GENDER, ETHNICITY AND EDUCATIONAL ATTAINMENT : THE CASE OF INDIGENOUS WOMEN IN LATIN AMERICA

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Introduction

In the literature, many positive benefits associated with women's schooling have been identified. Education increases the value of women's time, raises labor productivity and participation, increases earnings, and leads to a decrease in poverty; education improves the women's and child's health, increases the schooling of children, and reduces fertility (see King and Hill 1993; Subbarao and Raney 1993; Kelly and Elliot 1982; Cochrane 1979; Ram 1982; Smock 1981; Boserup 1970; Selowsky 1983).

Stromquist (1992), however, calls attention to a serious gap in the research associated with gender issues in Latin America. Previous studies have focussed on economic issues such as those related to the labor market, production and gender segregation (Psacharopoulos and Tzannatos 1992a, 1992b); fewer studies have focussed on education and socialization issues. Also, not much documentation exists regarding the economic and social position of indigenous peoples, be they male or female.

While the primary school enrollment rate in Latin America is high, and gender parity appears to have been achieved, significant differences exist with regards to performance. For example, women's dropout and illiteracy rates are higher (Stromquist 1992; CELADE 1992). The illiteracy rate for indigenous people is almost twice the non-indigenous rate (CELADE 1992). Consequently, a strong association between countries with large indigenous populations and high illiteracy rates is suggested (Stromquist 1992: 23-24).

Here the indigenous component is combined with the female

dimension in order to document inequality in terms of educational attainment. Comparisons between indigenous male and females, as well as between indigenous and non-indigenous females are attempted, in an analysis of the roles of gender and ethnicity in society. The empirical analysis relies on individual data from a large-scale, household survey conducted in Bolivia in 1989.

In many countries there exist diverse ethnic groups with very different levels of educational and economic opportunities. The ethnic dimension of social inequality in the developing countries has come to the fore in recent years. The socioeconomic position of indigenous peoples in countries of verseas settlement (the Americas, Australia, New Zealand) and indigenous peoples elsewhere "pushed" to the margins of settlement (Lapps in Sweden, Ainu in Japan) receives very little attention relative to that received by ethnic groups in developed countries. Chiswick (1988) examines the schooling attainment of Amerindians and other ethnic/racial groups in the United States. He finds that indigenous people have among the lowest schooling attainment levels. Maoris, the natives of New Zeland, receive less schooling than whites (Brosnan 1984). Similarly, Gerber (1990) documents the low educational attainment of indigenous females in Canda. In the United States, parental education is found to be more important than family structure in accounting for differences in schooling among whites and indigenous people (Sandefur and Pahari 1989).

Few studies, however, examine the ethnic dimension of inequality in Bolivia, a country with a very large indigenous population. According to a recent national survey, out of a total population of just over five million, more than half is indigenous. In urban areas, 41 percent are indigenous, while in rural areas, over 71 percent are indigenous (CELADE 1992: 34-35). Kelley (1988) analyzes social inequality in rural Bolivia using a 1966 rural survey of about 1,000 male household heads, concentrating on differences in education, occupation and income.The main conclusion is that class background is more important than ethnicity in explaining inequalities. Psacharopoulos (1993) documents the educational and earnings disadvantages of urban indigenous workers. One of the main findings is that younger cohorts tend to be more educated and consequently earn more in the labour market. Neither of these studies, however, focusses specifically on females in Bolivia.

Scott (1992), in an analysis of female labour force participation and male-female earnings differentials in Bolivia, documents that the female illiteracy rate is twice the male rate. Also, women are

found to earn less and are more likely to be poor. Examination of the earnings differential reveals that little is due to education and labor market experience; most is unexplained, most probably due to gender discrimination in the labor market. While Scott's analysis documents that indigenous females are less likely to participate in the labor force, its focus is not on indigenous women.

Several hypotheses regarding the role of ethnicity in society have been put forward, including human capital theory, discrimination theories, socio-economic status/family background theories, theories of internal colonialism and cultural theories.

According to the human capital approach, schooling contributes to individual productivity which, in turn, leads to higher individual earnings (Psacharopoulos and Woodhall 1985). Therefore, individuals will demand more schooling. Other explanations of outcomes are concerned with the productivity of schooling. That is, for the same level of schooling and the same level of ability, different outcomes can result due to the application of "skills" in the labor market. Individual skills may be developed both in and out of school. Group variations in rates of return in schooling arise from differences in the ability to convert the schooling process into earnings (Chiswick 1988: 590). This may be a consequence of parental investments in the home-produced components of child quality, although one can think of many other reasons. Further, a positive relationship between educational attainments across generations reflects the intergenerational transmission of human wealth. In the case of indigenous people, if parents have low levels of schooling and other forms of human capital, then this will be reflected in the human capital acquisition of their childern.

Differential outcomes, of course, may be due to outright discrimination against ethnic, minority or indigenous groups. Discrimination against ethnic groups may work to deleteriously affect an individual's access to schooling, the quality of schooling that individual receives and labor market performance. This leads to lower schooling levels, lower returns to schooling, lower earnings and, ultimately, higher levels of poverty.

Theories of internal colonialism, which have been applied to indigenous people in all parts of the world, including Australia (Welch 1988), the United States (Jensen 1984; Jorgenson 1977; Jacobson 1984), Mexico (van Ginneken 1980), Ecuador (Burgos Guevara 1970) and Peru (van den Berghe 1992), postulate that the conditions of colonialism can exist within a nation-state when one

group dominates a previously independent nation within its borders. In such a case, a dual economy, with a dual wage and labor market, is in place. In this situation, indigenous people would be expected to invest less in education.

Assimilation theory, or the industrialization hypothesis, suggests that divisions based upon race and ethnicity will whither away in the long run in modern societies. This outcome is supposed to reflect modern industrial organization, where social mobility is based upon achieved, rather than ascribed, status. Also known as acculturation theories, they predict that inequality based on "traditional" criteria are being replaced by rational or legal criteria, and that "particularistic" criteria are being replaced by "universalistic" criteria such as education and ability (Weber 1947; Parsons 1954). The implication is that the significance of race and ethnicity will decline as society develops.

Most theories predict that discrimination will eventually decrease in society in the long run for a variety of reasons. These include the inefficiency associated with discrimination from the perspective of profit-maximizing employers, the process of assimilation of ethnic groups, and the parity ethnic groups will achieve in terms of productive characteristics such as education, training and experience with the expansion of schooling. Free markets and access to quality education should lead to less discrimination over time.

Recent research has documented that indigenous people receive lower returns to their schooling investments (Psacharopoulos and Patrinos 1994). It therefore follows that they would invest in less schooling. Women would also be expected to invest in less schooling given the many barriers associated with their participation in the formal education system. However, does it follow that indigenous females would have the lowest educational attainment? Is it gender or being indigenous that influences overall schooling investments in Bolivia? Logic would dictate that indigenous females would have the lowest educational attainments in Bolivian society. However, there are conflicting signals from the literature.

While it has been argued that in rural areas where indigenous populations are not integrated into the education system because of poverty or language barrier, overall schooling attainment is low (Bustillo 1993), it is also noted that in many Latin American countries indigenous cultures had certain egalitarian attitudes toward women. Peruvian women during the Inca period, for exam-

ple, engaged in agricultural and other productive work on equal terms with men. Some of these social patterns are believed to persist in today's peasant communities (Bustillo 1993: 176). The present socio-economic position of females, both indigenous and non-indigenous, is believed to be the result of the European conquest, prior to which women were believed to have had equality with men (Galvez Barrera 1980). Among the Bolivian Aymara, the economic contribution and value of labor of both genders is believed to be equal (Collins 1983).

Cultural theories emphasize "traditional" indigenous peoples' use of the labor force only as a means to achieving a specific, short term end, such as obtaining cash to finance a lengthy period out of the labor market (Sandefur and Scott 1983: 49). The reasons put forward for this behavior include a desire to work at one's own pace and the importance of kinship and community in Amerindian society. Traditional indigenous people see themselves as members of communities first, and are driven more for the good of the community than for individual achievement. The more traditional an indigenous individual is, the less schooling she will attain; higher levels of schooling are expected to lead to a decline in traditional activities (Stabler 1989). Many Aymara who now live in urban environments maintain ties with the rural communities to their mutual advantage (Hardman 1981: 3). Indigenous people who reside in the cities normally maintain their rural ties and landholdings (Saavedra 1981: 21). And while the Aymara value education highly, which meshes with their traditional values of individualism, hard work and communal and private advancement (Hardman 1981), open competition and forceful self-expression, however, are missing from their culture (Saavedra 1981).

All this may lead one to argue that for 'indigenous people schooling is less necessary for economic ends. Economic security is attained through family and community. Indigenous people place considerable importance on the kinship system, or *comuneros (IFAD* 1992). Economic security and well-being are provided to some extent through kinship-based exchange relationships such as the institution of *compadrazgo* (Collins 1983).

2. Data and Methods

This paper uses data from the Bolivian *Encuesta Integrada de Hogares* (EIH)conducted in 1989 by the *Instituto Nacional de Estadistica* (INE). The survey covers 37,864 individuals living in urban centers with 10,000 or more inhabitants. Of these respon-

dents, 29,970 sample cases exhibited the two necessary criteria for this analysis : positive per capita household income and language identification. The sample of indigenous individuals was determined according to the language one usually speaks *(Que idioma(s) habla habitualmente)*; thus language spoken is the basis for defining ethnicity in this paper. This is an important indicator given that Spanish is the dominant language , but Quechua, Aymara, Guarani and other "dominated" languages are spoken on a regular basis by a large portion of the population (Plaza Martinez 1990). The survey did not query the self-perception of respondents with respect to indigenous origins. The use of language to determine ethnicity is an accepted criterion in theoretical and demographic research (CELADE 1992: 20). In fact, Bolivia is a country with more than 30 languages, 7 of which are spoken by at least 10,000 persons (Hornberger 1992: 191). Since individuals are self-identifying with a particular language or languages, it could be that some indigenous people are classified as Spanish-speaking monolinguals in the analysis, either through concealment of their indigenous origins, or because they do not speak a non-spanish language. This , however, is not as serious a problem as it might first appear. These indigenous individuals who choose to identify solely with Spanish speakers may be more assimilated than those who still speak indigenous languages on a regular basis. Moreover, schooling has had less of a socialization effect on indigenous people than most people believe. The reasons for this are the low school participation rates and the high dropout and repetition rates at the primary schooling level (Hahn 1991: 96; Patrinos and Psacharopoulos 1994a; Lopez and D' Emilio 1992). Also, many Spanish speaking indigenous people have difficulty being understood by anyone other than an indigenous person (Lewellen 1978: 142). Given indigenous peoples' strong sense of identity and cultural attachment, maintained in large part by language use, then language is a reliable indicator of ethnicity (Brascoupe 1992; Modiano 1988).

Two samples are generated from the survey: one consists of all those over 15 years of age and out of school; the other is a youth sample, covering all those between the age of 7 and 14, both in and out of school. The two samples constructed from the household survey are used to examine gender and ethnic differences in schooling attainment measured by level and by average years of completion. Also, the combined ethnic and gender differences are documented. Models to explain schooling attainment and illiteracy/dropout are estimated using multivariate analysis. In these

models simultaneous control for gender, ethnicity and age are implemented. The youth sample is used to analyze schooling attainment and participation/enrollment. The results are used to predict the probability of enrollment based on gender and ethnicity.

The parents' skills and educational attainment is expected to be reflected in the schooling and other human capital characteristics of their children, resulting in the intergenerational transmission of wealth (Chiswick 1988). Outright discrimination based on ethnicity is another possibility; as are institutional factors: schooling in Bolivia may not account for the large indigenous population that does not know Spanish. The youth sample (aged 7 to 14 years) was used to examine schooling attainment and attendance in order to shed some light on these explanations of ethnic differences in socio-economic outcomes.

The definition of indiginous people used here includes both monolingual and bilingual (indegenous and Spanish language) individuals. Only 1.2 percent of the sample are monolingual indigenous speakers, while 26.4 percent are bilingual indigenous--speaking Spanish and an indigenous language. Due to small sample size of the monolingual indigenous population, monolingual and bilingual indigenous individuals are grouped together and simply called " indigenous."

3. Results

Table 1 shows the distribution of educational level by gender. A greater percentage of females have incomplete primary schooling, while a greater percentage of males have a university education. Table 1 also documents the distribution of educational level by ethnicity and gender. The majority of indigenous males and females have less than complete primary schooling, suggesting that many are illiterate. A very high percentage of non-indigenous males have university education (11 percent). A high proportion of non-indigenous females have primary and secondary complete, in contrast to the situation for both indigenous males and females. Table 2 presents average years of schooling by ethnicity and gender. Overall, indigenous people have almost four years less schooling. The difference is greater for indigenous females , who average only five years of schoolng, suggesting that they are the most disadvantaged in Bolivian society.

Figure 1 highlights the relationship between years of schooling attained and ethnicity by birth cohort, presenting data from the 1989 household survey. The figure shows that the average schooling

level of non-indigenous males increased until about the 1949-53 cohort, at which time the rate of increase slowed. For non-indigenous women, their schooling level increases until about the 1959-63 cohort. The average schooling level of indigenous males increases continuously over time, with a sharp rise from 1959 onward. For indigenous women, the increase is even more dramatic, particularly for the 1949-53 and 1954-58 cohorts, born just after the 1952 Revolution.

Figure 2 shows the relationship between secondary school completion rates and ethnicity and gender by birth cohort. A similar pattern to that documented for years of schooling attained is apparent . There have been dramatic increases in schooling attainment over time for all groups. However, while indigenous males and females have improved their performance considerably over time, they remain far behind the non-indigenous male and female cohorts.

In order to simultaneously control for gender, ethnicity and age, multivariate regression analysis is used. Table 3 presents the results obtained from fitting models used to estimate the determinants of years of schooling attained and being a primary school dropout (in effect, illiterate). The determinants of schooling attainment are estimated using ordinary least squares regression analysis. All three variables in the regression are statistically significant. Age has a negative effect on schooling attainment, implying that younger cohorts attain more schooling over time, as expected. Males, too, have an advantage; attaining about 144 percent more schooling. Being indigenous has a negative effect on schooling attainment associated with about a 285 percent decrease in schooling attainment. Therefore, all other things being equal, being indigenous has a stronger negative effect on schooling attainment than does gender.

Table 3 also presents the results of estimating the determinants of being a primary school dropout using logistic regression analysis. The dependent variable in this case being dichotomous: either one successfully completed six years of schooling, or one did not. In this model, age has a positive effect: younger cohorts are more likely *not* to have dropped out of primary school, as should be expected. Males again have an advantage; they are less likely to have dropped out of primary school. Similarly, being indigenous has a large positive effect: indigenous individuals are more likely to have dropped out of primary school. The effect of being indigenous is stronger than the effect of being female in predicting primary school dropout.

The logit results presented in Table 3 are used to estimate the predicted probabilities of being a primary school dropout by gender, ethnicity and age. The simulation results are presented in Table 4 and the following is apparent. The predicted probability of dropout increases with age, while females and indigenous individuals have a higher probability of dropout. The lowest probability of dropout is for non-indigenous males 15 years of age (10 percent). The highest probability of dropout is for indigenous females 50 years of age (80 percent). It is also determined that non-indigenous females fare better than indigenous males.

3.2 Youth Sample

Average years of schooling attainment was estimated using the youth sample still enrolled in school. Table 5 presents mean years of schooling by ethnicity and gender. It highlights the fact that non-indigenous children receive more schooling than indigenous children regardless of gender. In order to examine more carefully the determinants of schooling attainment of Bolivian children, multivariate regression analysis is employed using a model that simultaneously controls for gender, ethnicity, age, family background, household wealth, residence and other factors. The results are reported in Table 6.

Age, of course, has a very large effect on the schooling attainment of Bolivian children. Unlike the adult sample, gender is an insignificant factor in explaining the schooling attainment of Bolivian youngsters. Family background, however, is important; the schooling of the mother has a positive and significant effect. Family income, however, is an insignificant explanatory variable; this finding is reflected in other studies (see, for example, Patrinos and Psacharopoulos 1994a; Levison 1991). Other household wealth indicators do have a significant impact; these include the number of siblings, which has a negative impact; the number of rooms in the household, the presence of running water, and a kitchen in the household all have a positive impact on child schooling attainment. The presence of a male household head is found to have a positive effect on schooling attainment, as does private school attendance. Most importantly though, being indigenous has a very large, strong, negative effect on schooling attainment. This tends to prove that ethnicity is more important in explaining schooling attainment than is gender at least for the in-school youth sample.

Using the entire sample of 7 to 14 year-olds, the schooling participation/enrollment decisions of Bolivian chidren are analyzed.

In this analysis, and attempt is made to determine what the characteristics are of those attending school. Table 7 presents the overall characteristics of school attendance by ethnicity and gender. Note the high overall participation rate. This, of course, reflects the fact that the sample is urban. Overall, the participation rate is slightly higher among males. Non-indigenous children attend more frequently (97 percent) than do indigenous children (90 percent). Among non-indigenous children, males and females participate equally (97 percent). However, among indigenous children, males attend school more frequently (93 percent) than do females (88 percent).

Using logistic regression analysis, and a model similar to the one presented in Table 6, the determinants of the school participation for the youth sample are estimated. The results are presented in Table 8. Gender in this case is a significant factor; males are slightly more likely to participate in schooling. Age has a negative effect on participation, since as children grow up, the more likely they are to become involved in other activities, such as employment (see Patrinos and Psacharopoulos 1994b). While family income is insignificant and the effect of mother's schooling is tiny, other household wealth characteristics are found to be significant in predicting school enrollment. The presence of a kitchen in the household has a significant and positive effect on school participation, while the presence of a male household head has a surprisingly negative effect. The most important factor in determining participation in schooling is ethnicity; indigenous children are considerably less likely to be enrolled in school.

The logic results presented in Table 8 are used to estimate predicted probabilities of school enrollment. The simulation results are presented in Table 9. It is evident that non-indigenous males have a considerably higher enrollment rate (98 percent) than any other group, with non-indigenous females close behind (97 percent). Indigeneous boys have a much lower participation rate (89 percent). However, the lowest predicted probability of school enrollment is experienced by indigenous girls (84 percent).

4. Discussion

In this paper, statistical evidence regarding the effects of gender and ethnicity on educational attainment is presented using Bolivian women as a case study. Comparisons between indigenous males and females, as well as between indigenous and non-indigenous females are attempted. The data show that there has been a

GENDER, ETHNICITY AND EDUCATIONAL ATTAINMENT   11

dramatic increase in the schooling attainment of all gender and ethnic groups in Bolivia over time. For indigenous women, the increase is even more dramatic, particularly for the 1949-53 and 1954-58 birth cohorts. Multivariate analysis shows that being indigenous has a stronger negative effect on schooling attainment than does gender, and that the effect of being indigenous is stronger than the effect of being female in predicting primary school dropout, all other things being equal. For the in-school youth sample, multivariate analysis tends to prove that ethnicity is more important in explaining participation in schooling and schooling attainment than is gender.

The main conclusions, therefore, are that females are disadvantaged in terms of schooling attained and that the indigenous population is even more disadvantaged. It therefore follows that the most disadvantaged group in Bolivia are indigenous females. The disadvantages of adults are reflected in the schooling attainment and participation/enrollment of children. Indigenous children have less schooling and are less likely to be enrolled. The most disadvantaged in this respect, however, are indigenous girls.

The data support the model that says that since indigenous people receive lower returns to their schooling investment, then it follows that they would invest in less schooling.Women also receive lower returns to their schooling investment in Bolivia, so it follows that they have less schooing than males. Therefore, indigenous women are particularly disadvantaged, contrary to the strand of the literature that postulates an egalitarian structure among indigneous people. However, the sample used in the analysis is urban only, whereas the relationships discussed in the literature may apply only in rural areas.

The low schooling attainment of indigenous women--and children--, therefore, is due either to discrimination, or to something in society that prevents indigenous women from applying their "skills" in the labor market. Discrimination against indigenous women, or institutional factors, may be preventing the dissipation of the significance of race and ethnicity, even as schooling expands and society develops.

But is there discrimination against indigenous children and how do the educational institutions contribute to it ? Is there direct evidence of such discrimination? The data analyzed in this study do not allow one to state conclusively that discrimination exists, other than to say that , all other things being constant, indigenous

people (and girls and women, but especially indigenous girls and women) receive less schooling. But other sources do indicate direct discrimination. Indigenous communities face serious difficulties when attempting to establish schools in their communities. Indigenous people who complete their secondary school studies find it very difficult to enter the university, and those who do enter the university often fail and return to their communities or drop out and remain in the urban slums (Medina 1977). Part of the problem is discrimination, and part of the problem is the low quality of schooling that indigenous people receive. But language is also an issue.

Most indigenous children begin their schooling in a language they do not understand. Even in rural areas teachers are required to teach in Spanish even though most indigenous children only speak Quechua or Aymara. While there are some bilingual schools in Bolivia, clearly there is a need for expansion (Cummings and Tamayo 1994). Even in urban areas, the indigenous language-speaking child is at a clear disadvantage (Patrinos and Psacharopoulos 1994a). While the lack of bilingual schools may not be a conscious decision , it nevertheless represents a severe handicap for indigenous children.

Bilingual schools, however, are under development and expanding in Bolivia, as well as in other Latin American countries with large indigenous populations (see, for example, Cummings and Tamayo 1994). These schools are also reaching urban populations in La Paz. But most programs are in need of more funding.

This paper is limited in that it covers only urban centers, while it is known that the majority of indigenous people reside in rural areas. Future research should seek to replicate the present analysis with national data that includes the rural sector. Another limitation is that the child sample is limited to those children currently attending school. However, it is known from other surveys that many working children in urban Bolivia are enrolled in school (Myers 1989:330). The duel school-work activities of Bolivian youth should be considered and controlled for empirically in future research. The absence of family background data for the adult sample is an other limitation. The family background of the youth sample, however, is controlled for, but it did not prove to be more important than ethnicity, again showing that ethnicity must be taken into account when analyzing poverty and human resource issues in countries with large indigenous populations.

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Table 1
Educational Attainment by Gender (percent)

Level	Males	Females
Incomplete Primary	32.5	44.3
Primary	28.3	24.5
Secondary	30.4	28.2
University	8.8	3.0

Level	Indigenous	Non-Indigenous
Males		
Incomplete Primary	51.3	23.2
Primary	23.7	30.6
Secondary	21.1	35.0
University	3.9	11.2
Females		
Incomplete Primary	69.2	32.1
Primary	14.8	29.6
Secondary	14.6	35.5
University	1.4	3.8

Source: *Bolivia Household Survey, 1989.*

Table 2
Mean Years of Schooling by Ethnicity and Gender

Language	Years of Schooling	Sample Size
Indigenous	6.2	7,567
Male	7.4	3,448
Female	5.2	4,120
Non-Indigenous	9.6	14,781
Male	10.1	7,008
Female	9.1	7,773
Overall	8.4	22,348
Male	9.2	10,455
Female	7.8	11,893

Source: *Bolivia Household Survey, 1989.*

Table 3
Determinants of Schooling Attainment

Independent Variable	Dependent Variable	
	Years of Schooling(OLS)	Primary School Dropout(LOGIT)
Age	-0.071 (40.4)	0.011 (43.8)
Male	1.442 (26.7)	-0.148 (19.8)
Indigenous	-2.850 (49.0)	0.307 (40.4)
Constant	11.190	-0.559
N	22,348	22,348
R/Chi-Square	0.205	5077.8
Variable Means		
Dependent	8.5	38.8
Age	34.7	34.7
Male	46.8	46.8
Indigenous	33.9	33.9

Source: *Computed from the 1989 Bolivia Household Survey.*

Notes :   Numbers in parentheses are t-ratios. All coefficients
are statistically significant at the 1 percent level or
better. Logic coefficients are partial effects.

Table 4
Predicted Probability of Not Completing Primary
School Level (percent)

Age	Males		Females	
	Indigenous	Non-Indigenous	Indigenous	Non-Indigenous
15	29.3	10.2	43.6	17.5
20	34.5	12.6	49.6	21.3
25	40.1	15.6	55.6	25.6
30	46.0	19.0	61.4	30.4
40	58.0	27.5	72.1	41.5
50	69.1	38.0	80.7	53.4

Source : *Computed from the results Presented in Table 3.*

Table 5
Mean Years of Schooling by Ethnicity and Gender:
In-School Youth Sample

Language	Males	Females	Overall	Sample
Indigenous	4.01	4.10	4.06	783
Non-Indigenous	4.32	4.22	4.27	5,619
Overall	4.29	4.21	4.25	6,402
Sample Size	3,247	3,155	6,402	

Source : *Bolivia Household Survey, 1989.*

Table 6
Determinants of Schooling Attainment: In School Youth
Sample (OLS Regression)

Variable	Coefficient	Mean
Age	0.859	10.24
	(151.9)	
Male	0.003*	0.51
	(0.1)	
Mother's Schooling	0.031	7.33
	(3.4)	
Indigenous	-0.202	0.10
	(4.7)	
Number of Siblings	-0.034	4.00
	(4.3)	
Number of Rooms	0.047	3.13
	(6.8)	
Running Water	0.09	0.47
	(3.3)	
Kitchen	0.124	0.80
	(3.8)	
Region		
Santa Cruz	0.074	0.24
	(2.2)	
Beni	-0.242	0.03
	(3.3)	

Tarija	0.038* (0.5)	0.02
Chuquisaca	0.205 (2.8)	0.03
Potosi	0.090* (1.5)	0.05
Oruro	0.153 (3.4)	0.10
Cochabamba	0.234 (6.4)	0.17
Private School	0.155 (4.4)	0.25
Family Income	0.000 (0.4)	708.5
Male Household Head	0.133 (3.0)	0.91
Constant	-5.124	
N	5,616	
R^2	0.813	

Source: *Computed from the Bolivian Household Survey, 1989.*

Notes :   The dependent variable is years of schooling attainment. Numbers in parentheses are t-ratios. All coefficients are statistically significant at the 5 percent level or better, expectwhere indicated by *

Table 7
Participation in Schooling by Ethnicity and Gender (percent)

Language	Males	Female	Overall	Sample
Indigenous	92.6	88.5	90.4	1,154
Non-Indigenous	97.1	97.2	97.2	7,334
Overall	96.5	95.9	96.2	8,488
Sample	4,316	4,172	8,488	

Source: *Bolivia Household Survey, 1989.*

Table 8
Determinants of Schooling Participation: Youth Sample
(LOGIT Regression)

Variable	Coefficient	Mean
Age	-0.006	10.35
	(6.4)	
Male	0.013	0.51
	(3.1)	
Mother's Schooling	0.003	7.24
	(3.8)	
Indigenous	-0.053	0.11
	(8.8)	
Number of Siblings	0.002	3.86
	(1.9)	
Number of Rooms	0.002*	3.23
	(1.5)	
Running Water	0.007*	0.48
	(1.4)	
Kitchen	0.032	0.80
	(6.5)	
Region		
Santa Cruz	-0.032	0.24
	(7.5)	
Beni	-0.040	0.04
	(3.6)	
Tarija	-0.033	0.02
	(2.2)	
Chuquisca	0.008*	0.03
	(0.5)	
Potosi	0.014*	0.05
	(1.0)	
Oruro	-0.004*	0.09
	(0.4)	
Cochabamba	-0.007*	0.17
	(1.0)	
Family Income	0.000*	1977.9
	(1.2)	

Male Household Head	-0.012 (1.6)	0.89
Constant	0.152	
N	6,924	
Mean Dependent Variable	0.969	
Chi-Square	1626.3	

Source : *Computed from the Bolivian Household Survey, 1989.*

Notes: *The reported coefficients are the partial effects. The dependent variable is years of schooling attainment. Numbers in parentheses are t-ratios. All coefficients are statistically significant at the 5 percent level or better, except where indicated by*.*

TABLE 9
Predicted Probability of Not Being Enrolled in School: Youth sample

Age	Indigenous	NonIndigenous	Overall
Males	89.0	97.9	97.5
Females	83.8	96.8	96.1
Overall	86.6	97.4	96.9

Source: *Computed from the results presented in Table 8.*

Figure
Educational Attainment by Ethnicity and Birth Cohort
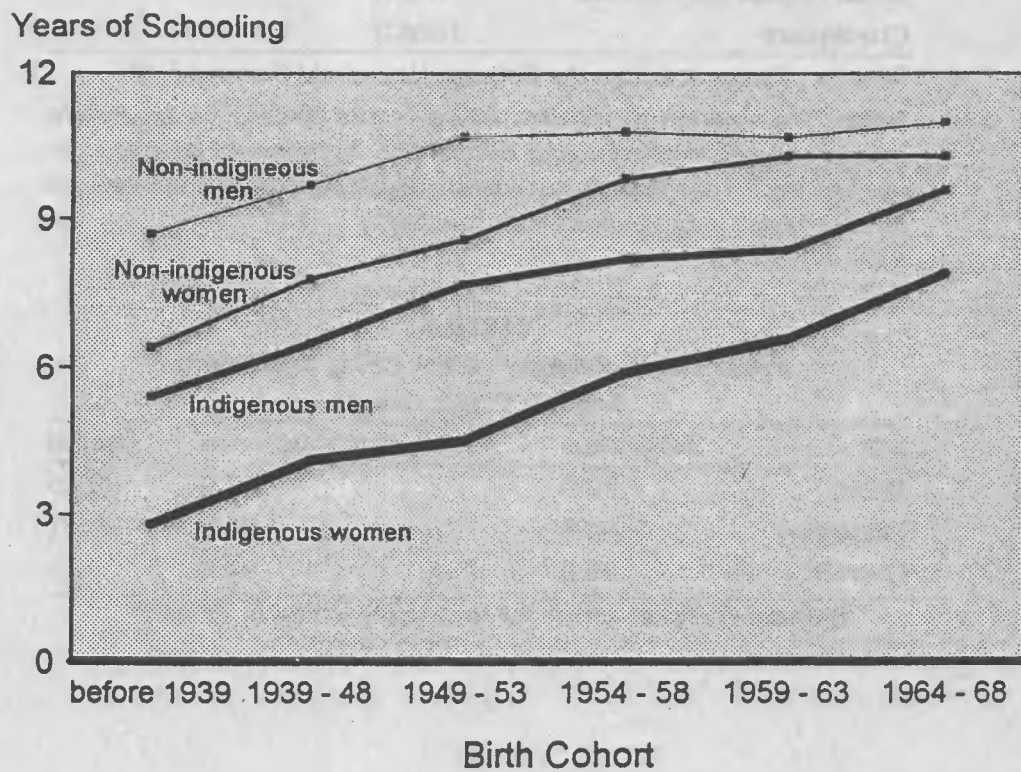
Years of Schooling

Birth Cohort

Figure 2
Secondary Schooling Completion Rates by
Ethnicity and Birth Cohort