

Kelley, Jonathan. 1988.  
"Class Conflict or Ethnic Oppression? The Costs of Being Indian in Rural Bolivia."  
*Rural Sociology: Official Journal of the Rural Sociological Society* 53:399-420.

---

## **CLASS CONFLICT OR ETHNIC OPPRESSION? The Cost of Being Indian in Rural Bolivia\***

---

Jonathan Kelley

International Survey Center  
and  
Department of Sociology  
University of Nevada, Reno

[kelly@international-survey.org](mailto:kelly@international-survey.org)

*This is my final copy of the MS but may miss minor changes done subsequently at the journal.  
Pagination differs from that in the journal.*

## **ABSTRACT**

Discrimination on the basis of race, religion or ethnicity appears to exist in many societies throughout the world. That subordinate ethnic groups have worse jobs and lower incomes is incontrovertible. But discovering whether these differences are created by discrimination rather than the natural working of economic forces is difficult and has produced a major literature on ethnic differences in industrial societies. But little is known about the less developed, predominantly rural societies where the majority of the world's population still live. This paper addresses the question for a society where ethnic differences loom as large as anywhere in the world, rural Bolivia, using data from a large, representative sample survey. The great inequalities between Indian and Spanish – far overshadowing differences between blacks and whites in the US – were originally ethnic. But now educational differences are rooted entirely in class differences, not ethnicity: Indian and Spanish sons born into comparable families get the same amount of schooling. Occupational success comes in very different ways for Indians, for whom father's occupation is crucial, than for Spaniards, for whom education is crucial. But despite this dual labor market, occupational differences are rooted in class, not ethnicity. So are differences in standard of living. Before the revolution of 1952, Spanish sons had a small advantage that could not be explained by class; after the revolution, Indian sons had a slight advantage; but throughout recent history, class dominates. These results suggest five general hypotheses about the links between economic development, political power, and exploitation.

## INTRODUCTION

Discrimination on basis of race, religion, or ethnicity exists in many nations, under diverse political systems. For example, it arguably reduces the income and occupational status of blacks and Hispanics in the United States, French Canadians, colored immigrants in Britain, Catholics in Northern Ireland, Arabs in Israel, Mediterranean immigrants in Australia, Ainu in Japan, and many others (e.g. Evans and Kelley, 1986; Hogan and Pazul, 1982; Kelley and McAllister, 1984a, 1984b; Rosenstein, 1981; Trist, 1979).

That subordinate ethnic groups have worse jobs and lower incomes is incontrovertible. That these differences are created by discrimination rather than the natural working of economic forces is not. Minorities usually differ from the majority in family background (having less educated, lower status parents), in education, and sometimes in language. Such differences may explain their lower status and income. This possibility poses difficult technical problems which have been surmounted only recently (e.g. Duncan, 1968; Blinder, 1973; Jones and Kelley, 1984).

Moreover, strong theoretical considerations suggest that ethnic discrimination cannot survive in a competitive labor market. Straightforward economic arguments show that an employer can break ranks with his discriminatory peers and make windfall profits by hiring minority workers at a lower wage than equally skilled majority workers, thus increasing his profits, and eventually driving discriminatory employers out of business. Thus competition forces the labor market to treat workers equally by reducing the dominant group's wages, or increasing the subordinate's, or both: so long as some employers prefer riches to prejudice, discrimination cannot last in a free economy (Arrow, 1972; Cain, 1976; Ehrenberg and Smith, 1982: 401-412).

However discrimination can exist if institutional forces divide the market into non-competing sectors, for example into primary versus secondary labor markets, or core versus periphery (e.g. Deoringer and Piore, 1971). Ethnic and linguistic differences, geographic separation, and law can keep the sectors separate and restrain the equalizing forces of free market competition.

These questions have produced a large and important literature on ethnic differences in modern industrial societies. Findings are mixed, but the weight of evidence begins to suggest that economic differences between nationality, language, and religious groups – but probably not racial groups – are mainly due to differences in family background, education, place of residence, and language rather than discrimination. In modern societies, free markets and relatively universalistic standards of education and government seem to have eroded most discrimination.

But there is little evidence from the less developed, mainly rural societies where the majority of the world's population still live. Yet it is precisely there that discrimination is theoretically most likely: their markets are generally less developed, more localistic, and hedged about with customary, practical and legal restrictions; the solvent powers of the free market are less pervasive (Kelley and Klein, 1982; Treiman, 1970)). Ethnic differences in language, custom, and life style are greater, historic differences not yet having been diluted by education and geographic mobility. Their governments are rarely democratic, so subordinate groups cannot use their vote to gain political support. Indeed the government is often the creature of the dominant ethnic group, working actively to further its interests. It is here, not in modern industrial societies, that jobs and income are most likely to be allocated on ethnic rather than purely economic grounds.

This paper addresses these questions with data from a society where ethnic differences loom as large as anywhere in the contemporary world: rural Bolivia. Bolivia has been dominated by the Spanish ever since the Spanish conquest four centuries ago. The rural Spanish elite ruled the Indian countryside with an iron hand, backed by force of arms. Indians were tied to the land in virtually medieval serfdom until the revolution of 1952. Differences between Spanish and Indian are vast. At one pole are illiterate monolingual Aymara Indians, heirs to an ancient Amerindian culture, and at the other pole are Spanish speakers, heirs to a literate cosmopolitan culture with long-standing connections to Europe and at least a nodding acquaintance with science and technology. Even in the middle of the twentieth century, many Aymara lived in a style not far removed from their pre-Columbian ancestors while Spanish speakers lived in a recognizably European style, albeit a poor and provincial one. Indians averaged barely one year of education, while the Spanish had over four; Indians had an average occupational status of only 16 points (out of 100), while the Spanish averaged 40; differences in language, dress, and style of life were even more dramatic: Bolivia was divided into two worlds (Kelley and Klein, 1982: Ch. 2). Compared to these, ethnic differences in modern societies pale into insignificance.

The data are from a large, representative sample of male heads of household collected as part of the Research Institute of the Study of Man's Bolivia Project in 1966. For the topics at hand, it is still the best survey yet undertaken in Bolivia. Its detailed information on family background, particularly father's education, occupation and ethnicity – essential information here – are virtually unique for Latin American countries with large Indian populations. In most countries such data do not exist for large, representative samples of the population or are kept confidential because of their political sensitivity.

## **RURAL BOLIVIA**

At the time of the survey, Bolivia contained some three million inhabitants, 70% rural, 60% speakers of indigenous Amerindian languages (Republica de Bolivia, 1955). The survey was undertaken in six towns representing Bolivia's several ecological zones. From the traditional heartland on the high plateau (altiplano) at 11,500 to 13,000 feet above sea level, surrounded by peaks rising to 23,000, are the ex-hacienda community of Compi (population 1400) at Lake Titicaca and the traditional free peasant community of San Miguel (1200 persons) in Oruro. Both are Aymara speaking peasant agricultural communities of dirt floored, thatch-roofed adobe houses, without electricity or running water, growing traditional Amerindian root crops and some garden vegetables for urban markets.

A second major ecological zone is the Yungas, a series of verdant, highly productive valleys on the eastern slope of the Andes at 3000 to 7000 feet, with small Spanish colonial towns of cobblestoned streets and tiled roofs. The economy is diversified with subsistence agriculturalists, cash crop farmers, unskilled laborers, skilled craftsmen, merchants and prosperous traders, and the usual complement of clerks, officials, and professionals. Differences between educated and illiterate, rich and poor, Spanish and Aymara are sharp. The survey included Coroico, (population 2200), a mainly agricultural town growing coffee and bananas, and Sorata (1800 inhabitants), a commercial gateway to the tropical region below.

The third major ecological zone is the lowlands, a vast tropical plain 700 feet above sea level, mainly cattle country. We have data from Reyes (population 2100).

In the far south are barren mountains interspersed with fertile river valleys, socially a quiet, traditional backwater. We have data from Villa Abecia (population 600), a town depending on small, privately owned, irrigated vineyards worked by their owners with help from skilled farm hands.

## **DATA AND METHODS**

### **Data**

The data are from a large, representative sample survey of male heads of households conducted in 1966 by Vera Rubin, Lambros Comitas and William J. McEwen for the Research Institute for the Study of Man with a grant from the Peace Corps (N=1130 total, 1096 in the sample analyzed here). I thank them for making these valuable data available. The survey, done with great care, is one of the best ever conducted in a third world country and clearly the best in Bolivia.

It involved detailed ethnographic surveys of each town based on anthropological field studies, each lasting seven to eleven months (see McEwen's [1975] excellent ethnography and the many papers listed there). The questionnaire was designed after the anthropological field work was well under way. Interviewers were recruited primarily from the ethnographic field teams, and interviewed in both Aymara and Spanish. Rapport was excellent since the project's field workers were still in the community or had only recently left.

Our earlier analyses provide the first report on the survey and details are given there (Kelley and Klein, 1982; Kelley, Robinson and Klein, 1981). The book argued that revolution cannot prevent the rebirth of inequality: income inequality and inherited privilege first decline following a radical revolution but then inevitably increase once again. The previous paper developed a theory of social mobility and estimated status attainment models for Bolivia and the US. This paper extends that model to deal with ethnic discrimination.

The sample, selected from a complete house-to-house census, is confined to adult male heads of household; the completion rate was 83%. It is representative of the towns from which it was drawn, with regression estimates virtually identical to those for the whole population (Kelley and Klein, 1982: appendix 3). In our judgment it is also representative of the Aymara, bilingual and Spanish speaking populations of rural Bolivia as a whole save for the large Quechua Indian community in the Cochabamba valley. I have weighted it to match the proportion Indian and the age-specific illiteracy rates for the nation. The weighting makes no appreciable difference for the analysis reported here but makes significance tests only approximate (Kelley and Klein, 1982: 55-56). Details, a data file, and SPSS are available on request.

## Measurement

**Social Race** In Bolivia a clear, universally recognized distinction exists between peasants of Indian origin (derogatively called 'indios' before the revolution, 'campesinos' now) and Spanish-speaking, Western-oriented groups,[1] with marked differences in culture, dress, diet, and language (McEwen, 1975). Campesinos are monolingual speakers of Amerindian languages while facility in Spanish distinguishes the other group. An intermediate group is in transition from an Indian past to a Spanish future: cholos, people born Amerindian who have acquired some Spanish, and some of the cultural, dress, and dietary characteristics of the Spanish elite. They are clearly recognized by both locals and anthropologists throughout Bolivia and neighboring societies (McEwen, 1975), but do not call themselves "cholo".

Cholos are properly treated as being of Indian origin, since they were born to Indian parents, grew up in Indian homes, and faced the disadvantages common to Indian children. But, unlike most of their peers, they learned Spanish,

succeeded in school, and entered the labor force with those advantages. Since we are concerned with the economic effects of being born Spanish or born Indian, cholos are properly considered Indian; treating them as a separate group would bias the results for Indians by excluding many of the most successful.

By this definition, 62 per cent of the population are of Indian origin and the rest Spanish. Only 3 percent could not be classified – because of missing data or unusual ancestry – and are excluded from the analysis.

**Education** is measured in years of schooling, which is appropriate for Bolivia. An effect proportional measure (Treiman and Terrell, 1975) gives equivalent results and is correlated.98 with years.

**Occupation** In Bolivia, as throughout the world, a man's occupation determines his status in society, largely determining how he lives and how he is regarded by others (e.g. McEwen, 1975). In practice measuring occupational standing is notoriously difficult and a full treatment is given elsewhere (Kelley and Klein, 1982:59-64, 212-222). I have detailed information on respondent's occupations and his father's occupation, including land ownership, number of paid employees, number of family employees, and whether or not self employed. I use paid employees to distinguish large farmers from small and land ownership to distinguish farm owners from laborers and tenant farmers. While half of the respondents had secondary occupations, and a few yet other occupations at a different season of the year, the primary occupation analyzed here is clearly central: on average, they worked 7.7 hours a day, 5.9 days a week, and 11.0 months a year at it.

Even with a large sample, there are too few people in most individual occupations to permit meaningful analysis and I therefore developed a scheme for classifying them into broader status groups which those familiar with rural Latin America will, I think, find familiar and reasonable. The 14 categories (and their status scores) are:

- 100: Elite white collar (doctor, clergy, school principal, etc.)
- 75: Large farmer
- 72: Cattle rancher
- 71: Higher white collar (school teacher, contractor, middle rank administration, etc.)
- 66: Skilled modern blue collar (mechanic, truck driver and the like)
- 62: Clerical and sales
- 57: Small business
- 33: Specialized farmer (coffee or fruit planter, etc.)

- 31: Skilled traditional blue collar (carpenter, mason, leather worker, baker, blacksmith, tinker, etc.)
- 31: Unskilled non-farm (day laborer, muleteer, etc.)
- 12: Tenant farmer
- 9: Farm laborer (peon)
- 4: Small farmer
- 0: Small livestock owner (landless farmer, llama herder, etc.)

The classification combines both status and "class" distinctions in Marx's sense. Although best treated as separate variables (Robinson and Kelley, 1979), this is a convenient and harmless simplification for Bolivia.

I measure the occupational status of each of these groups by the average standard of living of its incumbents (Kelley and Klein, 1982: 62-63). Various alternatives give virtually identical results (Kelley, Robinson and Klein, 1981: 44-46, appendix A).

**Standard of Living** In industrial societies income is a satisfactory measure of standard of living. But for peasant societies like Bolivia it is not, since cash income in the large subsistence sector has little to do with standard of living. Consumption measures are preferable since they tend to be more stable over time, more accurately reported, and more reliable indicators of actual living standards (van Ginneken, 1976; Zuvekas, 1977). Using factor analytic procedures, I constructed a composite measure including characteristics of housing, servants, food consumption, and the like (Kelley and Klein, 1982: 58-59). Since the scale has no natural metric, I rescored it as a cumulative percent. Thus the poorest person gets a zero (no one is lower), someone in the middle gets fifty (half the population lives worse and half better) and the richest person gets one hundred (everyone else is worse off). This gives an intuitive metric but alternative metrics lead to the same conclusions.

**Family Background** The class aspects of family background are measured by father's occupational status and father's education, successfully used for this purpose in almost all research in the Blau-Duncan tradition and equally appropriate for Bolivia (Kelley and Klein, 1982: 15-16, 62-64, 78-89). Land and property ownership are included implicitly (e.g. in the distinction between large farmers, small farmers and peons).

## **U.S. Data and Measurement**

The familiar differences between blacks and whites in the United States provide a useful comparison with Bolivia. Data are from the merged National Opinion

Research Center's General Social Surveys for 1972 to 1976 (N=278 blacks and 2431 whites). Because the Bolivian data are from 1966, I do not use more recent NORC surveys. Definitions of variables follow the Bolivian specifications as closely as possible.

## **Method**

I estimate the effects of family background by ordinary least squares regression, assuming a causal sequence that begins with family background (earliest in time and in causal order) and continuing with education, then occupation, and finally standard of living. These are standard methods in the status attainment paradigm (e.g. Blau and Duncan, 1967; Jones, 1971; Colclough and Horan, 1983) and have been used successfully in many societies, including tribal and developing ones (e.g. Kelley and Perlman, 1971; Psacharopoulos, 1973; Treiman and Terrell, 1975; Kelley, 1978). Departures from linearity are negligible and are ignored. Missing data are few: under 1 percent for education, occupation and standard of living; 4 percent for father's occupation; and 8 percent for father's education. They are treated by the 'pairwise present' procedure, which is statistically preferable to the usual alternatives.

The key technical problem is to distinguish differences that arise out of class background (i.e. father's education and father's occupation) from differences that arise from ethnicity. This can be done by extending the Blau-Duncan model by applying it separately to Spanish and to Indians; using the Indian regression equations to estimate what would have happened to an Indian son born into a family with the same class background as the average Spanish son has; and comparing that (hypothetical) Indian to the actual average for Spanish sons (e.g. Duncan, 1968). Details are given below and a more technical treatment in Jones and Kelley (1984).

## **DIFFERENCES BETWEEN INDIANS AND SPANISH: THE GAP TO BE EXPLAINED**

The social and economic standing of Indians and Spanish are quite different: the Spanish have higher status parents, more education, better jobs, and a higher standard of living (table 1). Spaniards were born into privileged homes by Bolivian standards: their fathers had jobs averaging 40 status points, compared to Indian fathers' meager 13 points. Spanish fathers averaged four years of schooling while only a handful of Indian fathers had any at all. Spanish respondents average 4 or 5 years of schooling while Indians have only a third as much. The Spanish have jobs averaging 41 status points and 30 percent are small farmers, while Indians average only 16 and 70 percent are small farmers. Spanish average in the 60th percentile in standard of living while Indians average only 40.

[table 1 about here]

To give perspective, note that the yawning gulf between Indian and Spanish Bolivians is far larger than the familiar gap between blacks and whites in the US (table 1). Fathers of black Americans mostly had worse jobs than white fathers, averaging only two thirds as high, while Indian fathers average less than one third of Spanish. Blacks, and their fathers too, have about 80 per cent as much education as whites, while Indians have only 30 per cent as much as Spanish. Blacks' occupational status is 70 percent of whites' while Indians' is only 40 per cent of Spanish speakers'. Only in standard of living is there any comparison, but even there the Indian/Spanish gap is larger. Thus, there is much to be explained.

Nonetheless ethnicity and class are not synonymous: many Spanish have no schooling, miserable jobs, and live in poverty while some Indians get schooling, good jobs and a high standard of living. For example, a third of the Spanish have no schooling at all while a third of the Indians have been to school. Almost a third of the Spanish are at the bottom of the class hierarchy, working as peons (15%) or small farmers (15%), while almost a third of the Indians (29%) have better jobs. Two-thirds of the Spanish live without electricity while a fifth of the Indians have it.

## **CLASS OR ETHNICITY?**

The great inequalities between Spanish and Indian were originally ethnic, stemming from the Spanish Conquest. But in the following four centuries the Spanish had ample opportunity to use their power to acquire education, wealth and high status occupations for themselves and their children. In the fullness of time, their advantage might come to consist entirely of education, occupation, and wealth – transforming ethnic stratification into class stratification. Did that in fact happen?

### **Class, Ethnicity, and Education**

Educational differences between those born into Indian homes and those born into Spanish homes are small and inconsistent, some slightly favoring the Spanish, others favoring Indians, but none large enough to reach statistical significance (table 2). (1) Having a father with an additional year of education is worth about half a year of education for those born into Aymara speaking homes, but fractionally less for those born to Spanish homes. For example, an Indian father with six years of primary schooling could expect his son to get about four years more education than the son of an unschooled Indian ( $6 \times .634 = 3.8$  years) while a Spanish father with six years of schooling could expect his son to get three years more than the son of an uneducated Spaniard ( $6 \times .483 = 2.9$ ). The

difference between Spanish and Indian is not, however, statistically significant, so we have no good grounds for saying that the advantage is larger for one than the other. (2) An elite white collar Spanish father, at the top of the occupational hierarchy with 100 status points, would give his son an advantage worth about four years of education while an Indian parent at the top would give his son an advantage worth about three years. This difference is small and not statistically significant. (3) Finally, the constants in the regression equation – estimating the education of a son whose father has no education and the lowest occupation (small livestock owner) – do not differ greatly either.

[table 2 about here]

While both educational and occupational advantages of the father are thus passed to the son in much the same way, Indian fathers have less to pass on and this explains why their sons get less education than Spanish sons. The regression equations put this more precisely. Although the differences are small here, the procedure is worth detailing since it is used later to analyze the large differences in occupation and standard of living. Begin with sons born into Indian families: on the average they get 1.2 years of education. We break that up into three components using the regression equation, one part due to their father's education, one part due to their father's occupational status, and a constant: an Indian son gets .634 years of education for each year of his father's education, so a son whose father has average education for an Indian father, 0.4 years, will get  $.634 \times 0.4 = 0.2$  years of education from that. In addition, an Indian son gets .029 years of education for each point of father's occupational status, so a son whose father has the average status of all Indian fathers, 13 points, will get  $.029 \times 13 = 0.4$  years of education from that. Finally every son gets the constant, 0.61 which gives in all:

$$.634 \times 0.4 + .029 \times 13 + 0.61 = 1.2 \text{ years of education} \quad (\text{Eq.1})$$

What would happen to an Indian son if his father had the same class background as the average Spanish father – i.e. to what extent does class background account for differences between Indian and Spanish? We estimate this by putting the mean levels of Spanish fathers' occupation and education into the Indian equation – in effect constructing a hypothetical Indian whose father had Spanish levels of education and status but who was still subject to the Indian stratification system:

$$.634 \times 4.2 + .029 \times 43 + 0.61 = 4.5 \text{ years of education} \quad (\text{Eq.2})$$

This shows that an Indian son, had he the class background typical of Spanish sons, would get 4.5 years of education. That is much more than the 1.2 years of education Indians actually get and, indeed, is exactly the same as the average for Spanish sons. (There are a number of alternative ways of making these estimates (Jones and Kelley, 1984) but for these data they lead to the same

conclusion.) Thus differences in class background explain all of the difference between Aymara and Spanish levels of education.

### **Class, Ethnicity, and Occupation**

There are important differences in how Indian and Spanish sons get their jobs (table 2). Among Indians, father's occupational status is crucial: having a father at the top of the status hierarchy is worth 54 points, enough to get the son half way up the hierarchy himself. In sharp contrast, having a father at the top is worth only 17 status points to Spanish sons. For them, education is crucial: each year of school is worth three status points, so a son who finished secondary school gets a job 33 points higher than an uneducated Spaniard. In stark contrast, schooling is worth only half as much for Indians.

Father's education has no appreciable direct effect for either Spanish or Indians (table 2). This is not because it is irrelevant but because it influences occupational status only indirectly, through son's education. Including this indirect effect, it is quite important for Spaniards: each year giving two status points, twice what an Indian father's education is worth. Indeed, in standardized terms, father's education is more important than father's occupation for Spanish sons (a standardized partial regression coefficient of .33 compared to .28) while the reverse is true for Indian sons (.07 compared to .45). So in this way too, education is crucial Spanish but not Indians.

In all, occupational success comes in very different ways for Indians, for whom father's occupation is crucial, than for Spaniards, for whom education is crucial. What causes this divergence? One possibility is a dual labor market (e.g. Boeke, 1942; Doeringer and Piore, 1971): Spaniards enter a modern job market where linguistic and educational skills (i.e. human capital) dominate while Indians go into business, traditional crafts, and farming where financial resources and land (i.e. physical capital) are crucial. Such a dual labor market can endure because Spanish have a comparative advantage in one and Indians in the other.

Despite the existence of a dual labor market, occupational differences between Indian and Spanish are rooted in class while ethnicity plays little or no part. The regression analysis again provides an estimate of what would have happened if Indian sons had started out with the same education and family background as Spanish sons.[2] Indian sons' occupational status would then average 38 points, far above their actual 16 points and barely three points lower than Spanish sons' status. Thus differences in family background explain almost all of the wide gap between the jobs Indians and Spanish have, leaving only three status points to be explained by class variables not included in the analysis (e.g. father's income, on which we have no information), or by ethnicity, or by anything else.

## Class, Ethnicity and Standard of Living

Influences on standard of living again suggest a dual labor market: occupation is dominant and education virtually irrelevant in the Indian sector while education is vital in the Spanish sector (table 2). For Indians, a man's own occupation is crucial; his father's occupation is also important; but neither his own education nor his father's matters. For Spanish sons, occupation is also vital – although not as important as for Indians – but education is almost as important; neither father's occupation nor father's education have any direct effect.

The effects of family background are mainly indirect: men born into a well educated, high status family are not paid more because of that per se, but because it helps them indirectly by getting them more education and better jobs. Counting these indirect effects, the dual labor market is again evident. Consistent with the emphasis on education in the Spanish labor market, father's education has a larger effect than father's occupation (standardized coefficients of .34 and .23). And consistent with the emphasis on occupation in the Indian system, father's occupation dominates, .32 compared to .02 for father's education.

[table 3 about here]

Although these labor markets are different, standard of living is nonetheless determined by class, not by ethnicity. If Indians had the same family background, education and occupation as Spanish, the regression estimates imply they would have a standard of living in the 59th percentile. This is much higher than their actual average of 41 and less than 3 percentiles lower than Spanish sons actually have. Thus ethnicity and other factors play a minor role, if any.

## The Effects of Revolution

Even though class, not ethnicity, explains Indians' disadvantage in the present day, ethnicity surely mattered in the past: Bolivia, after all, began with the Spanish Conquest of the Indians. But the revolution of 1952 caused dramatic changes. In rural areas, it was essentially a successful revolution of Indian peasants against Spanish landowners, giving Indians ownership of the land and, for the first time in four centuries, substantial political power (Klein, 1969; Kelley and Klein, 1982). Was ethnicity important before the revolution, or was it already a class system? Did the revolution make class more important? Did it give Indians an advantage?

**Methods of Analysis** These questions can be addressed by applying the previous technique to three cohorts separately: those who came of age before the revolution, those who came of age during the revolution, and those who came of

age afterward. Since the revolution is the only major event in this period, we can reasonably attribute any differences to it (Kelley and Klein, 1982: Ch. 4). As a reasonable approximation I assume that rural Bolivians finished their education and took up their first jobs sometime between their mid-teens and mid-twenties, so those 26 or older at the time of the revolution came of age before it. A variety of economic, political and social changes suggest that the revolutionary period lasted roughly eight to ten years (Kelley and Klein, 1982: 94-104, 146-147). I therefore take the nine years following 1952 as the revolutionary period (men in that cohort would be 17 to 25 at the time) and the subsequent period as post-revolutionary (that cohort would be 16 or under at the revolution). The analysis must be treated with caution, since the sample sizes are small.

A cohort analysis must compare men at the same stage in the life cycle to avoid confounding life cycle differences with historical change. For example, looking at present standard of living would compare old men (the pre-revolutionary cohort) who have had a lifetime to accumulate with young men (the post-revolutionary cohort) who are only just beginning to save. We can make only two appropriate comparisons which avoid this difficulty: education and first job. I restrict the analysis to men 20 or older to avoid a well known technical bias involving those still in school. For simplicity, I report only a key summary figure: the difference between Spanish sons' mean and the hypothetical mean estimated for Indian sons with the same class background.

[table 4 about here]

**Revolution and Education** Class dominated the stratification system of pre-revolutionary Bolivia. Nonetheless, Spanish sons had a small advantage that could not be explained by class. A hypothetical Indian son born into a family with Spanish levels of education and status would have obtained 4.1 years of education before the revolution (table 4). Spanish sons averaged 4.5 years, an advantage of four tenths of a year. Thus the pre-revolutionary Spanish had a small ethnic advantage.

The revolution left the stratification system largely based on class, as is to be expected for even the most radical revolution (Kelley and Klein, 1982: 5-21). But it also gave a small ethnic advantage to Indian sons. In the revolutionary period itself, Indian sons had an advantage: if their family's class position been as high as Spanish sons', they would have obtained about one year more education than Spanish sons. In the post-revolutionary period this advantage declined but did not disappear.

**Revolution and Jobs** Before the revolution, class explained all: if their family background and education had been the same, Indian sons would have had first jobs just as good as Spanish sons' jobs. In the revolutionary period nothing

changed. But after the revolution, as Indians were able to take full advantages of their new opportunities (Kelley and Klein, 1982: 126-128), a slight ethnic element seems to have emerged in Indians' favor. Class still explained most of the difference between Spanish and Indian jobs but, beyond that, Indian sons had a slight advantage – five status points out of 100.

This change seems to have had several sources. Part came from Indians' new found political influence – after the revolution, they often had an advantage in dealing with the bureaucracy. Much political and commercial power fell into the hands of peasant and trucker unions dominated by the Aymara. With Indians dominating transport and many middleman positions between the Spanish and the newly prosperous Indian peasantry, facility in Indian languages became valuable. The market rapidly expanded into rural areas and Indians were well placed to take advantage of the growing trade between cities and the mainly Indian countryside and of new opportunities in cash crop agriculture.

## **A Comparative Perspective**

The key finding of this analysis – that the gap between Indians and Spanish is due almost entirely to class rather than ethnic discrimination – is surprising, although similar findings are beginning to emerge for ethnic and religious groups in other countries. This stands in stark contrast to the paradigmatic case of racial discrimination in the United States. The gap between blacks and whites in the US is much smaller than the yawning gulf between Indian and Spanish (table 4, first panel). Yet applying exactly the same methods and models to both shows that class explains only half the black/white gap but almost all the Indian/Spanish gap (second panel). Half of US blacks' disadvantage may be discrimination but Bolivian Indians' much larger disadvantage is due to class, not discrimination.

[Table 4 about here]

## **CONCLUSION**

### **Summary**

Stratification in rural Bolivia began with ethnic conquest, and many Indians lived in almost feudal servitude until the 1952 revolution. Yet sometime in the four centuries following the conquest, ethnic stratification was transmuted into class stratification.

By the 1960s, class almost entirely accounted for the vast gap between Indian and Spanish. Most Indian sons were born into families with no education and miserable jobs; as a result they themselves got little education, poor jobs, and lived in poverty. Most Spanish sons' families had a bit of education and modest

jobs; so the sons got some education, middling jobs, and lived in modest comfort. Indian and Spanish lived in separate economic worlds, in a dual economy. For Indians property and occupation were crucial but education mattered little; for Spanish education and literacy were crucial while property and occupation mattered less. But these different economic worlds were equally rewarding. The (few) Indian sons born into families with the education and occupation typical of Spanish families did just as well as Spanish sons: they got just as much education, just as good jobs, and lived just as well. This is my key result: inequality in Bolivia is basically a matter of class, not ethnicity. This is fundamentally different from racial inequality in the US, where blacks' disadvantage is at least as much due to race as to class.

## Implications

Inequality throughout Latin America is probably a matter of class, not ethnicity. Bolivia's Indians are the poorest in Latin America and, until 1952, lived in almost feudal servitude. That their disadvantage was, nonetheless, a matter of class strongly suggests Indians' disadvantages in other Latin countries – where they live more freely and under less repressive governments – also reflect class, not ethnicity.

## Speculation

I believe that the Bolivian experience exemplifies a broader logic of exploitation, illustrating how a dominant elite can exploit the peasantry.

**Scope of the theory** The logic applies to all exploitative elites: ethnic, as in Bolivia; racial, as in the US; foreign elites, as in colonies and empires; hereditary nobility, as in feudal societies; political elites, as in many third world and socialist countries; and the urban population itself (probably the chief exploiter of the peasantry in the contemporary world).

**Exploitation and the Free Market** Bolivia provides a telling example of the difficulty in effectively exploiting peasants: despite its manifest power, the Spanish elite failed to preserve their ethnic advantage because that could not prevent the free market from eroding discrimination. Unlike a slavery or bonded labor system, peasants could seek a living elsewhere; even hacienda peasants could run away. The threat was that other Spanish employers would hire the Indians away. For example, if the traditional elite was extracting (say) 10% of Indians' production, a "rebel" Spanish employer could offer to take only 5%. Indians then would abandon their first master for the new one, and the rebel Spaniard would get rich from his 5%. But then there is a clear incentive for yet another rebel to offer to take only 2%. And so the logic of the market goes, until in the end Indians are keeping almost all their output. So long as at least one

employer prefers getting rich to getting along with the old elite, exploitation will be undermined:

*Hypothesis 1. A free labor market prevents exploitation.*

**Exploitation and Political Control** Because competitive markets undermine them, an exploitative elite must prevent competition from other potential exploiters. In Bolivia, the Spanish elite had to control other Spaniards; with a third of the population Spanish, there was no shortage of poor Spanish desperate for riches at their expense. The elite also had to keep foreign competition out and keep successful Indians themselves from competing:

*Hypothesis 2. To effectively exploit the peasantry, an elite must use its political power to prevent competition from other elites.*

It requires strong and effective government control to prevent competition since potential employers have strong incentives to compete. A strong local elite can do it, as in many feudal societies in the past. Many a strong empire has exploited monopoly rights (e.g. the salt monopoly). So too have many socialist countries in Europe and the Third World, and powerful bureaucratic states like India. For example, government marketing authorities in most socialist, many Third World, and some developed nations (e.g. Australia) legislate a monopoly right to buy agricultural produce at their own price – probably the main means of extracting wealth from farmers in the modern world. But many other governments – particularly in the past – are too weak or too corrupt to effectively prevent smuggling, the 'black' economy, and free trade; others are too small to do so effectively (e.g. Hong Kong); a few are unwilling to try. Generally:

*Hypothesis 3. Exploitation is more likely under strong, efficient governments with wide ranging economic powers than under weak, inefficient governments with modest economic powers.*

*Lemma: Political modernization – the emergence of large, efficient, centralized governments – makes exploitation by local elites less likely (by undermining their power) but exploitation by national elites more likely (by increasing theirs).*

**Exploitation and Economic Development** By offering more attractive opportunities, economic development undermines the old elite's interest in exploiting peasants. In poor countries, jobs in business, the government bureaucracy, and even teaching pay handsomely. For example in northeastern Brazil – a poor agricultural area for which good income data exist – lawyers, accountants, secondary school teachers, high ranking bureaucrats, and almost anyone with a university degree earn about ten times as much as a peasant (Evans and Saraiva, 1987). Working at jobs like that compares very well with

exploiting peasants. For example, suppose that an landlord can extract 10% of a peasants' output – a plausible figure for peasants on the margin of subsistence. Then to live as well as a university graduate, he would have to exploit 100 peasants. Few landlords could have so many; in Bolivia there are only two Indians for each Spaniard. So once opportunities open up outside agriculture, most elites would do better there:

***Hypothesis 4.** Increases in industrial productivity and the expansion of employment outside agriculture reduce the incentive for elites to exploit peasants.*

**Poverty and Exploitation** In Bolivia, one of the Spanish elite's fundamental difficulties was that the Indians were subsistence farmers producing so little that there was hardly anything to be taken from them. So the easiest way to exploit them – taxing them – was not especially profitable. Instead the Spanish, like feudal European nobles before them, had to raise productivity by setting up commercial farms using corvee labor. By contrast, exploiting prosperous peasants by taxing them is easy. And the prosperous will not resist taxes as desperately as the impoverished, since a loss of luxuries is easier to bear than a loss of necessities:

***Hypothesis 5.** Gains in agricultural productivity increase the incentive to exploit peasants and so make such exploitation more likely, all else equal.*

Thus economic development is a two-edged sword: the usual and dominant effect is to increase productivity outside agriculture and expand the reach of the free market, both of which undermine exploitation. But development also boosts agricultural productivity, and provides profitable new markets for agricultural goods. Both make exploitation more likely. For example, urban elites will be more tempted to exploit the prosperous cocoa growing peasants of Ghana (via compulsory marketing arrangements) or California ranchers (via property taxes) than the impoverished peasants of Bangladesh:

***Lemma:** Economic development generally reduces exploitation (by increasing productivity outside agriculture and expanding the free market) but may also increase it (by making prosperous peasants a more tempting target).*

## FOOTNOTES

\* This research was supported by the National Science Foundation under Grant SOC74-21514. It draws on earlier work done jointly with Herbert S. Klein and Robert V. Robinson (Kelley and Klein, 1982; Kelley, Robinson and Klein, 1981).

1. We refer to the latter as "Spanish", although a variety of other terms, and further distinctions among the Spanish group, are used locally.

2. Alternatively, we could base the calculations on the equation giving the total effects of family background (ignoring son's education altogether). But since educational differences between Spanish and Indians are trivial, this leads to virtually identical results.

## REFERENCES

- Arrow, Kenneth J. 1972. "Models of job discrimination" and "Some mathematical models of race in the labor market." in A. H. Pascal, ed., *Racial Discrimination in Economic Life*. Lexington, Mass.: Lexington Books.
- Blau, Peter M. and Otis Dudley Duncan. 1967. *The American Occupational Structure*. New York: Wiley.
- Blinder, Alan S. 1973. "Wage discrimination: Reduced form and structural estimates." *Journal of Human Resources* 8 (Fall):436-55.
- Boeke, J.H. 1942. *The Structure of Netherlands Indian Economy*. New York: Institute of Pacific Relations.
- Cain, G.C. 1976. "The Challenge of Segmented Labor Market Theories to Orthodox Theory: A Survey." *Journal of Economic Literature* 14: 1215-57.
- Colclough, G. and P.M. Horan. 1983. "The status attainment paradigm: An application of a Kuhnian Perspective." *The Sociological Quarterly* 24: 25-42.
- Doeringer, Peter B. and Michael J. Piore. 1971. *Internal Labor Markets and Manpower Analysis*. Lexington, Mass.: Heath.
- Duncan, Otis Dudley. 1968. "Inheritance of poverty or inheritance of race?" Pp. 85-110 in Daniel P. Moynihan, editor, *On Understanding Poverty*. New York: Basic.
- Evans, M.D.R. and Jonathan Kelley. 1986. "Immigrants work: Equality and discrimination in the Australian labor market." *Australian and New Zealand Journal of Sociology* 22 (July): 187-207.
- Evans, M.D.R. and H.U. Saraiva. 1987. "Women's labor force participation and socioeconomic development: Influences of local context and individual characteristics in Brazil." Paper presented to the 1987 meeting of the American Sociological Association.
- Ehrenberg, R.G. and R.S. Smith. 1982. *Modern Labor Economics: Theory and Public Policy*. Glenview, Ill.: Scott, Foresman.
- Jones, F. L. 1971. "Occupational achievement in Australia and the United States: A comparative path analysis". *American Journal of Sociology* 77: 527-539.
- Hertel, Bradley R. 1976. "Minimizing error variance introduced by missing data routines in survey analysis." *Sociological Methods and Research*. 4: 169-184.
- Hirschman, Charles and Morrison G. Wong. 1984. "Socioeconomic gains of Asian Americans, Blacks, and Hispanics: 1960-1976." *American Journal of Sociology* 90 (November): 584-607.
- Hogan, D.P. and M. Pazul. 1982. "The Occupational and earnings returns to education among black men in the North." *American Journal of Sociology* 87: 905-920.
- Jones, F. L. and Jonathan Kelley. 1984. "Decomposing differences between groups: A cautionary note on measuring discrimination". *Sociological Methods and Research* 13: 323-343.
- Kelley, Jonathan. 1978. "Wealth and family background in the occupational career: Theory and cross-cultural data." *British Journal of Sociology* 29 (March): 94-109.
- Kelley, Jonathan and Herbert S. Klein. 1982. *Revolution and the Rebirth of Inequality: A Theory Applied to the National Revolution in Bolivia*. Berkeley and Los Angeles: University of California Press.
- Kelley, Jonathan and Ian McAllister. 1984a. "The genesis of conflict: Religion and status attainment in Ulster, 1968." *Sociology: The Journal of the British Sociological Association* 18 (May): 171-190.
- Kelley, Jonathan and Ian McAllister. 1984b. "Immigrants, Socio-economic attainment, and politics in Australia." *British Journal of Sociology* 35 (September): 387-405.

- Kelley, Jonathan and Melvin L. Perlman. 1971. "Social mobility in Toro: Some preliminary results from Western Uganda." *Economic Development and Cultural Change* 19 (January): 204-221.
- Kelley, Jonathan, Robert V. Robinson, and Herbert S. Klein. 1980. "A theory of social mobility, with data on status attainment in a peasant society". Pps 27-66 in *Research in Social Stratification and Mobility*, Vol. 1. Donald J. Treiman and Robert V. Robinson (eds.) Greenwich, Conn.: JAI Press.
- Klein, Herbert S. 1969. *Parties and Political Change in Bolivia, 1880-1952*. Cambridge: Cambridge University Press.
- Levy, Marion Jr. 1966. *Modernization and the Structure of Societies*. Princeton, N.J.: Princeton University Press.
- Psacharopoulos, George. 1973. *Returns to Education* San Francisco: Jossey-Bass.
- McEwen, James M. 1975. *Changing Rural Society: A Study of Communities in Bolivia*. New York and London: Oxford University Press.
- Republica de Bolivia, Direccion General de Estadistica y Censos. 1955. *Censo Demografico 1950*. La Pas: Republica de Bolivia.
- Robinson, Robert V., and Jonathan Kelley. 1979. "Class as conceived by Marx and Dahrendorf: Effects on income inequality and politics in the United States and Great Britain." *American Sociological Review* 44: 38-58.
- Rosenstein, Carolyn. 1981. "The liability of ethnicity in Israel". *Social Forces* 59 (March): 667-686.
- Treiman, Donald J. 1970. "Industrialization and social stratification." Pp. 207-34 in Edward O. Laumann (ed.), *Social Stratification: Research and Theory for the 1970's*. Indianapolis: Boobs-Merrill.
- Treiman, Donald J. and Kermit Terrell. 1975. "The process of status attainment in the United States and Great Britain." *American Journal of Sociology* 81 (November): 563-583.
- Trist, D. 1979. "Migration and marginality: Guestworkers in Germany and France." *Daedalus* 108:
- van Ginneken, Wouter. 1976. *Rural and Urban Income Inequalities*. Geneva: International Labor Office.
- Wright, Erik Olin, and Luca Perrone. 1977. "Marxist class categories and income inequality." *American Sociological Review* 42: 32-35.
- Zuvekas, Clarence, Jr. 1977. "Rural income distribution in Bolivia: A summary and evaluation of quantitative and qualitative information." Economic Research Service, U.S. Department of Agriculture, Washington, D.C.

**Table 1.** Family background, education, occupation and standard of living for rural Bolivians born to Indian and Spanish families.

	Father's Education (years)	Father's Occupation (0 to 100)	Education (years)	Occupation (0 to 100)	Standard of living (0 to 100)
<b>Indian:</b>					
1. Mean	0.4 <sup>a</sup>	13 <sup>a</sup>	1.2 <sup>a</sup>	16 <sup>a</sup>	40 <sup>a</sup>
2. Std. dev.	1.3	15	2.1	19	24
<b>Spanish:</b>					
3. Mean	4.2 <sup>a</sup>	43 <sup>a</sup>	4.5 <sup>a</sup>	41 <sup>a</sup>	61 <sup>a</sup>
4. Std. dev.	4.8	29	4.6	29	24
Indian as percent of Spanish [b]	10%	30%	27%	40%	66%
US blacks as percent of US whites	79%	67%	83%	73%	71%

**Sources** Head of Household survey for Bolivia; N=675 for Indians and 421 for Spanish. NORC General Social Survey, 1972-1976 merged files, for the U.S.; N=278 for blacks and 2431 for whites.

a. Spanish and Indian means significantly different at  $p < .05$

b. Line 1 divided by line 3.

**Table 2.** Class versus ethnicity: Determinants of education, occupational status and standard of living for rural Bolivians born to Indian and Spanish families. Metric regression coefficients, decomposition of means, and Indian mean adjusted for differences between Indian and Spanish class background.

	Father's Education (years)	Father's Occupation (0 to 100)	Own Education (years)	Own Occupation (0 to 100)	Constant [a] [or R2]	Total (mean or %)
<b>PANEL A: EDUCATION</b>						
Regression						
1. Indian: Metric	.63 b	.03 b	-	-	0.61	-
Standardized	.38	.21	-	-	R2=25%	-
2. Spanish: Metric coefficient	.48 b	.04 b	-	-	0.79	-
Standardized	.50	.25	-	-	R2=46%	-
Decomposition						
3. Actual Spanish mean	2.0	1.7	-	-	0.8	4.5
4. Actual Indian mean	0.2	0.4	-	-	0.6	1.2
5. Adjusted Indian mean	2.7	1.2	-	-	0.6	4.5 d
6. Adjusted Indian as % of Spanish	131%	75%	-	-	77%	101% d
<b>PANEL B: OCCUPATIONAL STATUS</b>						
Regression-coefficients						
1. Indian: Metric coefficient	0.23	.54 bc	1.4 bc	-	7.7	-
Standardized	.02	.42	.15	-	R2=25%	-
2. Spanish: Metric coefficient	0.63	.17 bc	2.9 bc	-	18.2	-
Standardized	.10	.17	.46	-	R2=42%	-
Decomposition						
3. Actual Spanish mean	3	7	13	-	18	41
4. Actual Indian mean	0	7	2	-	8	16
5. Adjusted Indian mean	1	23	6	-	8	38 d
6. Adjusted Indian as % of Spanish	(e)	325%	48%	-	42%	93% d
<b>PANEL C: STANDARD OF LIVING</b>						
Regression						
1. Indian: Metric coefficient	-0.3	.26 bc	0.3 c	.43 bc	30	-
Standardized	-.02	.16	.03	.34	R2=20%	-
2. Spanish: Metric coefficient	0.4	.05 c	1.5 bc	.29 bc	39	-
Standardized	.08	.06	.29	.35	R2=44%	-
Decomposition						
3. Actual Spanish mean	2	2	7	12	39	61
4. Actual Indian mean	0	3	0	7	30	41
5. Adjusted Indian mean	-1	11	1	18	30	59
6. Adjusted Indian as % of Spanish	(e)	535%	21%	147%	77%	95%

Source: Head of Household Survey; N=675 for Indians and 421 for Spanish. All calculations were carried out to more decimal places than shown here.

a. Predicted value for the son of an uneducated llama-herder (panel A), himself uneducated (panel B) and a llama-herder (panel C).

b. Metric regression coefficients significantly different from zero at  $p < .01$ .

c. Spanish and Indian regression coefficients significantly different at  $p < .01$ .

d. Adjusted Indian mean is not significantly different from Spanish mean at  $p < .05$ .

e. Cannot be reliably estimated, since denominator is not significantly different from zero.

**Table 3.** Status of first job for Bolivians born into Indian and Spanish families, separately for those coming of age before, during, and after the revolution.

	Before the revolution	During the revolution	After the revolution
<b><u>Decomposition: Mean education</u></b>			
Actual Spanish	4.4	4.3	5.0
Actual Indian	0.7	1.5	2.0
Adjusted Indian	4.1	5.5	4.9
Adjusted Indian as % of Spanish	92%	122%	109%
<b><u>Decomposition: Mean status of first job</u></b>			
Actual Spanish	43	37	36
Actual Indian	23	22	25
Adjusted Indian	41	38	43
Adjusted Indian as % of Spanish	95%	102%	119%

Source: Head of Household Survey; N = 368, 169, and 103 for Indians before, during, and after the revolution respectively and 245, 94, and 63 for the Spanish; men under age 20 omitted.

**Table 4.** Indian/Spanish differences compared to black/white differences in the US.

	Education	Occupation	Income
<b>Gap to be explained (percent) [a]</b>			
1. Black versus white in U.S.	17%	27%	29%
2. Indian versus Spanish in Bolivia	73%	60%	40%
<b>Percent of gap explained by class differences [b]</b>			
3. Black versus white in U.S.	47%	52%	55%
4. Indian versus Spanish in Bolivia	101%	88%	88%

Sources: As for table 1.

a. Difference between black and white means, expressed as a percent of the white mean for the U.S.; analogously for Indian versus Spanish in Bolivia.

b. Difference between adjusted black mean (using the methods of table 2) and actual white mean, as a percentage of line 1 for the U.S.; analogously for Bolivia.