

**The Revised Family Code of 2000
Impact on norms and education in Ethiopia**



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Preface

This thesis was written as part of acquiring the degree Master of Economic Theory and Econometrics.

I am thankful to the Department of Economics allowing me to be part of an inspiring environment as a research assistant. Being able to participate in seminars and conferences has been interesting and motivating.

I would like to thank my supervisor, Andreas Kotsadam for comments and encouragement through the process of writing this thesis. The idea and inspiration for this thesis comes from his lectures in development economics and the subsequent work I have done for him as a research assistant.

I also would like to thank my classmates and colleagues for helpful discussions, comments and support.

Abstract

This thesis examines the effect of the Revised Family Law implemented in Ethiopia in 2000, using a difference-in-difference approach. The main data used is from the Demographic and Health Surveys (DHS) for Ethiopia from 2000 and 2005. Utilizing the different regional timing of the implementation of the law, the effect of the law change is measured clear from other underlying trends. Focusing on the outcome variables for education and violence against women, the main results show that there is no increase in years of education attained, but that there is a positive change in norms as fewer women answer that it is justifiable to hit a wife. It is important to quantify the relations between policy and outcomes in order to give policy recommendations that work and that will improve women's lives. Because cultures and norms differ widely, it is important to study empirical data in the country concerned and not only extrapolate knowledge from studies done other places in the world.

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1 Introduction

For a long time there was only focus on men when discussing economic growth and societal progress in general. By doing this, half of the world's productive population was being ignored. Boserup (1970) was an influential publication which drew attention to the role of women in agricultural and industrial development. It discussed male and female farming systems, polygamy, education and more topics concerning women and economic development. By providing data as evidence, Boserup showed how large contributions were made by women everywhere.

Endless research on gender issues has followed and organizations like The United Nations Entity for Gender Equality and the Empowerment of Women have been formed. The World Bank group Women Business and the Law publishes a report called "Removing Barriers to Economic Inclusion", focusing on the legal and regulatory differences between men and women. Recognizing the legal differences between men and women is the first step towards equal opportunities and female empowerment.

General poverty reduction, without female empowerment, may worsen the situation for women, strengthening the gender bias in child survival Sen (1999) postulates. This reinforces the need for measures specifically aimed at women. Sen focuses on women's agency, which goes beyond women's well-being. Factors determining women's agency are employment outside the home, ownership rights, literacy, education and decision making. Some of these factors will be used in this thesis to measure an increase in women's agency. Sen introduced the capability approach as an approach to welfare economics. Sen's capability approach is important as it says something about peoples opportunities, what they are able to be and do. Being able to get work outside the home, earn an independent income and having the ability to get an education has a far greater reach than only affecting the individual. It gives women in society power and opportunities, even if they do not exercise their abilities actively. Their bargaining power increases by improving their outside opportunities, allowing them to choose better for themselves and their children.

This thesis is organized as follows. I begin with introducing the existing literature on policy evaluations, household bargaining power, education and violence. This is followed by a short introduction to Ethiopia as a country, with a subsection concerning women's status in Ethiopia. This is followed by some background on the law change, and where it was implemented. The data is introduced and the methodology explained including the limitations and assumptions of the difference-in-difference approach. The estimations then follow. Using the difference-in-difference method I focus on education and the attitudes towards violence against women. There seems to be no significant change in years of education, but a positive change in attitudes where less women find it justifiable to hit a

wife in various situation. There does not seem to be a change in the attitudes attributable to the law change among men in the sample.

2 Literature Review

2.1 Household bargaining power

In the quest of explaining how household bargaining power is distributed, theoretical models with differing assumptions have been developed. Becker (1981) introduced the unitary household model of intra-household resource allocation which assumes that the household bargaining power does not matter. The resources will always be divided in order to get the maximum amount of total household utility. This theory has however repeatedly been empirically tested and does not seem to hold. Alderman et al. (1995) give an overview and are critical of the unitary model because it does not take into account the process by which resources are divided within the household. If individuals have differing preferences, they would all have to be taken into consideration to be able to assess the well-being of the household. Thomas (1990) finds that income controlled by the mother has a greater effect on her family's health than income in the hands of the father. The impact of unearned income on child survival was twenty times greater if the income was brought in by the mother than if it was brought in by the father. In Duflo (2000) the effect of a pension transfer on children's nutritional status is evaluated, and she finds that pensions received by women had a large impact on the anthropometric status for girls, but little effect on boys. No similar effects were found for pensions received by men, showing that the gender of the recipient of the pension plays a vital role in the distribution of resources. Following robust proof against the unitary household model of intra-household resource allocation, other types of models have since been introduced. These are the cooperative and non-cooperative bargaining models which use game theory to explain the power struggle between household members with conflicting interests. The bargaining power one member has is determined by the opportunity cost of staying in the household. This is often assumed to be determined by the member's assets and resources.

Li & Wu (2011) address the problem caused by the lack of a proper measure for women's relative bargaining power which makes the empirical examination of intra-household resource allocation difficult. Li & Wu sum up the most common measures for bargaining power as being wage and non-wage income, assets controlled by individuals at the time of household formation, sex ratios at marriage ages and laws related to divorce. Li & Wu (2011) however try to find another exogenous measure for relative bargaining power and use gender of the first-born child to reflect the status for the woman in the family.

Li & Wu's results show that having a first-born son significantly increases a woman's nutrient intakes and lowers her probability of being underweight. This shows that gender of the first-born child is important also for the female's health and thereby also her labor supply.

In Doss (1996), the share of assets owned by women is used as a measure of women's bargaining power. Using household survey data from Ghana she shows that assets owned by women have a significant impact on household expenditure decisions. She uses a theoretical framework including bargaining power for the test, finding that the unitary household model does not hold.

Doss (2012) was published in the World Development Report 2012 by the World Bank. She identifies four different types of research which fall under the intra-household issue category: testing the unitary model of the household, testing whether the household decisions are efficient, identifying determinants of resource allocation within the household and experiments designed to provide understanding of the processes of intra-household decision making. Testing whether there is an increase in decision making by the women after an empowering law change as is done in this thesis would fall under the category of identifying determinants of resource allocation within the household.

Doss (2012) also brings attention to the fact that the inferential approach is used as introduced by Thomas (1990). Because we don't have direct information on what choices women would make if they had increased bargaining power, we infer that women prefer the new outcome. An example would be if we see an increased spending on food when a woman owns more of the household assets, we infer that the woman has used her bargaining power to obtain this outcome.

2.2 Policy Evaluations

There are several ways to evaluate the impact of a policy change or implementation of a program quantitatively. Depending on the data available, one can use propensity score matching, difference-in-difference regressions, regression discontinuity or instrumental variables to try to extract the true effect of the program in question.

Hallward-Driemeier & Gajigo (2010) look at how the change in family law in Ethiopia in 2000 affected the decisions of women to enter the labor force. Data is used from the Demographic Health Surveys (DHS) from 2000 and 2005 which cover all regions of the country in both years. They estimate the effect using the difference-in-difference approach which is feasible because there is data from before and after the law change, where different regions implement the law at different times. For the difference-in-difference estimations to be robust we would prefer to see data that span over a longer period of time to capture

the trends. It is crucial that the trends would have been the same in the implementing and non-implementing regions without the treatment. Hallward-Driemeier & Gajigo (2010) suppose that the effects work through two channels, one that is immediate and one that is delayed. The law will have a direct effect on women increasing the labor supply when the husband can no longer legally deny the wife to work outside the home. The delayed effect will occur because the future bargaining position of women will improve. A higher age at marriage gives the women more time to accumulate their own resources and get more education.

Stevenson & Wolfers (2006) estimated the changes in suicide, domestic violence, and spousal murder rates caused by the changes in the divorce laws across different states in the US. Because it is often stated that there are many negative aspects of unilateral divorce laws, they wish to show that this is not the case when looking at the broader picture. Being divorced brings with it a more unhealthy lifestyle, and a worsening of the financial situation for the women. By examining suicide rates they attempt to find a quantifiable measure of well-being. Their main findings show a significant decrease in domestic violence and suicide rates following the change in divorce laws. They propose that the effect works through two channels. First it allows women to escape from destructive marriages, thus raising the divorce rates. The second effect works directly on the household bargaining power as the outside option changes for the spouses. The effects grow over time with the full effect occurring fifteen to twenty years following the law change. For this thesis I unfortunately do not have data over such a long time period after the law change in Ethiopia in 2000. The effects found may not have reached their full potential yet.

In a paper by Heggeness (2009), the outcome variable is children's education, examining the effect of legalization of divorce in Chile in 2004. Heggeness assumes that an increase in children's education is a proxy for increased bargaining power in the household for the women. A difference-in-difference approach is used to identify the effects. Her results show that the legalization of divorce increased the opportunity cost of remaining married. It increased bargaining power within the household for women, causing education for children to increase.

2.3 Education and violence

I will use changes in educational attainment and opinions about violence against women to measure women's well-being. There are other factors that play a role in determining the well-being of women, but the education and violence variables should be able to capture some improvement in the lives of women after the law change - if there are some.

2.3.1 Education

Poor households are less likely to invest in female education (Kravdal 2004). There is only a small chance that the girl will get a good job, and if she does, it will be for the benefit of the family of the husband whom she will marry and live with. There is thus an incentive problem regarding investment in daughters of the family. Education is correlated with autonomy and empowerment of women. Women with more education have more knowledge about health issues and they are better suited to solve problems. In this way there is a strong link between education and mortality. Knowing more about health issues and medicine will ensure that the women are more willing to go to another village and exert some effort in order to assure that her children get vaccinated. Caldwell (1986) shows that education is the key factor for life expectancy, and that it may be more important than income. There is a strong relation between autonomy, education, nutrition, prevention and treatment of diseases. More education prevents child mortality, and reduces fertility (Drèze & Murthi 2001). Decreased fertility improves the health of the mother both by relieving her from giving birth and relieving her from the experience of child death. The education of women is also linked to the education of their husbands. A husband with more education may be influenced more by the outside world and may be more modern in terms of how he treats his wife and children.

In Kravdal (2002), the Demographic and Health Surveys are used to show that education has individual as well as aggregate effects. More education in the community depresses the birth rate of all women, even the uneducated ones. Having many children may be a burden for the individual as well as for society because of population growth. Being able to reduce and control fertility is considered an important goal that will result in better health and a better economic situation for families in developing countries.

Table 3 shows that education is increasing for both the rural and urban population, but the gap stays the same at on average 5.2 years. The scope of the estimations that follow is to find out whether the law change can be said to be the cause of this steady increase in years of education, or whether it is a general trend caused by other factors. As will be shown, none of the estimations show any significant increase that can be linked to the law change. Other policies, like the education and training policy introduced in 1994, and a general trend of empowerment for women may have had a greater effect.

2.3.2 Violence and norms

In a qualitative study conducted by Yigzaw et al. (2010) in Northwest Ethiopia, the perceptions and attitudes towards violence against women were examined using the Demographic and Health Surveys. Most subjects were against beating someone, acknowledging

that it is wrong. However, some groups thought that beating was so common that it was acceptable under some circumstances. Some women even went so far as justifying beating claiming it was a sign that the husband loved his wife. The man is supposed to correct and reprimand the wife, and if he does not wish to punish her when she does something that is considered wrong, he is seen as unmanly. There were also respondents who were against physical violence no matter the reason.

In DHS (2011*b*), concern is raised about the common nature and acceptance of domestic violence in society. It degrades women and leads to disempowerment. Using data on the attitudes towards wife beating from the DHS 2011, it is shown that two out of three women believe beating is justified in at least one of the situations mentioned in the survey. The acceptance of wife beating is inversely correlated with wealth and education. This gives yet another reason to promote more education in order to improve women's well-being.

The law is a powerful tool to ensure the rights and interests of women, however there often are obstacles that may render such laws powerless in reality. Kameri-Mbote (2002) emphasizes that the lives of women and men are affected by a plurality of norms. She defines customary law as: "...the law of small-scale communities which people living in these communities take for granted as part of their everyday experience..." Customary laws are most often not written laws, and can thus be interpreted as norms and customs in the community that people regard as so binding that they become laws. In such a complex environment as in Ethiopia, where the federal law has limited power to influence the regional laws, it is even more difficult to change the customary laws. Education may be an important stepping stone in helping the law to diffuse into society. It will enable women to gain knowledge about the law, give them the opportunity to learn to read the law, and in the end give the people who need it the most an opportunity to use it.

Deyessa et al. (2010) focus on the norms and attitudes of women regarding violence against women. They do a survey as part of the WHO study on women's health and life events in Butajira, a community 130 km. south of Addis Ababa. They find that women living in rural areas, and those that are illiterate, were more likely to express attitudes that accept violence against women. Interestingly they also find that literate rural women have a higher chance of experiencing physical violence than their illiterate counterparts. The paper suggests this is because these women have greater autonomy, and are less likely to accept the traditional role of rural women. This will then be a reason for violence and chastisement in communities where the traditional gender roles are more prevalent. Literate urban women with a literate spouse were the least likely to have experienced physical violence, while the rural literate woman with an illiterate spouse was most likely to have experienced physical violence. This shows that it is difficult for women to improve their autonomy, as the general level of education needs to increase in the whole of society,

also for men.

3 Ethiopia

As explained in Thomson (2010), the Berlin conference was arranged in 1884-1885 and is part of what is called the scramble for Africa. The continent was carved up arbitrarily between the European powers. With no notion of ethnicities and groups, they divided the continent into countries, more concerned about which rivers and other resources that were included than the people living in them. This created many social problems, as many different ethnicities were gathered under what was supposed to be one state administration. Another destabilizing factor was that ethnic groups were split across borders. The Somali people were suddenly divided between five states: British Somaliland, Italian Somaliland, French Somaliland, Ethiopia and Kenya. This cumulated and resulted in Somalia unsuccessfully going to war against Ethiopia in 1977-1978 trying to win the Ogaden where many Somali were residing and even today it is still a chaotic area.

As stated in The World Factbook (CIA), Ethiopia is one of few African countries that were never colonized, though it was occupied by Italy for a short period in 1936-1941. It consists of 91,000,000 inhabitants spread over 80 different ethnicities, each with their own languages. The largest groups are the Amhara and the Omoro covering more than 60% of the population. The capital is Addis Ababa with a 2.8 million population. The country is divided in 9 ethnically divided states and two self governing administrations. The eastern and southwest parts of Ethiopia are dominated by Muslims, while the northern, southeastern and central parts are predominantly Christians (Yirga et al. 2012).

The border war between Eritrea and Ethiopia lasted for two years, from 1998 to 2000. Eritrea was awarded disputed area by an independent commission, but Ethiopia did not accept it (Human Rights Watch 2013). By The World Factbook (CIA) it is estimated that there are around 200,000-300,000 internally displaced persons in Ethiopia because of the border war, ethnic clashes in Gambela and the Ethiopian military counterinsurgency in the Somali region. Ethiopia also houses around 500,000 refugees from Somalia, Eritrea and Sudan. The country got its own constitution in 1994 and it gives the state ownership of all land, providing long term leases to tenants. However, land use certificates are now being issued so that tenants get more rights to continue their occupancy and make more efforts to improve their leaseholds.

The Human Rights Watch (2013) reports that the human rights records for Ethiopia have deteriorated severely for the past couple of years. After the Anti-Terrorism Proclamation (2009) was introduced, it has been used to convict journalists and opposition members. The freedom of the press has forcefully been removed, closing down production of many

magazines and newspapers.

3.1 Economy

The World Factbook (CIA) reports that adjusted for purchasing power parity and stated in 2012 US dollars, GDP for 2012 is estimated to be \$103.1 billion. This is divided between the agricultural, industrial and service sectors, with agriculture contributing with the largest share. This gives a GDP per capita of \$1,200. For sake of comparison, Norway has a GDP per capita of \$55,300, Sudan \$2,400 and Eritrea \$800. The estimated inflation rate for 2012 is 21.7% with a decrease from 33% in 2011. Its natural resources consist of small reserves of gold, platinum, copper, potash, natural gas and hydro-power. 85% of total employment is in agriculture, accounting for 46% of GDP. The goods that Ethiopia exports are coffee, khat, gold, leather products, live animals, oilseeds, while it imports food and live animals, petroleum and petroleum products, chemicals, machinery, motor vehicles, cereals and textiles.

3.2 Women's status

Early marriage is common, and although the Revised Family Code sets the minimum age for marriage to 18 years, this is not followed. Figure 1 shows that there has been an increase in the age of first marriage or union, but still the average is below the minimum of 18 years.

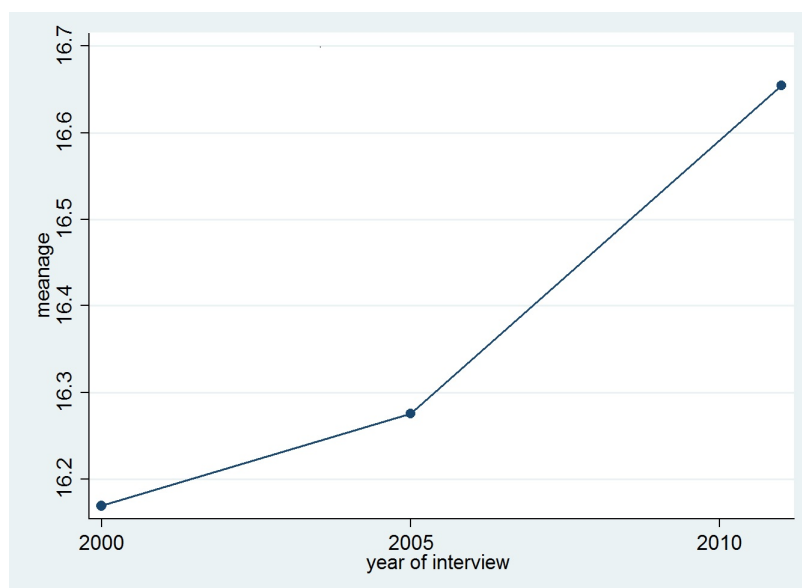


Figure 1: *Age at first cohabitation*

In the DHS 2011 survey 72% of the women answered they were living with a male head of

household. Of the 16,515 women, 58% answered that they could not read at all. For 70%, wood was the cooking fuel. Female genital mutilation (FGM) is still widely practised in Ethiopia. Yirga et al. (2012) state that 80% of women of child bearing age have undergone FGM. There are however large variations across regions with a prevalence of 27.1% in the Gambella region and 99.7% in the Somali region. They conduct surveys in the Oromia region, finding that the main reason for performing FGM was to reduce sexuality both before marriage, and after to reduce the chance of committing adultery. Even though the practice brings large physical and mental suffering and distress, few had tried to stop the practice. Female genital mutilation is a big problem in the world, especially prevalent in African countries. In order to increase women's status and well-being, this practice has to be stopped.

4 The Law Change

The Revised Family Code (2000) came into effect the 4th of July. In Hallward-Driemeier & Gajigo (2010), the identification strategy relies on the fact that not all the regions implemented the law at the same time. Between 2000 and 2005 some regions implemented the law change, these were: Addis Ababa, Amhara, Dire Dawa, Oromiya and Tigray. The regions that did not implement it before 2005, but have in 2011 are: Afar, Benishangul-Gumuz, Gambella, Harari and Southern Nations, Nationalities, and People's Region (SNNP). This is what Hallward-Driemeier & Gajigo (2010) state, not specifying which group the Somali region belongs to. The paper by Kumar & Quisumbing (2012) also uses Hallward-Driemeier & Gajigo (2010) as a source for this fact.

Other sources have not been found on which regions implemented the law change at which time. There is not just one family law incorporated under the Ethiopian legal system. One must consider the FDRE Constitution, regional constitutions, the Revised Family Code of the FDRE and other regional family laws (Ashagrie & Belete 2009). Family law is decided regionally, meaning that each region can enact its own family law. Tigray, Addis Ababa, Dire Dawa, Oromia, Amhara and the SNNP were in the final stages of drafting family law codes according to an article by Frances Olsen in Uhlig (2006). According to The African Child Policy Forum (2012) the Revised Family Code is applicable only in the two federal city administrations Addis Ababa and Dire Dawa. In the Atlas of Gender and Development report by the OECD (2010) they state that the effect of the new family code has been limited due to the Constitution giving full sovereignty to the regions. It documents that seven out of nine regions have their own family law and that six of these continue with the previous law. They do however not specify which regions that are concerned.

Also according to Assefa (2008) there was done extensive work trying to get a uniform family code that could apply to the country as a whole, but this was never realized. The implementation was thus limited to the chartered cities of Addis Ababa and Dire Dawa. Because different sources say different things, the analysis will be done using the first specification from Hallward-Driemeier & Gajigo (2010) followed with a sample only including the chartered cities, to see if there was an effect present there.

Summaries of meetings by the Committee on the Elimination of Discrimination against Women (2002) show that they wish for all states to implement the law, and that the new Family Code came into effect at the federal level. Below is a quote from the document which shows how the new Family Code came about:

”During 2000-2001, the government machinery on women, in collaboration with the non-governmental agencies, have been examining the discriminatory aspect of the existing Family Code. Based on their findings, they proposed measures to remove the discrimination and inequality and establish women’s legal equality with men in the Family Code. The Ethiopian Women’s Lawyers Association undertook studies on the violation of women’s rights in different regions of the country. Their findings provided input in organizing arguments in favour of women. WAO lobbied the lawmakers and different agencies to ensure revision of the discriminatory laws. The unrelenting effort of the collaborative forces resulted in the new and revised Family Code based on the principle of gender equality. The new Family Code came into effect in early 2001 at the federal level.”

The revised family law is not perfect. As mentioned in Yigzaw et al. (2010), it is an issue that there is no mention of marital rape. In the DHS 2011 data only 53% of the women say that they can refuse to have sex with their partner, and 51% say they can not ask their partner to use a condom. This shows that women have limited control over their sexual life and their own body.

Regions that implemented the Revised Family Code between 2000 and 2005

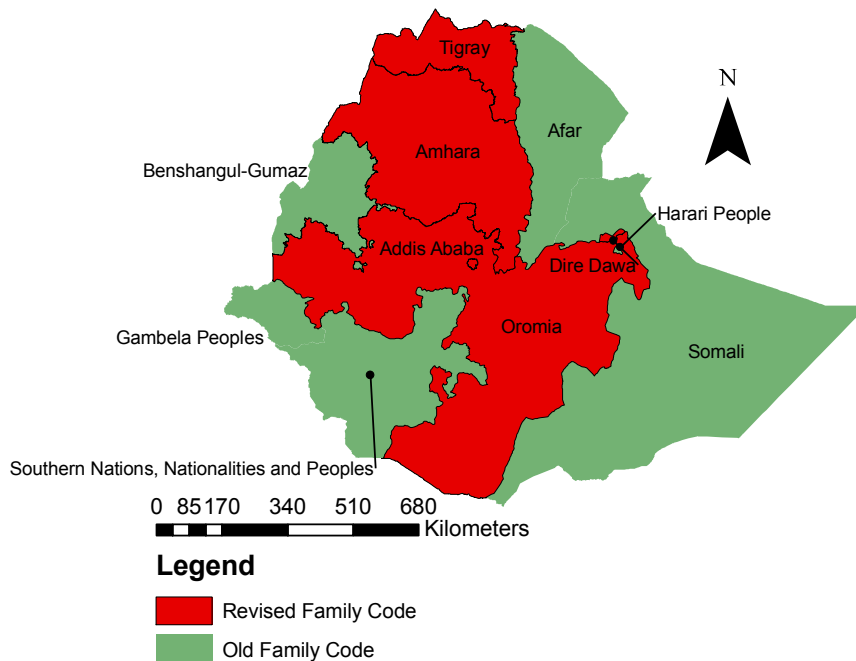


Figure 2: *Implementation according to Hallward-Driemeier & Gajigo (2010)*

The new family law increased the minimum marriage age from 15 to 18, it made sure that common property was administered jointly by the spouses, and divorce by mutual consent was permitted (Prime Minister Office 2004).

In the preamble, the Revised Family Code states that:

WHEREAS, it has become essential to make the existing Ethiopian family law in accordance with the socio-economic development of the society and, above all, with the Constitution of the country, and, in particular, realizing that marriage shall be based on the free consent of the spouses, and that it is necessary to provide the legal basis which guarantees the equality of the spouses-during the conclusion, duration and dissolution of marriage;

This gives some background to why the new law was introduced, also revealing that there probably was a preceding common trend in the norms towards more equality between spouses. In order to make sure this is not driving the results, this is controlled for in the estimations by using a difference-in-difference approach.

The identification strategy hinges on that there is nothing else happening in what we define as the implementing regions that differs systematically from the regions we define as non-implementing, except for the law change. A national report from Prime Minister Office (2004), mentions several law changes and programs which are implemented which may make a causal interpretation problematic. In addition, it may take some time for these programs to have an effect, introducing a lag causing the maximum effect to take place several years after the implementation. This was seen in the paper from Stevenson & Wolfers (2006). Here the maximum effect on female suicide was seen 15-20 years after the implementation of unilateral divorce laws. If in general there is a lag in effects of law changes, depending on the magnitude of this lag, laws implemented before the revised family law of 2000 can affect the outcome variables we measure. This is a part of the time variant variables that may cause some concern for our identification strategy for measuring the exact effect of a law change.

In table 1 follows an overview of measures taken to improve women's status in society. Those introduced between 2000 and 2011 may have a confounding effect on the outcomes measured in the estimations that follow. Those introduced before 2000 may also be a confounding factor if their effect changes over time.

Table 1: Measures taken to improve women's autonomy

Name of initiative	Year	Main aim
Convention on Elimination of all forms of Discrimination Against Women (CEDAW)		Guarantees women equal right and protection from discrimination
Convention of Civil and Political Rights		
Convention on Economic and Social and Cultural Rights		
The Child Right Convention		
Millenium Development Goals		
National Policy on Ethiopian Women	1993	Facilitating conditions for the speeding of equality between men and women
Education and training policy	1994	Financial support from the government to raise the participation of women in education.
Constitution	1995	Guaranteed women the right to acquire, administer, control, use and transfer property including land.
Federal Rural Land Administration Proclamation no 89/1997	1997	Land administration law of a region shall confirm the equal rights of women in respect of the use, administration and control of land as well as in respect of transferred and bequeathed holding rights.
Ethiopia Environment Policy	1997	Ensures full participation of women in environmental decision making, resource ownership and management.
Education Sector Development Program (ESDP)	1997/98-2001/03	Putting the Education and training policy into action
National policy on HIV/AIDS	1998	Recognizes gender inequality and socio-economic disempowerment of women as one of the root causes for the spread of HIV/AIDS.
Ethiopian Health Sector Reform Development Program (HSDP)	1998	Focus on health needs of women and children.
Campaign for eradication of polio	1999	
Revised Family Code	July 2000	
Women's Development Initiative Project (WDIP)	May 2001	Aims to test methodologies to enhance the social and economic welfare of poor households.
Sustainable Development and Poverty Reducation Program (SDPRP)	2002	Continue poverty reduction program activities in the country.
Education Sector Development Program II (ESDP II)	2002/03-2004/05	
National Coalition for Women Against HIV/AIDS	June 2003	Promote movement to make HIV/AIDS, poverty and harmful traditional practices a thing of the past
Project to organize and give retrenched women skill training	In effect in 2004	Between 1996 and 2004 many women workers lost their jobs due to privatization

Source: Prime Minister Office (2004)

In addition, various awareness creation programs are undertaken by the government including judges, prosecutors, polices, women and school representatitves of all regions.

5 The Data

The data used is from the Demographic and Health Surveys (DHS) collected in Ethiopia in 2000, 2005 and 2011. The DHS are nationally representative household surveys covering topics of interest for this paper including household and respondent characteristics, women's decision making power, education and employment. Fieldwork for the DHS 2000 was conducted between February and June, while the Revised Family Code came into effect the 4th of July 2000. The data for the 2000 study was thus collected just before the law was implemented.

In the DHS from 2000, 14% of the married women were in a polygamous union and 80% of all women were circumcised. The questionnaires were developed in the English language and translated into the five principal languages in use in the country: Amharic, Oromic, Tigrinya, Somali, and Afar.

5.1 Data and Analysis software

Data for making the map are from the Global Administrative Areas website (GADM 2012), and the survey data are from the Demographic and Health Surveys DHS (2000, 2005, 2011a). The male and female datasets are used in the analysis. The survey data is analyzed using STATA (2011) for Windows and the map is created with ArcGIS (2008).

Table 2: Sample sizes

Unit	2000	2005	2011
Households	14,072	13,721	16,702
Women Age: 15 to 49	15,367	14,070	16,515
Married women	9380	8644	10,204
Men Age: 15 to 59	2607	6033	14,110

Table 3: Descriptive statistics

Observations		2000	2005	2011
Age	Tigray	1,306	1,257	1,728
	Affar	858	789	1,291
	Amhara	1,909	1,943	2,087
	Oromiya	2,578	2,230	2,135
	Somali	844	669	914
	Benishangul-Gumuz	992	846	1,259
	SNNP	2,028	2,087	2,034
	Gambela	876	729	1,130
	Harari	908	844	1,101
	Addis Ababa	2,015	1,869	1,741
	Dire Dawa	1,053	807	1,095
	Total	15,367	14,070	16,515
	Education	15-19	3,584	3,252	3,835
20-24		2,844	2,617	3,022
25-29		2,716	2,557	3,185
30-34		1,902	1,754	2,100
35-39		1,762	1,629	1,958
40-44		1,324	1,181	1,314
45-49		1,235	1,080	1,101
Occupations	Urban	5.5	6.4	6.7
	Rural	0.5	0.9	1.6
	Difference(U-R)	5	5.5	5.1
	Tigray	0.85	2.00	2.96
	Affar	0.68	0.72	1.22
	Amhara	0.75	1.40	2.12
	Oromiya	0.98	1.68	2.79
	Somali	0.43	0.52	1.11
	Benishangul-Gumuz	0.81	1.50	2.18
	SNNP	1.08	1.66	2.54
	Gambela	1.50	2.07	3.48
	Harari	3.53	4.70	5.42
	Addis Ababa	6.40	7.23	7.65
Dire Dawa	3.77	4.35	4.60	
	Not working	5,860	9,121	7,990
	Prof., tech., manag.	186	300	361
	Clerical	186	121	338
	Sales	2,358	2,001	2,899
	Agriculture self employed	2,181	-	-
	Agriculture employee	2,824	1,822	3,143
	Services	255	25	283
	Skilled manual	1,216	322	1,205
	Unskilled manual	282	311	141
	Other	9	47	155

Education shows the average education in single years, and is decomposed into rural and urban populations and regions. On average, women in the urban areas have 5.2 more years of education than the rural women.

6 Methodology

As explained in Puhani (2012), difference-in-difference estimation is one of the most important identification strategies in applied economics. Using the difference-in-difference method as identification strategy we assume that in the absence of intervention, the treatment and control groups would have common trends. Because we have repeated cross sections and not panel data, we also need to assume that the composition of treatment and control groups do not change over time.

We look at the difference between the treated and non-treated groups after the treatment, and subtract any differences that were present before the treatment. This is graphically represented in figure 3.

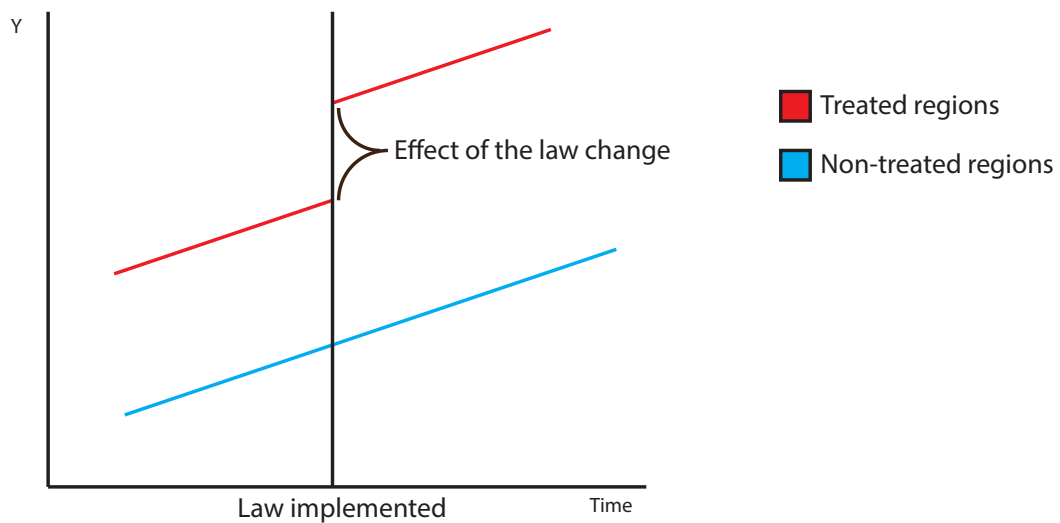


Figure 3: *The difference-in-difference method*

As discussed in Bertrand et al. (2004), the difference-in-difference estimation technique is appropriate when the intervention is as good as random, conditional on group and time fixed effects.

It is crucial for our identification strategy to assume that the trends in the regions which implemented the law first would be the same as the regions which did not implement the law, absent the implementation. There can not be any other factor common for

the implementing region which does not hold for the non-implementing regions. As an example it is very likely that the urban regions would implement the law first. They may have more female-friendly norms in these regions, causing them to have a steeper trend in e.g. labor opportunities for women. This will not be a problem in the difference-in-difference setup if the trends are present before the law change, as time invariant factors are subtracted from the effect measurement.

It is possible to control for unit fixed effects when looking at the difference between periods. Unobserved variables which do not change over time are then no longer a concern. Things that do not change over time, like gender or geographic distances, are unlikely to have an explanatory role in the changing dependent variable.

Ideally, there should be data for a longer time period, allowing us to identify whether the trends are linear or not. As discussed by Finseraas & Kotsadam (2013), if you assume the trends are linear while they in fact are non-linear, there is a risk of estimating a treatment effect which does not exist. Including polynomials one can check for this. Placebo analyses by placing a fake treatment may also be able to identify whether there is an underlying trend causing the estimates to be significant, or whether there is an actual effect of the treatment. In this thesis I will run regressions using dependent variables that are not thought to be affected by the law change as a placebo analysis.

It is possible to conduct a difference-in-difference study in several ways. One is by actually calculating the differences between averages in the treatment and control groups before and after the law change. By subtracting one difference from the other the effect is calculated, free from the year and regional trends. In the following analysis, I will use a regression setup for the difference-in-difference, which will give the exact same estimate for the effect.

Following the Wooldridge (2010) setup for a simple difference-in-differences equation, we call A the control group, and B the treatment group. The control group will be the regions that did not implement the law, and the treatment group will be those that did. Dummy variables are included for treatment and year, called dB and $d2$ respectively. The equation to evaluate the impact of the policy change will then look like this:

$$y = \beta_0 + \beta_1 dB + \delta_0 d2 + \delta_1 d2 * dB + u \tag{1}$$

dB will capture differences between the groups before the policy change, and $d2$ will capture those trends that would have changed the dependent variable even if the policy change was not introduced. The coefficient in front of the interaction term δ_1 is the effect we are interested in as the interaction term is equal to one for the treated group in period 2. Fixed effects across regions, common factors varying over time and regional differences that vary linearly over time are all removed from the estimate of δ_1 .

The OLS estimator $\hat{\delta}_1$ can be interpreted by introducing some more variables. Let $\bar{y}_{A,1}$ denote sample average of y for the control group in period 1, $\bar{y}_{A,2}$ the control group in period 2. The same interpretation goes for $\bar{y}_{B,1}$ and $\bar{y}_{B,2}$, but applied to the treatment group.

$$\hat{\delta}_1 = (\bar{y}_{B,2} - \bar{y}_{B,1}) - (\bar{y}_{A,2} - \bar{y}_{A,1}) \quad (2)$$

This is the same as the manual calculations described earlier, where one finds the averages for four states that the groups can be in: treated group in period 1, treated group in period 2, control group in period 1 and control group in period 2. This is the preferred way to estimate a change in the dependent variable, because we filter out the trends from our effect. However, we can never be sure that there is not something else influencing and changing the dependent variable in the time period we are looking at. One has to carefully search for other time varying factors that may have changed. If these are observable it is possible to control for them as well.

For the difference-in-difference estimations to be correct we need to make a few assumptions. The model is assumed to be correctly specified, and the additive structure needs to be correct. The error term u needs to be zero on average, and it needs to be uncorrelated with the other variables in the equation. This is summarized like this:

$$E[\epsilon_i] = 0$$

$$cov(\epsilon_i, T_i) = 0$$

$$cov(\epsilon_i, t_i) = 0$$

$$cov(\epsilon_i, T_i * t_i) = 0$$

If any of these assumptions do not hold, there is no certainty about the δ_1 's unbiasedness.

In this study there will be focus on the trends in two goal indicators, education length and norms regarding violence in order to see the effect the law change has had on the situation for women.

6.1 Limitations

As discussed above, the identification strategy hinges on the assumption that the trends would have been the same in the treated group as in the non-treated group if they had not been treated. Time variant differences that could occur are natural disasters like floods or droughts, there could be areas with conflict, or some regions may have been influenced by campaigns on their regional TV channels. We can only measure the intention to treat (ITT), as we cannot control for these factors that may enhance or diminish the effect

of the law change. Some of the time variant factors might even be a direct reaction to the law change. For example groups may form who are against these changes, who will impose even more conservative customary laws than before. The ITT is based on the initial treatment assignment. Whether or not the individuals will be treated could be manipulated by the subjects themselves. Assuming that the individuals are fully mobile, and hostile against the law changes, imposing the new law also could cause them to move to another region where the law is not in effect, changing the composition of the samples between 2000 and 2005.

Bertrand et al. (2004) address the serial correlation problem which can arise when using many time periods resulting in under-stated standard errors. One of their proposals to avoid this is to aggregate the data into two periods: pre- and post-intervention. This is however not a concern for this thesis as only two periods are used.

In Besley & Case (2000) they problematize the possible endogeneity of policy implementation. They emphasize that if policy making is a purposeful action, there may be factors present causing the policy change in the treated areas, which will not be present in the control areas. The control groups need to be stable and reflect the changes that also influence the treatment groups in the same way in order for our estimates to be unbiased.

7 Trends

Following below are the average trends, differed between the regions that implemented the law and those who did not, following the implementation specification by Hallward-Driemeier & Gajigo (2010). The implementing regions implement the law change between 2000 and 2005, while the non-implementing regions implement the law between 2005 and 2011. Ideally there would be data showing the trends before the law change, but this is not available. The focus will therefore be on the slopes when both groups are under the same conditions.

7.1 Age at first cohabitation

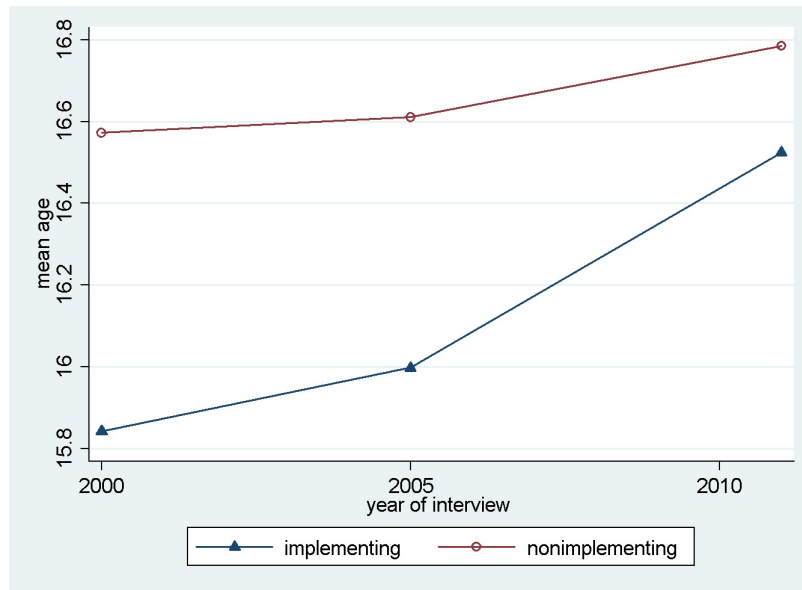


Figure 4: Age at first cohabitation for women in implementing and non-implementing regions

Figure 4 shows that the mean age of first cohabitation is lower in the implementing regions than in the non-implementing regions. The slope for the implementing regions between 2000 and 2005 is similar to the slope in the non-implementing regions between 2005 and 2011. This shows that the effect is similar when the law is introduced. It is also interesting to note that the slope for the non-implementing regions between 2000 and 2005 is stable around 16.6 years, and first sees an increase when the law is introduced. At this point, the implementing regions have been subject to the law for a longer time, which may cause an even steeper trend. The trends seem to converge. It is however surprising that the implementing regions show a lower age at first cohabitation than the non-implementing regions, as it is thought that higher education would increase the age at first cohabitation. As seen in figure 5, the implementing regions are more educated than the non-implementing regions.

7.2 Education

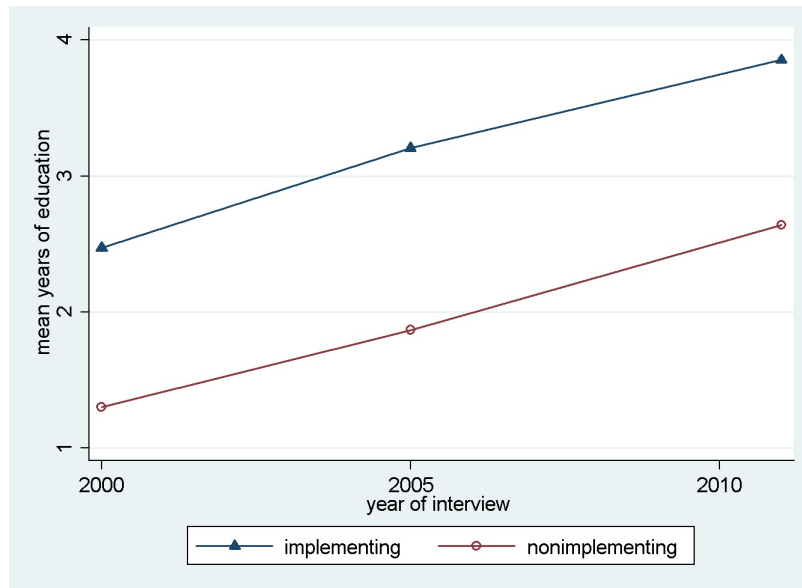


Figure 5: Education for women in treated and non-treated regions

As figure 5 shows, the trends in average education are parallel across implementing and non-implementing regions. There does not seem to be a break in the trend for the regions implementing the revised family law. When using the non-implementing regions as a counterfactual in the difference-in-difference regressions it will probably not produce any effect.

7.3 Norms

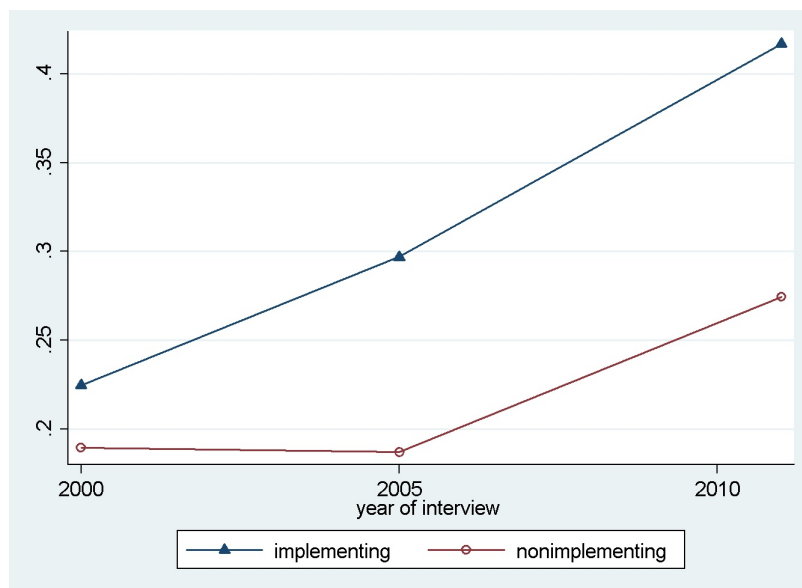


Figure 6: Norms for women in treated and non-treated regions

Figure 6 depicts the time trend in norms where a yearly average is constructed, merging the norm variables in the dataset. If the respondent answers that it is justifiable to beat a wife in one of the situations presented, she is coded 0. If however the respondent never answered that it was justifiable to beat a woman, she is coded as 1. An upwards sloping graph is thus a good sign showing an improvement in norms. The implementing regions have a quite linear trend from the moment the revised family code was introduced. The non-implementing regions between 2000 and 2005 show no change until the 2011 survey when the average suddenly increases. This abrupt change occurring between 2005 and 2011 could be caused by the law being implemented in this period. When all the regions have implemented the law they seem to follow the same upwards trend. Using the non-implementing regions as a counterfactual between 2000 and 2005 may not be a bad approximation.

These trends rest on data gathered at three points of time, connected by a linear line. There could be large fluctuations in the years between, but these linear trends give us at least an idea of the general trends.

8 Estimations

Data analysis was conducted using STATA and the 2000 and 2005 DHS datasets are used to estimate regular difference-in-difference regressions.

8.1 Education

Below follow difference-in-difference estimations, only varying the dependent variable to see whether there is any significant effect of the law change. It is thought that increasing the age of marriage would give women more time to invest in their education, a hypothesis discussed in Hallward-Driemeier & Gajigo (2010).

Table 4: Education and Literacy for women 2000 and 2005

	Education			Literacy		
	(1)	(2)	(3)	(4)	(5)	(6)
D	0.565** (2.87)	0.314* (2.16)	1.144*** (4.10)	0.0234 (1.07)	-0.00440 (-0.27)	0.0881** (2.84)
T	1.172*** (5.40)	0.607*** (3.75)	1.600*** (5.79)	0.133*** (5.65)	0.0690*** (3.84)	0.181*** (6.19)
DT	0.170 (0.51)	0.0450 (0.18)	-0.0108 (-0.03)	0.0190 (0.55)	0.00513 (0.19)	-0.00191 (-0.05)
_cons	1.301*** (10.50)	0.899*** (9.96)	2.077*** (11.38)	0.169*** (11.83)	0.120*** (10.88)	0.263*** (13.03)
<i>N</i>	29437	17641	11796	29437	17641	11796

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4 shows the results from difference-in-difference estimations using the data from 2000 and 2005. The dependent variables are education in single years and literacy respectively. Literacy is defined as being able to read a whole sentence without problems, coded as 0 when the respondent is not literate, and 1 when she is literate. Regressions (1) and (4) use the total sample of women, (2) and (5) are married women, while (3) and (6) are non-married women. Non-married women includes those that have never been married, those who are living together, the widowed, the divorced and those not living together. As can be seen, none of the specifications show any significant change in the DT variable, the effect of the law change on the dependent variable. The T dummy, with the value of 1 for the regions implementing the law in 2005, is positive and significant for all specifications, showing that there was a pre-existing higher level in education and literacy for women in the implementing regions. This result is expected as it is thought that the regions who already have more female autonomy would embrace the new laws first. The D dummy has a value of 1 for data collected in 2005.

Drèze & Murthi (2001) find that literacy in their sample in India is driven by education, and that there is not a joint influence by unobserved variables acting on both. This seems reasonable as literacy is a main skill learned during the first years of education and a prerequisite for further education. As education drives literacy, all the estimated coefficients for literacy, though not significant, are systematically smaller than those for education in table 4.

As seen by conducting a simple difference-in-difference estimation in table 5 using 2000

and 2005 data with the age of first marriage as the dependent variable, there has been no significant change that can be related to the law change. Thereby we cannot conclude that the women have attained more education because of an increased age at marriage that can be attributed to the law change. This also shows that the law of a minimum age at marriage is not enforced.

Table 5: Change in age at first marriage

(1)		
Age		
D	0.0380	(0.51)
T	-0.730***	(-10.61)
DT	0.117	(1.17)
_cons	16.57***	(323.75)
N	21628	

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

There does not seem to be an effect on education, but the education variable is included in the following regressions focussing on norms to see if certain groups maybe show a significant improvement.

8.2 Violence

Violence is defined by the World Health Organisation as:

”The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation.” (Krug et al. 2002)

This definition puts emphasis on that violence is intentional, omitting accidents and unfortunate incidents. It also includes self-abuse and suicide as these are acts of violence against oneself.

The DHS surveys contain questions concerning the justifiability of wife beating. This has its limitations as only a specific form of violence against married women is measured. Also, this measures opinions, and not the actual use of violence.

Estimations are made to see whether there was a change in the norms regarding violence against women, more specifically violence against wives. Dummy variables are created for a range of different situations where the respondents were asked whether it was justifiable

to beat a wife. These dummies serve as the dependent variables in the following situations: if she goes out without telling him, if she neglects the children, if she argues with him, if she refuses to have sex with him and if she burns the food. D is a time dummy, T is the implementation dummy, and DT the treatment effect coefficient of interest.

Table 6: Dependent variables in estimations

Dependent variable	=0 when it is justifiable to hit a woman when she:
out	Goes out with telling the husband
child	Neglects the children
argue	Argues with the husband
nosex	Refuses to have sex with the husband
burnfood	Burns the food
violent	Does one of the above

The dependent variable edu is not included in table 6 as it is not a dummy variable. It is the average education in single years.

A higher percentage of women than men think it is justifiable to beat a wife in these circumstances. Women with such views may think of herself as secondary to the man, not standing up for her own needs and this will probably have negative health implications for the children as well.

8.3 Only women

Table 7: Change in education and norms, women 2000 and 2005

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	edu	out	child	argue	nosex	burnfood	violent
D	0.565** (2.87)	-0.0576** (-3.03)	-0.00415 (-0.22)	0.0205 (1.10)	0.0421* (2.09)	0.0810*** (3.96)	-0.00240 (-0.16)
T	1.172*** (5.40)	0.0640** (3.17)	0.0467* (2.44)	0.0428* (2.06)	0.0744*** (3.36)	0.0815*** (3.77)	0.0351* (2.17)
DT	0.170 (0.51)	-0.000783 (-0.03)	0.0330 (1.24)	0.0237 (0.80)	0.0520 (1.78)	-0.0250 (-0.79)	0.0746** (3.06)
_cons	1.301*** (10.50)	0.443*** (31.39)	0.363*** (25.40)	0.422*** (31.87)	0.491*** (31.88)	0.383*** (26.86)	0.190*** (17.14)
<i>N</i>	29437	29073	29098	28954	28051	29124	29274

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

From table 7 we see that the disaggregated norm variables show no significant change because of the law change in the women's answers from 2000 to 2005. Neither is there a change in education. The variable violence however shows a significant increase from period one to period two. Violence is constructed by aggregating the different situations. When the respondent finds any of the situations justifiable for beating, it is coded as 0, when answering that it is not justifiable in any of the situations it is coded as 1. The aggregation is explained by assuming that when the respondent answers that it is justifiable in at least one of the situations to hit a woman, the respondent accepts violent behaviour in some situations, whereas a respondent who does not find it acceptable to hit a woman in any of the situations in the survey will be against all kinds of violence. An aggregated variable is preferable because it is less prone to capturing noise. All the coefficient for the regional trends (T) are significant, showing that there is a significant difference in the dependent variable between the regions that implemented the law and those who did not. The regressions will only include the T row for those regions where $T = 1$, meaning the regions that implemented the law before 2005. In these regions women answer significantly more often that it is not justifiable to beat a wife in all the 5 different situations. This supports the hypothesis that those regions that were more female friendly would be the first ones to implement the laws. Through the difference-in-difference equations we control for these differences between the control and treatment group, and as we can see there is only a change in the norms of women in the aggregated

variable after the law change. For regressions (1), (2), (5) and (6) there is a significant change in the time (D) dummy. This will take the value of 1 for all regions in the period after the law change. This dummy accounts for any time trends that may be present. There may be an improvement or worsening in norms over time not attributable to the law change. Here we see that there are more women answering that it is justifiable to beat a wife when she goes out without telling the husband in the period after the law change. It is unclear why this is so. However, for the regressions where refusing sex and burning food is the issue, there are more people answering that it is not justifiable after the law change. The neglect of children and arguing with the husband regressions are unchanged and not significantly different from 0.

8.4 Only men

Estimating the same regressions for only men in table 8 we see there is a significant improvement in the dependent variable for only one of the estimates, and the aggregated variable is actually not significant. It may be even more important to change the norms among the men who do the actual beating, so there is a large potential for improvement.

Table 8: Change in education and norms, men 2000 and 2005

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	edu	out	child	argue	nosex	burnfood	violent
D	0.737** (2.69)	0.0687** (2.66)	0.122*** (4.43)	0.0913*** (3.61)	0.165*** (6.10)	0.123*** (4.90)	0.162*** (5.88)
T	0.983** (3.10)	0.0182 (0.66)	0.000596 (0.02)	0.0329 (1.18)	0.0908** (3.24)	0.0302 (1.08)	0.0788** (2.79)
DT	0.0576 (0.13)	0.0544 (1.55)	0.0957* (2.58)	0.0381 (1.10)	0.0160 (0.46)	0.0388 (1.11)	0.0283 (0.74)
_cons	2.646*** (13.74)	0.554*** (29.19)	0.518*** (25.38)	0.586*** (29.53)	0.545*** (26.09)	0.624*** (31.42)	0.292*** (14.96)
<i>N</i>	8640	8510	8439	8498	8369	8505	8558

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

There was an improvement that can be attributed to the law change, regarding the neglect of children. Significantly fewer men found it justifiable to beat a wife if she neglected the children after the law change than before. The responses on the other situations are

however not significantly different from 0. Also, in contrast to the female data sample, there is no preceding regional trend. This means that in the sample of men the regions that did implement the law did not differ systematically from those that did not. This is true for all equations except number (1), (5) and (7). The implementing regions seem to be more inclined to answering that it is not justifiable to hit a woman if she refuses the husband sex, in the aggregated variable, and it also seems like the implementing regions have higher education than the non-implementing.

8.5 Men and women

Table 9: Change in education and norms, men and women 2000 and 2005

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	edu	out	child	argue	nosex	burnfood	violent
D	0.756*** (3.79)	-0.0669*** (-3.59)	-0.0171 (-0.92)	0.00679 (0.37)	0.0375 (1.89)	0.0610** (3.02)	-0.0109 (-0.72)
T	1.154*** (5.28)	0.0597** (3.04)	0.0419* (2.25)	0.0407* (2.01)	0.0752*** (3.51)	0.0757*** (3.60)	0.0375* (2.32)
DT	0.134 (0.40)	0.00360 (0.13)	0.0377 (1.43)	0.0258 (0.89)	0.0511 (1.77)	-0.0192 (-0.61)	0.0722** (2.95)
_cons	1.378*** (11.08)	0.452*** (33.16)	0.376*** (27.12)	0.436*** (34.18)	0.495*** (33.38)	0.403*** (29.24)	0.198*** (18.19)
<i>N</i>	82881	60728	60787	60499	58668	60837	61148

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

When combining the men and women's datasets we see a significant change in the aggregated variable violent. There is no change in years of education that can be attributed to the law change, and none of the disaggregated norm regressions show any change.

8.6 Only married women 2000 and 2005

As married women are the target group directly affected by the law change, it is reasonable they were affected the most by the law change.

Table 10: Change in education and norms, married women 2000 and 2005

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	edu	out	child	argue	nosex	burnfood	violent
D	0.314*	-0.0757***	-0.0123	0.0108	0.0431*	0.0708***	-0.0100
	(2.16)	(-3.87)	(-0.62)	(0.60)	(2.04)	(3.44)	(-0.70)
T	0.607***	0.0189	0.0193	-0.0000358	0.0349	0.0251	0.00148
	(3.75)	(0.94)	(0.99)	(-0.00)	(1.60)	(1.21)	(0.10)
DT	0.0450	-0.00781	0.0144	0.0172	0.0464	-0.0344	0.0556*
	(0.18)	(-0.28)	(0.54)	(0.62)	(1.59)	(-1.16)	(2.57)
_cons	0.899***	0.426***	0.346***	0.397***	0.457***	0.368***	0.171***
	(9.96)	(29.91)	(23.82)	(29.87)	(29.20)	(27.04)	(16.58)
N	17641	17510	17508	17429	17151	17519	17595

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 10 shows that there is a significant effect that can be attributed to the law change when looking at the aggregated norm variable violent. The other variables are not significant.

8.7 Non-married women 2000 and 2005

There may be an effect through changing opportunities for women, this may be an effect seen best for the women who are not married. Because the minimum age of marriage was raised from 15 to 18, it is thought there is an effect causing women to get more education before getting married. The sample used are all the other categories: those never married, living together, widowed, divorced and not living together.

Table 11: Change in education for non-married women 2000 and 2005

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	edu	out	child	argue	nosex	burnfood	violent
D	1.144*** (4.10)	-0.0172 (-0.70)	0.0155 (0.64)	0.0443 (1.71)	0.0434 (1.78)	0.105*** (3.85)	0.0163 (0.75)
T	1.600*** (5.79)	0.109*** (4.57)	0.0688** (2.96)	0.0789** (3.14)	0.101*** (3.98)	0.142*** (5.45)	0.0641** (3.04)
DT	-0.0108 (-0.03)	-0.0143 (-0.41)	0.0432 (1.33)	0.0155 (0.43)	0.0503 (1.49)	-0.0290 (-0.76)	0.0851** (2.71)
_cons	2.077*** (11.38)	0.476*** (26.34)	0.398*** (21.46)	0.472*** (26.26)	0.560*** (29.46)	0.412*** (20.84)	0.227*** (14.10)
<i>N</i>	11796	11563	11590	11525	10900	11605	11679

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 11 shows an effect on the non-married women for the aggregated variable. This shows support for the hypothesis that women not directly affected see a change in norms because they are influenced by the rest of society and because they have a stronger future bargaining power. The education variable however does not see a significant change. The change is larger for the non-married women with a coefficient of 0.0851 than the married women with a coefficient of 0.0556. Their confidence intervals do not overlap as the standard errors are of about the same size. Women who are married when the law changes have lived longer under the old regime and may have had to justify their husband's violent behaviour for so long that they believe it is the only way to live. This is a phenomenon called adaptive preferences as explained in Nussbaum (2001). Individuals adjust their preferences and thereby their desires to be content with the life they have. Instead of wanting something that is not attainable, they accept the current state and are content with that, not striving for something else. This emphasizes the difficulty in measuring women's well-being, their subjective answers will be influenced by their culture and whether they have accepted their position in life or not. Nussbaum (2001) also mentions a study done by Amartya Sen on data from an area near Calcutta in India. When widows and widowers were asked about their health status among half of the men answered that they were ill, while only 2.5% of the widows answered the same. In reality the widows were far worse off, both in nutritional and health status. Sen concludes that the widows have accepted their deprivation and do not expect anything better. This theory could explain the larger increase in non-married women answering that it is not

acceptable to hit a wife, even though they are not directly affected by the law change.

8.8 Household bargaining power

To see whether there has been an improvement in women’s autonomy, the data on who decides how to spend money is used. A dummy variable was created for the variables showing who makes decisions in the household. The five original categories on who makes decisions in the household were: Respondent alone; respondent and husband/partner; respondent and other person; husband/partner alone; someone else. As the scope is to find out whether female agency increased, the first three categories where the woman is at least part of the decision making process, is coded as 1, while the other two where she is not involved is 0. The missing values and those coded not applicable were dropped. The coefficient would thus be positive if there was an improvement.

Table 12: Change in decision making women 2000 and 2005

	(1)	
	decision	
D	-0.203***	(-12.89)
T	-0.00714	(-0.36)
DT	0.000789	(0.04)
_cons	0.283***	(18.88)
<i>N</i>	29437	

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The effect is not significant as seen in table 12. This does however not mean that the effect of the law change on the aggregated norm variable is not driven by changes in household bargaining power. The increased bargaining power may work through other channels than decision making. As mentioned in the literature review increased bargaining power may increase the woman’s nutrient intake and lower the probability of her being underweight.

8.9 The chartered cities

There may be an explanation for the lack of measurable effect, looking at the division of legislative power in the country.

Email correspondence with Abraham Yohannes who is a lecturer at the College of Law, Haramaya University and a lawyer licensed to practice law at all levels of Federal Courts

and Harari Regional Courts, revealed that all the regional states have their own regional family law. The revised family law has never been implemented in the regions as the law is a federal law not applicable on regional states. Also the report by The African Child Policy Forum (2012) mentions the challenges due to the constitutional division of powers, reporting that the revised family code is implemented only in Dire Dawa and Addis Ababa which are the two federal city administrations. The regions may have been influenced, changing their own family laws according to the federal law, but these may follow by parts or as a whole.

Because of conflicting sources about where the laws were implemented and not, the following estimations only treat the chartered cities Dire Dawa and Addis Ababa as regions which implemented the law. Thus all the other regions will be coded as not having implemented the law, introducing the underlying trend which will be subtracted to get the effect of the law change alone.

Table 13: Married women 2000 and 2005 in Dire Dawa and Addis Ababa

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	edu	out	child	argue	nosex	burnfood	violent
D	1.321*** (6.71)	-0.0503** (-2.83)	0.00531 (0.30)	0.0436* (2.41)	0.0705*** (4.12)	0.0644*** (3.36)	0.0308* (2.03)
T	4.233*** (18.74)	0.240*** (11.25)	0.182*** (9.19)	0.283*** (13.11)	0.274*** (12.73)	0.304*** (14.21)	0.218*** (11.55)
DT	-0.523 (-1.58)	0.0794** (2.70)	0.125*** (4.52)	0.0370 (1.33)	0.0178 (0.66)	0.0727* (2.56)	0.134*** (4.78)
_cons	1.786*** (14.12)	0.471*** (37.60)	0.384*** (30.13)	0.434*** (34.30)	0.539*** (41.02)	0.408*** (30.37)	0.199*** (19.20)
<i>N</i>	11796	11563	11590	11525	10900	11605	11679

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

In table 13 we see that there are actual improvements in three of the disaggregated in addition to the aggregated variables showing the justifiability of beating. There is a regional difference between the chartered cities and all other regions as seen by the coefficients on the T (Treated=1) coefficients.

8.10 Robustness

If, however, some of the other regions did implement the law, being in the counterfactual group would erase some of the effect which was actually contributed by the law change. In the following estimates will be made for married women in Dire Dawa and Addis Ababa, using Somali as the control region. Somali is chosen because there has been no source citing that the law was implemented in Somali, in addition it borders to Dire Dawa. Thus the chartered cities will be coded as treated, and Somali will be the control group. The rest of the regions will be coded as missing data, for both the T (treatment) and D (period) dummies.

Table 14: Married women 2000 and 2005 in Dire Dawa and Addis Ababa with Somali as counterfactual

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	edu	out	child	argue	nosex	burnfood	violent
D	0.198 (0.33)	-0.0394 (-0.67)	-0.0331 (-0.52)	0.136* (2.19)	0.0580 (1.02)	0.00705 (0.13)	0.0206 (0.46)
T	5.152*** (11.49)	0.323*** (8.09)	0.194*** (4.41)	0.341*** (8.40)	0.352*** (8.37)	0.228*** (5.90)	0.256*** (7.15)
DT	0.599 (0.91)	0.0685 (1.06)	0.163* (2.42)	-0.0557 (-0.83)	0.0303 (0.50)	0.130* (2.15)	0.144** (2.81)
_cons	0.867* (2.13)	0.387*** (10.76)	0.373*** (9.03)	0.376*** (10.29)	0.461*** (12.00)	0.483*** (13.84)	0.162*** (5.03)
<i>N</i>	4117	4076	4079	4060	3892	4068	4096

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 14 shows that, resting on the assumption that Somali would be a good counterfactual for the chartered cities, there was a significant improvement in two of the aspects and in the aggregated variable. To check for its robustness, the results are repeated using different regions as the counterfactuals.

Table 15: Married women 2000 and 2005 in Dire Dawa and Addis Ababa with Afar as counterfactual

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	edu	out	child	argue	nosex	burnfood	violent
D	1.093*** (3.34)	0.0315 (0.94)	0.153*** (4.85)	0.0470 (1.26)	0.0839* (2.21)	0.148*** (4.08)	0.104*** (3.77)
T	4.407*** (14.20)	0.313*** (10.36)	0.309*** (13.18)	0.318*** (9.75)	0.343*** (9.87)	0.445*** (15.48)	0.290*** (12.89)
DT	-0.295 (-0.66)	-0.00237 (-0.06)	-0.0227 (-0.59)	0.0336 (0.79)	0.00443 (0.10)	-0.0107 (-0.25)	0.0604 (1.64)
_cons	1.612*** (6.52)	0.397*** (16.04)	0.258*** (14.45)	0.399*** (14.54)	0.470*** (15.57)	0.267*** (11.39)	0.128*** (7.97)
<i>N</i>	5142	5093	5097	5069	4790	5090	5120

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

As seen in table 15, suddenly there is no effect of the law using Afar as the counterfactual region. This suggests that Afar may have implemented the same family law as the chartered cities, although Afar is one of the non-implementing regions in Hallward-Driemeier & Gajigo (2010).

Table 16: Married women 2000 and 2005 in Dire Dawa and Addis Ababa with Benishangul-Gumuz as counterfactual

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	edu	out	child	argue	nosex	burnfood	violent
D	1.587** (2.95)	0.00286 (0.06)	-0.0304 (-0.49)	0.0223 (0.50)	0.0300 (0.68)	0.0889 (1.63)	-0.00221 (-0.05)
T	4.589*** (13.67)	0.266*** (6.51)	0.187*** (3.93)	0.262*** (6.62)	0.268*** (6.83)	0.378*** (8.83)	0.248*** (7.75)
DT	-0.790 (-1.33)	0.0263 (0.46)	0.160* (2.43)	0.0583 (1.20)	0.0583 (1.19)	0.0482 (0.83)	0.167*** (3.41)
_cons	1.431*** (5.14)	0.444*** (11.98)	0.380*** (8.43)	0.455*** (12.83)	0.545*** (15.41)	0.333*** (8.44)	0.170*** (6.09)
<i>N</i>	4189	4150	4154	4132	3936	4147	4175

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 16 shows that the aggregated variable violent is significantly different from 0, and also regression number (3) concerning neglect of the children has a significant increase.

Table 17: Married women 2000 and 2005 in Dire Dawa and Addis Ababa with Gambella as counterfactual

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	edu	out	child	argue	nosex	burnfood	violent
D	0.773 (1.62)	0.0522 (1.04)	0.00855 (0.12)	0.0795 (1.27)	-0.0973 (-1.61)	0.143* (2.21)	0.0672 (1.37)
T	3.754*** (10.32)	0.269*** (7.06)	0.105 (1.82)	0.243*** (4.79)	0.123* (2.41)	0.336*** (6.81)	0.227*** (5.73)
DT	0.0243 (0.05)	-0.0231 (-0.42)	0.122 (1.67)	0.00108 (0.02)	0.186** (2.88)	-0.00624 (-0.09)	0.0973 (1.82)
_cons	2.265*** (7.27)	0.441*** (13.00)	0.462*** (8.25)	0.474*** (9.96)	0.690*** (14.36)	0.376*** (8.11)	0.191*** (5.28)
<i>N</i>	4162	4125	4130	4115	3928	4123	4152

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Using Gambella as the counterfactual for the chartered cities in table 17 we see that the aggregated variable violent is not significant. Regression number (5), however shows a significant effect.

Table 18: Married women 2000 and 2005 in Dire Dawa and Addis Ababa with Harari as counterfactual

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	edu	out	child	argue	nosex	burnfood	violent
D	1.709*	-0.235***	-0.212***	-0.0702	-0.0476	0.000132	-0.170***
	(2.42)	(-5.04)	(-4.77)	(-1.51)	(-1.42)	(0.00)	(-3.78)
T	1.611**	-0.105***	-0.132***	-0.0441	-0.0211	-0.0435	-0.110***
	(2.88)	(-4.12)	(-4.44)	(-1.55)	(-0.87)	(-1.42)	(-3.68)
DT	-0.912	0.265***	0.342***	0.151**	0.136***	0.137**	0.335***
	(-1.21)	(5.02)	(6.84)	(2.88)	(3.47)	(3.00)	(6.50)
_cons	4.408***	0.815***	0.699***	0.761***	0.834***	0.755***	0.528***
	(8.38)	(43.78)	(27.39)	(33.96)	(48.91)	(29.20)	(20.82)
<i>N</i>	4482	4445	4447	4423	4225	4441	4469

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 18 using Harari as the counterfactual shows a significant positive effect of the law change for all the regressions, except the one with single years of education as the dependent variable.

Table 19: Married women 2000 and 2005 in Dire Dawa and Addis Ababa with SNNP as counterfactual

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	edu	out	child	argue	nosex	burnfood	violent
D	1.093*** (3.34)	0.0315 (0.94)	0.153*** (4.85)	0.0470 (1.26)	0.0839* (2.21)	0.148*** (4.08)	0.104*** (3.77)
T	4.407*** (14.20)	0.313*** (10.36)	0.309*** (13.18)	0.318*** (9.75)	0.343*** (9.87)	0.445*** (15.48)	0.290*** (12.89)
DT	-0.295 (-0.66)	-0.00237 (-0.06)	-0.0227 (-0.59)	0.0336 (0.79)	0.00443 (0.10)	-0.0107 (-0.25)	0.0604 (1.64)
_cons	1.612*** (6.52)	0.397*** (16.04)	0.258*** (14.45)	0.399*** (14.54)	0.470*** (15.57)	0.267*** (11.39)	0.128*** (7.97)
<i>N</i>	5142	5093	5097	5069	4790	5090	5120

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 19 shows no significant effect of the law change in any of the regressions.

Repeating the estimates, using the rest of the non-implementing regions one by one as postulated in Hallward-Driemeier & Gajigo (2010), we see large variations in the effects. The effect on the aggregated variable violent by using Harari, Benishangul-Gumuz or Somali as the counterfactual is significant. Conversely, using the SNNP, Gambela and Afar regions show no significant changes. This can be explained in several different ways.

1. The specification of the implementation of the law is wrong. By using as a counterfactual a region that also has enacted the law, we do not get a means for comparison and get no effect.
2. Other things may interfere. Even though the region used as counterfactual may not have implemented the law, it may have enacted other types of laws. This may lead to an under- or an overestimation of the effect of the family law. Also campaigns and programmes may influence the way people respond.
3. The trends may not be linear between the regions. The effect will then be under- or overestimated.

In table 20 dependent variables are used that are not assumed to be directly affected by the law change. It is whether the household has electricity, radio, television, car or a phone. The estimation with the phone shows that there has been an increase in phones in the households that is attributed to the law change. One possibility is that increasing

the bargaining power for women, given that they have a preference for phones, they will use their increased power in the household to acquire one. On the other hand, this could be a sign that the equation is misspecified, and that there are other confounding effects that are not controlled for.

Table 20: Married women 2000 and 2005 change in appliances

	(1)	(2)	(3)	(4)	(5)
	el	radio	tele	car	phone
D	0.0668*	0.126***	0.0546**	0.00266	0.0405***
	(2.10)	(4.98)	(3.23)	(1.21)	(3.60)
T	0.228***	0.135***	0.108***	0.0248***	0.0834***
	(6.46)	(4.90)	(6.68)	(5.00)	(6.66)
DT	-0.0459	0.00468	0.0357	-0.00194	0.0505*
	(-0.89)	(0.12)	(1.13)	(-0.25)	(1.98)
_cons	0.134***	0.262***	0.0312***	0.00384**	0.0149***
	(6.67)	(15.69)	(4.49)	(3.06)	(4.07)
<i>N</i>	28469	28470	28472	28475	28465

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

9 Conclusion

This thesis looks closer at a specific family law change in Ethiopia in 2000 to see whether it had an effect on education and norms. Evaluating the effect of the policy change using a difference-in-difference approach it is possible to remove the general trends and only measure the effect of the law change. I have used education and attitudes towards violence against women as the outcomes to be measured.

Ethiopia is a diverse country housing 91 million people belonging to 80 different ethnicities. Introducing a uniform family law is difficult because of large cultural differences, and the Constitution gives every region the power to form their own family laws. The specification of which regions implemented the law when comes from Hallward-Driemeier & Gajigo (2010). The difference-in-difference strategy relies on there not being systematic differences between the implementing and non-implementing regions except for the law change. There is also a risk that there are other laws implemented at the same time which may affect the same outcome variables, distorting the effect of the family law change that I wish to measure.

Using data from the Demographic and Health Surveys from Ethiopia in 2000 and 2005, difference-in-difference regressions are estimated in order to measure the effect of the law change and subtracting the underlying trends. Different samples are used, women, men, married and single in order to see if the effect is different for each of these groups. It is thought that the family law change has the largest effect on married women as they are the only ones directly affected. Through increasing the age of marriage and increasing the future bargaining power the effect may extend to single women as well. I find there is a larger effect for non-married women than for married women on the aggregated norm variable, and this may be explained by adaptive preferences. The married women may have accepted violent behavior from their husband, and adjusted their preferences thereafter, whereas the single women have not done so yet.

An aggregated variable is created and named violent, taking the value of 0 if the respondent answers that it is justifiable to beat a wife in any of the situations, while it takes the value of 1 if the respondent answers that it is not justifiable to beat a wife in any of the situations. It is created as an aggregated variable to remove any noise that may occur in the other estimations, making it a more reliable estimate. Estimating using the whole sample of women, only the aggregate estimate shows a significant effect. In all the estimations it differs which variable shows a significant effect and not, but the aggregate variable is always significant and shows an improvement in the norms. The only exception is in the sample using only men. This may not be a surprise as the law mainly targets women, but on the other hand it is as important, if not even more so, to change the norms and attitudes of the men who are the ones performing the violence. The household bargaining power is also tested with data on who does the decision making in the household. There does not seem to be an increase after the law change.

There seems to be confusion about where, when and if the family law was implemented in the regions. As this is a crucial part of my identification strategy I wanted to find a clear cut answer. Different sources give different answers, and this alone is an indicator that the information is limited. By using a variety of papers and contacting a scholar in Ethiopia, I have tried to merge the information together to find out what really is the case. This has however been more difficult than expected. I have also tried contacting the authors of the papers giving information on this, with little success.

As the chartered cities Addis Ababa and Dire Dawa are federal city administrations, we can at least be certain that the new federal family law applies here. As a way of testing the robustness I have estimated the same equations using different regions as treated and controls. The estimates for the chartered cities are significant when using all the other regions as counterfactuals, and this is quite convincing as several sources have stated that they are the only regions where the federal family law is directly applicable. However, if some of the other regions also implemented the family law, these will reduce

the effect measured and thus bias the estimates. Further robustness checks are done using different regions one by one as counterfactuals for the chartered cities, which gives varying results. Some give significant effects on all the estimates, while others have no significant estimates. This may be due to noise or other unobserved factors. Estimates are also done using appliances as the dependent variable. Expecting the law change to not have an effect on the appliances of the household, this is used as a placebo to check for noise that may be affecting the estimates. One of the estimates is significant, there are more households with a phone after the law is introduced. This can be noise, but it can also be explained by an increase in bargaining power for women, who then are assumed to have a strong preference for phones, using their increased power to acquire one.

As predicted by the educational trends, there was no effect on education by the law change. Although it is not especially motivating to see that the law change does not show any significant effects on years of education, there may have been other events that have intervened with the effect. If there was something that happened in the course of these years that influenced education in the negative direction, this may have eradicated the effect of the law change. If that was the case, the situation could have been even worse without the law change. It may also be the case that such changes take longer time than the period we have data for at this time. Also, because of the heterogeneity in a country such as Ethiopia with eighty nationalities, it may be difficult to use other regions as counterfactuals as they are widely different.

Similarities can be found with Stevenson & Wolfers (2006), which looks at a change in the divorce laws across the US. While this thesis found an improvement in the attitudes regarding domestic violence because of the family law change, Stevenson and Wolfers found a decline in domestic violence because of the divorce law change. This shows that laws increasing women's rights do have an effect both in the US and in Ethiopia.

Further research can be done looking at similar law changes in other countries to see if the results hold. Another important aspect is further evaluation of the family law, and how it can be improved. Yigzaw et al. (2010) mentions that there is no notion of marital rape in the law. This is an important issue that cannot be ignored. Rape victims are often by the community forced to marry their rapists, as the women are now unwanted as wives by other men. The Penal Code (1957) included in art.599 that there was not to be any prosecution of the rapist in the event of a subsequent marriage. This exemption was removed in the Criminal Code (2004), however homosexuality is still a crime, so there is room for further improvement in this law too.

Appendix A gives an overview of the law changes from 1960 - 2010 provided by the World Bank. Using the difference-in-difference approach one could look at the effects from the law change in 1994 when the Constitution included a non-discrimination clause covering

gender/sex in addition to allowing customary laws to be valid.

Appendix A

Years	I. Property Ownership Rights--immovables		II. Marital Regimes		III. Inheritance		IV. Property Titling		V. Status and Capacity		VI. Access to Judicial System		VII. Constitutions		VIII. Customary/Religious Laws		
	(1) Unmarried Equal Property Rights--immovables	(2) Married Equal Property Rights--immovables	(3) Default Marital Property Regime (majority)	(4) Sons and daughters equal inheritance--immovables	(5) surviving spouses equal inheritance re: immovables	(6) Joint titling mandatory for married couples?	(7) Adult married women head of household	(8) Permission from husband to get job/pursue trade	(9) Prevent married woman signing contract	(10) Permission to initiate legal proceedings--civil cases	(11) Guaranteed Equality covering gender/sex	(12) Non-discrimination clause covering gender/sex	(13) Customary/Religious Laws valid sources under Constitution?	(14) Customary/Religious law not subject to non-discrimination req.			
1960a	..	..	..	..	..	..	..	..	..	..	..	..	..	Y	N	N	N/A
1960	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1961	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1962	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1963	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1964	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1965	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1966	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1967	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1968	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1969	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1970	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1971	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1972	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1973	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1974	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1975	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1976	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1977	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1978	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1979	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1980	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1981	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1982	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1983	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1984	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1985	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1986	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1987	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1988	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1989	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1990	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1991	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1992	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1993	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	N	N	N/A
1994	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	Y	Y	N
1995	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	Y	Y	N
1996	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	Y	Y	N
1997	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	Y	Y	N
1998	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	Y	Y	N
1999	Y	N	b	Y	Y	N/A	N	N	N	N	N	N	N	Y	Y	Y	N
2000	Y	Y	b	Y	Y	Y	Y	N	N	N	N	N	N	Y	Y	Y	N
2001	Y	Y	b	Y	Y	Y	Y	N	N	N	N	N	N	Y	Y	Y	N
2002	Y	Y	b	Y	Y	Y	Y	N	N	N	N	N	N	Y	Y	Y	N
2003	Y	Y	b	Y	Y	Y	Y	N	N	N	N	N	N	Y	Y	Y	N
2004	Y	Y	b	Y	Y	Y	Y	N	N	N	N	N	N	Y	Y	Y	N
2005	Y	Y	b	Y	Y	Y	Y	N	N	N	N	N	N	Y	Y	Y	N
2006	Y	Y	b	Y	Y	Y	Y	N	N	N	N	N	N	Y	Y	Y	N
2007	Y	Y	b	Y	Y	Y	Y	N	N	N	N	N	N	Y	Y	Y	N
2008	Y	Y	b	Y	Y	Y	Y	N	N	N	N	N	N	Y	Y	Y	N
2009	Y	Y	b	Y	Y	Y	Y	N	N	N	N	N	N	Y	Y	Y	N
2010	Y	Y	b	Y	Y	Y	Y	N	N	N	N	N	N	Y	Y	Y	N

Change in law which impacts women's rights

Trending change in legal system: e.g. shift from customary law to statutory law

New law enacted, but does not trigger indicators

(3) property regimes: (a) separation of property; (b) partial community; (c) full community; (d) deferred full or partial community; (e) other.

.. Means data is unavailable

Source: The World Bank (1960-2010)

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