

**ADDIS ABABA UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**

**ETHNIC INTER-MARRIAGE IN ADDIS ABABA**

*Levels, Trends, and Differentials*

*A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF ADDIS ABABA  
UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE  
OF MASTERS OF SCIENCE IN POPULATION STUDIES*

BY

*GIZACHEW GIRMA W/GEBREAL*

*JUNE 2010*

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BY

*GIZACHEW GIRMA W/GEBREAL*

THESIS ADVISOR

*ASSEFA H/MARIAM (PhD.)*

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SCHOOL OF GRADUATE STUDIES**

***Ethnic Inter-Marriage in Addis Ababa Emphasis on Levels, Trends, and  
Differentials in Marital Assimilation and Marital Disruption***

***By***  
**Gizachew Girma W/Gebreal**

**Institute of Population Studies  
College of Development Studies**

*Approved by the Examining Board*


**Dr. Eshetu Gurmu**

Chairman, Department Graduate Committee

  
Signature

**Dr. Assefa Hailemariam**

Advisor

  
Signature

**Dr. Eshetu Gurmu**

Examiner

  
Signature

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3.5.	Ethical Considerations.....	19
3.6.	Method of Analysis .....	20
3.6.1.	Variables and Measurements .....	20
3.6.1.1.	Dependent variable.....	20
3.6.1.2.	Independent variables.....	20
4.	CHAPTER FOUR .....	22
	BACKGROUND OF THE STUDY POPULATION.....	22
4.1.	Demographic Profile .....	22
4.1.1.	Sample Population Size and Age-Sex Structure.....	22
4.1.2.	Migration Status .....	24
4.1.3.	Birth Cohort .....	25
4.1.4.	Marital Structure .....	25
5.1.	Socio-economic Profile .....	26
5.1.1.	Ethnicity.....	26
5.1.2.	Religion.....	27
5.1.3.	Education .....	28
5.1.4.	Occupation .....	28
	CHAPTER FIVE.....	30
5.	RESULTS AND DISCUSSION .....	30
5.1.	Levels, and Trends in Ethnic Inter-marriage .....	30
5.1.1.	Levels of Ethnic Inter-Marriage (EIM) .....	30
5.1.1.1.	Levels by Socio-Economic Characteristics .....	31
5.1.1.1.1.	Ethnic background.....	31
5.1.1.1.2.	Religion.....	32
5.1.1.1.3.	Education .....	34
5.1.1.1.4.	Occupation structure.....	35
5.1.1.2.	Levels of EIM by Demographic Characteristics.....	37
5.1.1.2.1.	Age at Marriage.....	37
5.1.1.2.2.	Sex .....	38
5.1.1.2.3.	Place of birth .....	39
5.1.1.2.4.	Marriage cohort.....	41
5.1.1.2.5.	Migration status.....	42
5.1.1.2.6.	Previous marital status.....	44
5.1.2.	Trends in Ethnic Inter-Marriage .....	45
5.1.2.1.	Trends by Ethnicity and Year of Marriage.....	45
5.1.2.2.	Changes in the Incidence of Ethnic Inter-Marriage .....	46
5.1.2.3.	Changes in the Rate of Ethnic Inter-Marriage .....	47
5.2.	Differentials in Ethnic Inter-Marriage.....	48
5.2.1.	Model Fitting and Coefficient Estimation .....	49
5.2.1.1.	Model Fitting .....	49

5.2.1.2.	Coefficient Estimation.....	52
5.2.1.3.	Interpretations of Coefficients .....	53
5.2.1.4.	Analysis of Differentials in Ethnic Inter-Marriage .....	54
5.3.	EIM and Divorce among the Study population .....	58
5.3.1.	Trends of Divorce in the Study Population .....	58
5.3.2.	Level of Divorce among the Study Population.....	59
5.3.2.1.	Level of Divorce by Inter-Marriage Status.....	59
5.3.2.2.	Level of Divorce by Ethnic Background.....	59
5.3.2.3.	Level of Divorce by Education .....	60
5.3.2.4.	Level of Divorce by Type of Occupation.....	60
5.3.2.5.	Level of Divorce by IM Status and Migration Status .....	61
5.3.2.6.	Level of Divorce by Religious Affiliation.....	61
5.3.2.7.	Level of Divorce by Type of Marriage.....	62
5.3.2.8.	Level of Divorce by Previous Marital Status.....	62
5.3.2.9.	Level of Divorce by Age at Marriage .....	63
5.3.2.10.	Level of Divorce by Place of Birth .....	64
5.3.2.11.	Level of Divorce by Birth Cohort .....	64
5.3.3.	Differentials in Divorce by Inter-Marriage Status .....	65
CHAPTER SIX .....		67
6. SUMMARY, CONCLUSION, AND RECOMMENDATIONS .....		67
6.1.	Summary .....	67
6.2.	Conclusion .....	68
6.3.	Recommendations .....	70
REFERENCES		
ANNEX		

## LISTS OF TABLES

TABLE: 4.1: DISTRIBUTION OF THE STUDY POPULATION BY AGE AND SEX .....	22
TABLE: 4.2: DISTRIBUTION OF THE STUDY POPULATION BY SEX AND SEX RATIO.....	24
TABLE 4.3: DISTRIBUTION OF THE STUDY POPULATION BY MIGRATION STATUS AND SEX.....	24
TABLE 4.4: DISTRIBUTION OF STUDY POPULATION BY MIGRATION STATUS AND PLACE OF BIRTH..	25
TABLE 4.5: DISTRIBUTION OF THE STUDY POPULATION BY BIRTH COHORTS AND SEX.....	25
TABLE 4.6: DISTRIBUTION OF THE STUDY POPULATION BY PREVIOUS MARITAL STATUS AND SEX ..	26
TABLE 4.7: DISTRIBUTION OF THE STUDY POPULATION BY INTERMARRIAGE STATUS AND SEX.....	26
TABLE 4.8: DISTRIBUTION OF THE STUDY POPULATION BY ETHNIC BACKGROUND AND SEX.....	27
TABLE 4.9: RELIGIOUS AFFILIATIONS OF THE STUDY POPULATION BY SEX AND ETHNICITY .....	28
TABLE 4.10: DISTRIBUTION OF THE STUDY POPULATION BY LEVEL OF EDUCATION AND SEX.....	28
TABLE 4.11: DISTRIBUTION OF THE STUDY POPULATION BY OCCUPATION TYPE AND SEX.....	29
TABLE 5.1: DISTRIBUTION OF STUDY POPULATION BY SEX AND ETHNIC BACKGROUND .....	31
TABLE 5.2: DISTRIBUTION OF THE STUDY POPULATION BY RELIGION AND SEX.....	34
TABLE 5.3: COMPARISON OF -2LL BETWEEN INITIAL AND LAST FITTED MODELS .....	50
TABLE 5.4: CLASSIFICATION TABLE OF THE LAST MODEL .....	51
TABLE 5.5: HOSMER AND LEMESHOW STATISTIC FOR OBSERVED AND PREDICTED CASES .....	52
TABLE 5.6: REGRESSION RESULTS FOR STATISTICALLY SIGNIFICANT INDEPENDENT VARIABLES....	54
TABLE 5.7: DIVORCE BY CURRENT MARITAL STATUS & INTER-MARRIAGE STATUS .....	59
TABLE 5.8: DIVORCE BY CURRENT MARITAL STATUS & ETHNIC BACKGROUND .....	59
TABLE 5.9: LEVEL OF DIVORCE BY IM STATUS & EDUCATION.....	60
TABLE 5.10: LEVEL OF DIVORCE BY IM STATUS & OCCUPATION.....	60
TABLE 5.11: LEVEL OF DIVORCE BY IM STATUS & MIGRATION STATUS.....	61
TABLE 5.12: LEVEL OF DIVORCE BY IM STATUS & RELIGION.....	61
TABLE 5.13: LEVEL OF DIVORCE BY IM STATUS & TYPE OF MARRIAGE .....	62
TABLE 5.14: LEVEL OF DIVORCE BY IM STATUS & PREVIOUS MARITAL STATUS .....	62
TABLE 5.15: LEVEL OF DIVORCE BY IM STATUS & AGE AT MARRIAGE .....	63
TABLE 5.16: LEVEL OF DIVORCE BY IM STATUS & PLACE OF BIRTH.....	64
TABLE 5.17: LEVEL OF DIVORCE BY IM STATUS & MARRIAGE COHORT.....	65
TABLE 5.18: DIVORCE BY INTER-MARRIAGE STATUS (IMS).....	66

## LISTS OF FIGURES

FIGURE 2.1: FACTORS FOR THE DIFFERENTIALS IN ETHNIC INTER-MARRIAGE.....	12
FIGURE 4.1: AGE-SEX DISTRIBUTION OF THE STUDY POPULATION .....	23
FIGURE 5.1: LEVELS OF EIM BY MAJOR ETHNIC GROUPS (FOR BOTH SEX).....	32
FIGURE 5.2: LEVELS OF EIM BY RELIGION .....	32
FIGURE 5.3: LEVELS OF EIM BY RELIGION AND SEX .....	33
FIGURE 5.4: LEVELS OF EIM BY LEVEL OF EDUCATION .....	34
FIGURE 5.5: LEVELS OF EIM BY EDUCATION & SEX .....	35
FIGURE 5.6: DISTRIBUTION OF STUDY POPULATION BY OCCUPATION AND IM STATUS .....	36
FIGURE 5.7: LEVELS OF EIM BY OCCUPATION AND SEX .....	36
FIGURE 5.8: LEVELS OF EIM BY INTER-MARRIAGE STATUS & AGE .....	37
FIGURE 5.9: LEVELS OF EIM BY AGE AND SEX.....	38
FIGURE 5.10: LEVELS OF EIM BY ETHNICITY AND SEX .....	38
FIGURE 5.11: SEX RATIO OF THE STUDY POPULATION BY ETHNICITY .....	39
FIGURE 5.12: LEVELS OF EIM BY PLACE OF BIRTH .....	40
FIGURE 5.13: LEVELS OF EIM BY SEX & PLACE OF BIRTH .....	40
FIGURE 5.14: LEVELS OF EIM BY PLACE OF BIRTH AND ETHNICITY .....	41
FIGURE 5.15: LEVELS OF EIM BY YEAR OF MARRIAGE (MARRIAGE COHORT).....	41
FIGURE 5.16: LEVELS OF EIM BY MIGRATION STATUS .....	42
FIGURE 5.17: LEVELS OF EIM BY MIGRATION STATUS AND SEX .....	43
FIGURE 5.18: LEVELS OF EIM BY MIGRATION STATUS AND ETHNICITY .....	43
FIGURE 5.19: LEVELS OF EIM BY MIGRATION STATUS AND PREVIOUS MARITAL STATUS .....	44
FIGURE 5.20: LEVELS OF EIM BY PREVIOUS MARITAL STATUS AND SEX.....	44
FIGURE 5.21: TRENDS OF EIM AGAINST ENDOGAMOUS MARRIAGE .....	45
FIGURE 5.22: TRENDS OF EIM BY MAJOR ETHNIC GROUPS & YEAR OF MARRIAGE.....	46
FIGURE 5.23: VARIATIONS IN THE LEVELS OF EIM BY 3 YEARS MOVING AVERAGE.....	47
FIGURE 5.24: AVERAGE RATE OF GROWTH IN EIM USING 2-YEARS MOVING AVERAGE .....	47
FIGURE 5.25: TRENDS OF DIVORCE BY IMS & YEAR OF DIVORCE (1984-2001 E.C.) .....	58

## ACRONYMS

**CRO** - Civil Registration Office

**CSA** - Central Statistical Agency

**E.C.** - Ethiopian Calendar

**EIM** - Ethnic Inter-Marriage

**G.C.** - Gregorian Calendar

**IM** - Inter-Marriage

**IMS**-Inter-Marriage Status

**ID** - Identification Card

**IPS** - Institute of Population Studies

**MLE** – Maximum Likelihood Estimation

**PPS** - Proportion to Population Size

**SPSS** - Statistical Packages for Social Sciences

**SR** - Sex Ratio

**UN** - United Nations

## ABSTRACT

For a variety of reasons ethnic inter-marriage is considered as a signal of high level of societal assimilation. The purpose of this cross-sectional study is to assess the levels, trends, and differentials in ethnic inter-marriage in Addis Ababa and whether such marriages experience more divorce. The study is primarily based on secondary data (marriage records from 1984-2001 E.C.). The total sample size is approximately 1,000 or 1 percent of 96,486 registered marriages (sample frame). Systematic sampling technique with proportion to population size (PPS) is applied for sample size distribution along 18 consecutive years. In this study, efforts have been made to answer four basic questions: (i). To what extent are ethnic groups inter-married? (ii). Is there any change in ethnic inter-marriage over time? (iii). What are the factors associated with ethnic inter-marriage and how do ethnic groups differ in this respect? (iv). Is there any relationship between ethnic inter-marriage and divorce in the study population? The finding shows that nearly 40 percent of the study populations are ethnically inter-married. The average annual growth rate in ethnic inter-marriage is about 0.3%. Even though there are some irregularities in the incidence of ethnic inter-marriage, the general trend shows slightly increasing tendency since 1984 E.C. Besides, the multivariate analysis indicates that the likelihood of being ethnically inter-married is higher among Oromos and Gurages; Catholic Christians and Protestants; non migrants; among people with no education, and older birth cohorts (older generations). In general, the degree of variation in ethnic inter-marriage is found to be associated with migration status, ethnic background, religion, level of education, and birth cohorts of the study population. Finally, the bivariate analysis reveals that there is some sort of relationship between ethnic inter-marriage and divorce in the study population which of course needs further in-depth study.

**Keywords:** *Ethnic inter-marriage, endogamous marriage, exogamous marriage, marital assimilation, divorce*

## CHAPTER ONE

### INTRODUCTION

#### 1.1. General Background

Unlike birth and death, which are biological events; marriage and divorce are defined in terms of laws and customs which often differs across regions and countries. Hence, they rarely agree with universally applicable statistical definitions (United Nations, 2001). According to the United Nations Demographic Year Book, marriage is defined as "... an act, ceremony or process by which the legal relationship of husband and wife is constituted" (United Nations, 2001).

From a social science point of view, marriage is considered as an intimate and long-term relationship that does not only concern the married couples but also relatives and children (Kalmijn, 1998). Likewise, ethnic inter-marriage or marriage between different ethnic groups, not only reveals the existence of interaction across family and group boundaries, but also shows that members of different ethnic groups accept each other as equal. Hence, it shows the existence of an intimate link between social groups. That is why ethnic inter-marriage has been considered as a signal of high level of mutual coexistence and societal assimilation (Kalmijn, 1998; Pagnini and Morgan, 1990).

Ethnic inter-marriage has a strong bearing on the demographic, socio-cultural, economic and political roles of a given society. According to earlier studies, migration and urbanization coupled with the complex demographic, political, socio-cultural and economic factors are typically interacting in such a way as to increase the incidence and prevalence of ethnic inter-marriage among groups (Wirth, 1928; Gordon & Milton, 1964; Becker, 1991; Kalmijn, 1998).

In many social science literatures (Blackwell & Lichter, 2000; Qian, 1997), big urban centers particularly metropolitan areas are often considered as melting-pots, where processes of acculturation and integration are relatively uncomplicated. This is mainly due to changing life styles and effects of urbanism which to some extent are supposed to increase interaction among the population and narrow the hypothetical social distance in the form of ethnic inter-marriage among others (Wirth, 1928; Gordon, 1964; Becker, 1991; Kalmijn, 1998).

According to Wirth (Wirth, 1928); tolerance among groups becomes more noticeable with greater heterogeneity and especially with increasing ethnic inter-marriage. Because, heterogeneity and inter-marriage allows ethnic and class barriers to be broken down and individual roles and contacts to become compartmentalized by different circles of contacts other than ethnicity.

In many parts of the world, societal integration through ethnic inter-marriage is becoming a norm and mixed relationships are becoming a rising global trend. This is particularly true in the case of regions, countries and localities where there is high population movement in the form of migration (Kalmijn, 1998). However, according to Kalmijn, this should not be taken as a blurring of ethnic boundaries because the majority of people are still comfortable with a partner who shares their cultural background and social history (Kalmijn, 1998). Yet, there is notable variance in the levels of acceptance of marital relations among ethnic groups that is often guided by demographic, structural, and cultural differences (Qian, 1997).

In the case of Ethiopia, some historical literatures (Pankhurst, 1984), official census reports (CSA, 1984, 1994, and 2007) and civil registration records signify evidences of ethnic inter-marriage especially in urban areas. The recent population census preliminary report (CSA, 2007) revealed that people born from different parents (mixed ethnic backgrounds) constitutes 0.76 percent (20,719) of the total population in Addis Ababa. Compared to other ethnic groups in the city, the size of such mixed-ethnic population living in Addis Ababa ranks sixth, i.e., from the total population residing in the city (CSA, 2007), the Amhara ethnic group constitutes 47.05% of the total population, followed by Oromo (19.51%), Gurage (16.34%), Tigre (6.18%), Gamo (1.7%), and mixed population (0.76%).

However, little is known about the levels, trends and differentials of ethnic inter-marriage in Addis Ababa. Thus, exploring some aspects of ethnic inter-marriage in relation to factors like migration and urbanization which are assumed to be suitable grounds for inter-marriage to take place will add some knowledge about effects of urbanization, urbanism and migration. This study is therefore designed to achieve such objectives. The study has been carried out based on some established assumptions made in relation to ethnic inter-marriage. Such assumptions often paid attention to group size and distribution; individual-level characteristics and preferences; and the role of structural factors (Kalmijn, 1998). Individual level characteristics include age, sex, previous marital status, ethnic background, place of birth, and migration

status. Structural factors incorporate the effects of religion, education, and occupation. Structural characteristics represent the extent of social differentiation along socio-economic lines and individual characteristics mostly signify the effects of demographic traits.

Contrary to its contribution in bringing about societal integration, ethnic inter-marriage is also considered as susceptible area of marital union. According to some studies (Chan and Smith, 2001; Kalmijn, 2005), ethnic inter-marriage is considered as a total hard work with bigger emotional price to pay especially for those who are disconnected from their cultural networks. The researchers (Chan et al, 2001; Kalmijn, 2005) further discussed that even though mutual attraction or love is important in any marriage, it is considered immature to believe that the social, cultural, and ethnic tensions evaporate behind closed doors. This is because, though the issues may loosen their pressure, they may not fade away in a mist of romantic love. Hence, the conventional interpretation of inter-marriage incidence as an indicator of the strength of group boundaries may be challenged (Chan et al, 2001). Based on this assumption, in this study, attempt has also been made to explore whether ethnic inter-marriage has association with divorce.

In general, whether harmonious or hostile, everyday life can be profoundly affected through relations among ethnic groups and individuals, which in turn affects the course of individuals, families, and communities psycho-social and economic development. That is the point where the study of ethnic inter-marriage turned out to be important because it is often considered as a litmus-test (confirmation) to societal integration (Kalmijn, 1993).

## **1.2. Statement of the Problem**

In spite of being a multi ethnic nation comprised of more than 80 ethnic groups where enormous population movement and subsequent intermingling took place; no attempt has been made to study the magnitude, trend and the demographic characteristics of marital assimilation among ethnic groups in Ethiopia. Likewise, despite being the biggest urban center in the country, little is known whether there is significant ethnic inter-marriage in Addis Ababa, which may have its own manifestation in relation to marital stability, fertility, nutrition, gender equity and other ethnic based affirmative action policies. In an effort to narrow such gaps, the intended study has been considered important.

The study may also initiate future studies focusing on levels of decision-making and gender relations in ethnic inter-marriage; cultural prohibitions and taboos against ethnic inter-marriage; the effects of cohort size and sex ratio on ethnic inter-marriage and the marriage market; as well as the changing patterns of ethnic inter- marriages in relation to differences in demographic, socio-economic and political characteristics.

In general, given such state of affairs and the presence of large ethnic diversity in Addis Ababa, a study on ethnic inter-marriage can be taken as an important area of development research, especially if ethnic sensitive development policies and programs are to be designed; if family stability, peace, security, and the social integration of ethnic groups are to be considered as development goals.

#### **1.4. Scope of the Study**

The study has been designed to cover the period from 1984-2001 E.C. (1992-2009 G.C.), eighteen consecutive years for which dependable marriage records and comparable data have been obtained. Besides, in this study, only sample cases of officially registered marriages are considered. Regarding the age structure of the study population, due to the nature of civil registration which does not allow marriage under age 18, only ever married couples of age eighteen years and above have been considered. As to the geographic coverage of the study, it is limited to macro level (the city as a whole) and does not consider sub-city level issues. In addition, marriages which took place in other parts or regions of the country (1.4%) yet certified at CRO are not considered as relevant to this study.

#### **1.5. Limitations of the Study**

The study has the following limitations:

- Owing to limited time and resource, and the sensitivity of the issue, primary data is not included in the study. Therefore, only some predictor variables available from secondary data sources or CRO records have been considered.
- The impact of major socio-political changes on the incidence of ethnic inter-marriage could not be assessed due to lack of data on ethnic background for the period before 1984 E.C. Consistent and uniform marriage registration formats are applied only for the

years after 1983 E.C. Consequently, comparison between major historic periods becomes out of question.

- Since the city has experienced several administrative boundary changes, the computation of patterns of ethnic inter-marriage by geographic/administrative subdivision is not feasible due to unmatched changes in the administrative setup of the city. Therefore, spatial patterns of ethnic inter-marriage could not be assessed.

## CHAPTER TWO

### REVIEW OF RELATED LITERATURES

#### 2.1. Theoretical Background

Researches related to ethnic and racial intermarriage were initially practiced in immigrant countries such as the United States and were motivated by the question of whether various nationalities would integrate with one another and with the native population (Drachler, 1921). Though most of earlier studies are based on a generalized account of the experiences of western nations, some of the literatures and their assumptions have been considered as a general reference to this study.

Accordingly, various assumptions have been developed to explain inter-marriage in general and ethnic or racial inter-marriage in particular. In most cases, studies conducted on inter-marriages have examined the prevalence of racial, ethnic and religious segregation in different parts of the Western world. Such early studies were conducted mainly to measure the strength of existing group boundaries, the degree of discrimination and segregation among groups (Goldscheider, 1992).

According to some scholars, inter-marriage is considered as a time bomb and a high rate of racial and ethnic inter-marriage is believed to weaken the salience of ethnic identity in a society especially in delineating the boundaries of racial and ethnic groups (Davis, 1991; Chan and Smith, 2001; Kalmijn, 1998). However, inter-marriage is also considered as an important issue for several reasons (Alba and Nee, 2003; Kalmijn, 1998). First, it was argued that inter-marriage is an attractive behavioral indicator of the degree to which different groups in a society accepted each other as equals. Second, inter-marriage was considered as a form of interaction between groups because it could help make a connection not only between the two spouses, but also between different social networks to which they belong. Third, inter-marriage might reduce ethnic identities and prejudice in the long term because the children of mixed marriages were supposed to be less likely to identify themselves in a single group.

Likewise, much had been written about the factors affecting inter-marriage. Hence, segments of a given population who are open to modernization, migration and urbanization processes as

The economic and social boundaries existed within ethnic groups are also considered as important structural factors towards ethnic inter-marriage (Hwang, et al, 1994). It is assumed that people prefer to interact with their own ethnic group, if there is similarity in many aspects. Kalmijn added that people tend to marry from their own ethnic group, if there is similarity in their socio-economic status (Kalmijn, 1993). However, absence of such similarity within a given ethnic group may lower the chances of meeting an attractive ethnic spouse from the same ethnic group. This is especially true if structural similarity like educational, occupational, religious, etc. are the required values in that population. Such factors are assumed to promote ethnic exogamy, i.e., marriage outside one's own ethnic group (Furtado, 2006; Blau, et al, 1984).

Consequently, education is considered as an important factor in the inter-marriage literatures (Kalmijn, 1993). It is assumed that higher education increased the opportunities for ethnic minorities (in terms of size) to meet members of the other ethnic groups (Lieberson and Waters, 1988). Because, highly educated people are often expected to participate in settings where there are small co-ethnics. Such settings include universities and high status occupations. Thus, it is expected that the higher the level of individual's education, the less likely that a person married endogamously (Lieberson, et al, 1988).

In support of the above assumption, it is also argued that in the highly educated ethnic groups, there are more difficulties finding an equally (highly) educated co-ethnic spouse than the less educated. This is often considered to urge the more educated to search for potential partners outside their own ethnic group therefore promoting ethnic inter-marriage (Kalmijn, 1993).

Individual's migration status is also emphasized in many inter-marriage studies. Here, distinction between first and second generation immigrant/in-migrant have been made. The findings indicate that first generation immigrant/in-migrants is found to be married endogamously than second generation immigrants/in-migrants (Feliciano, 2001). It is also assumed that there is a within-group boundary between first and second generation immigrants/in-migrants. Immigrant/in-migrant who arrived at younger age (i.e., before 18 years old) are considered to have more affinity with their country of origin than immigrant/in-migrant children who were born in the destination areas (i.e., the so-called 'second generation'). Such differences in the migration history and commitment to the home nation are considered to create separate marriage markets within the same ethnic group (Feliciano, 2001).

Research conducted in the United States also confirmed that first generation members of an ethnic group less often marry members of second generation groups (Kalmijn 1993). Children of mixed marriages are also assumed to marry exogamously than their counter parts. It is often thought that children of mixed marriages have little to worry about their ethnic identity especially if there is less parental concern. Besides, parents in mixed marriages are considered to be more liberal than parents in endogamous marriage (Waldinger and Roger, 2004).

In terms of religion, it is assumed that coming from a non-Christian area might increase the chances of being inter-married with other groups especially if Christianity dominates the destination areas. Consequently, common religion is considered to have its own role in ethnic inter-marriage. Accordingly, people from different ethnic backgrounds are assumed to marry each other, if they can share common religion (Kalmijn, 1993; Sander, 1993; Lehrer, 1998). It is also argued that speaking other languages different from one's own might increase the chances of marrying outside the group. Here, like common religion, common language is considered to have its own role in inter-marriage. Hence, people from different ethnic background may marry each other, if they can share common language. In a more general sense, it is argued that ethnic groups might mingle more often, if there is no other cultural boundary dividing the groups (Kalmijn, 1998).

Other sets of individual characteristics which may influence the chances of marrying within or outside the group are also considered important for ethnic inter-marriage. Kalmijn emphasized that gender difference have its own role (Kalmijn, 1993). According to this assumption, females are more likely to marry within the group than males. This is because women's choices are more strongly controlled by parents and family members than men's choices (Kalmijn, 1993). It is further argued that there is more pressure on females to marry within the group than on males. According to Kalmijn, the rationale for this gender difference may be that parents tend to have stronger tie to their daughters than to their sons. Hence, a mixed marriage may entail the risk of losing the ties with one's children (Kalmijn, 1993).

Differentials in inter-marriage are also noticed between birth cohorts or generations (Kalmijn, 1993; Qian, 1997). It is argued that due to the transition from prejudice and greed for honor to accomplishment and long time acculturation process, ethnicity has become a less important factor in the marriage market (Kalmijn, 1993; Qian, 1997). Accordingly, older cohorts (first generation) are assumed to marry within their own group than younger cohorts (second generation) do

because second generations are found to be less discriminatory and less concerned in preserving ethnic and family identities than first generations.

Different from the distinction made in the cohort or generation approach, some scholars argued that people with high levels of socio-economic and political status (wealth, power, etc.) are most likely to seek marriage partners with similar levels. Among such groups, the propensity for inter-group marriage is considered high (Cheswick, 1988). In contrast, the larger the size of people with similar identity and socio-economic status in an area, the more likely they can marry their own group due to sufficient supply of marriageable people with similar ethnic and socio-economic background i.e., due to group size effect (Kalmijn, 1998).

As to the role of previous marital status, past studies revealed that previous marital status of individuals also contributes some for ethnic inter-marriage to take place. This is especially frequently observed in cases of remarriage. Studies conducted in the United States and the Netherlands demonstrate that previous marital status of a person affects his decision to inter-marry. Previously widowed persons, upon remarriage, have a lower intermarriage rate than persons never married before. By contrast, persons who were previously divorced have a considerably higher inter-marriage rate than the never married (Botev, 1994, Kalmijn, 1993).

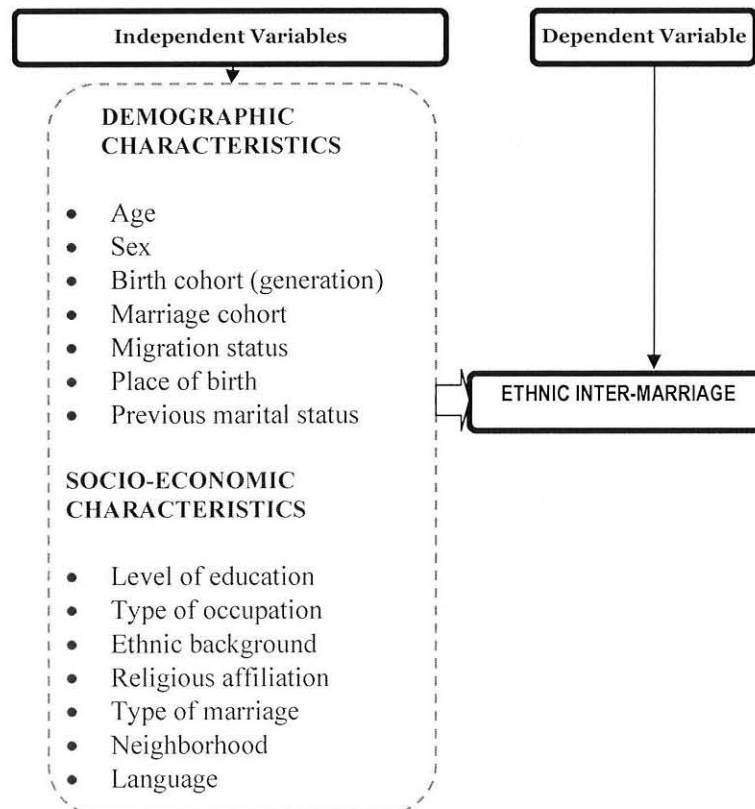
As long as the effects of globalization and urbanization is concerned, groups from areas with strong international or outside orientation are assumed to be more likely to marry outside their group because international or urban orientation is largely an orientation toward modern and liberal culture (Wirth, 1928; Kalmijn, 1993).

Regarding ethnic inter-marriage and divorce, contrary to its contribution in bringing about societal integration, ethnic inter-marriage is also considered as susceptible area of marital union. Over a century, scholarly research emphasizes the challenges faced by couples who cross ethnic boundaries in matrimony. Most recent studies find that ethnic inter-marriages have higher divorce rates, although this conclusion is not universal. According to some other studies (Chan and Smith, 2001), ethnic inter-marriage is considered as a total hard work with bigger emotional price to pay especially for those who have been disconnected from their cultural networks. The researchers (Chan et al, 2001; Kalmijn, 2005) further discussed that even though mutual attraction or love is important in any marriage, it is considered immature to believe that the social, cultural, and ethnic tensions evaporate behind closed doors.

## 4.1. Conceptual Framework

In this study, attempt has been made to explain the role of demographic and socio-economic factors in explaining the differentials in ethnic inter-marriage. Studies conducted in other parts of the world suggest that the differentials in ethnic inter-marriage can be explained through various demographic and socio-economic factors. Therefore, based on the literature review, important explanatory variables are included in a conceptual framework. The conceptual framework is comprised of two major categories of explanatory variables (demographic and socio-economic). These variables have been identified as basis of reference for analysis and interpretation. Accordingly, seven demographic and seven socio-economic background characteristics of married couples/individuals are identified as relevant indicators to measure the differentials in ethnic inter-marriage (See Figure 2.1).

**Figure 2.1: Factors for the Differentials in Ethnic Inter-marriage**



Source: Developed based on literature reviews

## **2.2. Objective of the Study**

### **2.2.1. General Objective**

The general objective of the study is to explore and assess the levels, trends and differentials of ethnic inter-marriage in Addis Ababa using 18 years marriage records (1984-2001 E.C.). Hence, the study is intended to examine the extent of marital assimilation among ethnic groups and the role of demographic and socio-economic factors in this respect.

### **2.2.2. Specific Objectives**

Specifically, the study is designed to:

- 1) Assess the levels and trends in ethnic inter-marriage among Amhara, Oromo, Gurage, Tigre and other ethnic groups in Addis Ababa;
- 2) Examine some of the demographic and socio-economic factors that have contributed to the differentials in ethnic inter-marriage in Addis Ababa;
- 3) Explore whether there is relationship between ethnic inter-marriage and divorce among the study population in Addis Ababa.

## **2.3. The Research Question**

The study is expected to provide reliable answers to the following main research questions. These include:

1. Is there any variation in the levels and trends of ethnic inter-marriage among Amhara, Oromo, Gurage, Tigre and other ethnic groups in Addis Ababa?
2. Which of demographic and socio-economic factors contribute more to the differentials in ethnic inter-marriage among the study population?
3. Is there any relationship between ethnic inter-marriage and divorce among the study population?

## CHAPTER THREE

### DATA AND METHODOLOGY

#### 3.1. Data Source

This cross sectional study is based on data from marriage registers available at CRO (1984-2001 E.C.). Besides, Census (1984, 1994 & 2007 G.C.) reports are used as inputs for explaining the general socio-economic characteristics of the study area. The CRO provide detailed and summary information on age-sex structure; migration status; previous marital status; occupation type; level of education; and religious affiliations of the study population. Data about the size of different ethnic groups and other general socio-economic information are obtained from CSA census reports (1984, 1994, and 2007 G.C.).

Nevertheless, census documents have no detail information related to ethnic inter-marriage. Hence, CRO marriage records are the only source of information as far as the characteristics of ethnically inter-married population is concerned. Accordingly, data on age, sex, migration status, year of marriage, previous marital status, ethnic background, religious affiliations; level of education and occupation type of married couples are compiled and computed from official marriage registration records (1984-2001 E.C.) and associated documents from CRO. Associated documents include, attached copies of individual I.D. cards, Passport's, etc, which holds additional information especially in relation to ethnic background and occupation. CRO requires these additional documents to be attached to the marriage certificate applications mainly as a means of verifying individual's or couples official urban dwellers status i.e., to check whether the applicant is a resident of Addis Ababa city or not.

In general, for this study, data from civil registration records have been considered suitable mainly due to accessibility, availability, time coverage (nearly two decades), abundance of cases, and reliability reasons. In addition, CRO data has been preferred to minimize consistency related problems and availability of detailed information compared to records in religious institutions. Moreover, most couples married through cultural or religious observance often apply for official marriage certificate issued by CRO for many reasons like Visa related cases, ownership claim during divorce, etc.

## 3.2. Sample Frame and Sample size

### 3.2.1. Sample frame

At the initial phase of developing this research proposal, the researcher wished to conduct the study using marriage records from 1935 to 2001 E.C., i.e., using marriage registers of nearly seven decades. However, the inconsistency observed in marriage registration formats, especially among the three historical periods of political transformation in Ethiopia (1935-1966, 1966-1983 and 1983-2001 E.C.), became a big challenge to consider all the years. This is mainly because of lack of consistency and uniformity in the marriage registration formats in the period before 1984 E.C., which certainly makes comparison difficult. Consequently, the study has been redesigned to cover only the periods from 1984-2001 E.C., for which consistent marriage registration procedures and formats are applied. Accordingly, the sample frame of the study is the total number (96,486) of registered marriage cases (married couples) available from CRO, which covers the period from 1984-2001 E.C.

### 3.2.2. Sample size

The samples are drawn in three stages. At the initial stage total sample size is determined using the formula presented below:

$$n' = \frac{Z^2 \cdot P(1-P)}{e^2} + C$$

Where:

$n'$  = Total sample size required;

$P$  = Anticipated prevalence of ethnic inter-marriage. i.e., 50% ~ 0.5;

$e$  = Margin of error (i.e., 3.3%, (0.033) to be tolerated at the 95 percent level of confidence;

$Z$  = A factor to achieve the 95 percent level of confidence. i.e., 1.96;

$C$  = Contingency [ $C \approx 118$ ] necessary to raise the sample size by 13 percent & to compensate for lost or misplaced records due to poor record keeping;

Accordingly, a total sample size of approximately 1,000 marriage records has been obtained.

$$n' = \left[ \frac{1.96^2 \cdot 0.5(1-0.5)}{0.033^2} \right] + 13\% \approx 1,000$$

At the second stage of the sampling process, systematic sampling with Probability Proportional to Size (PPS) procedure has been applied in order to distribute the total sample size to each year. MS-Excel program is used to do the sample allocation job with PPS. See the sample allocation formula (PPS):

$$n_y = N_y \cdot \frac{n'}{N}$$

Where:

$n_y$  = Sample size for year  $y$ ;

$N_y$  = Total registered marriage in year  $y$ ;

$n'$  = Total adjusted sample size (*i.e.*, using design effect and  $C$ );

$N$  = Total number of registered marriage cases (1984-2001 E.C.).

The samples allocated to each year (1984-2001 E.C.) are presented in the annex part (See Annex 2).

In the third stage of sampling, individual cases are systematically drawn from each year at  $n^{\text{th}}$  interval. When employing systematic sampling, the researcher has ensured that the lists to be used are not ordered in any regular way which would bias the sample. At this stage, each marriage record within and between the years considered is assumed to have equal probability to be selected. Correspondingly, individual samples are systematically drawn from each year using the interval derived from the formula  $N/n'$ . Where:  $N$  is total number of registered marriages ( $N = 96,486$ ) and  $n'$  is the total adjusted sample size ( $n' \approx 1,000$ ).

In order to apply a systematic sampling procedure, a serial number has been assigned to each consecutive record in ascending order (from 1 to 96,486) *i.e.*, based on the sequence of registered marriages using MS-Excel. Accordingly, record number 15 has been selected at random as an initial sampling point. Then, based on the interval determined using the formula  $N/n'$ , every 96th record has been selected until a total of 1,000 samples are drawn.

### **3.3. Data Collection and Processing**

The researcher has carefully extracted the randomly chosen samples (marriage records) from CRO archives. Initial data entry of sample cases has been done using MS-Excel. After the records are entered according to the sequence of registration, data transformation from MS-Excel to SPSS has been done. In SPSS, the original string values have been numerically coded and the data has been converted in to suitable formats. Then, the records are grouped by categories to suit for analysis. SPSS (SPSS-17) has been used for variable coding and recoding, data quality tests and analysis.

### **3.4. Data Type and Quality**

#### **3.4.1. Data Type**

The dependent variable (inter-marriage status) is a categorical variable which consists of dichotomies i.e., ethnically inter-married and not ethnically inter-married. The selected independent variables included in model fitting are selected based on their statistical significance. The categories created within the selected independent variables are formed with reference to categories developed in other studies.

#### **3.4.2. Data Quality**

In order to check the quality of records, assessment is done using SPSS's built-in data consistency checks. This often help to identify illogical records, invalid codes, inconsistent values, double entries, and items with missing values, etc. Verification of data is also made to detect systematic data-entry errors. This procedure is used to assess the quality of data-entry and determine whether the general error rate of data entry is within acceptable limits.

Since the validity of the variables in measuring the intended construct and in making generalizations, i.e. the extent to which the results of the study reflect the truth, is a matter of great importance; the degree to which the sample represents the population under consideration has been examined using distribution statistics.

Besides, the quality of the data has been properly examined using univariate descriptive statistics (frequencies, mean, median, mode, standard deviation and scatter plots) and bivariate

statistics such as Chi-square, cross tabs and probability plots. The degree of association between independent variables has also been assessed using logistic regression tests of partial correlation (See Annex 3). Missing values encountered in the categorical variables have been replaced with median values. The observed missing cases were found in the type of occupation category (0.5 percent) and level of education category (0.2 percent).

Finally, using logistic regression stepwise variable entry and removal techniques; important explanatory variables that significantly explains the differentials in the dependent variable (inter-marriage status), has been selected for in-depth analysis.

### **3.5. Ethical Considerations**

In this research, relevant and standard ethical issues to be cautious about are seriously considered both in the sample drawing, record handling, data screening, data entry, coding, analysis and interpretation processes. Initially, a letter of request for permission signed by IPS director has been submitted to CRO general manager and permission is obtained.

During data collection/compilation, proper care for marriage documents has been given. The researcher has also been careful not to mess records and to keep confidentiality in creating, storing, accessing, transferring, and disposing records. Proper coding was done to avoid the inclusion of personal identifiers and anonymity has been assured in any form of reporting.

Besides, necessary care has been taken to use the language and labeling at an appropriate level of specificity and sensitivity. Participants especially the support of CRO staffs has also been genuinely acknowledged. Finally, plagiarism and falsifying or inventing findings to meet the researcher's or other audience needs have been properly taken care of. As to the repercussions of the anticipated research, results will not be misused to the advantage of a specific group.

**MIGRATION STATUS:** The migration status of the bride and the groom which is computed from CRO records on place of birth & place of residence. It is measured using three categories (migrant, non migrant and foreigners).

**ETHNIC BACKGROUND:** The Ethnic identity of the bride and the groom which has been identified based on attached copies of the bride's and the groom's ID cards. It is measured using six categories (Amhara, Oromo, Gurage, Tigre, other ethnic groups and foreigners). Since the number (size) of individual ethnic groups is too few, they are included in a broad category as other ethnic groups mainly to suit for multivariate analysis.

**RELIGIOUS AFFILIATION:** The religious denomination that the bride and the groom belong to. It is measured using five categories (Orthodox, Islam, Protestant, Catholic and other religions).

**OCCUPATION TYPE:** The type of work (*as a proxy for relative income*) that the bride or the groom has been engaged before marriage. This is identified based on the recorded occupation status on the marriage registration format and using attached copies of the bride's and the groom's ID Cards. In most cases, occupation type is recorded in the occupation column of CRO marriage registration format. In this study occupation type is measured using three categories (managerial, professional, technical & clerical; commerce, service & other occupations; and no occupation). The categories are developed with reference to other studies to suit for multivariate analysis.

**LEVEL OF EDUCATION:** The level of education that the bride or the groom has attained before marriage. This is identified from the education level column of CRO records. It is measured using four categories (primary & below primary; Secondary, college & some college; four years university education; and advanced degree). The categories are developed with reference to other studies to suit for multivariate analysis.

Regarding independent variable coding, the general rule that the number of dummy variables needed to represent an independent categorical variable should be equal to the degree of freedom or the number of categories minus one has been considered. The categories which have been purposefully left out (subtracted) are considered as the reference categories with which other dummy variables are to be compared. In SPSS, the logistic regression dummy variable coding is used.

## CHAPTER FOUR

### BACKGROUND OF THE STUDY POPULATION

#### 4.1. Demographic Profile

##### 4.1.1. Sample Population Size and Age-Sex Structure

The study population (sample population) is comprised of 986 registered couples (1,972 individuals). Each sex represented half of the study population (986 female and 986 male populations at individual level). The mean, median and modal ages of the study population are 31 years, 31 years and 30 years respectively. This indicates the normal distribution of the sample population in terms of observed age distribution. The normal distribution curve also confirms the normality of the age distribution of the sample population. The minimum age of the sample population is 18 and the maximum age is 55. The range between the maximum and minimum age is 37 years.

The age distribution of the sample population also revealed that most of the study population (52 percent) are concentrated in the age group between age 25-34 and 94 percent of the study population are found below age 49 (See Table 4.1).

**Table: 4.1: Distribution of the Study Population by Age and Sex**

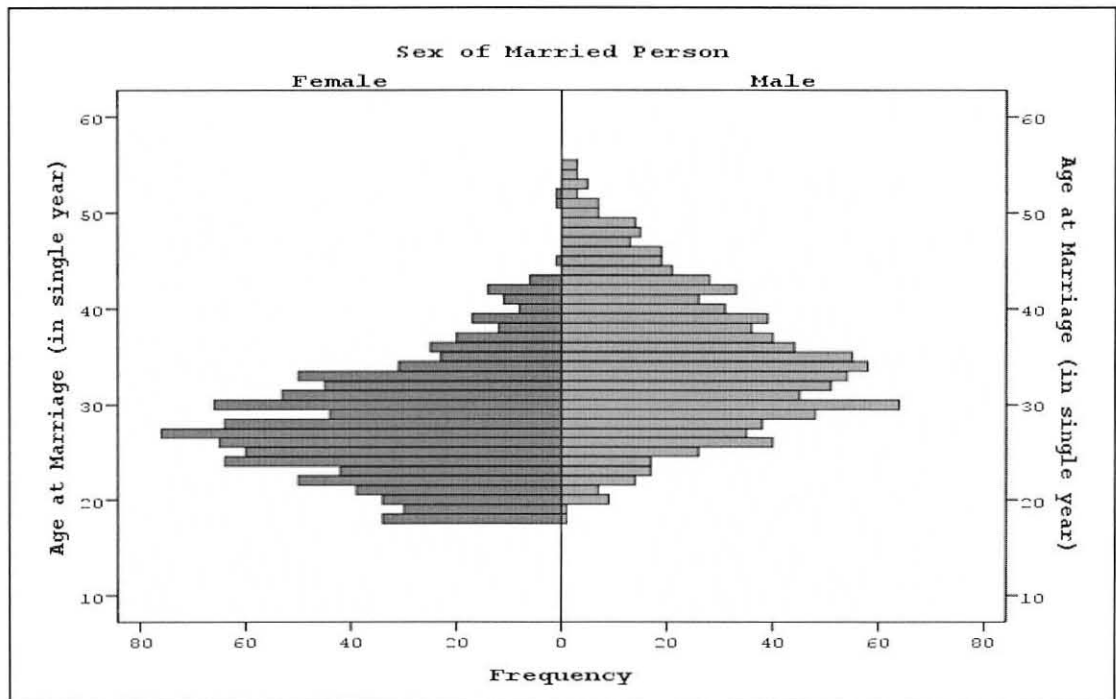
Age Group	Sex		Total	Cumulative Percent	
	Female	Male			
Under Age 20	6.2%	.2%	3.2%	3.2	<b>Mean = 31</b> <b>Median = 31</b> <b>Mode = 30</b>
20-24	21.6%	6.5%	14.0%	17.2	
25-29	29.9%	18.8%	24.3%	41.6	
30-34	23.3%	26.5%	24.9%	66.5	
35-39	9.5%	20.7%	15.1%	81.6	
40-45	3.9%	11.8%	7.8%	89.4	
45-49	1.6%	6.8%	4.2%	93.6	
Age 50 +	4.0%	8.8%	6.4%	100	
Total	100%	100%	100%		
N = 986 couples (1,972 individuals)					

Source: Computed from CRO marriage Records (1984-2001 E.C.)

According to the summary statistics presented in the table above (Table 5.1), while the study population is concentrated in the age group between age 25-34, difference has been observed

when age-sex distribution is examined. Accordingly, the proportions of females tend to decline after age 34. Even though the proportions of males decline with age after age 34, there is still more male population than female. In contrast, more females than males are observed in the age group under age 20. This confirms the fact that females marry at earlier ages than males do (See Figure 4.1).

**Figure 4.1: Age-Sex Distribution of the study Population**



Source: Computed from CRO marriage Records (1984-2001 E.C.)

The sex ratio of the sample population by ethnic groups indicates that among Oromos and other ethnic groups the number of married male population exceeds the number of married females. The sex ratios calculated for married Oromos and married population in other ethnic groups are 1.33 and 1.15 respectively. In the case of Amharas, Gurages and Tigres, the sex ratios are 0.93, 0.81 and 0.87 respectively. This implies that the number of married female population exceeds the number of married males among Amharas, Gurages, and Tigres (See table 4.2). In both cases, the difference reveals the presence of out marriages in the respective sex categories and the respective ethnic groups.

**Table 4.2: Distribution of the Study Population by Sex and Sex Ratio**

Ethnic Groups	Study Population Size			Sex Ratio
	Male	Female	Total	
Amhara	525	566	1091	0.93
Gurage	66	81	147	0.81
Oromo	200	150	350	1.33
Others	30	26	56	1.15
Tigre	109	126	235	0.87
Foreigner	56	37	93	1.51
Total	986	986	1,972	1.00
N = 986 couples (1,972 individuals)				

Source: Computed from CRO marriage Records (1984-2001 E.C.)

#### 4.1.2. Migration Status

Migration status of the study population is compiled from marriage records of couples by place of birth and place of residence. Accordingly, the study population is comprised of 47.5 percent migrant and 52.5 percent non migrant population. Female accounted for about 59.2 percent and male 45.8 percent of the total non migrant population, i.e., consistent with census reports. Out of the total migrant population, 36.4 percent are in-migrants; 0.5 percent out-migrants; 2.2 percent immigrants; 6.3 percent emigrants, and 2.1 percent foreigners (See Table 4.3).

**Table 4.3: Distribution of the Study Population by Migration Status and Sex**

Migration Status	Sex		% From the Total Study Population
	Female	Male	
Non Migrant	59.2%	45.8%	52.5%
In Migrant	32.5%	40.3%	36.4%
Out Migrant	0.6%	0.4%	0.5%
Immigrant	1.8%	2.5%	2.2%
Emigrant	4.8%	7.9%	6.3%
Foreigner	1.1%	3.0%	2.1%
Total	100%	100%	100%
N = 986 couples (1,972 individuals)			

Source: Computed from CRO marriage Records (1984-2001 E.C.)

When we look at the origin of migrants (place of birth), the majority of the migrants (63.7 percent) are from urban areas while the remaining (36.3 percent) are from rural areas (See Table 4.4).

**Table 4.4: Distribution of Study Population by Migration Status and Place of Birth**

Migration Status	Proportion by Migration Status & Place of Birth		
	Urban	Rural	Total
Non Migrant	97.8%	2.2%	100%
Migrant	63.7%	36.3%	100%
Total	81.6%	18.4%	100%

N = 986 couples (1,972 individuals)

Source: Computed from CRO marriage Records (1984-2001 E.C.)

### 4.1.3. Birth Cohort

The distribution of the study population by birth cohort shows that large numbers of male populations are concentrated in the older cohorts while females are concentrated in the recent or younger cohorts. This reveals that females got married earlier than males (See Table 4.5).

**Table 4.5: Distribution of the study population by birth cohorts and Sex**

Birth Cohorts (in E.C.)	Sex			% From the Total Study Population
	Male	Female	Total	
Before 1950	85.8%	14.2%	100%	13.2%
1951-1960	54.6%	45.4%	100%	26%
1961-1970	46.1%	53.9%	100%	42.7%
1971-1980	26.5%	73.5%	100%	17.6%
After 1981	22.2%	77.8%	100%	0.5%
Total	50%	50%	100%	100%

N = 986 couples (1,972 individuals)

Source: Computed from CRO marriage Records (1984-2001 E.C.)

### 4.1.4. Marital Structure

In terms of marital structure, 92.7 percent of the study population belongs to the previously never married (single) category whereas only 7.3 percent belong to previously married category. Out of previously married population, the majority (7 percent) are divorced.

Previous marital status in relation to sex composition of the study population revealed that females constituted 50.7 percent of the total previously never married population, 40.3 percent of the total divorced population and 75 percent of the total widowed population. When we compare the study population by marital status, 92.7 percent of the total study populations are

singles before their current engagement. Likewise, 7 percent of the total study populations were divorced and 0.3 percent widowed before their current marriage (See Table 4.6).

**Table 4.6: Distribution of the study population by Previous Marital Status and Sex**

Previous Marital Status	Proportion by Marital Status			% From the Total Study Population
	Female	Male	Total	
Never Married	50.7%	49.3%	100%	92.7%
Divorced	40.3%	59.7%	100%	7%
Widowed	75%	25%	100%	0.3%
<b>Total</b>	50%	50%	100%	100%
N = 986 couples (1,972 individuals)				

Source: Computed from CRO marriage Records (1984-2001 E.C.)

When we look into the distribution of the study population by inter-marriage status, 60.5 percent of the study population represents the not inter-married population while inter-married population accounts for about 39.5 percent of the total study population. The sex composition of ethnically inter-married population indicates that both sexes have almost equal representation (39.5 percent female and 39.6 percent male). This is because; the marriage registration and consequently the sample have been taken at couple's level. The same is true for not inter-married population, i.e., female represents 60.5 percent and male represents 60.4 percent of the total study population (See Table 4.7).

**Table 4.7: Distribution of the study population by Intermarriage Status and Sex**

Intermarriage Status	Sex		% From the Total Study Population
	Female	Male	
Not Inter-married	60.5%	60.4%	60.5%
Inter-married	39.5%	39.6%	39.5%
Total	100%	100%	100%
N = 986 couples (1,972 individuals)			

Source: Computed from CRO marriage Records (1984-2001 E.C.)

## 5.1. Socio-economic Profile

### 5.1.1. Ethnicity

Of the total study population, population from the Amhara ethnic group accounted for about 55.3 percent, Oromo 17.7 percent, Tigre 11.9 percent, Gurage 7.5 percent and Others 2.8 percent. Even though, by census reports, Gurages constitute the third major ethnic group in

Addis Ababa; in this study, it seems that they are less represented. This might be because of few registered marriage cases due to customary marriages made somewhere else or due to the dominance of single (never married) population among the Gurages. In the later case; for instance in 1994 G.C., among the Gurages living in Addis Ababa, single population (65.3 percent) were the dominant population (CSA, 1994).

As to the general sex composition of ethnic groups, the proportion of male and female population shows no difference. However, when we look in to the sex composition within a given ethnic category, in the case of Amhara, Tigre and Gurage ethnic groups' males exceed the proportion of females.

On the other hand, among Oromos and other ethnic groups, the proportion of females is higher than males. This might have some implications in relation to the effects of sex ratio on ethnic inter-marriage (See Table 4.8).

**Table 4.8: Distribution of the Study Population by Ethnic Background and Sex**

Ethnicity by Category	Proportion by Sex			% From the Total Study Population
	Female	Male	Total	
Amhara	51.9%	48.1%	100%	55.3%
Foreigner	39.8%	60.2%	100%	4.7%
Gurage	55.1%	44.9%	100%	7.5%
Oromo	42.9%	57.1%	100%	17.7%
Others	46.4%	53.6%	100%	2.8%
Tigre	53.6%	46.4%	100%	11.9%
Total	50%	50%	100%	100%
N = 986 couples (1,972 individuals)				

Source: Computed from CRO marriage Records (1984-2001 E.C.)

### 5.1.2. Religion

In terms of religious affiliations, the study population is comprised of 86 percent Orthodox Christians, and 7 percent Protestants. Muslim and Catholic religion followers accounts for about 5 percent, 2 percent of the total study population respectively. The sex and religious composition of the study population indicate male dominance among Protestant, Catholic and other religion followers while females are the dominant among Orthodox and Muslim religion followers (See Table 4.9).

**Table 4.9: Religious Affiliations of the Study Population by Sex and Ethnicity**

Religion	Sex			% From the Total Study Population
	Male	Female	Total	
Orthodox	49.4%	50.6%	100%	86.3%
Muslim	48.9%	51.1%	100%	4.8%
Protestant	52.3%	47.7%	100%	6.7%
Catholic	69.2%	30.8%	100%	2%
Others	66.7%	33.3%	100%	0.3%
Total	50%	50%	100%	100%

N = 986 couples (1,972 individuals)

Source: Computed from CRO marriage Records (1984-2001 E.C.)

### 5.1.3. Education

The education profile of the study populations revealed that, the majority of the populations (79 percent) are found within the secondary level education category. On the other hand; those who belong to higher education level are very small. In relation to the sex composition of the study population, there are more female in the secondary, college and some college education levels, and in the primary education level, i.e., 53 percent and 62.5 percent respectively. In the higher education level, the proportion of male population exceeds that of female (See Table 4.10).

**Table 4.10: Distribution of the Study Population by Level of Education and Sex**

Level of Education	Sex			% From the Total Study Population
	Male	Female	Total	
Primary & Below	37.5%	62.5%	100%	11%
Secondary, College & Some College	47.2%	52.8%	100%	79.1%
Four Years University	84.6%	15.4%	100%	6.9%
Advanced Degree	88.5%	11.5%	100%	3.1%
Total	50%	50%	100%	100%

N = 986 couples (1,972 individuals)

Source: Computed from CRO marriage Records (1984-2001 E.C.)

### 5.1.4. Occupation

According to the table on the distribution of the study population by occupation type, the majority of the study populations (36 percent) are found in the Commerce, Service and Other occupation categories (See Table 4.11).

**Table 4.11: Distribution of the Study Population by Occupation Type and Sex**

Occupation by Category	Proportion by Sex			% From the Total Study Population
	Female	Male	Total	
Managerial & Professional	24%	76%	100%	14.6%
Technical & Clerical	35.4%	64.6%	100%	23.2%
Commerce, Service & Others	39%	61%	100%	36.3%
No Occupation	93%	7%	100%	26%
Total	50%	50%	100%	100%
N = 986 couples (1,972 individuals)				

Source: Computed from CRO marriage Records (1984-2001 E.C.)

Likewise, the least proportion of the study population (15 percent) is observed in the Managerial and Professional occupation categories. Regarding the sex composition of the study population, male populations are dominant in the first three consecutive categories, i.e., 76 percent, 64.6 percent, and 61 percent respectively. In contrast, more female population are found in the no occupation category (93 percent).

## CHAPTER FIVE

### RESULTS AND DISCUSSION

#### 5.1. Levels, and Trends in Ethnic Inter-marriage

The analysis of the levels and trends in ethnic inter-marriage is intended to show the prevalence and incidence of ethnic inter-marriage in the study population respectively. Trends have been analyzed by tracing registered marriage cases from 1984-2001 E.C. Analysis of trends involves comparison of proportion of occurrences or incidences of ethnic inter-marriage across individual years. This method will give a clear picture of the changing incidence of ethnic inter-marriage over time.

Analysis of levels involves comparison of prevalence across marriage cohorts, by socio-economic status, and by demographic characteristics of the study population. The level of ethnic inter-marriage is calculated using the stock of marriages in a specified study period which indicate of the prevalence of ethnic inter-marriage over a given period and among groups. The most general prevalence measure used in this study is the percentage of individuals from the total study population who are ethnically inter-married.

##### 5.1.1. Levels of Ethnic Inter-Marriage (EIM)

Analysis of the level of ethnic inter-marriage in Addis Ababa reveals that the phenomenon is prevalent among most of the population. Even though endogamous marriage is the dominant marriage among most of the ethnic groups considered in the study, throughout the study period, the level of the observed ethnic inter-marriage is over 25 percent and overall nearly 40 percent of the study population experienced ethnic inter-marriage.

To give a clear picture of the level of ethnic inter-marriage, the researcher has attempted to examine the variations in ethnic inter-marriage by analyzing patterns using background characteristics. Therefore, patterns of ethnic inter-marriage are examined with reference to the age and sex structure, previous marital status and migration status, place of birth, birth cohort and marriage cohort, ethnicity, religion, education, and type of occupation of the study

population. These factors are generally assessed using exploratory approach and will give us clues about the likely grounds for ethnic inter-marriage.

### 5.1.1.1. Levels by Socio-Economic Characteristics

Socio-economic characteristics of the study population include ethnic background, religious affiliation, level of education, and type of occupation.

#### 5.1.1.1.1. Ethnic background

The result of analysis using cross tabulation of the study population by sex and ethnicity indicate that Oromos (36%), Other ethnic groups (46.7%), and Gurages (47%) are less endogamous than Amhara (75.2%) and Tigre (59%). That means, compared to rest of the ethnic groups, the Oromos followed by Gurages and other ethnic groups are the most ethnically inter-married population. In terms of sex, males are more inter-married than females among Oromos, other ethnic groups, and Gurages while females among the Gurage, Oromo, and Tigre ethnic groups are found to be the most ethnically inter-married (See Table 5.1).

**Table 5.1: Distribution of Study Population by Sex and Ethnic Background**

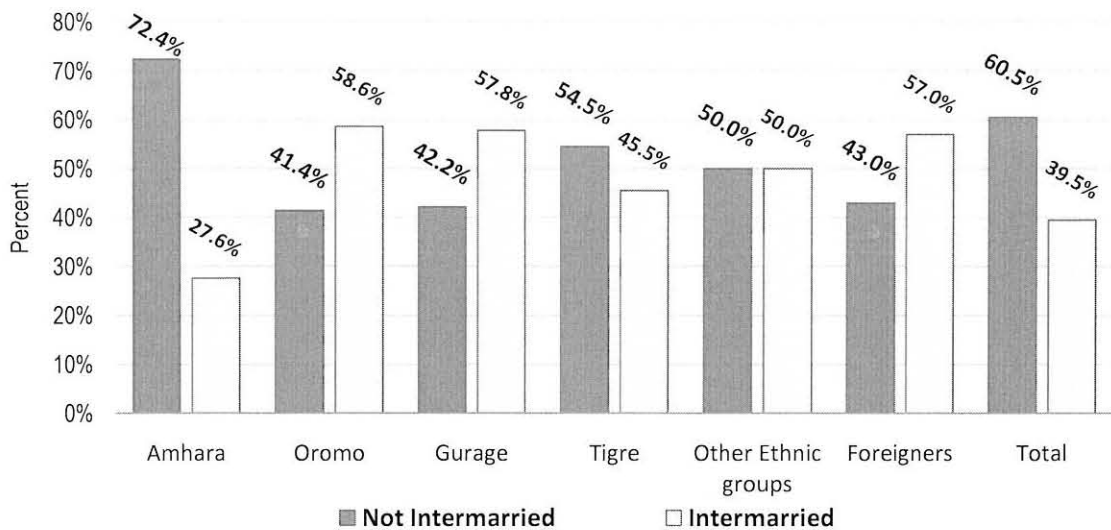
		Female					Row Total	% IM male
		<i>Amhara</i>	<i>Oromo</i>	<i>Gurage</i>	<i>Tigre</i>	<i>Others</i>		
<b>Male</b>	<i>Amhara</i>	75.2%	10.9%	6.3%	5.1%	1%	100%	24.8
	<i>Oromo</i>	46%	36%	6%	9.5%	2.5%	100%	64
	<i>Gurage</i>	31.8%	13.6%	47%	6.1%	1.5%	100%	53
	<i>Tigre</i>	25.7%	6.4%	.9%	58.7%	.9%	100%	41.3
	<i>Others</i>	40%	3.3%	6.7%	-	46.7%	100%	53.3
		Male					Row Total	% IM female
		<i>Amhara</i>	<i>Oromo</i>	<i>Gurage</i>	<i>Tigre</i>	<i>Others</i>		
<b>Female</b>	<i>Amhara</i>	69.8%	16.3%	3.7%	4.9%	2.1%	100%	30.2
	<i>Oromo</i>	38.0%	48.0%	6.0%	4.7%	.7%	100%	52
	<i>Gurage</i>	40.7%	14.8%	38.3%	1.2%	2.5%	100%	61.7
	<i>Tigre</i>	21.4%	15.1%	3.2%	50.8%	-	100%	49.2
	<i>Others</i>	19.2%	19.2%	3.8%	3.8%	53.8%	100%	46.2

N = 986 couples (1,972 individuals)

Source: Compiled from CRO marriage records (1984-2001 E.C.)

When we look in to the general patterns of the distribution of the study population by inter-marriage status and ethnicity; the Oromos are found to be the most ethnically inter-married population followed by Gurages (See Figure 5.1).

**Figure 5.1: Levels of EIM by Major Ethnic Groups (for both sex)**

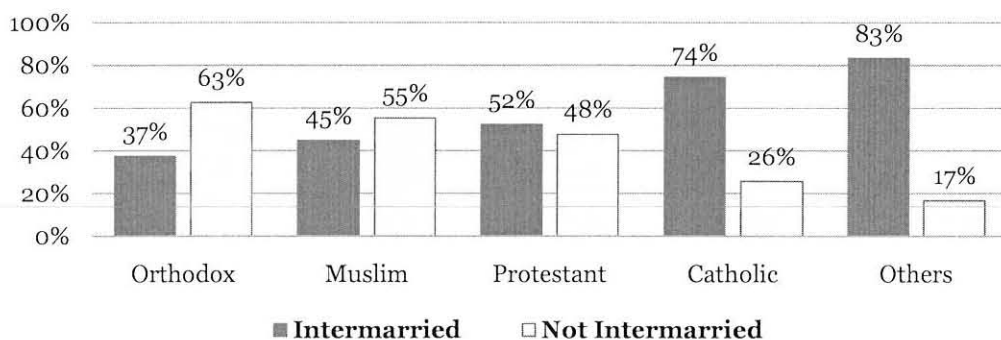


Source: Compiled from CRO marriage records (1984-2001 E.C.)

#### 5.1.1.1.2. Religion

When we look at figure 6.2 below, ethnically endogamous marriage has been the dominant marriage among Orthodox and Muslim religion followers whereas among Protestant, Catholic and Other religion followers, the level of ethnic inter-marriage exceeds ethnically endogamous marriage. This may indicate the importance of Protestant, Catholic and Other religions in terms of intensifying ethnic inter-marriage. Accordingly, we can say that religion might be more important than ethnicity for the observed difference in ethnic inter-marriage among Protestant, Catholic and Other religion followers (See Figure 5.2).

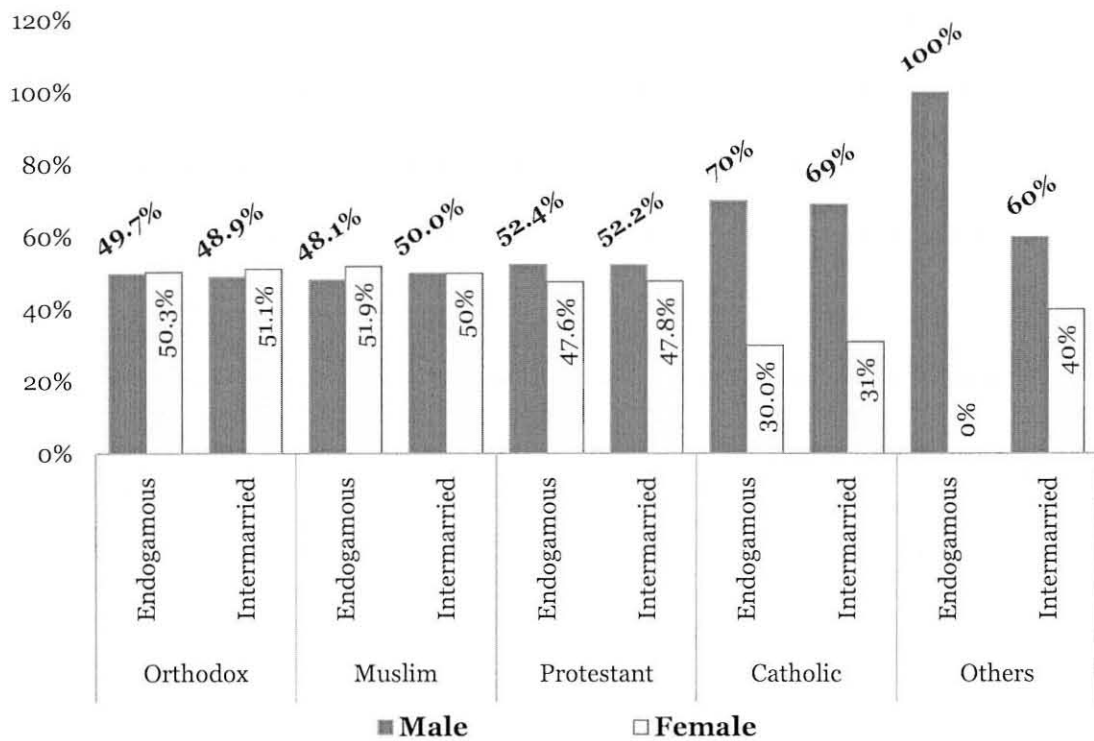
**Figure 5.2: Levels of EIM by Religion**



Source: Compiled from CRO marriage records (1984-2001 E.C.)

In terms of sex, among Orthodox religion followers, females are found to be most ethnically inter-married whereas among Protestant, Catholic and Other religion followers, the observed ethnic inter-marriage has been somewhat dominated by males. For Muslims, there is no difference by sex (See Figure 5.3).

**Figure 5.3: Levels of EIM by Religion and Sex**



Source: Compiled from CRO marriage records (1984-2001 E.C.)

Analysis of the level of religious inter-marriage using cross tabulation by religion and sex revealed that males from others (0%) and Catholic (25.9%) religions are religiously less endogamous as compared with males from Orthodox, Protestant, and Islam religions. Likewise, females from others (0%) and Catholic (58.3%) religions are found to be religiously less endogamous than females from Orthodox, Protestant, and Islam religions.

Therefore, we can say that religion might be more important for the observed ethnic inter-marriage among both sexes in the Orthodox, Islam, and Protestant religions among which religious endogamy is relatively high (See Table 5.2).

**Table 5.2: Distribution of the Study Population by Religion and Sex**

		Female					Total
		Orthodox	Islam	Protestant	Catholic	Others	
Male	Orthodox	98.3%	.8%	.1%	.6%	.1%	100%
	Islam	15.2%	84.8%	-	-	-	100%
	Protestant	10.1%	-	89.9%	-	-	100%
	Catholic	63%	7.4%	-	25.9%	3.7%	100%
	Others	100%	-	-	-	0%	100%
		Male					Total
Female	Orthodox	95.9%	.8%	.8%	2%	.5%	100%
	Islam	14.6%	81.3%	-	4.2%	-	100%
	Protestant	1.6%	-	98.4%	-	-	100%
	Catholic	41.7%	-	-	58.3%	-	100%
	Others	50%	-	-	50%	0%	100%

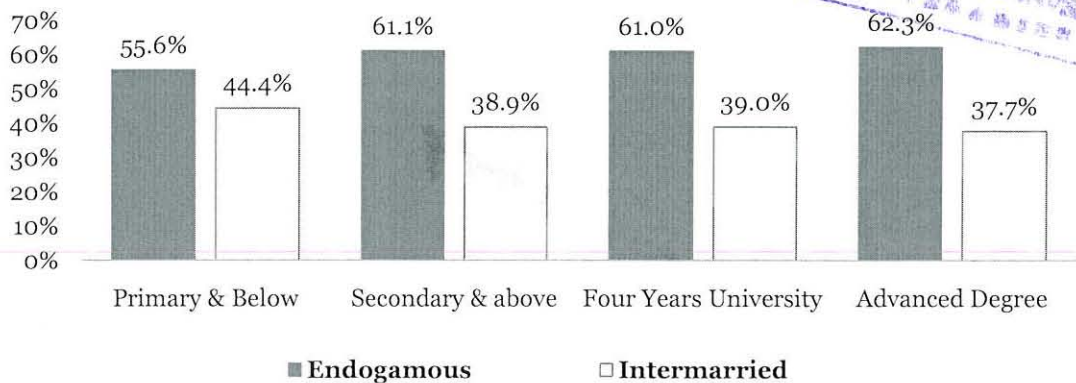
N = 986 couples (1,972 individuals)

Source: Compiled from CRO marriage records (1984-2001 E.C.)

**5.1.1.1.3. Education**

Based on the assessment made on CRO data; the study population who are within the primary and below primary education levels (44.4%) are more ethnically inter-married than those who are found in the rest of the education categories. Accordingly, the assumption made by some researchers, which stated that being in a relatively higher education contributes more to ethnic inter-marriage, might not be practical for the study population considered in this study (See Figure 5.4).

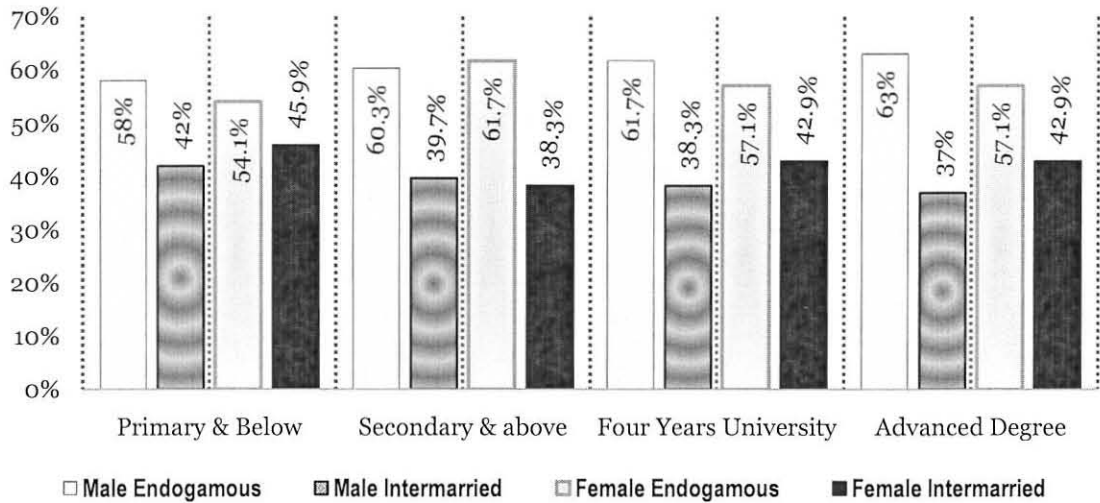
**Figure 5.4: Levels of EIM by Level of Education**



Source: Computed from CRO marriage records (1984-2001 E.C.)

When we compare the level of ethnic inter-marriage with the level of ethnic endogamy for male and female population in each education level, ethnically endogamous union exceed ethnic inter-marriage for both sexes at all levels of education (See Figure 5.5).

**Figure 5.5: Levels of EIM by Education & Sex**



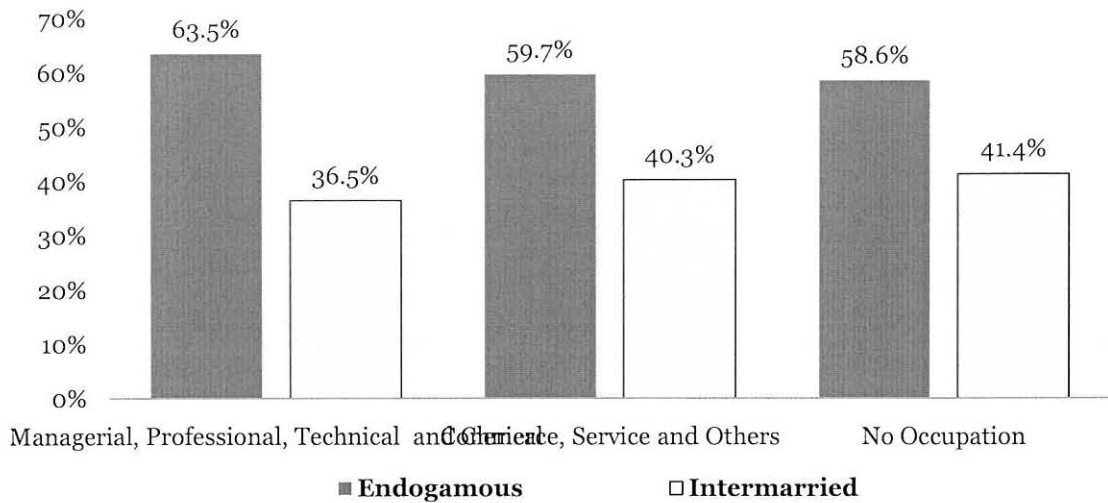
Source: Computed from CRO marriage records (1984-2001 E.C.)

The distribution of the study population by sex and level of education reveals that female inter-marriage is high in the primary and below primary education level and relatively low in the secondary and above secondary education levels (39.7%). However, female inter-marriage shows an increasing tendency in the four years and advanced education levels, i.e., 42.9% in each category. Hence, for females, being in the higher education levels seems to contribute more for the observed ethnic inter-marriage. However, for males, the level of ethnic inter-marriage shows a declining tendency with increase in the level of education. Therefore, we can say that education might have effect for the difference in the levels of ethnic inter-marriage especially among females (See Figure 5.5).

#### 5.1.1.1.4. Occupation structure

The occupation structure of the study population reveals that ethnically endogamous marriage dominates ethnic inter-marriage in most of the occupation categories. Besides, being in the prestigious job categories (Managerial, etc.) shows little effect on the observed levels of ethnic inter-marriage (See Figure 5.6).

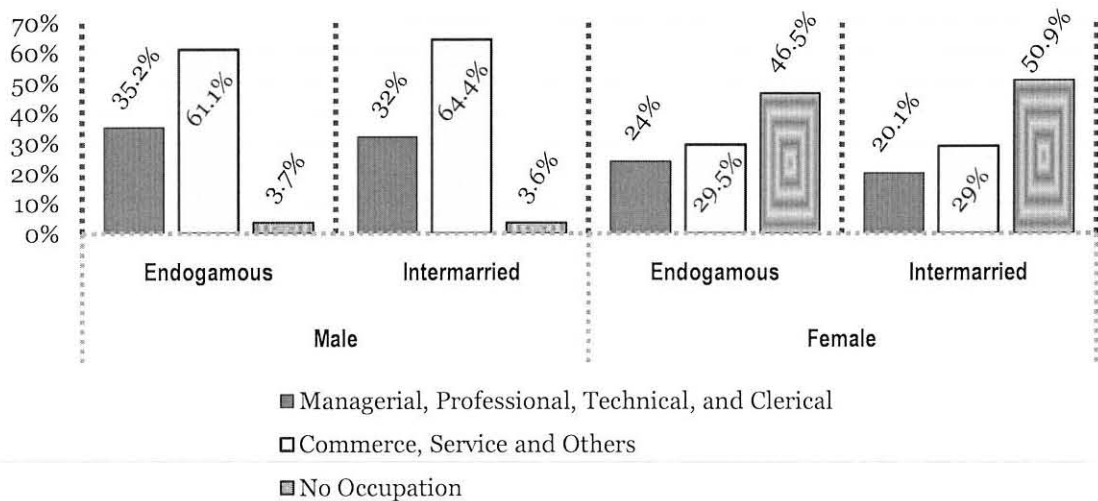
**Figure 5.6: Distribution of Study Population by Occupation and IM Status**



Source: Computed from CRO marriage records (1984-2001 E.C.)

Furthermore, looking in to the sex structure of the study population reveals that ethnic inter-marriage is found to be male dominant in most of the occupation categories except in the no occupation category where females (50.9%) experienced more ethnic inter-marriage than males (See Figure 5.7).

**Figure 5.7: Levels of EIM by Occupation and Sex**



Source: Computed from CRO marriage records (1984-2001 E.C.)

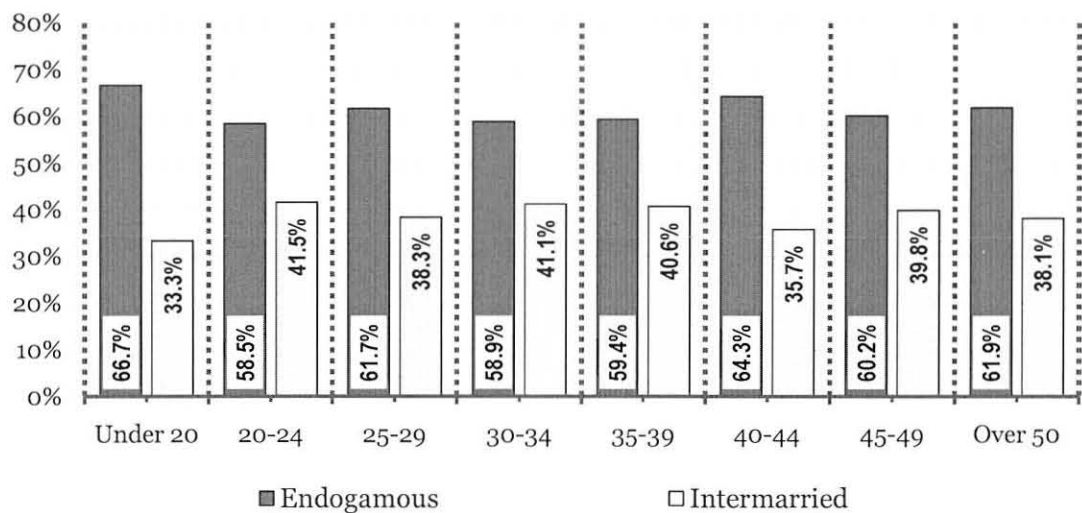
From figure 5.7 above, we can assume that the difference observed in the level of ethnic inter-marriage which is higher among females who have no occupation might be due to economic, cultural and other structural reason but still difficult to conclude.

### 5.1.1.2. Levels of EIM by Demographic Characteristics

#### 5.1.1.2.1. Age at Marriage

Even though ethnically endogamous marriage is the dominant marriage in all the age groups, the level of ethnic inter-marriage seemed to rise in the age group 20-24, and 30-39 age groups (See Figure 5.8).

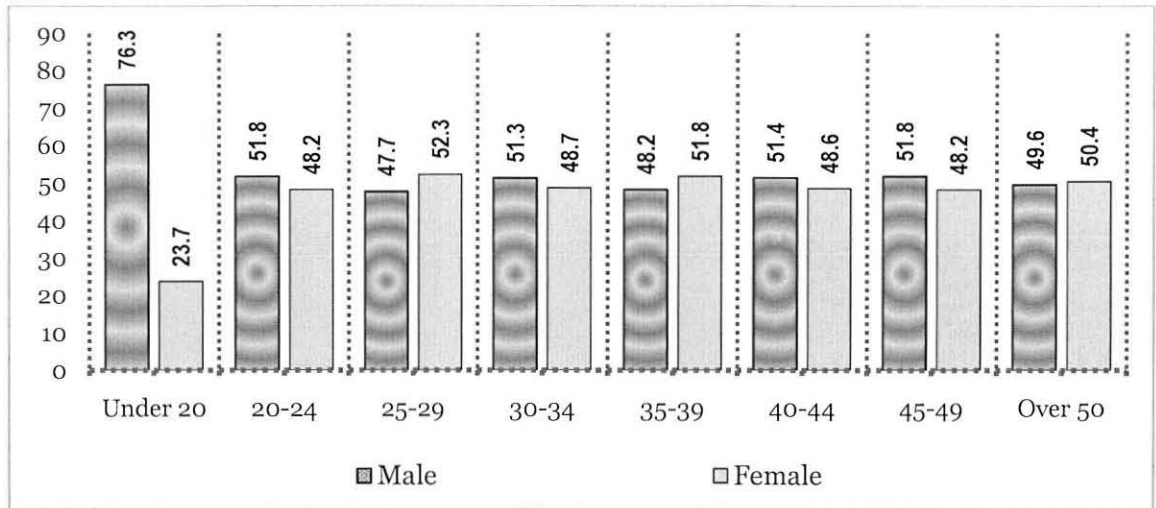
**Figure 5.8: Levels of EIM by Inter-marriage Status & Age**



Source: Computed from CRO marriage records (1984-2001 E.C.)

The sex and age structure of the study population indicates that ethnically inter-married male populations are found under age 24, 30-34, and 40-49 years. In contrast, female populations who are ethnically inter-married are found in the age group below age 25-29, 35-39, and Over age 50 (See Figure 5.9).

**Figure 5.9: Levels of EIM by Age and Sex**

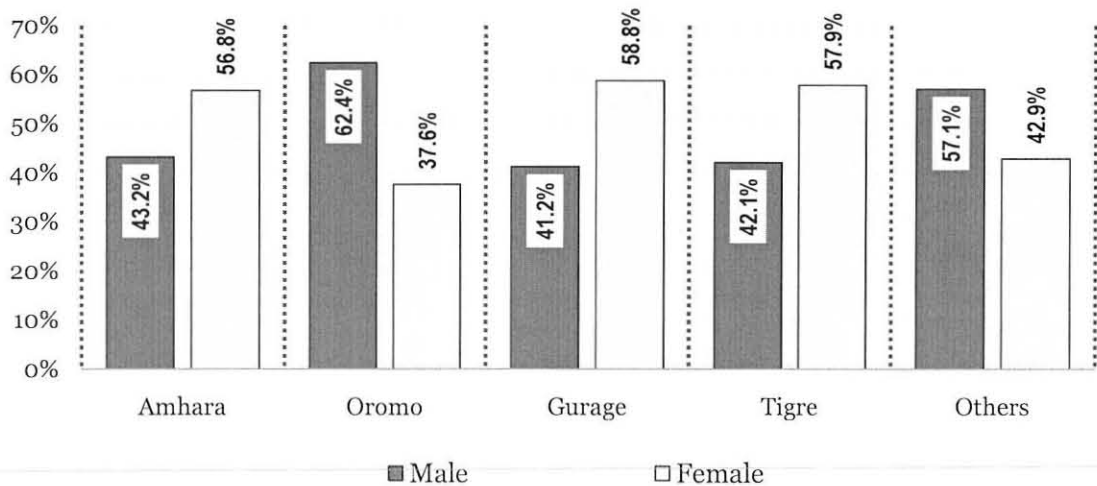


Source: Computed from CRO marriage records (1984-2001 E.C.)

#### 5.1.1.2.2. Sex

The study population is comprised of relatively more ethnically inter-married male population among Oromos and other ethnic groups. Likewise, more ethnically inter-married females are identified among Gurages, Tigres and Amharas (See Figure 5.10).

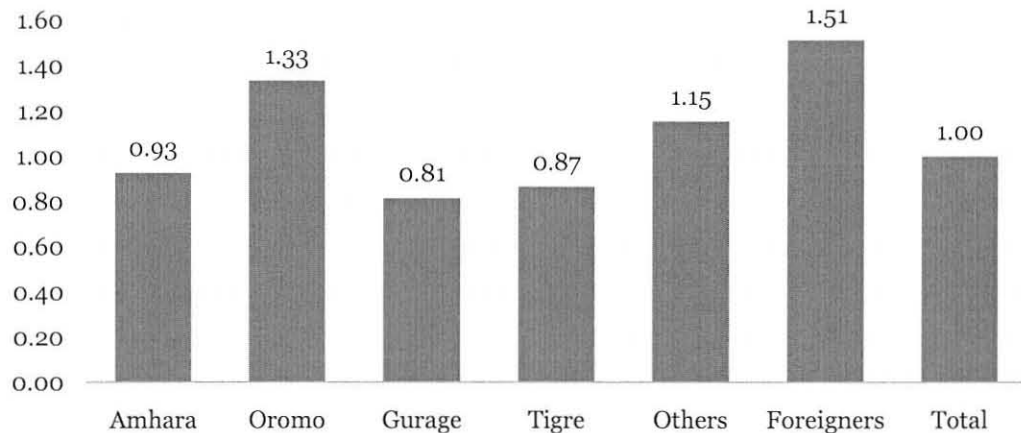
**Figure 5.10: Levels of EIM by Ethnicity and Sex**



Source: Computed from CRO marriage records (1984-2001 E.C.)

As to the sex ratio of the study population, the data indicates that there are more male population among Oromo and other ethnic groups while among Gurage, Tigre, and Amhara ethnic groups females are in excess of male population (See Figure 5.11).

**Figure 5.11: Sex Ratio of the Study Population by Ethnicity**



Source: Computed from CRO marriage records (1984-2001 E.C.)

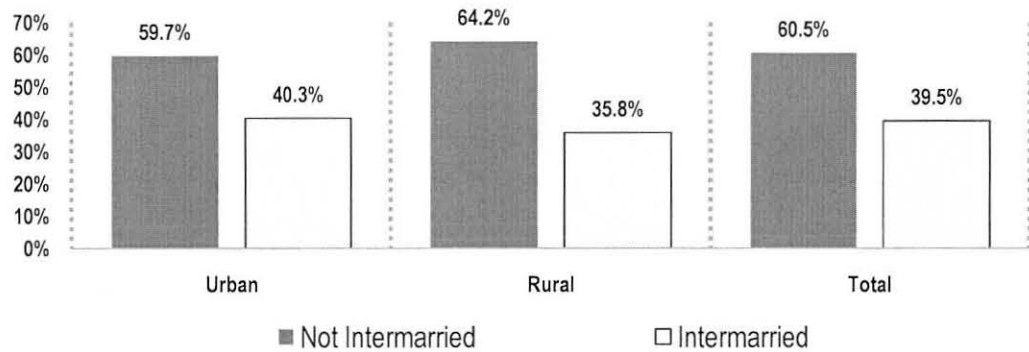
From this it is possible to assume that the presence of excess male population among the Oromos and other ethnic groups might facilitate the observed male out-marriages among the Oromos and other ethnic groups. In the same fashion, female out-marriage among Gurages, Tigres, and Amharas might be associated with shortage of male counter parts.

However, it cannot be considered as the only important factor for the observed ethnic inter-marriage because Oromo females have also experienced such out-marriage among their female population. Therefore, other structural factors like religion, language, culture, neighborhood, etc., might have their own contributions.

#### **5.1.1.2.3. Place of birth**

When comparison is made between places of birth, those segments of the study population who were born in urban areas seems to be more ethnically inter-married than their rural counterparts (See Figure 5.12). This might be due the effect of urbanization which is characterized by diversity and the change in the life style of the population.

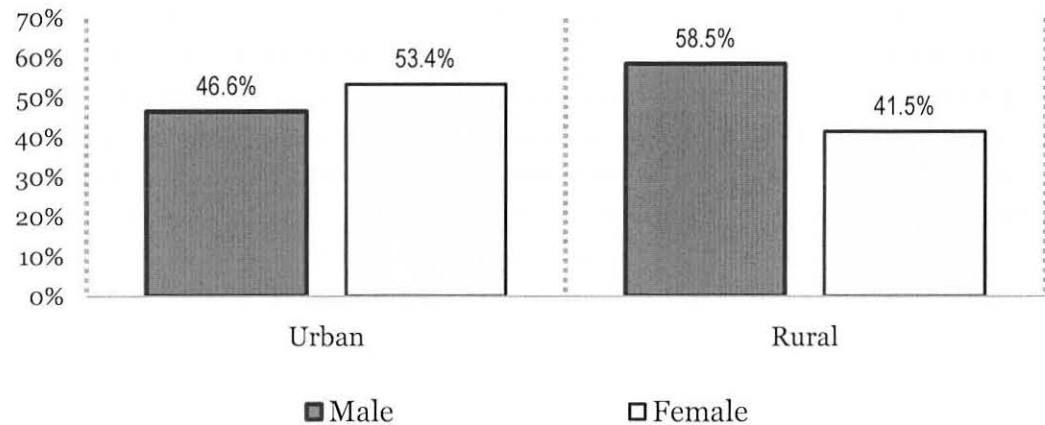
**Figure 5.12: Levels of EIM by Place of Birth**



Source: Computed from CRO marriage records (1984-2001 E.C.)

Likewise, females born in urban areas experienced more ethnic inter-marriage than their male counterparts. In contrast, male population born in rural areas dominates the observed ethnic inter-marriage as compared to female population born in rural areas (See Figure 5.13). This might be due to liberal life style in urban areas and the relative freedom of urban females than rural females from parental control.

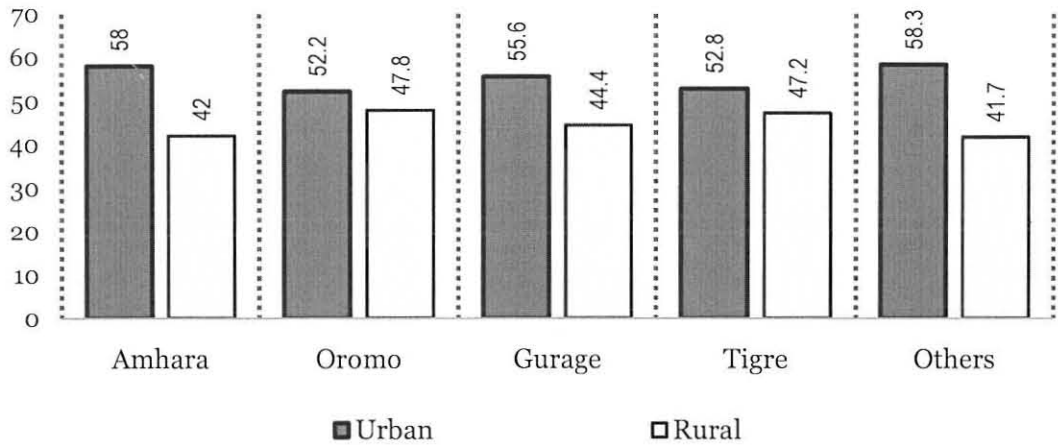
**Figure 5.13: Levels of EIM by Sex & Place of Birth**



Source: Computed from CRO marriage records (1984-2001 E.C.)

Besides, examining the levels of ethnic inter-marriage by place of birth and ethnicity reveals that among the major ethnic groups, people born in urban areas dominate the observed patterns of ethnic inter-marriage (See Figure 5.14).

**Figure 5.14: Levels of EIM by Place of Birth and Ethnicity**

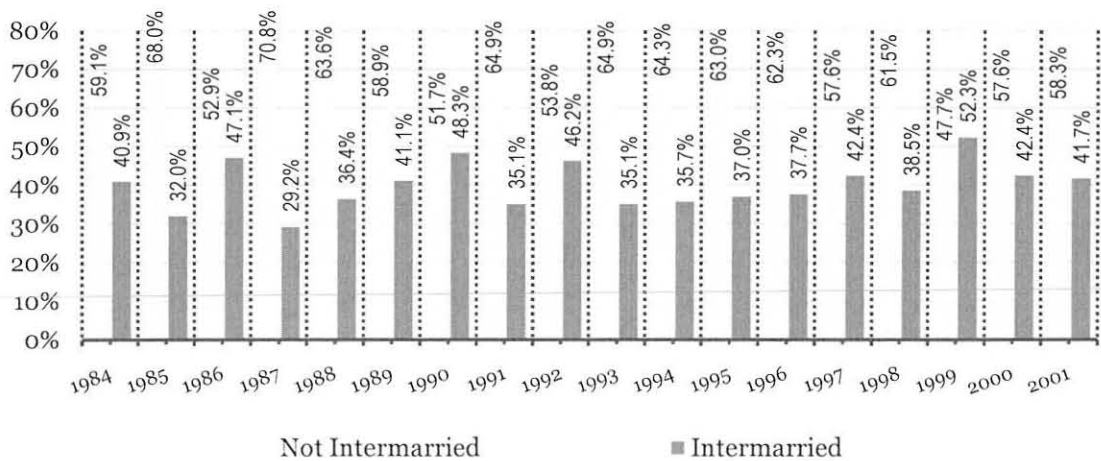


Source: Computed from CRO marriage records (1984-2001 E.C.)

#### 5.1.1.2.4. Marriage cohort

When we examine the levels of ethnic inter-marriage through marriage cohorts, the highest level in ethnic inter-marriage were detected in 1990, 1995 and 2001 E.C. while the lowest observations were noticed in 1984, 1985, 1986, 1991, 1993 and 1998 E.C., (See Figure 5.15). The years of marriage during which low levels of ethnic inter-marriage were observed might be associated with the major historical episodes in the political history of the country (i.e., end of the “Derg” regime, the Ethio-Eritrean conflict and the domestic conflict after the 1997 E.C. National Election).

**Figure 5.15: Levels of EIM by Year of Marriage (Marriage Cohort)**

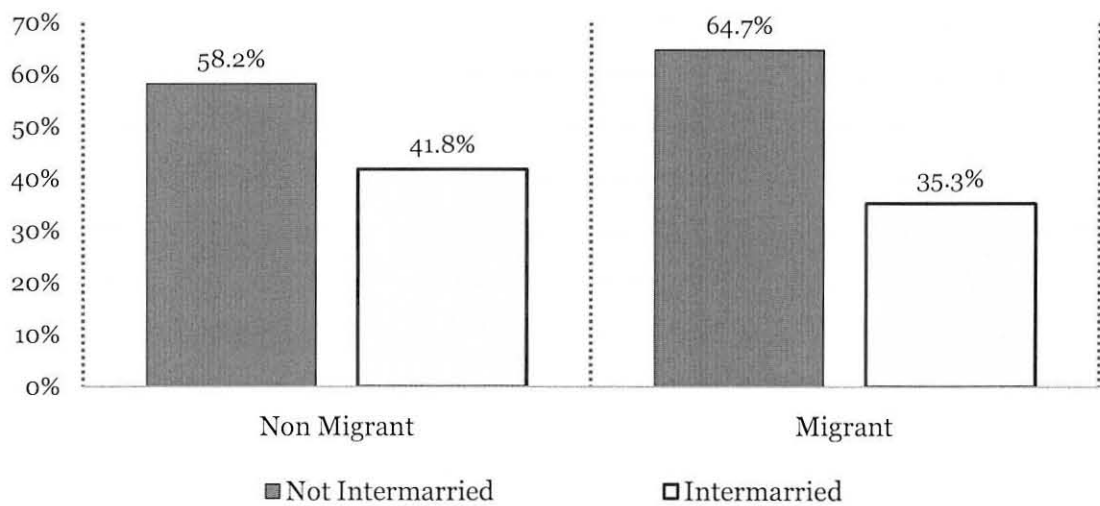


Source: Computed from CRO marriage records (1984-2001 E.C.)

#### 5.1.1.2.5. Migration status

The distribution of the study population by migration status reveals that non migrants are relatively more ethnically inter-married than migrants. This might indicate the effects of urbanism in facilitating smooth assimilation especially among those who were born in Addis Ababa than the in-migrants (See Figure 5.16).

**Figure 5.16: Levels of EIM by Migration Status**

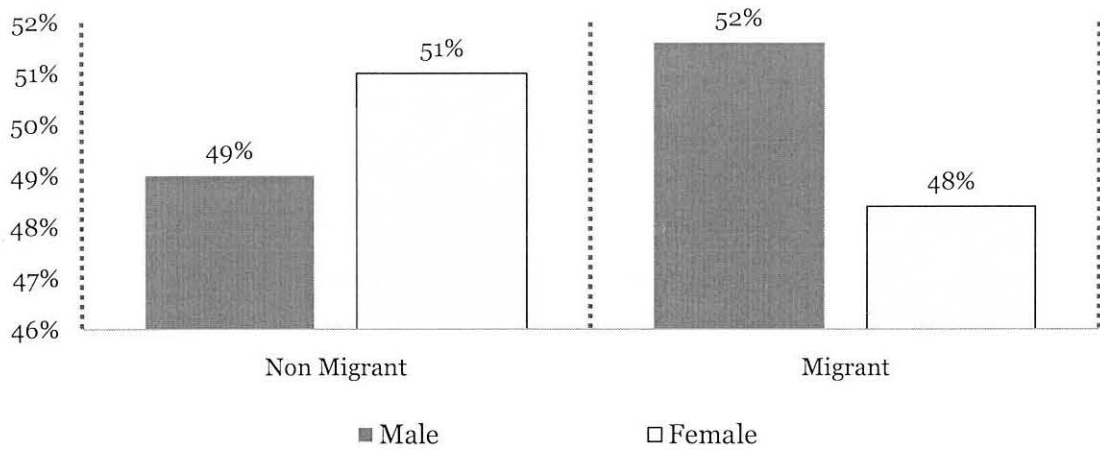


Source: Computed from CRO marriage records (1984-2001 E.C.)

Even though the finding does not support the theory that associates the occurrence of ethnic inter-marriage with migrants; it indirectly supports the assumption which associates ethnic inter-marriage with urbanization or the effects of urbanism, the effects of common language, religion, and culture (Wirth, 1928; Kalmijn, 1993).

When we observe the differentials in the levels of ethnic inter-marriage by sex and migration status; non-migrant female populations are found to be more ethnically inter-married than non migrant males. In contrast, among migrant population, ethnic inter-marriage is dominated by males than females (See Figure 5.17).

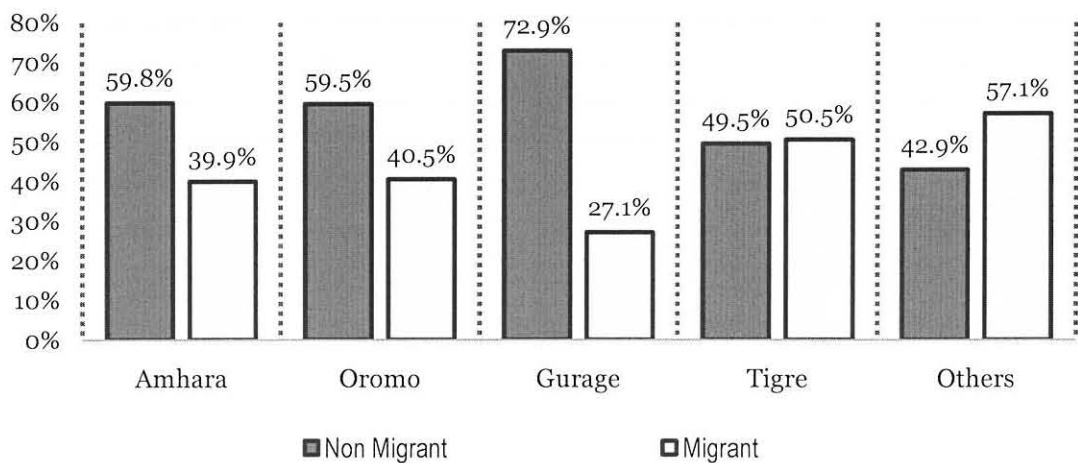
**Figure 5.17: Levels of EIM by Migration Status and Sex**



Source: Computed from CRO marriage records (1984-2001 E.C.)

Analysis of the levels of ethnic inter-marriage by migration status and ethnicity reveals that among the non-migrant populations; Gurages (72.9%), Amharas (59.8%), and Oromos (59.5%) are found to be most ethnically inter-married whereas among the migrant populations, other ethnic groups (57.1%) and Tigres (50.5%) are found to be more ethnically inter-married (See Figure 5.18).

**Figure 5.18: Levels of EIM by Migration Status and Ethnicity**

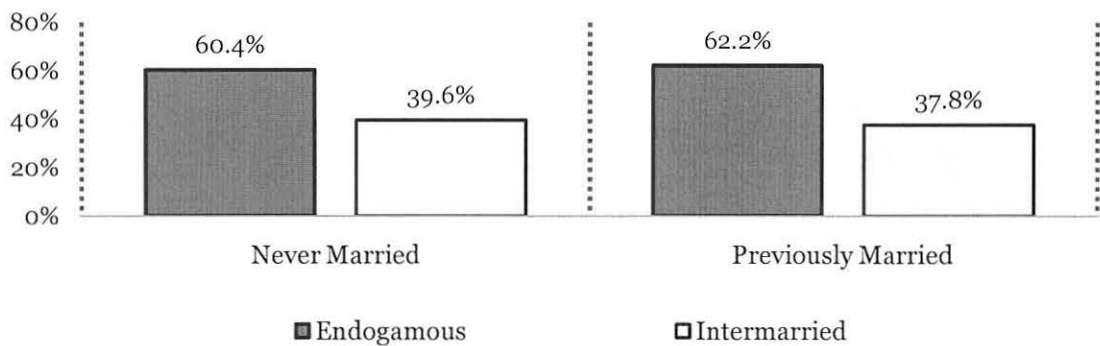


Source: Computed from CRO marriage records (1984-2001 E.C.)

### 5.1.1.2.6. Previous marital status

Analysis of effects of previous marital status on the level of ethnic inter-marriage among the study population reveals that more ethnically inter-married populations are found among the previously never-married or single population category (39.6%) than the previously married population category (See Figure 5.19).

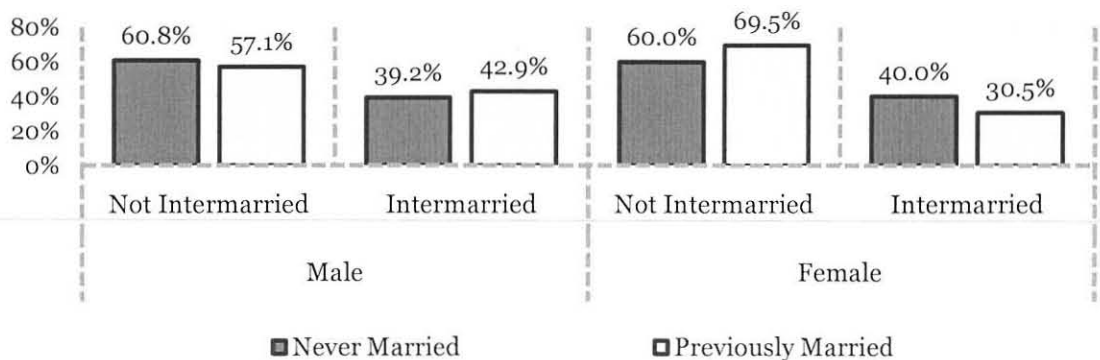
**Figure 5.19: Levels of EIM by Migration Status and Previous Marital Status**



Source: Computed from CRO marriage records (1984-2001 E.C.)

From the overall picture we can assume that being previously married facilitates little for the occurrence of ethnic inter-marriage than expected. However, the effect of previous marital status on the level of ethnic inter-marriage gives different results when the sex difference is considered. Accordingly, among the never married population females (40%) are found to be more ethnically inter-married than males. Likewise, among the previously married population, males (42.9%) are found to be more ethnically inter-married than females (See Figure 5.20).

**Figure 5.20: Levels of EIM by Previous Marital Status and Sex**



Source: Computed from CRO marriage records (1984-2001 E.C.)

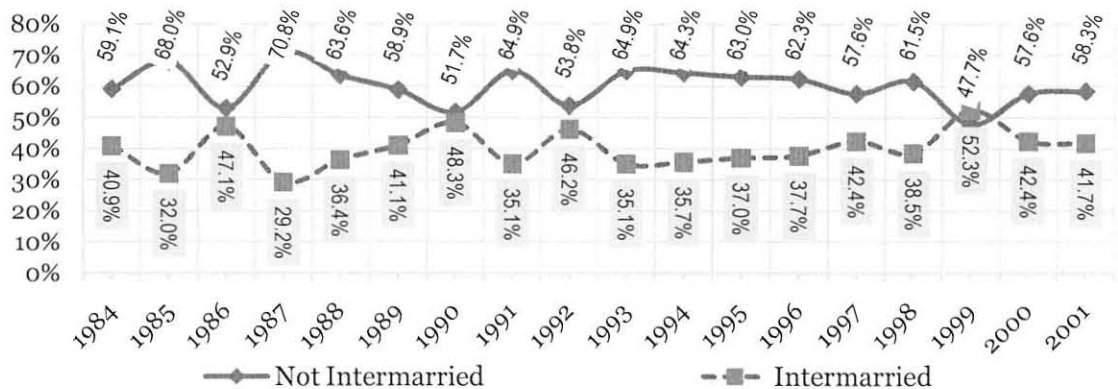
## 5.1.2. Trends in Ethnic Inter-Marriage

### 5.1.2.1. Trends by Ethnicity and Year of Marriage

Analyses of marriage records (1984-2001 E.C.) generally reveal that there is no uniform downward or upward trend in the incidence of ethnic inter-marriage in Addis Ababa over the last two decades. Even though the overall trend shows slight increase (0.3% per annum) in the incidence of ethnic inter-marriage, there are some ups and downs in the level of ethnic inter-marriage.

The overall trend also indicates that ethnic inter-marriage shows a slightly inverse relationship to endogamous marriage. This is presented in the figure below, which shows a decreasing tendency in the incidence of ethnic inter-marriage while there is increasing tendency in endogamous marriage (See Figure 5.21). Accordingly, the level of ethnic inter-marriage ranges from a minimum of 29.2 percent in 1987 E.C., to a maximum of 52.3 percent in 1999 E.C. Whereas, endogamous marriage reached its maximum level of 70.8 percent in 1987 E.C. and later declined to 47.7 percent in 1999 E.C.

**Figure 5.21: Trends of EIM against Endogamous Marriage**

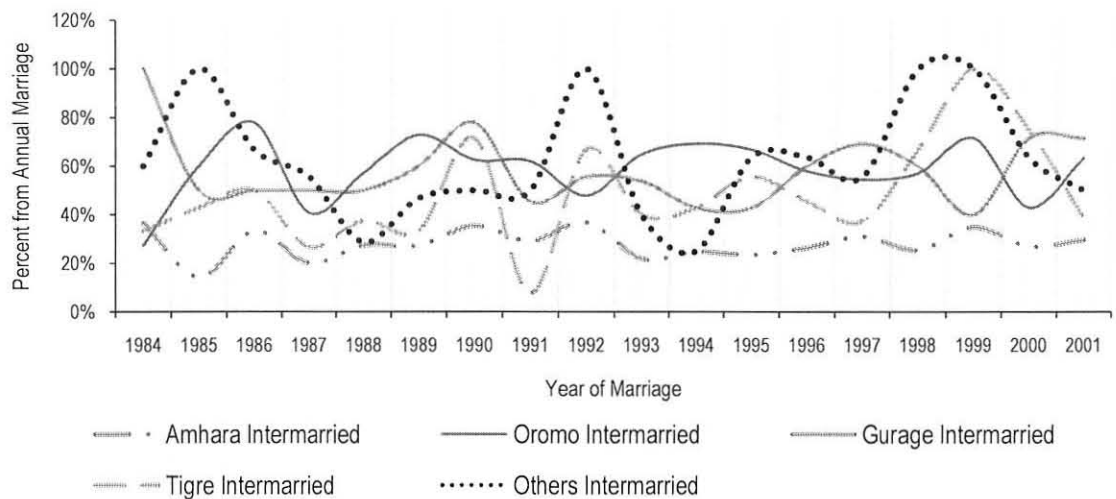


Source: Computed from CRO marriage records (1984-2001 E.C.)

Analysis of trends of ethnic inter-marriage by ethnicity reveals that among the Amharas, the level of inter-marriage seemed relatively stable across the years of marriage. Because, the variations observed in the rate of ethnic inter-marriage between and among the years is

relatively small. On the contrary, among the Oromos, Gurages, Tigres and other ethnic groups, relatively more variation has been observed (See Figure 5.22).

**Figure 5.22: Trends of EIM by Major Ethnic Groups & Year of Marriage**



Source: Computed from CRO marriage records (1984-2001 E.C.)

According to Figure 6.22; the lowest level of ethnic inter-marriage was observed in 1991 E.C., among Tigres, whereas among Gurages, Oromos and other ethnic groups, low level of ethnic inter-marriage was observed in 1987, 1994, and 1999 E.C., respectively. The years with low level of ethnic inter-marriage might be associated with the then political instability occurred in the country.

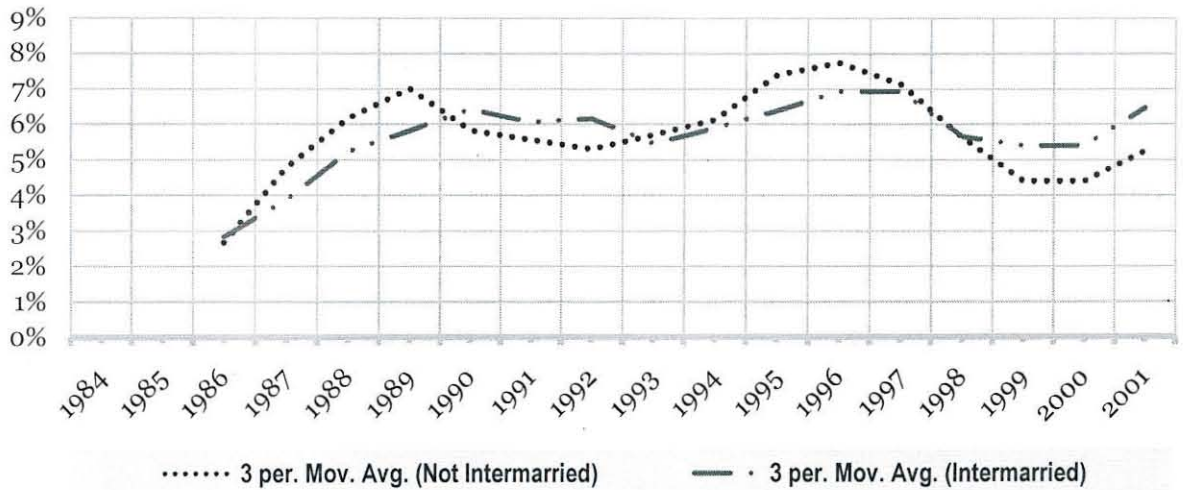
In 1999 E.C. except among the Gurages which experienced less ethnic-inter marriage; for the rest of the ethnic groups, the level of ethnic inter-marriage indicate an increasing tendency. The rise in the level of ethnic inter-marriage might be associated with events of “The 2000 Ethiopian Millennium.” In contrast, the decline among the Gurages might be associated with the occurrence of more endogamous marriage among the Gurages.

### 5.1.2.2. Changes in the Incidence of Ethnic Inter-Marriage

When we look at the variations in the general trends of ethnic inter-marriage in comparison to the level of endogamous marriage using three years moving average, the level of ethnic inter-marriage exceeds the level of ethnically endogamous marriage especially from 199-1992 E.C.

and again from 1998-2001 E.C.; whereas for the rest of the years, the level of ethnic inter-marriage were below the level of ethnically endogamous marriage (See Figure 5.23).

**Figure 5.23: Variations in the Levels of EIM by 3 Years Moving Average**

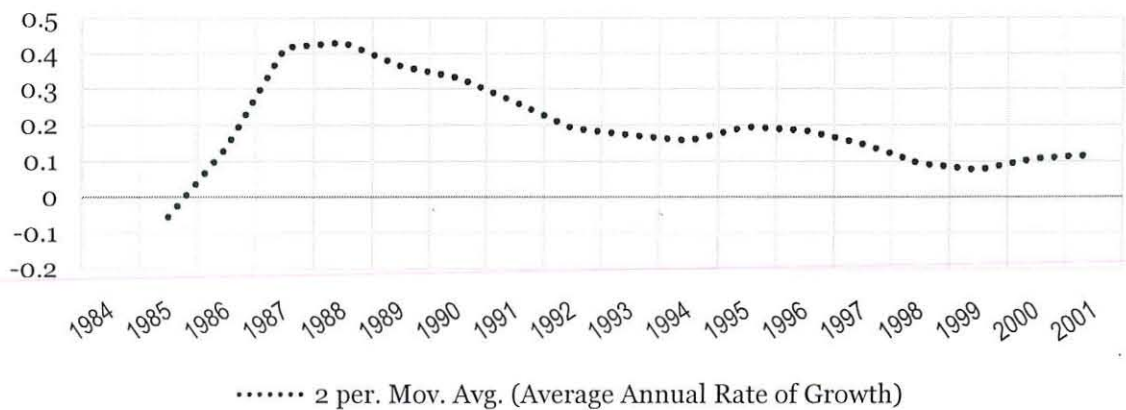


Source: Computed from CRO marriage records (1984-2001 E.C.)

### 5.1.2.3. Changes in the Rate of Ethnic Inter-Marriage

Examination of the average rate of growth in ethnic inter-marriage reveals that there was a sharp growth in the rate of EIM until 1987 E.C., followed by smooth decline until 1994 E.C. After 1995 E.C., the rate of ethnic inter-marriage shows slight rise followed by smooth decline until it reached its lowest level in 1998 and 1999 E.C. Then after, a slight increase in the level of ethnic inter-marriage has been observed (See Figure 5.24).

**Figure 5.24: Average Rate of Growth in EIM using 2-years moving Average**



Source: Compiled from CRO marriage records (1984-2001 E.C)

## 5.2. Differentials in Ethnic Inter-Marriage

While descriptive statistics presented in the previous section of this chapter especially the frequencies and percentages are simple and informative measures to describe the levels, trends and features of ethnic inter-marriage, they provide little information about the magnitude of ethnic inter-marriage because they lack a reference point or point of comparison. As a result, they cannot give detailed information about the preference or tendency to be ethnically inter-married. Such contrasting details can be discovered using multivariate (logistic regression) analysis (Hwang, et al, 1994; Kalmijn, 1998).

Logistic regression is the procedure of choice when we need to predict a categorical (usually dichotomous) dependent variable and a combination of independent variables representing a mix of data type (categorical and continuous). Logistic regression analysis involves fitting to the data an equation of the form:  $\text{logit}(\mathbf{p}) = \alpha + \beta_1\mathbf{X}_1 + \beta_2\mathbf{X}_2 + \beta_3\mathbf{X}_3 + \dots$

Where, **Logit (p)** is the log (to base  $e$  i.e., 2.71828) of the odds or likelihood ratio that the dependent variable shows success (1); **p** is probability of ethnic inter-marriage which only ranges from 0 (non occurrence) to 1 (occurrence) and **logit (p)** ranges from negative infinity to positive infinity.  $\alpha$  is the  $Y$ -intercept (constant term),  $\beta_i$  denotes coefficients of  $X_i$  and;  $X_i$  represents the respective independent or explanatory variables included in the model.

In this study, logistic regression is used to estimate the parameters in the model, i.e., to see the unique contribution of each predictor variable, and to conduct some determination on how well the model actually fits the observed data i.e., to determine the degree of variance in the response variable explained by the mix of predictor variables. Besides, logistic regression is applied to screen significant predictor variables. Parameter estimates are obtained using the maximum likelihood principle and assessment of fit is based on significance tests for the regression coefficients as well as on interpreting the multiple correlation coefficients. The parameters to be estimated from the available data are the logistic regression coefficients ( $\beta$ ).

Besides, using logistic regression, key predictor variable screening has been done according to the observed significance level in each variable. Here, sequential independent variable entry and removal method of logistic regression has been applied using 'Forward Selection Likelihood-Ratio' method. The criteria used for variable entry is significance of the score

statistic (0.05), and removal is done based on the probability of likelihood-ratio statistic (0.01) that is the maximum partial likelihood estimate.

Therefore, ethnic background, religious affiliation, migration status, birth cohort and education are found to be significant from among ten independent variables fitted in the model (i.e., birth cohort; marriage cohort; age at marriage; sex; previous marital status; type of marriage; ethnic background; religion; level of education; and migration status). Chi-square significance test of variable removal has also been done to see the level of significance of excluded variables from the fitted model (See Annex 4).

### **5.2.1. Model Fitting and Coefficient Estimation**

#### **5.2.1.1. Model Fitting**

In this study, twelve independent variables namely birth cohort, marriage cohort, age, sex, place of birth, previous marital status, type of marriage, ethnic background; religion, education, occupation, and migration status were initially considered as important variables which may predict the occurrence of ethnic inter-marriage in Addis Ababa. However, before conducting analysis of the differentials in ethnic inter-marriage using selected variables the significance of their contribution are properly assessed.

Consequently, several steps have been involved in assessing the appropriateness, adequacy and usefulness of the model. First, the overall model fitness has been tested. Then, the relative importance of each of the explanatory variables has been assessed using statistical tests of significance for coefficients.

#### **i) Overall Model Evaluation**

A logistic model is said to provide a better fit to the data if it demonstrates an improvement over the intercept-only model (also called the zero-model). The overall model evaluation includes inferential statistic tests such as Likelihood ratio test (-2LL) and classification table.

##### **(a) Likelihood Ratio Test**

In this study, the likelihood ratio test is applied to check the robustness of the fitted model. The likelihood ratio test (-2LL) for a particular parameter compares the likelihood of obtaining the required parameter estimate when the coefficient is zero ( $L_0$ ) with the likelihood ( $L_1$ ) of

obtaining the maximum likelihood estimate when coefficient changes. The -2LL, therefore, shows the difference between -2LL for the best-fitted model and -2LL for the initial zero-model (in which all the  $\beta$  values are set to zero). Accordingly, large value of -2LL and small computed p-value indicates no improvement in the fitted model.

Since the likelihood ratio statistic approximates a Chi-square distribution with degrees of freedom equal to the number of variables in the model, it is applied to test the statistical significance of the model. Accordingly, it is observed that there is change in the likelihood ratio statistic from 2646.227 in the initial intercept only model to 2423.434 in the last model which is comprised of five significant independent variables selected from ten independent variables initially entered for model fitting.

Therefore, in the last model, the -2LL shows improvement from the initial -2LL value (See Table 5.3). This signifies that the inclusions of significant independent variables contribute some in predicting the outcome variable (Inter-marriage Status).

**Table 5.3: Comparison of -2LL between Initial and Last Fitted Models**

Variable		Model LL (Log Likelihood)	Change in -2LL	df	Sig. of the Change
Step 0		.000	2646.227		
Step 1	Migration Status	.000	2646.185	2	.000
Step 2	Ethnic Background	-1323.093	62.658	5	.000
	Migration	-1358.060	132.593	2	.000
Step 3	Ethnic Background	-1307.651	138.850	5	.000
	Education	-1291.764	107.075	3	.000
	Migration Status	-1256.916	37.378	2	.000
Step 4	Ethnic Background	-1295.214	131.326	5	.000
	Religion	-1238.226	17.351	4	.002
	Education	-1286.615	114.128	3	.000
	Migration Status	-1245.468	31.835	2	.000
Step 5	Birth Cohort	-1229.551	16.620	4	.002
	Ethnic Background	-1290.311	138.141	5	.000
	Religion	-1230.802	19.121	4	.001
	Education	-1232.649	22.815	3	.000
	Migration	-1234.289	26.096	2	.000
Last Model			2423.434		.000

N = 986 couples (1,972 individuals)

**(b) Classification Table**

The classification tables shows summarized results of the logistic regression model in terms of observed versus predicted frequencies on the outcome variable. Hence, they are used to show the proportion of cases that the researcher has managed to classify or predict correctly. Such classification tables compute the percent of correct classification for ethnically not inter-married and ethnically inter-married cases of the dependent variable (coded as 0 and 1 respectively) as well as the percent of correct classification for the overall model.

Here, it should be noted that in the initial intercept only model, the weights of all independent variable are set to 0 (by default). Accordingly, it has been recognized that the classification table for the last fitted model shows improvement in its prediction power. The overall percent correctly predicted by the intercept only model was 60.5 percent. Whereas, the overall percent correctly predicted by the last model shows improvement to 67.2 percent (See Table 5.4).

**Table 5.4: Classification Table of the Last Model**

Observed (Step1)		Predicted		
		Intermarriage Status		Percentage Correct
		Not Intermarried	Intermarried	
Intermarriage Status	Not Intermarried	991	202	83.1
	Intermarried	445	334	42.9
Overall Percentage				67.2

The cut value is .500

The cut values presented above are requirements for distributing cases into one or the other of the predicted categories. In SPSS, a default threshold probability of 0.5 is set as a satisfactory decision rule (cut value). This implies that the outcome of interest has a 50% chance of occurring. Consequently, SPSS automatically classified the case as ethnically inter-married when the probability of the outcome (inter-marriage status) is greater than or equal to the cut value (0.5); and for the predicted probability less than 0.5 the case has been classified as not ethnically inter-married.

**ii) The goodness of fit of the model**

The goodness of fit of a model measures how well the model describes the response variable. Assessing the goodness of fit involves investigating how close values predicted by the model are to the observed values. The goodness of fit test includes Hosmer and Lemeshow statistics

which is an inferential test and two other descriptive measures of goodness of fit: Cox & Snell, and the Nagelkerke  $R^2$ .

These two descriptive measures are assumed to be analogous to the coefficients of determination ( $R^2$ ). However, these  $R^2$  measures are pseudo  $R^2$  because none of them renders the meaning of variance explained as in linear regression (Menard, 2000). For such reason, in this study, they are treated as supplementary and not used for model evaluation.

#### (a) Hosmer and Lemeshow Statistic

The Hosmer–Lemeshow test is a commonly used test for assessing the goodness of fit of a model. The test is similar to a  $\chi^2$  goodness of fit test and has the advantage of partitioning the observations into ten groups of approximately equal size, and therefore there are less likely to have groups with very low observed and expected frequencies. The Hosmer and Lemeshow statistic assumed that the selected model is a good one, i.e., the predicted values of the model does not significantly differ from the observed.

In the Hosmer and Lemeshow Chi-square, small Chi-square value and large p-value shows the better predictive ability of the model. If the p-value is less than 0.05, the model is considered as a poor fit for the data. Accordingly, for the last model, the Hosmer-Lemeshow test shows a Chi-Square value of 5.725 with 8 degrees of freedom and a P-value of 0.678 (i.e., >0.05). Therefore, the prediction of the fitted model can be considered as better quality than the initial zero (intercept only) model (See Table 5.5).

**Table 5.5: Hosmer and Lemeshow Statistic for Observed and Predicted Cases**

Step	Chi-square	Degree of freedom (df)	Sig.
1	5.725	8	0.678

N = 986 couples (1,972 individuals)

The above Hosmer-Lemeshow statistic is computed based on the Chi-square distribution of a 2 x 10 contingency table. Thus, it has (10-2 = 8) degrees of freedom.

#### 5.2.1.2. Coefficient Estimation

In this study, the estimated coefficients are predicted using maximum likelihood estimation. The 'Maximum Likelihood' Estimation (MLE) is an inbuilt statistical tool in SPSS for estimating the coefficients of a model that most likely predicts the event of interest. Hence, ten



independent variables have been entered in the final logistic regression model. After screening the best of these variables based on their significance in predicting the dependent variable; a refined model with five main effect variables has been used for final analysis and interpretation.

The selected main effect variables are migration status, education, birth cohort, ethnic background and religious affiliations. Besides, the significance of each dummy variable found within the respective independent variables has been tested by the level of the standard error, the level of significance (P-value), the magnitude of the odds ratio and the width of the confidence intervals for each variable. Based on such criteria, the most significant predictor variables and categories (dummy variables) selected for in-depth logistic regression analysis are presented in the following section.

#### **5.2.1.3. Interpretations of Coefficients**

To assess the association between the dependent variable and each of the independent variables, the odds ratio (the ratio of the probability that the event will occur divided by the probability that the event will not occur) of each independent variable has been examined. Odds ratios have two important advantages.

First, they provide a reference point, i.e., significant odds ratio greater than one indicate that there is more inter-marriage than expected, i.e., the larger the odds ratio, the greater the degree of ethnic inter-marriage. Second, odds ratios are useful for comparing ethnic inter-marriage across groups because unlike percentages, they are independent of the relative sizes of the contrast groups.

As to the specific interpretation of the estimates of the odds ratio, a positive coefficient ( $\beta > 0$ ) indicates that the odds of an event (ethnic inter-marriage) increase as the predictor value increases and a negative coefficient ( $\beta < 0$ ) indicates a decrease in the odds of an event as the predictor decreases. Likewise, a coefficient ( $\beta$ ) which is equal to zero ( $\beta = 0$ ) indicates constant odds of an event, i.e., the odds ratio will be one for any predictor included in the model. In contrast, an odds ratio less than 1 indicates that the outcome is more likely even if the predictor is absent. For a given predictor, if the odds ratio is greater than one; it indicates that the probability of an event of interest (ethnic inter-marriage) is higher for the specified group compared with the respective reference category (See Table 5.6).

**Table 5.6: Regression Results for Statistically Significant Independent Variables**

Dependent Variable: *Inter-Marriage Status*

Variables Screened (Step 5)	B	S.E.	Wald	df	Sig.	Exp(B)
Birth Cohort			16.376	4	.003	
Before 1950s	RC					
1950s	-.451	.138	10.689	1	.001	.637
1960s	-.379	.123	9.554	1	.002	.684
1970s	-.209	.153	1.853	1	.173	.812
After 1970s	.913	.744	1.503	1	.220	2.491
Ethnic Background			131.785	5	.000	
Amhara	RC					
Oromo	1.287	.130	97.540	1	.000	3.621
Gurage	1.219	.183	44.591	1	.000	3.383
Tigre	.871	.152	32.893	1	.000	2.388
Others	.876	.288	9.229	1	.002	2.402
Foreigners	.687	.280	6.026	1	.014	1.988
Religion			18.084	4	.001	
Orthodox	RC					
Islam	-.031	.226	.019	1	.892	.970
Protestant	.481	.195	6.085	1	.014	1.618
Catholic	1.327	.409	10.547	1	.001	3.770
Others	1.765	1.156	2.332	1	.127	5.844
Level of Education			22.611	3	.000	
No Education	RC					
Primary & Below	-.523	.115	20.663	1	.000	.593
Secondary Education	-.580	.211	7.533	1	.006	.560
Higher Education	-.596	.294	4.102	1	.043	.551
Migration Status			25.614	2	.000	
Non Migrant	RC					
Migrant	-.454	.098	21.309	1	.000	.635
Foreigners	.562	.444	1.601	1	.206	1.754
Constant	-.862	.080	116.965	1	.000	.422

N = 986 couples (1,972 individuals)

RC = reference category

\* p < 0.05; \*\* p < 0.01;

\*\*\* p < 0.001

Exp(B) = 2.71828<sup>β</sup>

#### 5.2.1.4. Analysis of Differentials in Ethnic Inter-Marriage

The values in the Exp (β) columns of the logistic regression table represent the predicted odds ratios for each category in the selected independent variables. Based on these values, the unique effect of each category has been assessed. Accordingly, the results have been discussed below.

## **(a) Differentials in Ethnic inter-marriage**

### **i) Ethnic Background**

When we examine the main effects of being in a given ethnic enclave using Amharas as a reference category, the likelihood of ethnic inter-marriage indicates that Oromos are 3.62 times more likely to be in ethnic inter-marriage than the Amharas. In other words, the likelihood of being ethnically inter-married is 262% higher for Oromos than Amharas. For Gurages, the likelihood of being in ethnic inter-marriage is 3.38 times or 238% more likely than the Amharas. Likewise, the likelihood of being ethnically inter-married for Tigres is 2.39 times or 139% higher than the Amharas. For other ethnic groups, the likelihood of being ethnically inter-married is 2.4 times (140%) higher than the Amharas (See Table 5.6). In general, the results of assessments of the main effect of ethnic background on ethnic inter-marriage indicates that the probability of being ethnically inter-married is much higher for Oromos and Gurages followed by other ethnic groups and Tigres than Amharas.

### **ii) Religion**

Even though previous research based on the Ethiopian ethnic makeup has never been done, the effect of religion on ethnic inter-marriage had been widely discussed in other parts of the world and it is argued that groups with the same religion tend to inter-marry (Kalmijn, 1993). Accordingly, using Orthodox religion as a reference category, being in Protestant and Catholic religions shows much more significant effects for the observed ethnic inter-marriage among the study population.

When we look at the likelihood of being in ethnic inter-marriage among religions which are categorized as others, it is 5.8 times higher than Orthodox Christians, i.e., 484% higher for people in other religions than Orthodox Christians. However, it is not statistically significant (See Table 5.6). This may be due to chance. Likewise, ethnic inter-marriage is 0.97 times or 3% less likely for Muslims than Orthodox Christians. This might be due to chance too. In contrast, ethnic inter-marriage is 3.8 times or 277% more likely for Catholic Christians than Orthodox Christians, and 1.62 times or 62% more likely for Protestants than Orthodox Christians.

According to the findings, there is extra tendency for Catholic and Protestants to out-marry than Orthodox Christians. That means for ethnic inter-marriage to take place being Catholic

and being Protestant religion follower contributes a lot than the case with Orthodox Christians. This may be because; Catholic and Protestant denominations prefer religious endogamy. In contrast; for ethnic inter-marriage to take place, religion might contribute less for Orthodox Christians as compared with Catholics and Protestants.

### **iii) Migration Status**

In the broad-spectrum, the difference in the likelihood of ethnic inter-marriage between migrant and non migrant (the reference category) is statistically significant. Accordingly, migrants have 0.635 times less likely to be in ethnic inter-marriage than the non migrants. This means that migrants have 36.5% lower chance of being ethnically inter-married as compared with non migrants (See Table 5.6).

This finding confirms the assumptions of previous researches (Kalmijn 1993; Feliciano, 2001). One of the possible explanations might be due to the growing size of the migrants. According to previous researches (Kalmijn 1993; Feliciano, 2001), migrants might have high tendency to out-marry only where there is little chance to meet their own co-ethnic with similar socio-economic status.

Besides, the larger the number of in-migrant in an area especially in an urban setting, the more likely they might marry their own group due to sufficient supply of marriageable people with similar background (Kalmijn, 1993). Furthermore, in a metropolitan setting where there is complex socio-economic interaction and liberal life style, non migrants often out-marry than migrants. This may be due to the effects of urbanism which is often manifested by the less rigid societal structure of urban areas and the use of common working language (Kalmijn, 1993).

### **iv) Birth Cohort**

The researcher has also assessed the effects of birth cohort on the differentials in the occurrence of ethnic inter-marriage in the study population. Accordingly, the reference category being the birth cohort before 1950, people in the 1950s and 1960s birth cohorts are found to have statistically significant effect for the observed ethnic inter-marriage than cohorts before 1950s. Among cohorts of the 1950s, the likelihood of being ethnically inter-married is 0.64 times or 36.3% lower than the case for the reference category (birth cohort before 1950)

(See Table 6.8). When we look at the 1960s birth cohort, the likelihood of being ethnically inter-married is 0.68 times or 32% less than the case for the birth cohort before 1950. For the rest of the birth cohorts considered in this study (cohorts of the 1970s & after), though the odds ratio of being ethnically inter-married shows relatively high value, it is statistically insignificant (See Table 5.6).

Considering the effects of birth cohorts, the finding does not confirm the assumption that there may be more ethnic inter-marriage among young birth cohorts than older cohorts (Kalmijn, 1993). This might be due to increasing in-migration to the city which might supply sufficient number of co-ethnics in the marriage market (Blau and Schwartz, 1984; Hwang, et al, 1994; Kalmijn, 1998). However, needs further study.

#### **v) Education**

When we examine the differential effects of education using the no education category as a reference category, the likelihood of being in ethnic inter-marriage shows a decreasing tendency for all levels of education. Accordingly, those who are found in the primary and below primary education level are 0.59 times (41%) less likely to be in ethnic inter-marriage than those in the no education category. Likewise, those who are found in the secondary education level are 0.56 times (44%) less likely to be in ethnic inter-marriage than in the no education category. Besides, for those found in the higher education category, the likelihood of being ethnically inter-married is 0.55 times (45%) less than the reference group (See Table 5.6).

This implies that in the study population, ethnic inter-marriage has no direct association with increase in the levels of education as argued in some studies (Lieberson & Waters, 1988). Rather it seems that ethnic inter-marriage has inverse relationship in the case of the study population.

Therefore, the finding is not consistent with earlier assumptions which consider that ethnic inter-marriage increase with increase in the level of education. This might be due to the more important roles played by language, cultural similarity, neighborhood effect, religion and urbanism other than education or may be due to availability of partners at marriageable age with similar ethnic background in the marriage market (Furtado, 2006; Blau, et al, 1984; Alba et al, 1997; Kalmijn, 1998).

### 5.3. EIM and Divorce among the Study population

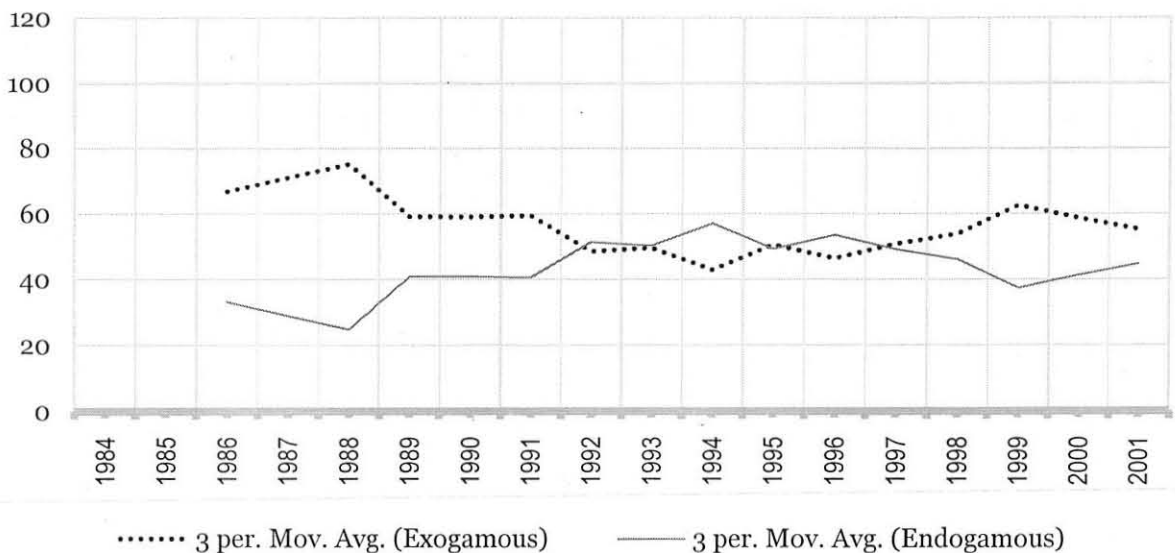
A general assessment of divorce among ethnically inter-married couples in the study population is made based on associated divorce cases obtained from CRO marriage records. In this study, since there is no sufficient observation for divorce cases in the study population, multivariate analysis becomes difficult. Therefore, the association between marital dissolution and ethnic inter-marriage has been assessed only using descriptive statistics (graphs and cross-tabs).

#### 5.3.1. Trends of Divorce in the Study Population

Trends of divorce among ethnically inter-married (Exogamous) and not inter married (Endogamous) population by years moving average of divorce cases indicates that divorce is high among ethnically endogamous couples in the years from 1992 - 1996 E.C..

In contrast, among ethnically exogamous (inter-married) couples, except in the years from 1992 - 1996 E.C. there is high divorce in the rest of the years (See Figure 5.25). From this we can assume that divorce is more prevalent among ethnically inter-married couples than ethnically endogamous couples i.e., consistent with the assumptions made in earlier studies.

**Figure 5.25: Trends of Divorce by IMS & Year of Divorce (1984-2001 E.C.)**



Source: Compiled from CRO marriage Records (1984-2001 E.C.)

## 5.3.2. Level of Divorce among the Study Population

### 5.3.2.1. Level of Divorce by Inter-Marriage Status

When we examine the extent of divorce among the study population, 86.5 percent of them are found in intact marriage while 13.5 percent experienced divorce. Comparison of the level of divorce by inter-marriage status indicates that ethnically inter-married couples somewhat experienced slightly more divorce (14.6) than endogamous couples (See Table 5.7).

**Table 5.7: Divorce by Current Marital Status & Inter-Marriage Status**

Current Marital Status	Inter-marriage Status		Total
	Not Inter-married	Inter-married	
Intact Marriage	1,041 (87.3%)	665 (85.4%)	1,706 (86.5%)
Divorced	152 (12.7%)	114 (14.6%)	266 (13.5%)
Total	1,193 (100%)	779 (100%)	1,972 (100%)
N = 986 couples (1,972 individuals)			

Source: Compiled from CRO marriage Records (1984-2001 E.C.)

### 5.3.2.2. Level of Divorce by Ethnic Background

When we examine the extent of divorce by ethnic background, it is very high among ethnically inter-married population of other ethnic groups, Tigres, Gurages, and Oromos than Amharas. In contrast, it is relatively high among endogamous Oromos (See Table 5.8).

**Table 5.8: Divorce by Current Marital Status & Ethnic Background**

Ethnic Background	Current Marital Status	Inter-marriage Status		Total
		Not Inter-married	Inter-married	
Amhara	Intact	87.8%	87.4%	87.7%
	Divorced	12.2%	12.6%	12.3%
	Total	100%	100%	100%
Oromo	Intact	86.2%	88.3%	87.4%
	Divorced	13.8%	11.7%	12.6%
	Total	100%	100%	100%
Gurage	Intact	90.3%	82.4%	85.7%
	Divorced	9.7%	17.6%	14.3%
	Total	100%	100%	100%
Tigre	Intact	87.5%	80.4%	84.3%
	Divorced	12.5%	19.6%	15.7%
	Total	100%	100%	100%
Other Ethnic groups	Intact	100%	78.6%	89.3%
	Divorced	0%	21.4%	10.7%
	Total	100%	100%	100%

Source: Compiled from CRO marriage Records (1984-2001 E.C.)

### 5.3.2.3. Level of Divorce by Education

Divorce is high among those who are in the secondary and higher levels of education which are found in both ethnically inter-married and ethnically endogamous population. Yet, there is relatively more divorce among ethnically endogamous couples than ethnically inter-married couples (See Table 5.9).

**Table 5.9: Level of Divorce by IM Status & Education**

Level of Education	Current Marital Status	Intermarriage Status		Total
		Not Inter-married	Inter-married	
No Education	Intact	90%	100%	94.1%
	Divorced	10%	0%	5.9%
	Total	100%	100%	100%
Primary Education	Intact	89.1%	88.8%	88.9%
	Divorced	10.9%	11.2%	11.1%
	Total	100%	100%	100%
Secondary Education	Intact	86.3%	84.6%	85.7%
	Divorced	13.7%	15.4%	14.3%
	Total	100%	100%	100%
Higher Education	Intact	86.7%	86.5%	86.6%
	Divorced	13.3%	13.5%	13.4%
	Total	100%	100%	100%

Source: Compiled from CRO marriage Records (1984-2001 E.C.)

### 5.3.2.4. Level of Divorce by Type of Occupation

Except in the commerce, services and other occupation categories, and no occupation categories; divorce is relatively low among the ethnically inter-married population who are found in the managerial, professional, technical, and clerical occupations. In contrast, divorce is high among ethnically endogamous population who are found in the managerial, professional, technical and clerical occupation categories (See Table 5.10).

**Table 5.10: Level of Divorce by IM Status & Occupation**

Occupation Category	Current Marital Status	Intermarriage Status		Total
		Not Inter-married	Inter-married	
Managerial, Professional and Clerical	Intact	83.9%	86.2%	84.7%
	Divorced	16.1%	13.8%	15.3%
	Total	100.0%	100.0%	100.0%
Commerce, Service and Others	Intact	88.7%	84.9%	87.2%
	Divorced	11.3%	15.1%	12.8%
	Total	100.0%	100.0%	100.0%
No Occupation	Intact	88.7%	85.4%	87.3%
	Divorced	11.3%	14.6%	12.7%
	Total	100.0%	100.0%	100.0%

Source: Compiled from CRO marriage Records (1984-2001 E.C.)

### 5.3.2.5. Level of Divorce by IM Status and Migration Status

Compared with migrants, the level of divorce is relatively very high among non migrants of ethnically inter-married couples/individuals. In contrast, there is no difference in the level of divorce among those who are in endogamous marriage (See Table 5.11).

**Table 5.11: Level of Divorce by IM Status & Migration Status**

Migration Status	Current Marital Status	Intermarriage Status		Total
		Not Inter-married	Inter-married	
Non Migrant	Intact	87.6%	84.5%	86.3%
	Divorced	12.4%	15.5%	13.7%
	Total	100%	100%	100%
Migrant	Intact	87.6%	87%	87.4%
	Divorced	12.4%	13%	12.6%
	Total	100%	100%	100%

N = 986 couples (1,972 individuals)

Source: Compiled from CRO marriage Records (1984-2001 E.C.)

### 5.3.2.6. Level of Divorce by Religious Affiliation

From among those ethnically inter-married couples, divorce is very high among other religion followers and relatively high among Orthodox Christians. On the other hand, divorce is relatively high among Islam, and Orthodox religion followers of ethnically endogamous population (See Table 5.12).

**Table 5.12: Level of Divorce by IM Status & Religion**

Religious Affiliation	Current Marital Status	Intermarriage Status		Total
		Not Inter-married	Inter-married	
Orthodox	Intact	87.2%	85.3%	86.5%
	Divorced	12.8%	14.7%	13.5%
	Total	100.0%	100.0%	100.0%
Muslim	Intact	86.5%	85.7%	86.2%
	Divorced	13.5%	14.3%	13.8%
	Total	100.0%	100.0%	100.0%
Protestant	Intact	88.9%	85.5%	87.1%
	Divorced	11.1%	14.5%	12.9%
	Total	100.0%	100.0%	100.0%
Catholic	Intact	90.0%	89.7%	89.7%
	Divorced	10.0%	10.3%	10.3%
	Total	100.0%	100.0%	100.0%
Others	Intact	100.0%	60.0%	66.7%
	Divorced		40.0%	33.3%
	Total	100.0%	100.0%	100.0%

Source: Compiled from CRO marriage Records (1984-2001 E.C.)

### 5.3.2.7. Level of Divorce by Type of Marriage

In ethnically inter-married cases, the level of divorce is very high especially among those who are engaged through religious and civil marriages than customary marriages. In contrast, the level of divorce is very high among those who are engaged through civil marriage than other types of engagements. Overall, divorce is high among ethnically inter-married couples than ethnically endogamous couples (See Table 5.13).

**Table 5.13: Level of Divorce by IM Status & Type of Marriage**

Type of Marriage	Current Marital Status	Intermarriage Status		Total
		Not Inter-married	Inter-married	
Civil	Intact	85.3%	84.8%	85.1%
	Divorced	14.7%	15.2%	14.9%
	Total	100.0%	100.0%	100.0%
Customary	Intact	94.8%	88.3%	92.2%
	Divorced	5.2%	11.7%	7.8%
	Total	100.0%	100.0%	100.0%
Religious	Intact	90.0%	75.0%	85.7%
	Divorced	10.0%	25.0%	14.3%
	Total	100.0%	100.0%	100.0%

Source: Compiled from CRO marriage Records (1984-2001 E.C.)

### 5.3.2.8. Level of Divorce by Previous Marital Status

When we consider the effects of previous marital status on divorce, it is very high among previously married individuals than singles who are found in both ethnically exogamous and endogamous marriages. However, the proportion of divorced individuals is relatively high (33.3%) among ethnically inter-married couples (See Table 5.14).

**Table 5.14: Level of Divorce by IM Status & Previous Marital Status**

Previous Marital Status	Current Marital Status	Intermarriage Status		Total
		Not Inter-married	Inter-married	
Never Married	Intact	88.4%	86.8%	87.8%
	Divorced	11.6%	13.2%	12.2%
	Total	100.0%	100.0%	100.0%
Previously Married	Intact	73.0%	66.7%	70.6%
	Divorced	27.0%	33.3%	29.4%
	Total	100.0%	100.0%	100.0%

Source: Compiled from CRO marriage Records (1984-2001 E.C.)

### 5.3.2.9. Level of Divorce by Age at Marriage

As to the effects of age at marriage on the level of divorce, it is very high among those ethnically exogamous couples who were married below age 20 years (19%) and in the age group 45-49 years (30.3%) than the rest of the age groups.

In contrast, divorce is very high among ethnically endogamous couples whose age at marriage is between 40-44 years (22.2%). Yet, when we observe the overall level of divorce, it is very high among ethnically inter-married couples (See Table 5.15).

**Table 5.15: Level of Divorce by IM Status & Age at Marriage**

Age at Marriage	Current Marital Status	Inter-marriage Status		Total
		Not Inter-married	Inter-married	
Under 20	Intact	92.9%	81.0%	88.9%
	Divorced	7.1%	19.0%	11.1%
	Total	100%	100%	100%
20-24	Intact	91.4%	90.4%	91.0%
	Divorced	8.6%	9.6%	9%
	Total	100%	100.0%	100%
25-29	Intact	88.2%	86.4%	87.5%
	Divorced	11.8%	13.6%	12.5%
	Total	100%	100%	100%
30-34	Intact	86.9%	85.1%	86.2%
	Divorced	13.1%	14.9%	13.8%
	Total	100%	100%	100%
35-39	Intact	86.4%	83.5%	85.2%
	Divorced	13.6%	16.5%	14.8%
	Total	100%	100%	100%
40-44	Intact	77.8%	87.3%	81.2%
	Divorced	22.2%	12.7%	18.8%
	Total	100%	100.0%	100%
45-49	Intact	84.0%	69.7%	78.3%
	Divorced	16.0%	30.3%	21.7%
	Total	100%	100.0%	100%
Over 50	Intact	89.7%	85.4%	88.1%
	Divorced	10.3%	14.6%	11.9%
	Total	100%	100%	100%

N = 986 couples (1,972 individuals)

Source: Compiled from CRO marriage Records (1984-2001 E.C.)

### 5.3.2.10. Level of Divorce by Place of Birth

Regarding the effects of place of birth on divorce, it is very high among those couples which constitutes individuals born abroad and in urban areas in both ethnically exogamous and endogamous marriages. From among the ethnically inter-married couples, the level of divorce is high among couples that constitute individuals born abroad (17%).

Similarly, divorce is high among ethnically endogamous cases where there are individuals born abroad (28.9%). Overall, divorce seems exceptionally high among inter-married couples than endogamous couples (See Table 5.16).

**Table 5.16: Level of Divorce by IM Status & Place of Birth**

Place of Birth		Inter-marriage Status		Total
		Not Inter-married	Inter-married	
Urban	Intact	87.2%	84.6%	86.2%
	Divorced	12.8%	15.4%	13.8%
	Total	100.0%	100.0%	100.0%
Rural	Intact	90.1%	90.0%	90.1%
	Divorced	9.9%	10.0%	9.9%
	Total	100.0%	100.0%	100.0%
Abroad	Intact	71.1%	83.0%	78.0%
	Divorced	28.9%	17.0%	22.0%
	Total	100.0%	100.0%	100.0%

N = 986 couples (1,972 individuals)

Source: Compiled from CRO marriage Records (1984-2001 E.C.)

### 5.3.2.11. Level of Divorce by Birth Cohort

Regarding the effects of birth cohort on divorce, the birth cohort after 1960s experienced high divorce especially among ethnically exogamous couples. On the other hand, divorce is exceptionally high among endogamous couples who belong to the 1950s birth cohort followed by the 1960s, and the 1970s birth cohorts (See Table 5.17).

**Table 5.17: Level of Divorce by IM Status & Marriage Cohort**

Birth Cohort	Current Marital Status	Inter-marriage Status		Total
		Not Inter-married	Inter-married	
Before 1950	Intact	90.8%	91.7%	91.2%
	Divorced	9.2%	8.3%	8.8%
	Total	100%	100%	100%
1951-1960	Intact	85.8%	86.7%	86.2%
	Divorced	14.2%	13.3%	13.8%
	Total	100%	100%	100%
1961-1970	Intact	87%	86.2%	86.7%
	Divorced	13%	13.8%	13.3%
	Total	100%	100%	100%
1971-1980	Intact	87.3%	78.7%	83.6%
	Divorced	12.7%	21.3%	16.4%
	Total	100%	100%	100%
After 1981	Intact	100%	50%	66.7%
	Divorced	0%	50%	33.3%
	Total	100%	100%	100%

N = 986 couples (1,972 individuals)

Source: Compiled from CRO marriage Records (1984-2001 E.C.)

### 5.3.3. Differentials in Divorce by Inter-Marriage Status

Compared with the level of divorce among endogamously married population, there is relatively high level of divorce among ethnically inter-married couples. However, there is some difference in the level of divorce among ethnically inter-married couples. The lowest level of divorce has been observed among the Oromo-Amhara couples (8%).

In contrast, the highest level of divorce has been observed in the inter-marriage between other ethnic groups and Gurages (33%) followed by the inter-marriage between other ethnic groups and Amharas (29%), and Tigres with Oromos (27%).

In table 5.20 presented below, the shaded rows represent ethnically endogamous marriage while the figures in bold-italics represents the low level of divorce among ethnically inter-married couples. As clearly presented in the table, more divorce has been observed among ethnically inter-married couples than among ethnically endogamous couples (See Table 5.18).

**Table 5.18: Divorce by Inter-Marriage Status (IMS)**

IMS [Husband vs. Wife]	In Intact	Divorced	Total (%)	IMS [Husband vs. Wife]	In Intact	Divorced	Total (%)
Amhara_Amhara	88%	12%	100	Tigre_Amhara	86%	15%	100
Amhara_Oromo	92%	8%	100	Tigre_Oromo	73%	27%	100
Amhara_Gurage	85%	15%	100	Tigre_Gurage	80%	20%	100
Amhara_Tigre	86%	14%	100	Tigre_Tigre	88%	13%	100
Amhara_Others	75%	25%	100	Tigre_Others	100%	-	100
Oromo_Amhara	92%	8%	100	Others_Amhara	71%	29%	100
Oromo_Oromo	86%	14%	100	Others_Oromo	100%	-	100
Oromo_Gurage	76%	24%	100	Others_Gurage	67%	33%	100
Oromo_Tigre	73%	27%	100	Others_Tigre	100%	-	100
Oromo_Others	100%	-	100	Others_Others	100%	-	100
Gurage_Amhara	85%	15%	100				
Gurage_Oromo	74%	26%	100				
Gurage_Gurage	90%	10%	100				
Gurage_Tigre	80%	20%	100				
Gurage_Others	75%	25%	100				

N = 986 couples (1,972 individuals)

Source: Compiled from CRO Marriage records (1984-2001 E.C.)

In general, the result indicates that ethnic inter-marriage has somewhat unique effect on the occurrence of divorce among the study population in Addis Ababa. Accordingly, the finding seems to confirm the assumptions of earlier studies conducted in other parts of the world (Kalmijn, 1993; Chan and Smith, 2001). However, further in-depth study should be done.

## CHAPTER SIX

### SUMMARY, CONCLUSION, AND RECOMMENDATIONS

#### 6.1. Summary

According to the findings of this study, ethnic inter-marriage is prevalent in the study population yet at different levels and patterns of incidence in the years considered. Some of the observed temporal fluctuations in the incidence of ethnic inter-marriage may imply the effects of major events and conditions occurred in the years noticed (1991 and 1998 E.C). The overall level of ethnic inter-marriage among the study population indicates that nearly 40 percent of all the registered marriages in the city were inter-ethnic. Though with some irregularities, the general trend indicates that there is a tendency for ethnic inter-marriage to be on the rise (0.3% per annum). The results of multivariate analysis on the differentials in ethnic inter-marriage reveals that among the study population, the likelihood of being in ethnic inter-marriage is high among Oromos and Gurages followed by other ethnic groups and Tigres than among Amharas.

Even though some sort of structural distinctiveness has been observed in the occurrence of ethnic inter-marriage among the study population; in most cases, ethnic inter-marriage seems general rather than stratified. Nevertheless, from among the structural factors, religion seems to play important role for the observed ethnic inter-marriage in Addis Ababa. Accordingly, extra tendency of out-marriage has been detected especially among Catholic Christians and Protestants than Orthodox Christians. As to the effects of education, education seems to play less vivid role for the observed ethnic inter-marriage among the study population. Accordingly, it has been detected that ethnic inter-marriage has no direct association with the increase in the levels of education as argued in some earlier studies. Rather it seems that ethnic inter-marriage has inverse relationship in the case of the study population. Owing to this, the finding could not be consistent with earlier assumptions which consider that ethnic inter-marriage increase with increase in the level of education. This might be due to the more important roles played by other structural factors such as language, cultural similarity, neighborhood effect, religion and urbanism other than education or may be due to the availability of partners at marriageable age with similar ethnic background in the marriage market.

In contrast, among the demographic variables considered in this study, migration status is found to play a statistically significant role for the observed differentials in ethnic inter-marriage in Addis Ababa. The finding reveals that the likelihood of being ethnically inter-married is higher among the non migrants than migrants. Regarding the effects of birth cohorts, the results obtained in this study does not confirm the assumption that there might be more ethnic inter-marriage among young birth cohorts than older cohorts. This might be due to increasing in-migration to the city which could supply sufficient number of co-ethnics in the marriage market especially for younger cohorts (the second generation) than the case for older cohorts or first generation in migrants or it might be due to some sort of preference for one's own ethnic partner.

As to the success or failure of ethnic inter-marriage, though there is little evidence, some scholars assumed that differences in cultural values and other conditions related to socio-political and structural issues could be part of the reason for the divorce cases observed among some ethnically inter-married couples. In this study, with the limited data on divorce which is obtained from CRO marriage records, some unique effects have been detected. Accordingly, from the total study population, the proportion of individuals who have experienced divorce in ethnic inter-marriage (15 percent) is above the level observed in ethnically endogamous marriage (13 percent). Besides, it is detected that from among those couples who are ethnically inter-married, divorce is very low among Amhara-Oromo couples. In contrast, the highest level of divorce has been observed in the inter-marriage between other ethnic groups and Gurages followed by other ethnic groups with Amharas, and Tigres with Oromos.

## **6.2. Conclusion**

As indicated in this study, Addis Ababa city being a national capital of Ethiopia and the seat of many international institutions, has experienced a great deal of population intermingling and inter-marriages. Thus, the city can be considered as a melting-pot for many of its nationalities. Since the study is the first of its kind in the Ethiopian context, some gaps are definitely expected in relation to coverage and other methodological issues. Even though, the study covers eighteen consecutive years, better-coverage in the analysis of trends of ethnic inter-marriage could have been done if not constrained by availability of data particularly for ethnic background for the years before 1984 E.C. However, the study may be considered as a valuable contribution and certainly will serve as a stepping stone for further enquiries.

As to the findings of the study, there are some major ups and downs in the observed trends of ethnic inter-marriage in Addis Ababa and it is generally discovered that the tendency to inter-marry is slightly on the rise (0.3% per annum) since 1984 E.C (the base year for this study). The results of analysis of levels in ethnic inter-marriage indicate that the likelihood of ethnic inter-marriage is very high among Oromos, Gurages, Catholic Christians and Protestants. Besides, it is found that being non-migrant contributes more to the observed ethnic inter-marriage in Addis Ababa than the case among migrants. In general, it has been discovered that ethnic background, religious affiliation, migration status, birth cohorts (generations) and levels of education are found to be significant factors for the observed differentials in ethnic inter-marriage among the study population in Addis Ababa.

Based on the assessment made using descriptive statistics on whether ethnic inter-marriage can be considered as a success or with some malfunction, it is highlighted that there is slightly more divorce among ethnically exogamous (inter-married) rather than among ethnically endogamous marriages. However, it is still difficult to conclude that inter-married couples are subjects of marital instability than their counter parts. Hence, for valid confirmation and reporting of such a result, further exhaustive research should be done.

In general, the researcher assumed that though further studies required, most of the ethnic inter-marriages observed in Addis Ababa might be facilitated due to some favorable conditions to inter-marry. These could be, the rising number and diversity of numerous ethnic groups owing to migration; the increasing metropolitan role of the city of Addis Ababa where a less tradition-bound and less rigid social and family structure has been developing; the disparity in the sex ratios of some ethnic groups especially other ethnic groups; the existence of immense cultural similarities developed through long-time socio-economic interactions as well as other structural similarities like sharing common religions, common national and working language, duration of residence, neighborhood effects and the non-existence of inhospitable and segregated outlooks between ethnic groups, etc., among others.

At the aggregate level, since it is supposed to improve inter-ethnic relations; enhances the quality of public and civic life; promotes economic growth through joint efforts; and makes democracy work, social integration is desirable. In this regard, the observed levels and trends of marital assimilation through ethnic inter-marriage can be considered as one of the potentials for peaceful and harmonious development in our society especially in the metropolitan setting.

Consequently, examining how various ethnic groups interact and live together should be one of the subjects which have great significance especially in understanding our society and creating complimentary policy directions. This study, therefore, may help explore some aspects of ethnic inter-marriage and its magnitude in a metropolitan setting. Besides, the implications may help us aware of some consequences (pros and cons) in relation to political, social, economic, and demographic issues.

### **6.3. Recommendations**

In relation to the findings of the study, the researcher would like to forward the following recommendations:

1. Since ethnic inter-marriage stimulates exchange of cultures and mutual understanding, the role it may play in promoting peace and constructive cultures, and in minimizing harmful traditions and conflicts should be recognized.
2. Even though the social, cultural, and ethnic tensions might seem loose in our society, especially among ethnically mixed families, it is unwise to consider the silence as a no problem sign. Because, at times when problems might appear and if marital disruption is to come, the sensitivity of such mixed marriages and the associated risks especially on children of mixed marriages should be seriously considered. Here, the cultural differences that children of mixed ethnic parents might face particularly after marital disruption, and the attitude of relatives toward mixed ethnic children which in most divorce cases disregard the other side of their parents will certainly create confusion and identity crises. Since ignoring the fact may lead to erroneous diagnosis which is culturally and morally in appropriate for either of the couples and their children, proper consideration should be given both by couples, marriage counseling institutions, and legal institutions.
3. In harmony with the Ethiopian family law, pre-marriage and pre-divorce marriage safeguarding and family counseling mechanisms should be designed for the betterment of the society and sustainability of ethnic integration.
4. Finally, future research undertakings should better assess the magnitude of divorce and its consequences especially in relation to mixed marriages. Besides, the role of ethnic inter-marriage in relation to promoting peace and security, strengthening constructive cultures and norms, changing fertility and reproductive behavior, value of children, gender equality and household decision making, etc., should be assessed.

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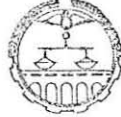
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# ANNEX

## Annex 1: (Copy of marriage registration form)

ANNEX 1



የአንዱ ቅጽ ዋጋ \$ 0.25  
Price of each form \$ 0.25

### የጋብቻ ምዝገባ ቅጽ REGISTRATION OF MARRIAGE

	<u>የሙስራው</u> Bride Groom	<u>የሙስራይቱ</u> Bride
ስም Name	_____	_____
የተወለዱበት ቀን Date of Birth	_____ ወር _____ ዓ.ም. Month _____ Year	_____ ቀን _____ ወር _____ ዓ.ም. Date _____ Month _____ Year
የተወለዱበት ሥፍራ Place of Birth	_____ ክ. ሀገ. Province _____	_____ ሥ. _____ ክ. ሀገ. Province _____
ጋብቻው የተመዘገበበት ቀን Date of marriage Reg.	_____	_____
ጋብቻው የተፈጸመበት ቦታ Place of Marriage Reg.	_____	_____
የመኖሪያ ሥፍራ Place of Residence	_____	_____
ዘዓይነት Nationality	_____	_____
ሃይማኖት Religion	_____	_____
ሥራ Occupation	_____	_____
የትምህርት ሁኔታ Education	_____	_____
ካሁን ቀደም የተፈጸመ ጋብቻ (ካለ) Any Previous Marriage	_____	_____
የተፈጸመው ጋብቻ ዓይነት Type of Marriage	ብሔራዊ <input type="checkbox"/> የሃይማኖት <input type="checkbox"/> Civil <input type="checkbox"/> Religious <input type="checkbox"/>	የባህል <input type="checkbox"/> Customary <input type="checkbox"/>
ፍቺው የተፈጸመበት ቀን Date of dissolution of Previous marriage	_____	_____
የፍቺው ዓይነት Type of Divorce	በጋራ ስምምነት <input type="checkbox"/> በሞት <input type="checkbox"/> Mutual Consent <input type="checkbox"/> Death <input type="checkbox"/>	ሌላ ምክንያት <input type="checkbox"/> Other <input type="checkbox"/>
ጋብቻው የተመዘገበበት ቦታ Place of mar. Regis.	_____	_____
የተመዘገበበት ቀን Date of Registration	ምዝገባውን የፈጸመው ሠራተኛ Registration Clerk	የሕዝብ ክብር መዝገብ ሹም Officer of Civil Station

ዕለ ግንብ ድርጅት

## ANNEX 2: Sample Size Distribution by PPS Method (1984-2001 E.C.)

Year of Marriage	Total Number of Marriage Records	Cumulative Marriage Records	Sample Size by Single Year	Cumulative Sample Size
1984	2,354	2,354	25	25
1985	2,367	4,721	25	50
1986	3,280	8,001	34	84
1987	6,930	14,931	72	156
1988	6,609	21,540	68	224
1989	5,575	27,115	58	282
1990	5,642	32,757	58	340
1991	5,645	38,402	59	399
1992	5,030	43,432	52	451
1993	5,531	48,963	57	508
1994	6,775	55,738	70	578
1995	7,815	63,553	81	659
1996	6,777	70,330	70	729
1997	5,719	76,049	59	788
1998	3,795	79,844	39	827
1999	4,200	84,044	44	871
2000	5,704	89,748	59	930
2001	6,738	96,486	70	1,000
<b>Total</b>	<b>96,486</b>		<b>1,000</b>	

Source: Compiled from CRO Marriage Records (1984-2001 E.C.)

## ANNEX 3: Logistic Regression Partial Correlation Matrix

(Step 1)	Constant	Birth cohort	Marriage cohort	Age	Sex	Place of birth	Previous Marital Status	Type of Marriage	Ethnic background	Religion	Education	Occupation	Migration
Constant													
Birth cohort	-.290												
Marriage cohort	-.294	.009											
Age	-.293	.200	.121										
Sex	-.292	-.180	.048	.242									
Place of birth	-.106	.053	.005	-.032	.028								
Previous Marital Status	-.296	-.053	-.010	-.254	-.048	.023							
Type of Marriage	-.192	-.027	.021	-.277	-.073	-.040	.015						
Ethnic background	-.025	.022	.053	.028	-.015	-.292	-.016	.099					
Religion	-.106	.037	-.012	.012	.007	-.062	-.060	-.016	-.107				
Education	-.259	.020	.003	.035	.082	.040	.014	.069	-.044	-.043			
Occupation	<b>-.559</b>	-.086	-.017	.114	-.247	-.019	.007	-.029	-.059	-.008	<b>.335</b>		
Migration	-.132	.036	.004	-.091	.013	<b>-.471</b>	-.094	-.021	-.107	-.015	-.018	.067	

#### ANNEX 4: Chi-Square Tests for IMS versus Independent Variables

IMS versus		Value	df	Asymp. Sig. (2-sided)	N of Valid Cases (Individuals)
Birth Cohort	Pearson Chi-Square	7.319	4	.020	1972
	Likelihood Ratio	7.237	4	.024	
Marriage Cohort	Pearson Chi-Square	.088	1	.766	1972
	Likelihood Ratio	.088	1	.766	
Age at Marriage	Pearson Chi-Square	3.482	7	.837	1972
	Likelihood Ratio	3.511	7	.834	
Sex	Pearson Chi-Square	.002	1	.963	1972
	Likelihood Ratio	.002	1	.963	
Place of Birth	Pearson Chi-Square	15.476	2	.000	1972
	Likelihood Ratio	15.109	2	.001	
Previous Marital Status	Pearson Chi-Square	.196	1	.658	1972
	Likelihood Ratio	.196	1	.658	
Type of Marriage	Pearson Chi-Square	1.431	2	.489	1972
	Likelihood Ratio	1.492	2	.474	
Ethnic Background	Pearson Chi-Square	156.748	5	.000	1972
	Likelihood Ratio	157.265	5	.000	
Religion	Pearson Chi-Square	38.254	4	.000	1972
	Likelihood Ratio	37.793	4	.000	
Level of Education	Pearson Chi-Square	2.516	3	.042	1972
	Likelihood Ratio	2.489	3	.047	
Type of Occupation	Pearson Chi-Square	3.079	2	.214	1972
	Likelihood Ratio	3.094	2	.213	
Migration Status	Pearson Chi-Square	28.318	2	.000	1972
	Likelihood Ratio	28.045	2	.000	

N = 986 couples (1,972 individuals)


**ANNEX 5: NUMBER OF OBSERVATION AND FREQUENCIES BY CATEGORIES**

FREQUENCIES					
Variables	Categories	Frequency	Percent	Valid Percent	Cumulative Percent
Intermarriage Status	Not Intermarried	1193	60.5	60.5	60.5
	Intermarried	779	39.5	39.5	100
	Total	1972	100	100	
Birth Cohort	Before 1950	261	13.2	13.2	13.2
	1951-1960	513	26	26	39.2
	1961-1970	842	42.7	42.7	81.9
	1971-1980	347	17.6	17.6	99.5
	After 1981	9	0.5	0.5	100
	Total	1972	100	100	
Marriage Cohort	1984-1992	884	44.8	44.8	44.8
	1993-2001	1088	55.2	55.2	100
	Total	1972	100	100	
Age at Marriage	Under 20	63	3.2	3.2	3.2
	20-24	277	14	14	17.2
	25-29	480	24.3	24.3	41.6
	30-34	491	24.9	24.9	66.5
	35-39	298	15.1	15.1	81.6
	40-45	154	7.8	7.8	89.4
	45-49	83	4.2	4.2	93.6
	Over 50	126	6.4	6.4	100
Sex	Male	986	50	50	50
	Female	986	50	50	100
	Total	1972	100	100	
Place of Birth	Urban	1518	77	77	77
	Rural	363	18.4	18.4	95.4
	Abroad	91	4.6	4.6	100
	Total	1972	100	100	
Previous Marital Status	Never Married	1829	92.7	92.7	92.7
	Previously Married	143	7.3	7.3	100
	Total	1972	100	100	
Type of Marriage	Civil	1558	79	79	79
	Customary	386	19.6	19.6	98.6
	Religious	28	1.4	1.4	100
	Total	1972	100	100	
Ethnic Background	Amhara	1091	55.3	55.3	55.3
	Oromo	350	17.7	17.7	73.1
	Gurage	147	7.5	7.5	80.5
	Tigre	235	11.9	11.9	92.4
	Other Ethnic groups	56	2.8	2.8	95.3
	Foreigners	93	4.7	4.7	100
	Total	1972	100	100	
Religion	Orthodox	1701	86.3	86.3	86.3
	Muslim	94	4.8	4.8	91
	Protestant	132	6.7	6.7	97.7
	Catholic	39	2	2	99.7
	Others	6	0.3	0.3	100
	Total	1972	100	100	
Occupation	Managerial, Professional and Clerical	556	28.2	28.2	28.2
	Commerce, Service and Others	904	45.8	45.8	74
	No Occupation	512	26	26	100
	Total	1972	100	100	
Education	No Education	17	0.9	0.9	0.9
	Primary Education	199	10.1	10.1	11
	Secondary Education	929	47.1	47.1	58.1
	College & Some College	230	11.7	11.7	69.7
	Higher Education	597	30.3	30.3	100
	Total	1972	100	100	
Migration Status	Non Migrant	1036	52.5	52.5	52.5
	Migrant	895	45.4	45.4	97.9
	Foreigner	41	2.1	2.1	100
	Total	1972	100	100	

## Declaration

The thesis is my original work, has not been presented for a degree in any other university and that all sources of material used for the thesis have been duly acknowledged.

Gizachew Girma  
Student

  
Signature

15 June 2001  
Date

I confirm that this thesis has been submitted with my approval as the supervisor of the same.

Assefa Hailemariam  
Advisor

  
Signature

June 15, 2001  
Date