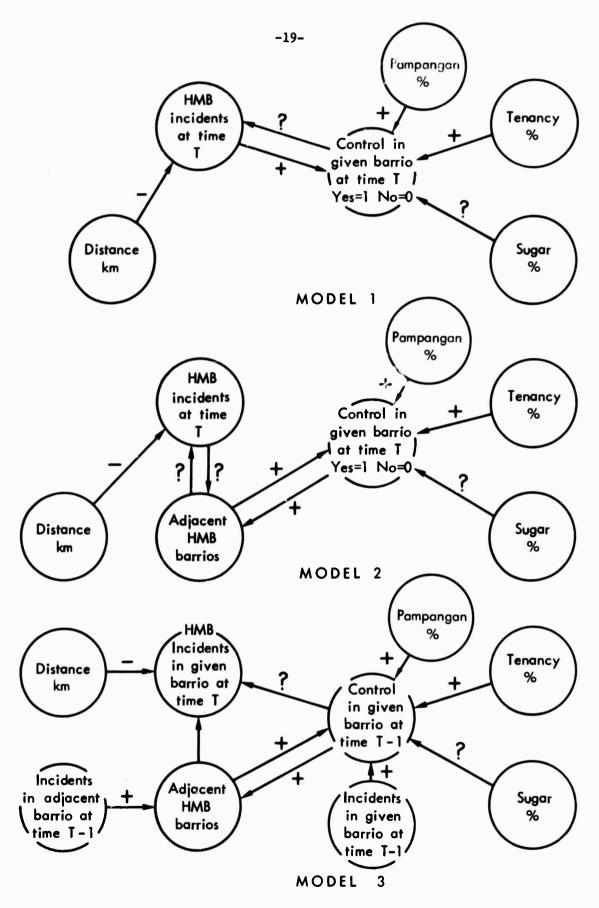


Fig. 4 —Alternative models of HMB Control—Barrios

Note: The expected signs of the coefficients are shown on the arrows

achieved. Model 1 assumes that it occurs directly through incidents and terror in a given barrio. Model 2 assumes that control in a given barrio occurs by demonstration, by controlling and targeting adjacent barrios. Metaphorically, in Model 1 you shoot the Mayor. In Model 2 you shoot the Mayor in the barrio next door and say, "See what happened to him." Model 3 tries to relate current control to past incidents in adjacent controlled barrios, and socio-economic variables. In turn current incidents are related to current control in a given barrio and its adjacent barrios as well as logistics factors. Model 3 also tries to explain the number of adjacent controlled barrios next to or contiguous to controlled barrios.

The results of fitting these three models are shown in Table 3. In all cases, the observations have been weighted by the adult population. The results of the three models together suggest again that HMB control and terror interact with each other, and socio-economic variables play a lesser role. Proportion Pampangan is not a

been obtained. However, from our 1/2 percent 1960 census sample we can obtain information on some of the barrios. The barrios considered all lie within 50 kilometers of Angeles City. This includes all barrios listed as controlled in February 1968 and a random sample of uncontrolled barrios, giving 305 total barrios. Published census data on mother tongue, tenancy, and labor force in sugar were available at municipio level but not for barrios. This would create only a minor problem in estimation if the within municipio variance were small relative to the between municipio variance. It has been shown by D. M. Grether that when independent variables are very highly serially correlated, interpolation of missing values may result in substantial gains in the efficiency of estimation. We would expect that barrios in one municipio would not differ greatly in percent Pampangan, tenancy, and sugar. Thus, the efficiency of estimation would be increased by using the municipio values, which are themselves weighted averages of the barrio values. Lee Grether, "Notes on Missing Observations in Regression Models with Serially Correlated Independent Variables," unpublished Cowles Foundation Paper, September 18, 1969.

If we express the difference between the municipio value and the true barrio value for which it is substituted as p_{ij} where i indexes variables and j barrios, the expected values of elements in the moment matrix are unchanged if (a) $E(p_{ij}x_{kj}) = 0$ and (b) $E(p_{ij}p_{kj}) = 0$. Using data for the 17 barrios that can be found both in our sample and in the 1/2 percent sample of the 1960 census, (a) appears to be true. Condition (b) cannot be tested.

1 D.F.

Table 3

	BARRIO CONTROL MODELS, TWO-STAGE WEIGHTED ESTIMATES (standard errors in parentheses)
Model 1:	CONTROL =21 + .91 INBT + .00099 TEN028 SUGR + .52 PAMP (.07) (.06) (.0011) (.0020) (.045) INBT =021 + 1.49 CONTROL + .0049 DISTANCE, F = .4 with 2,2 D.F. (1.40) (1.26) (.038)
Model 2:	CONTROL =20 + .076 ADJBA + .0034 TEN0047 SUGR + .10 PAMP (.12) (.0086) (.0017) (.0012) (.075) ADJBA =71 + 9.44 CONTROL + 1.84 INBT, F = 47 with 2,2 D.F. (.37) (.70) (.28) INBT = -3.66 - 1.42 CONTROL + .53 ADJBA + .11 DISTANCE, F = 26 with 3,2 D.F. (1.09) (.07) (.03)
Model 3:	CONTROL =23 + .080 ADJBA082 INBTM + .40 TEN0044 SUGR + .12 PAMP, F = 88 with 5,1 (.12) (.009) (.036) (.17) (.0012) (.08) ADJBA =59 + 10.57 CONTROL + .32 INATM, F = 15 with 2,4 D.F. (.40) (.94) (.11) INBT = -3.0 - 1.60 CONTROL + .49 ADJBA + .092 DISTANCE, F = 96 with 3,3 D.F. (.78) (.98) (.05)
Definitions: CONTROL INBT	= 1968 HMB control of the barrio, 1 = yes, 0 = no. = Number of HMB incidents within 2 kilometers, 1967-1968.

PAMP = Fraction of the population speaking Pampangan in municipio.

DISTANCE = Distance of barrio from base of Mt. Arayat.

INBTM = Number of HMB incidents within 2 kilometers, 1965-1966.

INATM = Number of HMB incidents 2 to 6 kilometers distant, 1965-1966.

F is P. J. Dhrymes' F. See footnote b, Table 2. Tenancy rate for municipio. Percent of farmland in municipio planted to sugar. TEN SUGR

significant variable in any of the models except in Model 1. In all the models tenancy and sugar tend to offset each other. Barrios that devote a large fraction of their land to growing sugar have a lower probability of being controlled than other barrios and conversely with respect to tenants. Model 1 is less satisfactory than the other two; only two of its six coefficients are significant. We will not attempt to choose between Models 2 and 3.

At both barrio and municipio level, the statistical results consistently emphasize the importance of operational considerations in determining the pattern of HMB control. In all of the models HMB incidents play a powerful role in the control equations. Socioeconomic variables are more ambiguous and weaker in effect, although they appear significant in some specifications. This result differs from Mitchell's view that the HMB is primarily an ethnic phenomenon fed by a tradition of rebellion and discontent over tenure arrangements.

At the municipal level sugar was not significant. Mitchell,
The Huk Rebellion, finds a positive relation between sugar and control.

Fitted without weighting, these barrio models are substantively the same, although levels of significance are lower as we would expect.

V. SOME DATA ON INDIVIDUAL ATTITUDES

Many problems occur when aggregate data are used to infer relationships about individuals. The behavioral interpretation of aggregate models rests on statements about individuals. For example, the regression models discussed above use percentage of land owners in a municipality as an independent variable. Mitchell argues that the more owners there are the less Huk control, implying that either tenants are discontented and demanding insurgency or that they are special targets of the HMB. We were able to obtain individual data in a nationwide survey in which we asked a number of questions about attitudes toward the Huks and the government. Interview areas covered Central Luzon, in particular areas listed as under Huk control. (See Fig. 1.)

Survey data must be interpreted cautiously, particularly when it comes from areas where insurgents and the government are in conflict. Responses to factual questions about the nature of HMB activities corresponded closely to our other information on HMB activities by area. The correspondence on these questions increases our confidence in the validity of the responses to the attitudinal questions. However, the proportion of non-responses to the HMB questions was higher in Central Luzon than elsewhere, about half compared with one-third nation-wide. This could be consistent with the hypotheses either that people in Central Luzon are more afraid of the HMB or that they are reluctant to compromise the HMB to interviewers who might be representatives of the government.

Table 4 shows evaluations of the HMB by mother tongue for the Central Luzon area. The views of the respondents cannot be said to

The "ecological" correlation problem has a long history, dating back to 1950. The most recent study is W. Phillips Sheveley, "'Ecological' Inference; The Use of Aggregate Data to Study Individuals," American Political Science Review, 63, December 1969, pp. 1183-1196.

²See Appendix A, H. Averch et al., <u>A Crisis of Ambiguity</u>, for the questionnaire. The interviewing was done by the Filipino staff of Asia Research Organization, covering a nationwide sample of 1550.

Table 4

ATTITUDES TOWARD HMB BY MOTHER TONGUE -- CENTRAL LUZON (percent)

	Not Applicable (0)	Partly Descriptive (1)	Descriptive (2)	Mean Response	SSR
1. HMB as the	e hope of the	tenant			
Pampangan	40	33	27	.87	23
Pangasinan and Tagalog	36	45	19	.83	190
$\chi^2 = .2$ with	h 1 D.F.				
2. HMB as me	n of justice				
Pampangan	33	60	7	.74	27
Pangasinan and Tagalog	43	48	9	.66	191
χ^2 = .09 wi	th 1 D.F.				
3. HMB as br	utal				
Pampangan	47	42	12	.66	30
Pangasinan and Tagalog	26	46	29	1.04	196
$\chi^2 = 2.2 \text{ wi}$	th 1 D.F.				

Note:

Weighted percentages. SSR denotes actual number of respondents. Chi squares done combining "partly descriptive" and "descriptive" responses.

be favorable. Pampangans hold about the same views as the other language groups of Central Luzon, as indicated by the low values of χ^2 , although these groups have a relatively more favorable view of the HMB than do most other Filipinos. 1

Table 5 presents a breakdown of responses on perceptions of personal welfare by proximity to HMB controlled areas. Respondents in the Huk areas do not appear to be different in their responses. Nor do they appear to view the government in any worse light than other groups (Table 6). Constabulary and the police rate about equally, slightly above the middle ranking, with politicians falling at the middle. Overall, these and other survey data suggest the government's image is no worse in the Huk areas than it is in other regions.

This evidence on attitudes in Central Luzon should certainly not be taken as conclusive. However, it is not consistent with the contention that insurgency persists here and not elsewhere in the Philippines because of greater dissatisfaction with government performance and a much more favorable view of the HMB. Table 5 also suggests that the inhabitants of HMB areas would not rank any worse on a scale of perceived "relative deprivation" than most Filipinos and that they are relatively optimistic about their future. This is all consistent with the emphasis on HMB operations that emerged from the regression models.

Nationwide tabulations of attitudes toward the Huks indicate that they do not have widespread appeal.

²See T. R. Gurr, Why Men Rebel, Princeton University Press, Princeton, 1970. Gurr's book is the most complete account of relative deprivation (RD) hypotheses — psychological hypotheses — about the causes of rebellion. Gurr sums up the RD literature as saying that "men are quick to aspire beyond their social means and quick to anger when these means prove inadequate, but slow to accept their limitations" (p. 59). Operationally relative deprivation can be inferred from survey techniques or from the properties of the social system (p. 83). Respondents in our survey predict that "value capabilities" — ability of society to provide desired goods, services, and rewards — will rise. Presumably what individuals think society owes them is contained in the best life they can imagine — which we asked. So it can be argued that our self-anchoring scale is an indirect measure of RD. The results suggest that our respondents do not feel great amounts of RD in Central Luzon or elsewhere.

Table 5

MEDIAN RESPONSES ON WELFARE BY PROXIMITY TO HMB

Area	Life Present ^a	Rank	Life Future ^a	Rank
нмв	3.32	3	6.64	2
Near HMB	4.57	2	5.48	3
Laguna	2.92	5	5.42	4
Greater Manila	4.95	1	7.35	1
Ilocos	3.09	4	5.28	5
Bicol	2.75	6	4.40	6
National Median	3.13		5 2	

Note:

^aMedians based on weighted percentages. Text of question:

Here is a ladder with 10 steps (SHOW LADDER). Let us say that the highest step (POINT) represents the best life you can imagine. The lower the steps in the ladder (TRACE STEPS DOWNWARD) the worse the kind of life -- so that the bottom step (POINT) represents the worst kind of life you can imagine.

Now --

a)	What	step o	on	the	ladd	er	were	you	on	3	years	ago?	
b)	What	step	are	you	on	to	day?						

"HMB" areas are municipios in which some controlled barrios are listed by the Constabulary. "Near HMB" are other municipios in Central Luzon.

c) What step do you expect to be on 3 years from now?

Table 6

VIEW OF HONESTY OF GOVERNMENT REPRESENTATIVES BY PROXIMITY TO HMB

	Mean Response a on									
Region	Constabulary	Local Politicians	Local Police	SSR						
нмв	1.25	1.09	1.32	179						
Near HMB	1.34	1.05	1.27	67						
Laguna	1.38	1.05	1.31	5 4						
Greater Manila	1.23	.96	.98	97						
Ilocos	1.64	1.46	1.67	129						
Bicol	1.28	.97	1.35	94						

Note:

^aScale is 0, corrupt; 1, half and half; 2, honest. Mean responses based on weighted percentages. SSR denotes actual number of respondents.

VI. NOTES ON THE HUK ORGANIZATION

For policy purposes we need to understand not only the determinants of insurgent control but the reasons the insurgents are in "business" at all. Terror and violence have many purposes. What is the purpose of the modern Huks? In particular, do they have the same revolutionary motives as the 1949-1953 Huks or are they more like the Mafia, made up of individuals motivated by personal gain? Continuity of motivation is at least a necessary condition for identifying the modern HMB with the historical Huks.

Large amounts of detailed evidence on the structure and procedures of the Huk organization are hard to acquire. In 1969 through the Constabulary we were able to gain access to interviews with 12 Huk prisoners having recent service. During their service the Huks apparently were split in two major factions: an ideological faction and a criminal faction. Since that time the organization has continued to evolve. It is now alleged that there are three major factions: a Maoist group whose principal leader was trained in Peking, a smaller Moscow-oriented group, and the old criminal faction. Our discussion here will be limited to the 1969 period where we have some direct primary evidence.

The subjects interviewed range in age from 21 to 46; most are in their twenties. Six subjects had three or fewer years of education, three had five years, and two had some high school; the education of one is unknown. Seven subjects are from Pampangan-speaking families, three are Tagalogs, one is an Ilocano, and one a Cebuano. Thus, a cross-section of major Philippine ethnic groups is represented. All but one of the subjects had experience in the HMB during 1968 or later; their views should be quite contemporary. However, there were no personnel with a long period of service. The most experienced subject spent four years in the HMB. Six subjects were captured by the Constabulary and six surrendered.

²See R. Evans and R. Novak. "Philippine Guerrillas Active," <u>Los Angeles Times</u>, May 18, 1970; a UPI report alleges that the young Maoists have been trying to grab power from the older Maoists, <u>Los Angeles Times</u>, June 3, 1970.

All but three of the respondents came from the area nominally under the control of Commander Freddie. This area includes Southwest Pampanga, Northern Bataan, and the Olongapo-Subic complex. Nine of the interviewees were privates in armed groups. There were also a commander and a vice commander from the military arm of the Huks, and one low-level cadre.

All but one of the nine interviewees from Freddie's area, when asked about the training they had received, mentioned political indoctrination. Most of them held the same political views. Typical quotations from four of the subjects are given below.

We have group meetings and in said meetings, we were lectured to by the commander. We were told that the Philippine Government is not bad, and it is only the administrators of said government that ought to be changed. Change could be effected either by elections or violence if need be.

China and Russia were the only countries mentioned to us in lectures and in group talks by our leaders. It is said that those two countries are the only ones that are now led by the true sons of the motherland, that see to it that the people are served and not the people serving the officials in the government. They said that the HMB movement aims to attain what had happened in those countries, China and Russia.

...the main enemies of the HMBs are, first: the local exploiters who suck the blood of the common tao so as to enrich themselves; the people in the government who commit graft and corruption and all sorts of anomalies just to entrench themselves in power; those people who serve as stool-pigeons for the above-mentioned personalities, and secondly, those foreigners who drain our rich natural resources, export it to other countries and bring it back as finished products and sell it beyond the reach of the common people. Most of these aliens are the Americans. There were what we called American imperialists.

They told us that they wanted to establish a New Democracy that will give justice to everybody, and that there will be no more poor and no more rich, but everybody will be

Until he was killed in an engagement with the Constabulary early in 1969.

equal. "How?" By establishing a government that is really after the welfare of the working man, a government for the Filipinos not dictated by foreigners.

These statements resemble those in early Viet Cong documents. Perhaps of some interest and unlike Vietnam is the lack of an attack on the government as an institution. Only the people in the institution are attacked.

As for the alleged ideological split between Sumulong, the chief of the HMB at that time, and Freddie and the other commanders, five subjects were aware of some split. Two others described Sumulong as loyal to the HMB's political motivation. The strongest criticism of Sumulong ran as follows:

I think the leaders of the HMB are in the organization in order to guide the movement of the HMB and their ardent desire is to champion the cause it is fighting for. I do not know any of the persons you mentioned [personally] All I know is that the group of Commander Caviteno is out to get Commander Sumulong because this Sumulong has already turned traitor to the cause of the HMB.

The one interviewee from Sumulong's group -- the Angeles-Clark faction -- stated that Sumulong himself was a "die-hard Communist." However, this person was extremely vague on the goals and purposes of the organization. We could not cite any specific political indoctrination.

One other subject whom we could not specifically place in the organization, although he was apparently not in Sumulong's or Freddie's group, said he knew Sumulong personally and spoke about him in knowledgeable terms. Again, unfortunately, his information was less useful than it might have been, since he was the only person without very recent experience in the HMB. He left the organization in December 1966. However, he did have personal experience of Sumulong's teaching the standard line, and he also called Sumulong a die-hard Communist.

Sumulong was supposed to control the area around Clark and Angeles. It is argued that Sumulong and his men are interested in personal gain while other branches are ideological. The factionalism has erupted into violence.

The interviews suggest that the group under Freddie received regular political training. That training is similar to that used by Communist dissident organizations around the world. They also suggest that the group under Freddie was generally aware of a power struggle going on in the organization. The signals were much less clear about whether this power struggle was over ideology or its betrayal. In 1969 the evidence suggests that the Huks were split, with the Angeles-Clark faction primarily interested in personal gain.

Clearly, we should not rely very heavily on these 12 interviews to establish the nature of the HMB -- although 12 is not a trivial fraction of all reported HMB regulars. It may be significant that five of the 12 are not ethnic Pampangans; this is mildly inconsistent with the proposition that a Pampangan-speaking population is a necessary condition for HMB control in a properly specified model. The most important role of this interview data, however, is to confirm the reports that the HMB organization is torn by power struggles and to underscore the complex nature of the process by which the organization succeeds or fails. Although operational variables are as important in determining the pattern of control as variables relating to social unrest, it is still possible that members of the HMB themselves -- particularly at lower levels -- may be motivated in large part by idealistic visions of transforming society.

VII. POLICY TOWARD THE HMB

It is important not to apply the metaphor of Vietnam to the HMB. The current Philippine insurgency bears little resemblance to the early Viet Cong. Actions based on an alleged similarity are likely to be unproductive. When we speak, for example, of HMB "control" of a barrio it should be clear that the government has not been denied access to the barrio and that its social structure has not been rebuilt by the insurgents, as was the case in Vietnam. The HMB themselves often live fairly ordinary lives at home with their families. This rebellion does not fit the models of a "classical" insurgency.

Although it may not be a typical insurgency, the HMB is still a nuisance for the Philippine government. The common view of politicians and the press is that the HMB draws its power from popular discontent with social conditions — particularly land tenure arrangements — and dissatisfaction with the performance of the government. If this is true, the HMB may be a serious threat. Areas of tenancy extend beyond the current area of HMB operations providing, according to this view, promising areas for HMB expansion. By the same token, it would be difficult to reduce the level of HMB control because it is hard for the government to accomplish significant changes in the social conditions alleged to underlie HMB support among the people.

Mitchell's view of the HMB would alter the prognosis, but not the prescription. If, as he contends, it is very difficult for the HMB to enjoy any success outside areas dominated by Pampangans, then the future of the organization is bleak. Pampangans represent only a small minority of the Philippine population and are not found in large numbers outside of Central Luzon. Mitchell's model holds out little hope that the government could accomplish much reduction of the area at present under HMB control: the propensity to rebellion has been handed down like an inheritance from father to son, and that propensity and the social conditions on which the rebellion is further supported are not amenable to rapid change.

The models presented here carry a mixed message for policy. The success of the HMB rests in large measure on what they do rather than on the condition of Philippine society; the roles of social variables are equivocal. This suggests that if the insurgents were astute and ambitious, the area they control might be substantially extended. It might also be possible for the government to compress that area by moves designed to checkmate HMB operations. The outcome depends in these models largely on the relative effectiveness of the Constabulary and the insurgents and the relative costs they incur.

A government should regard the policy prescriptions flowing from this kind of analysis as a sketch map rather than as a detailed guide. A danger inherent in the use of regression models is the ease with which they can give a false impression that the effect of some government policy instrument has been captured in an equation. For example, in both Mitchell's work and this study, tenancy appears in the equations. It is a significant variable but does not dominate the results. This does not mean that a substantial government program of land reform would have no impact on the HMB; it might. Regression models based on an unchanging situation may be faulty guides to the impact of substantial change. We cannot be sure because, in this case, no substantial program of land reform has ever been undertaken to enable us to measure its impact.

Even a sketch map, however, is better than mere hearsay. All of the formal models presented here substantially amend the conventional wisdom about the HMB. These multivariate explanations do suggest areas that a government should probe and explore in more detail and do suggest policy options that might not be considered otherwise. They are thus a part of better policymaking.

The relative effectiveness of the Constabulary depends in part on political factors outside its control.