

# NOT JUST LUCK: THE EMERGENCE OF A MERIT-BASED SYSTEM OF STRATIFICATION IN RURAL ETHIOPIA

*Lisbeth Trille G. Loft, Carrie E. Spearin, and Dennis Hogan, Brown University*

*Tefera Belachew, Fasil Tessema, Abebe Gebremariam, Jimma University*

*David Lindstrom, Brown University*

## Abstract

This paper examines the emergence of a merit-based system of stratification in a society in which direct inheritance of occupation and ascriptive bases of achievement have been the major mechanisms for occupational attainment. This shift is fostered by the emergence of a primary and secondary school system in the Jimma Zone of western Ethiopia. This system will, for the first time, make feasible a system of occupational attainment in which secondary education and post-secondary education, along with technical training, are the basis for hiring. This cohort is uniquely placed in Ethiopian history. The educational opportunities, combined with exposure to outside media and nontraditional ideas have been accompanied by strong movements toward gender role equality, autonomy in decision making, and a sense of agency in the life course that was previously lacking. We find that merit is, indeed, regarded as the most important factor in occupational attainment, followed by social network assistance, and luck. Ascribed religious and ethnic identities are no longer regarded as very important for occupational attainment. There is evidence of credentialism among these adolescents, with higher level of education than held by the incumbents seen as necessary for jobs. We also find that adolescents who think that merit is important in occupational attainment have plans to complete additional education.

This research was supported by the Mellon Foundation, Packard Foundation, Hewlett Foundation, and Compton Foundation.

## INTRODUCTION

Ethiopia accounts for the largest youth population in Sub-Saharan Africa. With a population estimated to be well above 84 million (U.S. Census bureau, IDB 2009), more than 17 million young people now age 10 to 19 years are beginning their transitions to adult life. Ethiopia has struggled over the past two decades to establish primary and secondary schools in cities, towns and rural areas outside of Addis Ababa. At the same time, the lack of employment opportunities for Ethiopian young people is among the critical challenges facing the country (Guarcello et. al 2006). In Ethiopia the age for leaving school and entering formal or informal employment is low, and it is relatively common for adolescents to be workers – especially in rural settings. Nationally, the trend has been toward later ages at events marking the transition to adulthood. Among persons age 12 to 25, 34 percent were enrolled in school at age 15 in 1984, compared to 73 percent in 2004; 23 percent were not working in 1994 compared to 39 percent in 2004; and the ever-married declined from 9 percent to 2 percent among boys and from 31 percent to 8 percent among girls (Admassu 2010).

The adolescents examined in this paper are from the Jimma Zone of Ethiopia, and are between age 13 and 17 years. Among the members of this cohort, 86 percent of boys and 82 percent of girls in Jimma Town are enrolled in and regularly attend school, and 77 percent of boys and 73 percent of girls in rural areas are enrolled in and regularly attend school. These enrollment rates do not mean that persons these ages will finish secondary school since the age at the start of education shows great variability and there frequently are breaks in school attendance, so that individuals of the same age may have much different levels of education. Nonetheless, these girls and boys have very high expectations about their ultimate educational attainments, with four-fifths expecting to get post-high school education. Of course, given the

few centers of advanced training and education available to them, and the difficulties many will face in completing high school, most members of this cohort will not be able to attend post-secondary education. However, they have ambitions to do so. These adolescents (both boys and girls) believe they have considerable autonomy from their parents in regard to education and the choice of occupation. The one exception is rural boys only half of whom expect to choose their own occupations; these are young men who believe they will be required by their families to become peasant farmers (Policy Brief 19). In regard to marriage about half say they will choose their own spouse, about a quarter say they could marry someone their parents do not approve of, and 90 percent of boys and girls say they could disapprove of parents' choice of spouse for them if their parents in fact tried to find them a spouse (Policy Brief 10). They also have egalitarian gender role ideologies, although 19 percent of boys in small towns and rural areas cling to more traditional expectations of their wives.

This is a transformative cohort for Ethiopian society, being the first to go onto secondary education in significant numbers, later ages at employment and marriage, and holding modern attitudes about individual decision-making and gender roles (Buhman and Hannum 2001). The question addressed in this research is whether this cohort sees a transformation in the way economic positions are attained, with merit increasingly important and ethnicity, religion, and connections being less important.

## RESEARCH SITE

Ethiopia is struggling to transform its economy from traditional agriculture to one that includes an export-oriented agricultural sector, and to develop textile and light manufacturing industries. Currently the majority of jobs as teachers, office workers, and administrators are in the

government sector, with an emergent private sector that includes services (such as private and technical schools, physicians and hospitals, computer sales and support), and production.

Numerous programs for social and economic development are underway in the Jimma area, including road improvements, urban infrastructure projects, and commercial and residential real estate development together with major expansion of the regional university. These changes, combined with the government and donor led development projects and the slow, but gradual privatization of the economy, have set the groundwork for the emergence of a more diverse economy with a wider variety (though still not a sufficient number) of employment opportunities than in the past. These young persons can change the education and employment opportunities available to them by migration to Addis Ababa or other large cities. Although educational and economic opportunities remain overwhelmingly local, a nascent national economy is emerging.

Educational and economic opportunities in the past were quite limited and allocated largely on the basis of an ascriptive stratification system in which the dominant ethnic (Amhara) and religious (Orthodox Christian) groups were favored. More recently, in the Oromo region including Jimma, there has been an emergence of Oromo in key political and economic positions. These extensive changes in social and economic organizations, potential changes in the system of stratification, and the expansion of education during an early stage of economic development represent a constellation of changes that create an entirely new framework for the transition of young people from youth to adulthood. Defined life course pathways are yet to emerge; young people in this cohort are creating their own routes to adulthood. The family resources they bring to these decisions, their ascribed characteristics (gender, religion, ethnicity), their own educational experiences, and their aspirations for the future are all critical factors that transform the transition to adult life. The suddenness of these changes means that young men

and women now making the transition to adulthood are a historically unique cohort, defining new life course patterns for themselves and establishing benchmark pathways for future cohorts.

In this research we examine this transformation in the education and employment spheres investigating: (a) the extent to which adolescents view occupational attainment as the result of a meritocratic process rather than due to ascribed characteristics, connections, or good fortune; (b) how community, family, personal factors, and previous work experience affect adolescents' attitudes towards these bases of occupational attainment; and (c) whether adolescents who believe that merit is important for occupational attainment are more likely to plan to obtain post-secondary education.

Ethiopia's economy is based on agriculture, accounting for almost half of GDP and 60 percent of exports. Eighty percent of the labor force is engaged in agriculture, much of which is of a subsistence nature, and the agricultural sector often suffers drought and is in general subject to poor cultivation practices. Just 8 percent of workers are employed in industry and the remaining 12 percent are occupied in government and services (Saint 2004). Yet the population we study views primary school education as critical for all occupations, including farming. Secondary school and vocational training are seen as critical for government jobs and for professional positions (Policy Brief 15). The young persons we study also seem undeterred by the present state of the job market—they see themselves as preparing for the most desirable positions and expect to find jobs available. Understanding the extent to which they expect to find these jobs through merit, social networks, ascribed characteristics, or good fortune is the focus of this paper.

Moreover, Ethiopia is an extremely ethnically diverse nation. According to the 2007 census, the Oromo are the largest ethnic group in Ethiopia (34%), followed by the Amhara

(27%), and the Tigray (6%), with more than 70 other ethnic groups making up the remainder. Traditionally, the Amhara are known to be farmers; however, the Amharic language is the language of federal authorities and economic exchange. With regard to religion, 44 percent of Ethiopians are Orthodox Christian, 34 percent are Muslim, and 19 percent are Protestant. Traditionally, ethnicity and religion are major dimensions of stratification, with the Amhara and Orthodox Christians in favored positions in government and the economy.

In Ethiopia, as in many other developing settings, there is a traditional cultural scheme that has positioned people of certain religion ethnic origin or regional residency within particular occupational categories. For example, in the Jimma Zone Muslim people of Oromo origin are the dominant group in peasant agriculture; these rural residents have less access to educational and non-agricultural employment activities. They peasant farmers do not control their land or land tenure arrangements. Post-secondary education among the Oromo traditionally has been rare; when Oromo were able to get post-secondary education in the past, it often was through the sponsorship of the Protestant Churches. These traditional educational and occupational practices may very well impact how ascribed personal traits are evaluated, with the Oromo and Muslims believing that the Amhara and Orthodox Christians have an advantage. However, with educational attainment on the rise, we anticipate the current cohort of adolescents will, to some extent, reject these ascribed bases of attainment and adopt new belief systems in which human capital is seen as essential to occupational success.

Before moving to a description of the data and analytical strategy, a few notes on some particularities of the Ethiopian education, labor market, gender structures, together with the rural-urban contrasts are needed, since local and contextual factors very likely heavily influence adolescents' belief systems regarding education and occupational entry. Overall boys stay in

school longer, begin the transition to work at a later age, and marry later than girls. This is true for both rural and urban areas, but especially among the urban population (Guercello et al 2006; Admassu 2010). Whereas unemployment seems to be the dominant problem in urban areas, limited formal schooling, poor school quality, and underemployment in the agricultural sector seem to be the challenges in rural areas (Admassu 2010). These divergent structures may in turn be reflected in how urban and rural boys and girls evaluate specific personal traits important for occupational attainment.

## DATA

This paper uses data from the first round of the Jimma Longitudinal Family Survey of Youth (JLFSY) collected in 2005. The JLFSY is a joint effort of the Department of Population and Family Health at Jimma University and the Population Studies and Training Center at Brown University, and includes specialists in epidemiology, community health, biostatistics, demography, and sociology. The survey is representative of Jimma Town (about 160,000 persons in 2006), three small towns (with populations of about 5,000 each) located approximately 25 kilometers from Jimma Town, and nine adjacent 'Peasant Associations'. These rural sites represent diverse agro-ecological zones and include areas where many households are engaged in cash cropping, primarily coffee and chat (fresh leaves containing a mild stimulant, which are chewed and spit out), as well as areas focusing primarily on production of fruits and staple crops. The stratified sample includes 3,700 households with 2,100 randomly selected boys and girls ages 13 to 17 years, yielding about 700 adolescents each for Jimma Town, the small towns, and the rural areas.

Trained interviewers fluent in the Amharic and Oromiffa languages collected questionnaire data. The terrain of the rural areas is typically accessible only on foot. To ensure the safety of the interviewer teams and to gather them together to meet with the supervisors it was decided to have the interviewers return each night to the towns. Therefore, only households in the Peasant Associations that are within 10 kilometers of the small towns were sampled. Information on local community infrastructure was provided by an aggregation of the household interviews. Household heads were interviewed about household membership and structure, family resources, social and economic characteristics of household members, food security, social networks, and aspirations for their children. Adolescents were directly questioned about their social and demographic characteristics, education and social involvement, life expectations, occupational expectations and experiences, illness and health behavior, parenting and breastfeeding knowledge (for girls), and nutrition and eating habits.

Several advantages are associated with using the JLFSY data for this study. First, the questionnaire was designed specifically to allow the identification of four types of traits that may be associated with educational and employment opportunities: (1) *merit* which includes three items measuring education, vocational training and the ability to speak Amharic, (2) *ascribed* which includes two items for ethnicity and religion, (3) *social networks* which includes two items asking about support from relatives, friends, other adults with connections to the respondents, and (4) *good luck* which includes one item that taps general notion of ‘good luck’. Secondly, it is expected that the four traits would be of differing importance for occupations in the informal and formal sectors; the JLFSY data allow us to examine four different occupations, namely farmer, kiosk owner, school teacher, and office worker. While this is a limited range of occupations, it captures the diversity of occupations to which the population of Jimma youth is



exposed. Third, the JLFSY questionnaire includes a section on education and social involvement and here asks the respondents what is the highest grade they expect to complete. This lets us analytically link the perceived importance of personal and family characteristics, merit, connections, and local environments to adolescents' views about occupational attainment and the role of education in obtaining a good job.

### *Variables*

Independent variables include family resources (education and occupation of parent); residence (urban/small town/rural), age, sex, ethnicity (Amhara, Oromo, other); paid work experience (yes/no), and whether the respondent wants a professional job (yes/no) (see Table 1).

When respondents were asked how important a specific trait was for each occupation, girls were asked to think about women in those occupations, and boys to think about men in those occupations. Respondents' evaluations of how important each of the four traits (merit, ascribed, social networks, and good luck) are to become a farmer or farm worker, a kiosk owner, a school teacher and an office worker are all measured on a scale from 1 to 4 in which 1 is 'not important', 2 is 'not very important', 3 is 'important', and 4 is 'very important'. Principal component analysis is used to extract factors from the multiple items for the traits. From these initial dimensions one principal component is calculated and a corresponding factor score is obtained. Factor scores are linear composites formed by standardizing each variable to zero mean and unit variance, and then weighting with factor score coefficients and summing for each factor (Hamilton 2006:323).

After inspection of the distribution of the population on the survey items and the factor scores, we decided to divide the factor score variable into a binary variable equal to 0 if the score

falls within the bottom 50 percent of the distribution and equal to 1 if the score falls into the top 50 percent. Scores related to these evaluations are contained by 16 factors (each type of trait by each occupation) where 12 are generated using principal component analysis of the items for that indicator (merit, ascribed, and social network traits for each occupation). The remaining four variables (good luck for each occupation) are defined through a simple recoding of the original variable (important and very important vs. unimportant and very unimportant) since this is measured by a single item.

Respondents' evaluations of what is the highest grade of school they think they will complete are available as a continuous variable in the data and range from 1<sup>st</sup> -17<sup>th</sup> grade. In the context of Ethiopia 1<sup>st</sup> through 8<sup>th</sup> grade is primary school, 9<sup>th</sup> through 12<sup>th</sup> grade is secondary school (divided into basic secondary and advanced preparatory education), and 13<sup>th</sup> through 17<sup>th</sup> grade is equivalent to college education or advanced training beyond college. In our study this continuous variable has been recoded into a binary variable where the value 0 equals secondary school or less, and 1 equals schooling beyond secondary school. The choice of constructing educational expectation as a binary variable was made because the adolescents' responses were heavily skewed, with a large majority saying they expect to get post-secondary school college education or technical training. These young persons are even more likely to report that they expect to get a professional or other white collar job. Of course, these expectations are not going to be fulfilled given the financial situations of the families and the problems of delayed entry into primary school and grade repetition.

Unrealistically high educational and occupational expectations are common in populations which have limited experiences with advanced education and who do not have experience with the full range of occupations. While great care was taken in translating the

concept of “expected” status in a socially meaningful way, the Jimma adolescents seem to have a larger component of preference and a lower component of anticipated failure in their expectations than when the questions are used in more developed economies. In any case, these unrealistically high educational and occupational expectations are not central to the questions addressed in this paper. The central questions in this research is whether adolescents think they will get their occupations through merit or in some less “fair” fashion, and how a belief in merit leads to high educational expectations.

Across Ethiopia as a whole there is considerable religious diversity within ethnic groups (except for the Amhara who are nearly always Orthodox Christians). Traditionally, in Ethiopia people who are Christian Orthodox and Amhara have been seen as favored. This is particularly so among the Oromo who have long political conflicts with the Amhara. In the Jimma Zone the association between ethnic status and religious is sufficiently high that they cannot be readily separated in the statistical models. In the analysis we compare adolescents in the sample across ethnic groups by not by religion. In examining the basis of ascription in occupational attainment we include both religion and ethnicity given the widespread belief that both are important bases of inequality.

## METHODS

The first part of our multivariate analysis examines the association between work experience and occupational expectation, socio-economic background, demographic variables and the perceived importance of merit, ascribed, social network and good luck traits on becoming a farmer or farm worker, a kiosk owner, a school teacher, and an office worker for Ethiopian adolescents. Binary logistic regression models are estimated for this analysis. In the second part of analysis we again

use a binary logistic regression model to estimate the impact that a general belief in the importance of merit, ascribed, social network and good luck traits has on respondents' educational expectations.

In order to assess the robustness of our results, regular probit, ordered logit models with dependent variables coded into quartiles as well as linear regression models with continuous dependent variables were estimated for all 17 models. The results obtained using both of these alternative forms of models were similar to the results obtained using logistic regression. In this paper we present the results from the logistic regression models, with odds ratios. All regression results are presented as odds ratios. All data management and analysis is carried out using STATA statistical software.

## RESULTS

### *Sample Characteristics*

Table 1 presents descriptive characteristics of the JLFSY sample by sex. (These are un-weighted descriptions of the sample cases, not population estimates, and thus over-represent the proportion of the population in small towns and Jimma Town.) More boys than girls in this sample have experienced work for pay—33 percent of the male respondents report they have already worked at a job for pay, compared to only 23 percent of females. Two-thirds of the adolescents are Oromo. More than one-third of parents have no schooling and roughly one in five parents have completed education beyond the 10<sup>th</sup> grade.

### *Important Traits to Get a Job*

The objective of this paper is to understand how adolescents view the current stratification system—the extent to which adolescents believe that occupational attainment, especially for the higher status teacher and office worker occupations, is based on merit rather than ascription, connections, or luck. Table 2 reports the percentage of respondents who believe each trait is important or very important to be employed in each of the four occupations. There is a strong belief that merit is important for getting an occupation. Advanced education and vocational/technical training are seen as vital for getting jobs as a school teacher or office worker. A majority thinks that fluency in Amharic is important for being a farmer, as do three-quarters of kiosk workers (who need Amharic for interactions with some customers). Amharic is seen as an important asset for becoming a teacher. There is a strong belief that friend and school contacts as well as kin networks are important for all types of jobs (though not quite as important as merit). In those occupations that are largely inherited—farming and some kiosk owners—kin networks are seen as a quite important trait. A belief in good luck is pervasive—although good luck is not seen as important for getting jobs as farmers and kiosk workers as it is for teachers and office workers. Roughly two-thirds of these adolescents do not think being of the “right” ethnicity or religion is important for getting a job, and this is the case as well for becoming a teacher or office worker which often are government jobs. The overwhelming importance these adolescents place on merit is striking as is the relatively little importance placed on religion or ethnicity. Given the long history of ethnic and religious basis for social, economic, and political advantage, these results suggest that with the availability of education to get jobs these bases of ascription have come to be seen as less important.

### *Factors Affecting Traits Important for Employment*

In Table 3 we describe the association of family origin and personal characteristics on adolescent belief about the importance of merit traits (education, vocational training and speaking Amharic) for becoming a farmer or farm worker, a kiosk owner, a schoolteacher, an office worker. There are few differences by family background in the extent to which merit is seen as important for employment. Amhara adolescents are somewhat more likely to believe that merit is important for getting a job. Adolescents with work experience are less likely to think that agricultural work and becoming a kiosk worker require merit (perhaps based on their own work experiences), but they are more likely to view merit is important for higher paying jobs.

The family origin and personal characteristics that lead to the belief that ascription is important in getting a job is more broadly based than that for merit (Table 4). Young persons in rural areas, males, and those whose parents do not have any education are the most likely to think ascription is important in occupational attainment. Young people who have worked and those who expect to be farmers or manual workers also emphasize the importance of being of the right religion and ethnicity.

The paid jobs these adolescents get are likely to be part-time or occasional work as agricultural workers or as kiosk employees or other manual jobs. These typically are jobs that are found by knowing someone in the same ethnic and religious group who can recommend them; a formal job market with advertized positions has not yet developed in Jimma Zone. It is important to recognize that in Ethiopia part-time work is regarded as a desirable experience for persons of better family backgrounds and those who are getting advanced educations only if the work is compatible with these origins and educational plans. From their job experiences young persons,

especially males may conclude that ascription is important in getting a job, particularly if they expect to stay in that job. Surprisingly, teenagers of different ethnic origins do not differ in the importance placed on ascription, even though the Amhara are considered by the Ethiopian population as using their connections to get the best jobs.

As with merit, there are not consistent patterns across jobs in the extent to which young people emphasize social networks as being important (Table 5). Rural residents are more likely to believe connections are important in getting an office job; children of parents who are farmers think connections are important for getting an office job. Males are more likely than females to believe connections are more important for getting a job. Similarly, rural residents place a greater emphasis on luck than those in urban areas (Table 6). However, children of farmers place less of an emphasis on luck than children of parents in other occupations. Children of parents without any schooling place a greater emphasis on luck.

#### *Emphasis on Merit for in Planning Education*

Table 7 presents the results from the logistic regression of respondents' educational expectations on their beliefs about the traits needed to get a job. The results are straightforward—adolescents in Jimma Zone who believe that merit is a major factor in employment more often expect to get post-secondary education. Interestingly, those believing network connections are important also are more likely to plan for post-secondary education. This may be a reflection of the broader network connections they expect to get from their teachers and schoolmates. Adolescents who think ascribed characteristics and luck are important do not place an emphasis on post-secondary education.

## SUMMARY AND CONCLUSIONS

This paper investigated changes in the system of social stratification as perceived by adolescents now enrolled in school and beginning their transitions to adult life in the Jimma Zone of Ethiopia. These adolescents are the first cohort to have universal access to primary education and extensive access to secondary schooling. They are the first cohort for whom there is at least the possibility of post-secondary technical training or college. At the same time, we know from other research in Ethiopia that the schools for this population are often underfunded, frequently have poor or absent teachers, and lack adequate textbooks; this raises questions about the value of schooling for human capital generation (Admassu 2010). Nonetheless, most adolescents in this cohort are enrolled in school at ages 13 to 17 years. A majority of these students will complete secondary school and many are already enrolled in college preparatory programs.

There appears to have been some inflation in educational credentials needed for work—these adolescents report much higher levels of education are needed to enter jobs compared to the actual educations of incumbents in those occupations (Policy Brief 15). Thus, 56 percent of rural youth report that being a peasant farmer requires a primary education and 31 percent that it requires a secondary education. Fifty percent believes a secondary or higher level of education is the minimum needed to become a kiosk owner. The minimum education for a primary school teacher is seen as college preparatory (26%) or technical or college (52%). Office workers need a minimum of college preparatory (27%) or technical training or college (60%) according to these adolescents. They believe that a higher level of education leads to better jobs, with merit being most important factor in employment in any job.

But Ethiopia does not have a well articulated job market, so these adolescents also believe that social networks and good luck are major factors in getting any type of job.



Surprisingly given the historical religious and ethnic stratification in Ethiopia, and the current use of ethnicity as a method of favoritism by the current government, less than one-third of these youth think these ascribed factors are important in getting a job. To the extent that they do believe these are important factors, the Amhara youth, who are a traditionally favored group, think their ethnicity will help them get a job.

While the evidence is somewhat mixed, children of parents who have not attended school, who are peasant farmers, and youth who live in rural areas place less emphasis on merit and are more likely to think network connections and good luck are important in getting a job. It is those adolescents who have experience with a more diverse economy and stronger educational opportunities that put the greatest emphasis on merit. Young men emphasize the importance of merit for getting a job as a primary school teacher or office worker. However, the young men also place a much greater importance on connections, ascribed characteristics and luck.

Sociologists have emphasized how the establishment of schools changes gender relations, promotes autonomy in decision making about marriage and family, and leads young persons, especially young girls, to act to limit family size. This paper demonstrates that the establishment of schools in an area that has lacked educational opportunities transforms the lives of the cohort of young persons who first experience educational opportunities. Their ambitions for educational and occupational attainments soar, and they see advanced education as a route to occupational success.

This cohort has skills that are needed for occupational success, if selection into those jobs is merit based. They believe that the stratification system is merit based. Two-thirds reject the idea that the old system of stratification based on ethnic and religious identities will define their socioeconomic careers. But they recognize that in a weak economy with few good occupations

network connections and luck are important factors in employment. This belief is not incompatible with a merit-based system of stratification—network connections and being the “right place in the right time” are deemed important in developed nations as well. The educational opportunities afforded this new cohort have created high expectations for their future success.

But in Ethiopia, as in other developing nations, these expectations are likely to be dashed. Without growth in job opportunities many members of this cohort will enter the low status occupations of their parents. Their educations may help them be more productive in those occupations, so that they are better prepared for a more modern economy. But they are likely to be a cohort that is disappointed that their dreams are not fulfilled with attendant dissatisfaction with their government and economic institutions. A more educated population is essential for economic development in a country like Ethiopia. But until economic development produces a more organized labor market where jobs are merit-based will the stratification system in Ethiopia come to resemble that of more developed nations (Buchman and Hannum 2001).

In essence, this type of cohort is essential for transitioning from traditional social and economic arrangements to modern attitudes, values, and economic achievements. They provide the skills that are needed for the economic development of the nation, but members of that cohort will not, on the whole, enjoy the fruits of development. It will instead be their children who are likely to be better prepared and will benefit from a better-articulated system of stratification. And it will be this next generation that will find a difficult truth about a meritocracy—because of unequal chances for advanced education, the system of intergenerational stratification will be strengthened rather than weakened (Lampton Commons 2008).

## REFERENCES

- Admassu, Kassahun. 2010. *Navigating Uncertainties: Young People's Schooling and the Transition to Adulthood in Ethiopia*. Unpublished dissertation, Brown University.
- Buchman, Claudia, Hannum, Emily. 2001. "Education and Stratification in Developing Countries: A Review of Theories and Research." *Annual Review of Sociology* 27:77-102.
- Fluitman, Fred. 2001. *Working, But Not Well*. International Training centre of the ILO
- Girma, Sourafel, and Abbi Kedir. 2003. *Is Education More Beneficial to the Less Able? Econometric evidence from Ethiopia*. Discussion Papers in Economics 03/1, Department of Economics, University of Leicester.
- Govindasamy, Pav, Aklilu Kidanu and Hailom Banteyerga. 2002. *Youth Reproductive Health in Ethiopia*. Calverton, Maryland: ORC Macro.
- Guarcello, L., S. Lyon and F.C. Rosati. 2006. *The Twin Challenges of Child Labor and Youth Employment in Ethiopia*. Working paper UCW Project.
- Hamilton, Lawrence C. 2006. *Statistics with Stata*. Thomson Brooks/Cole. Canada.
- Krishnan, Pramila. 1996. Family Background, Education and Employment in Urban Ethiopia. *Oxford Bulletin of Economics and Statistics*, 58, 1.
- Lamport Commons, Michael. 2008. "Implications of Hierarchical Complexity for Social Stratification, Economics, and Education." *World Futures* 64: 430435.
- Policy Brief Number 10 Jimma Longitudinal Family Survey of Youth. 2007. *Decision-Making Autonomy among Adolescents in Jimma Zone*. Brown University, Populations and Training Center.
- Policy Brief Number 15 of the Jimma Longitudinal Family Survey of Youth. 2007. *The Emergence of a Modern Labor Market in Jimma Zone*. Brown University, Populations and Training Center.
- Policy Brief Number 19 Jimma Longitudinal Family Survey of Youth. 2007. *Adolescent Attitudes about Male and Female Equality in Jimma Zone*. Brown University, Populations and Training Center.
- Saint, William. 2004. Higher Education in Ethiopia: The Vision and its Challenges. JHES/RESA vol. 2, No. 3 pp. 83-113.

Figure 1: Location of the Jimma Zone in Ethiopia

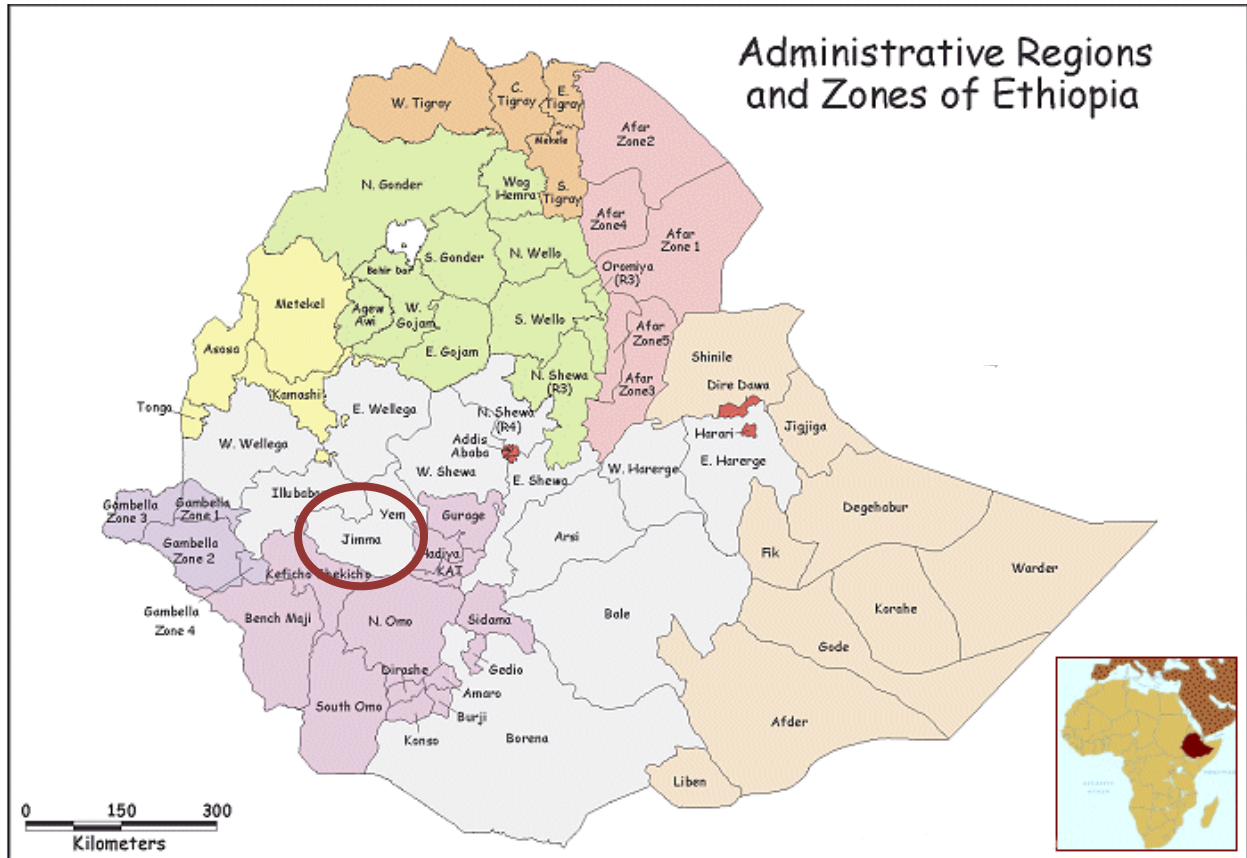


Table 1: Descriptive Characteristics of the Sample, by Sex. Jimma Longitudinal Family Survey of Youth, 2005

| Variables                                             | <i>Girls</i><br>(n=1025) | <i>Boys</i><br>(n=1059) |
|-------------------------------------------------------|--------------------------|-------------------------|
| Educational expectation beyond 12 <sup>th</sup> grade | 63%                      | 59%                     |
| <i>Work</i>                                           |                          |                         |
| Has ever worked a job                                 | 23%                      | 33%                     |
| Expects white collar job when adult                   | 86%                      | 79%                     |
| <i>Parents Education</i>                              |                          |                         |
| 0 years of schooling                                  | 34%                      | 37%                     |
| 1-5 years of schooling                                | 23%                      | 26%                     |
| 6-10 years of schooling                               | 25%                      | 24%                     |
| More than 10 years of schooling                       | 18%                      | 13%                     |
| <i>Ethnicity</i>                                      |                          |                         |
| Oromo                                                 | 65%                      | 65%                     |
| Amharic                                               | 10%                      | 10%                     |
| Other                                                 | 25%                      | 25%                     |
| <i>Residence</i>                                      |                          |                         |
| Rural                                                 | 34%                      | 38%                     |
| Town                                                  | 28%                      | 29%                     |
| City                                                  | 38%                      | 33%                     |

Table 2: Traits Seen as Very Important or Important for Entering Four Occupations. Jimma Longitudinal Family Survey of Youth, 2005

| <b>Traits</b>      | <b><i>Farmer or<br/>Farm worker</i></b> | <b><i>Kiosk<br/>owner</i></b> | <b><i>School<br/>teacher</i></b> | <b><i>Office<br/>worker</i></b> |
|--------------------|-----------------------------------------|-------------------------------|----------------------------------|---------------------------------|
| <i>Merit</i>       |                                         |                               |                                  |                                 |
| Education          | 69%                                     | 73%                           | 98%                              | 98%                             |
| Vocational Ed      | 87%                                     | 79%                           | 91%                              | 91%                             |
| Fluency in Amharic | 57%                                     | 74%                           | 85%                              | 84%                             |
| <i>Ascribed</i>    |                                         |                               |                                  |                                 |
| Ethnicity          | 26%                                     | 26%                           | 30%                              | 30%                             |
| Religion           | 36%                                     | 37%                           | 36%                              | 37%                             |
| <i>Networks</i>    |                                         |                               |                                  |                                 |
| Friends/School     | 71%                                     | 69%                           | 72%                              | 72%                             |
| Relatives          | 78%                                     | 75%                           | 70%                              | 71%                             |
| <i>Good luck</i>   | 58%                                     | 68%                           | 72%                              | 72%                             |

Table 3: Logistic Regression Models of the Factors Associated with the Belief that Occupational Attainment is Based on Merit. Jimma Longitudinal Family Survey of Youth, 2005

|                                                          | <i>Farmer or<br/>farm worker</i> | <i>Kiosk owner</i>             | <i>School teacher</i>          | <i>Office worker</i>           |
|----------------------------------------------------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                                                          | (Model 1)<br><i>Odds Ratio</i>   | (Model 2)<br><i>Odds Ratio</i> | (Model 3)<br><i>Odds Ratio</i> | (Model 4)<br><i>Odds Ratio</i> |
| <b>N</b>                                                 | 2084                             | 2084                           | 2084                           | 2084                           |
| <i>Work</i>                                              |                                  |                                |                                |                                |
| Has never worked a job (ref.)                            | 1                                | 1                              | 1                              | 1                              |
| Has ever worked a job                                    | 0.87                             | 0.68***                        | 1.25**                         | 1.25**                         |
| Think will not have a professional job when adult (ref.) | 1                                | 1                              | 1                              | 1                              |
| Think will have a professional job when adult            | 1.22*                            | 1.09                           | 1.03                           | 1.12                           |
| <i>Parents Education</i>                                 |                                  |                                |                                |                                |
| 0 years of schooling (ref.)                              | 1                                | 1                              | 1                              | 1                              |
| 1-5 years of schooling                                   | 1.01                             | 1.05                           | 1.06                           | 1.01                           |
| 6-10 years of schooling                                  | 1.24*                            | 1.06                           | 0.91                           | 0.98                           |
| More than 10 years of schooling                          | 1.02                             | 1.17                           | 0.83                           | 0.88                           |
| <i>Ethnicity</i>                                         |                                  |                                |                                |                                |
| Oromo (ref.)                                             | 1                                | 1                              | 1                              | 1                              |
| Amhara                                                   | 1.46**                           | 1.27*                          | 1.21                           | 1.22                           |
| Other                                                    | 1.03                             | 1.21*                          | 0.97                           | 1.01                           |
| <i>Residence</i>                                         |                                  |                                |                                |                                |
| Rural (ref.)                                             | 1                                | 1                              | 1                              | 1                              |
| Town                                                     | 0.99                             | 0.71***                        | 1.29**                         | 1.17                           |
| City                                                     | 1.19                             | 0.65***                        | 2.48***                        | 2.28***                        |
| <i>Age</i>                                               | 1.00                             | 1.01                           | 1.03                           | 1.05                           |
| <i>Sex</i>                                               |                                  |                                |                                |                                |
| Female (ref.)                                            | 1                                | 1                              | 1                              | 1                              |
| Male                                                     | 3.14***                          | 1.28***                        | 0.72***                        | 0.71***                        |

\*p<0.1 \*\*p<0.05 \*\*\*p<0.01

Table 4: Logistic Regression Models of the Factors Associated with the Belief that Occupational Attainment is based on Ascribed Characteristics. Jimma Longitudinal Family Survey of Youth, 2005

|                                                          | <i>Farmer or<br/>farm worker</i> | <i>Kiosk owner</i>             | <i>School teacher</i>          | <i>Office worker</i>           |
|----------------------------------------------------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                                                          | (Model 1)<br><i>Odds Ratio</i>   | (Model 2)<br><i>Odds Ratio</i> | (Model 3)<br><i>Odds Ratio</i> | (Model 4)<br><i>Odds Ratio</i> |
| <b>N</b>                                                 | 2084                             | 2084                           | 2084                           | 2084                           |
| <i>Work</i>                                              |                                  |                                |                                |                                |
| Has never worked a job (ref.)                            | 1                                | 1                              | 1                              | 1                              |
| Has ever worked a job                                    | 1.30***                          | 1.38***                        | 1.42***                        | 1.38***                        |
| Think will not have a professional job when adult (ref.) | 1                                | 1                              | 1                              | 1                              |
| Think will have a professional job when adult            | 0.76**                           | 0.79*                          | 0.85                           | 0.82*                          |
| <i>Parents Education</i>                                 |                                  |                                |                                |                                |
| 0 years of schooling (ref.)                              | 1                                | 1                              | 1                              | 1                              |
| 1-5 years of schooling                                   | 0.74***                          | 0.74***                        | 0.68***                        | 0.71***                        |
| 6-10 years of schooling                                  | 0.64***                          | 0.65***                        | 0.59***                        | 0.61***                        |
| More than 10 years of schooling                          | 0.54***                          | 0.52***                        | 0.51***                        | 0.52***                        |
| <i>Ethnicity</i>                                         |                                  |                                |                                |                                |
| Oromo (ref.)                                             | 1                                | 1                              | 1                              | 1                              |
| Amhara                                                   | 1.03                             | 0.94                           | 0.94                           | 0.96                           |
| Other                                                    | 1.03                             | 0.89                           | 0.91                           | 0.97                           |
| <i>Residence</i>                                         |                                  |                                |                                |                                |
| Rural (ref.)                                             | 1                                | 1                              | 1                              | 1                              |
| Town                                                     | 0.67***                          | 0.72***                        | 0.75**                         | 0.73***                        |
| City                                                     | 0.58***                          | 0.63***                        | 0.68***                        | 0.62***                        |
| <i>Age</i>                                               | 0.89***                          | 0.89***                        | 0.88***                        | 0.88***                        |
| <i>Sex</i>                                               |                                  |                                |                                |                                |
| Female (ref.)                                            | 1                                | 1                              | 1                              | 1                              |
| Male                                                     | 1.47***                          | 1.49***                        | 1.56***                        | 1.58***                        |

\*p<0.1 \*\*p<0.05 \*\*\*p<0.01



Table 5: Logistic Regression Models of the Factors Associated with the Belief that Occupational Attainment is based on Social Networks. Jimma Longitudinal Family Survey of Youth, 2005

|                                                          | <i>Farmer or<br/>farm worker</i> | <i>Kiosk owner</i>             | <i>School teacher</i>          | <i>Office worker</i>           |
|----------------------------------------------------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                                                          | (Model 1)<br><i>Odds Ratio</i>   | (Model 2)<br><i>Odds Ratio</i> | (Model 3)<br><i>Odds Ratio</i> | (Model 4)<br><i>Odds Ratio</i> |
| <b>N</b>                                                 | 2084                             | 2084                           | 2084                           | 2084                           |
| <i>Work</i>                                              |                                  |                                |                                |                                |
| Has never worked a job (ref.)                            | 1                                | 1                              | 1                              | 1                              |
| Has ever worked a job                                    | 0.81**                           | 0.88                           | 1.01                           | 0.84*                          |
| Think will not have a professional job when adult (ref.) | 1                                | 1                              | 1                              | 1                              |
| Think will have a professional job when adult            | 0.81*                            | 0.87                           | 0.91                           | 0.90                           |
| <i>Parents Education</i>                                 |                                  |                                |                                |                                |
| 0 years of schooling (ref.)                              | 1                                | 1                              | 1                              | 1                              |
| 1-5 years of schooling                                   | 0.83*                            | 0.86                           | 0.89                           | 0.96                           |
| 6-10 years of schooling                                  | 1.13                             | 0.94                           | 1.13                           | 1.13                           |
| More than 10 years of schooling                          | 1.02                             | 0.72**                         | 0.78*                          | 0.77*                          |
| <i>Ethnicity</i>                                         |                                  |                                |                                |                                |
| Oromo (ref.)                                             | 1                                | 1                              | 1                              | 1                              |
| Amhara                                                   | 1.08                             | 0.89                           | 1.03                           | 1.25                           |
| Other                                                    | 0.90                             | 0.93                           | 0.87                           | 0.89                           |
| <i>Residence</i>                                         |                                  |                                |                                |                                |
| Rural (ref.)                                             | 1                                | 1                              | 1                              | 1                              |
| Town                                                     | 0.83*                            | 0.72***                        | 0.59***                        | 0.73***                        |
| City                                                     | 0.98                             | 0.61***                        | 0.60***                        | 0.83                           |
| <i>Age</i>                                               | 1.06*                            | 1.00                           | 0.99                           | 1.02                           |
| <i>Sex</i>                                               |                                  |                                |                                |                                |
| Female (ref.)                                            | 1                                | 1                              | 1                              | 1                              |
| Male                                                     | 1.87***                          | 2.18***                        | 2.23***                        | 1.32***                        |

\*p<0.1 \*\*p<0.05 \*\*\*p<0.01

Table 6: Logistic Regression Models of the Factors Associated with the Belief that Occupational Attainment is based on Luck. Jimma Longitudinal Family Survey of Youth, 2005

|                                                          | <i>Farmer or<br/>farm worker</i> | <i>Kiosk owner</i>             | <i>School teacher</i>          | <i>Office worker</i>           |
|----------------------------------------------------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                                                          | (Model 1)<br><i>Odds Ratio</i>   | (Model 2)<br><i>Odds Ratio</i> | (Model 3)<br><i>Odds Ratio</i> | (Model 4)<br><i>Odds Ratio</i> |
| <b>N</b>                                                 | 2084                             | 2084                           | 2084                           | 2084                           |
| <i>Work</i>                                              |                                  |                                |                                |                                |
| Has never worked a job (ref.)                            | 1                                | 1                              | 1                              | 1                              |
| Has ever worked a job                                    | 0.94                             | 0.90                           | 0.91                           | 0.84                           |
| Think will not have a professional job when adult (ref.) | 1                                | 1                              | 1                              | 1                              |
| Think will have a professional job when adult            | 0.90                             | 0.96                           | 0.94                           | 0.92                           |
| <i>Parents Education</i>                                 |                                  |                                |                                |                                |
| 0 years of schooling (ref.)                              | 1                                | 1                              | 1                              | 1                              |
| 1-5 years of schooling                                   | 0.81*                            | 0.92                           | 1.06                           | 1.08                           |
| 6-10 years of schooling                                  | 0.78*                            | 1.02                           | 0.93                           | 0.94                           |
| More than 10 years of schooling                          | 0.75*                            | 0.81                           | 0.75*                          | 0.68**                         |
| <i>Ethnicity</i>                                         |                                  |                                |                                |                                |
| Oromo (ref.)                                             | 1                                | 1                              | 1                              | 1                              |
| Amhara                                                   | 0.99                             | 0.82                           | 1.03                           | 0.97                           |
| Other                                                    | 0.72***                          | 0.76**                         | 0.95                           | 0.96                           |
| <i>Residence</i>                                         |                                  |                                |                                |                                |
| Rural (ref.)                                             | 1                                | 1                              | 1                              | 1                              |
| Town                                                     | 0.62***                          | 0.59***                        | 0.56***                        | 0.54***                        |
| City                                                     | 0.48***                          | 0.38***                        | 0.30***                        | 0.32***                        |
| <i>Age</i>                                               | 0.94*                            | 0.92**                         | 0.89***                        | 0.90***                        |
| <i>Sex</i>                                               |                                  |                                |                                |                                |
| Female (ref.)                                            | 1                                | 1                              | 1                              | 1                              |
| Male                                                     | 0.65***                          | 0.61***                        | 0.54***                        | 0.54***                        |

\*p<0.1 \*\*p<0.05 \*\*\*p<0.01

Table 7: Logistic Regression Models Predicting Educational Expectations Beyond 12<sup>th</sup> grade: Jimma Longitudinal Family Survey of Youth, round 1, 2005

|                                       | <i>Odds Ratio</i> |
|---------------------------------------|-------------------|
| <b>N</b>                              | 2084              |
| Merit traits [-3.31 to 2.61]          | 1.18***           |
| Ascribed traits [-0.93 to 2.25]       | 0.87***           |
| Good luck traits [-2.97 to 1.49]      | 1.06              |
| Social network traits [-1.77 to 1.08] | 1.11**            |
| Age                                   | 1.13***           |
| Sex                                   | 0.80***           |

\*p<0.1 \*\*p<0.05 \*\*\*p<0.01. [Variable range]