## แม่เลี้ยงเดี่ยวและข้อเสียเปรียบต่อคุณภาพชีวิต: การศึกษาจากประเทศเวียดนาม

## นางสาวง็อค ฮวน ตรึก ดัง

บทคัดย่อและแฟ้มข้อมูลฉบับเต็มของวิทยานิพนธ์ตั้ตแต่ปีการศึกษา 2554 ที่ให้บริการในคลังปัญญาจุฬาๆ (CUIR) เป็นแฟ้มข้อมูลของนิสิตเจ้าของวิทยานิพนธ์ ที่ส่งผ่านทางบัณฑิตวิทยาลัย The abstract and full text of theses from the academic year 2011 in Chulalongkorn University Intellectual Repository (CUIR) are the thesis authors' files submitted through the University Graduate School.

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ต็อค ฮวน ตรึก ดัง: แม่เลี้ยงเดี่ยวและข้อเสียเปรียบต่อคุณภาพชีวิต: การศึกษาจากประเทศเวียดนาม (Single Motherhood in Vietnam and the Disadvantages in the Living Condition) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: อ. ดร. ธันยพร จันทร์กระจ่าง, 4 หน้า.

การศึกษาครั้งนี้มีวัตถุประสงค์เพื่อศึกษาแม่เลี้ยงเดี่ยวและสภาพความเป็นอยู่ที่เกี่ยวข้องกับ แม่ เ ลี้ยง เดี่ย วใน ประ เทศ เ วียดนา ม ด้วย วิธี การ วิจัย $เ$ ชิง ป ริมา ณ นอกจากนี้มีการวิเคราะห์เพิ่มเติมต่อผลการศึกษาที่เกิดขึ้นโดยแสดงหลักฐานจากการทบทวนวรรณกร รม ข อง ประเทศกำลัง พั ฒ น า ที่ได้รับ อิท ธิ พล จากประ เทศ ที่ พั ฒ น า แล้ว กลุ่มตัวอย่างที่ใช้ในการวิจัยได้จากการสำรวจ "Population and Housing Census" ปี 1999 และ 2009 ของประเทศเวียดนาม ซึ่งจัดทำโดย IPUMS International Project

ผ ล ก า ร ศึ ก ษ า พ พ บ ว่า ครอบครัวที่มีแม่เพียงคนเดียวมีแนวโน้มของการเผชิญความยากลำบากในสภาพความเป็นอยู่ที่เกี่ยวข้ องกับการเป็นเจ้าของบ้าน และสินค้าประเภทคงทนมากกว่าครอบครัวที่มีพ่อและแม่ กล่าวคือ ค ร อ บ ค รัว ที่ มีพ่ อ และ แม่ มีส ถา น ะ เ ป็น เจ้า ข อง บ้า น และสินค้าคงทนมากกว่าครอบครัวที่มีแม่คนเดียวอย่างน้อย 2 เท่า นอกจากนี้ แมที่เป็นหัวหน้าครอบครัวและเลี้ยงดูบุตรตามลำพังจะมีความยากลำบากในสภาพความอยู่ซึ่งถูกบ่งชี้ไ ด้จากการเป็นเจ้าของที่อยู่อาศัย อรรถประโยชน์พื้นฐาน และสินค้าคงท น มากกว่าแม่ที่ไม่ได้เป็นหัวหน้าครอบครัวและอาศัย รวมกับผู้ใหญาและแม่คนอื่นๆ จ า ก ค ร อ บ ค รัว ที่ มีพ่ อ และ แม่ ไ ม เ พีย ง เ ท่า นั้น แม่เลี้ยงเดี่ยวที่มีสถานะหย่าร้างหรือแยกอาศัยกับสามีจะมีความยากลำบากในรูปแบบการเป็นเจ้าของ บ้านเปรียบเทียบกับแม่เลี้ยงเดี่ยวที่ไม่ได้รับการสมรส ในทางตรงกันข้าม แม่เลี้ยงเดี่ยวที่มีสถานะโสดจะมีความยากลำบากในอรรถประโยชน์พื้นฐานและสินค้าคงทนเปรียบ เทียบกับแม่เลี้ยงเดี่ยวประเภทอื่นๆ

สาขาวิชา ประชากรศาสตร์
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This thesis complements extant studies of single motherhood and its related living condition in the Vietnamese context that only exist in qualitative research methods. It also provides a complement analysis to the existing study by providing evidence from a developing country to a literature that is dominated by evidence from developed countries. The research is based on the individual-level sample of the Population and Housing Census from the years 1999 and 2009, provided by IPUMS International Project.

Generally, the results on average indicate that single-mother household is more likely to face more difficulty in living conditions regarding home ownership and having durable goods, than two-parent family. It is clear that two-parent families are at least twofold more likely to have both home ownership and durable goods than single mother families. Moreover, single mothers who are a household head, who lives with only children face more difficulty in living condition indicated by dwelling ownership, basic amenities and durable goods than single mother who are not a household head, who live with other adults and mothers from two parent families. In addition, single mothers who have separate and divorce statuses have more difficulty in terms of home ownership compared with other types single mothers after marital dissolution. In stark contrast, single mothers who have single status have more difficulty in terms of basic amenities and durable goods compared with other kinds of single mothers.

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Student's Signature $\qquad$
Advisor's Signature $\qquad$

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GSO General Statistic Office

MDGs Millennium Development Goals

OECD Organization for Economic Cooperation and Development

UNDP United Nations Development Program

VHLSS Viet Nam Household Living Standards Survey

## 1. Introduction

Throughout the Vietnamese history, family holds a particularly important role in preserving and transmitting culture from generation to generation, nurturing and promoting the traditional values of the Vietnamese people as patriotism, nationalism, family solidary, humanity, loyal love, studiousness, diligence, creativeness, indomitable tenacity to overcome all difficulties and challenges, all of which contributing to the construction and making radiant Vietnam. Thus, Vietnamese families are not only the warm nests to bring happiness to each individual, but also are the bridges between the individual and society, and positive factors to promote development. Generally, family is one of the most basic social structures, and plays an important role for the survival and development of individuals and society in Viet Nam (Hirschman \& Loi, 1996b; Nhung, 2013).

However, due to a powerful wave of globalization, and international integration that have changed people awareness about family, the relationship of the family has changed and become looser, and the positions the family members have become equal. Democracy, free spirit and individualism occupy the trend that can lead the Vietnamese people towards independent ways of living. Families, according many people's perception nowadays are no longer the only and the most valued unit. There appears more new trends in family structures that have replaced the traditional family model in the past (Nga, 2014). Currently, in Vietnam, new powerful trends in
family relationship have emerged. The new trends encompass never-married couples, cohabitation, pre-marital sexual relation, and the increase in divorce. These changes imply changes in the model, role and organization in the structure of Vietnamese families. In particular, the emergence of single-mother families in Vietnam family patterns (Nhung, 2013). The typical figure of the single mother is a woman living alone with her children. These are four major categories of single mothers - the widowed mother and the divorced or separated mother as well as the single mother who bears her child outside of marriage (D.Sugarman, 1998; J Millar, 1989).

There are many factors that lead to single mothers, in which cohabitation before marriage is one of the emerging issues in Vietnam today's society, contributing to an increased rate of single mothers. In addition, among female population with high risk, unintended pregnancy and unsafe abortion disproportionately contribute to single motherhood. Female migrants, such as those in export processing zones and industrial parks and migrant university and college students, in large and modern cities such as Ho Chi Minh and Hanoi city, face high risk of unintended pregnancy and unsafe abortion. This is because they do not have access to care services such as reproductive healthcare, and lack support from families and kin. They are usually young, have low levels of education, and lack knowledge about life skills. All of these potentially make them mentally and emotionally vulnerable to unintended pregnancy and unsafe abortion leading to single motherhood status (General Office of Statistic, 2014).

In addition to cohabitation and unintended pregnancy, in recent years, divorce increasingly contributes towards single motherhood. There has been significant progression on gender equality in Vietnamese. The position of women in the family and in society is improving. Vietnamese women are entitled to decide many important issues, including the right to be independent in the household. In ancient Vietnamese culture, women always have to adhere to three ethical theories: when are not married, she must listen to her father; when women are married, she must listen to her husband; when her husband dies, she must listen to her son. Women were not allowed to divorce her husband even when she faced difficulties in the relationship, and were not happy in family life. In contrast, nowadays as women become more empowered, she is no longer dependent on husband, who was traditionally with higher education and social position. It becomes easier and more convenient for women to divorce when they feel unhappy about marriage life (Nga, 2014). Vietnam National Family Survey in 2006 showed that the number of divorces is growing. In particular, in 2000, there were only 51,361 divorces, whereas in 2005 divorces had increased to over 65,929 cases. In addition, the cases that wives demand a divorce from husbands were twice as many as the cases that husbands demand a divorce from wives, a number of applicant wife divorced accounted by 70\% (Institute for family and gender studies, Ministry of Culture Sports and Tourism, \& General Office of Statistic, 2006).

Despite an increasing in the trend of single motherhood in developing countries such as Vietnam, with exception of, for example, Clark and Hamplova (2013) most empirical studies on single motherhood are conducted in the context of developed countries. Quantitative studies from developing countries are extremely scarce. In addition, studies in the context of developing countries, such as Vietnam, usually employ qualitative method. This could be due to the fact that single motherhood, historically, has not been commonly observed in developing countries, when compared to developed nations (Clark \& Hamplova, 2013). However, gradually, single motherhood has become more apparent and salient in developing nations. This could also have further implications on socio-demographic and socio-economic conditions such as poverty and disadvantages in the living conditions, which is already an issue in developing countries. In addition, quantitative data from developing countries, such as Vietnam, have become more available and reliable, enabling more empirical study on such a topic.

This thesis, as a result, aims to study single motherhood in Vietnam and its associated disadvantages in the living conditions. By doing so, the thesis makes use of data from the Population and Housing Census from the years 1999 and 2009. To complement extant studies in the Vietnamese context that only exist in qualitative form, and to provide a complement analyses from a developing country to a literature that is dominated by evidence from developed countries, the thesis first construct
single motherhood variables using the information from the census to provide reliable figures of single motherhood including single motherhood of different types according to the marital status in Vietnam over the two decades. Secondly, the thesis aims to describe the trends over the times, and patterns of single motherhood based on census data. Lastly, the thesis aims to empirically analyze the association between single motherhood of different types of living arrangements and living condition by constructing variables include "dwelling ownership", "basic amenities" such as access to electricity, water supply, and indoor toilet as well as "durable goods ownership" as television, radio, phone, computer, washing machine and refrigerator.

Single mother who is single status or those who live with only children may have difficult living conditions compared to those with other marital status and single mother who live with other adults, because she could not receive any supporting from kin. Indeed, the empirical results show that single motherhood, especially single mother family that is headed by single mother and has no other adult residents, is more likely to have poorer living conditions in terms of home ownership, basic amenities, and possession of durable goods.

The rest of the thesis is organized as follows. Section 2 contains a background of the related literature of changing family structure and mainstream family types in Vietnam over the past decades. A review of the related literature on single parenthood, single-mother family aspect and disadvantages on the living
condition is presented in Chapter 3. The objectives of the study and related hypotheses are presented in Chapter 4. Chapter 5 describes the data and the construction of the measurements for both the dependent and independent variables. Chapter 6 covers the empirical methodology for the quantitative analysis. Chapter 7 presents two main objectives including (i) trend of single motherhood in Vietnam and (ii) these empirical findings. Finally, Chapter 8 covers the conclusions, discussions, recommendation, limitations and implications.

## 2. Background

This background section covers the overview of (i) the Vietnamese family norms which has been affected by the change of the social context over the time, (ii) the emergence and different types of single mothers in Vietnam, and (iii) the social welfare and policy which support single mothers in Vietnam.
2.1 Social context and Vietnamese family in transition

Currently, Vietnamese family norms have been influenced by the drastic political and socio-economic upheavals the country has endured over the past centuries. The campaign "Gender Equality" has been implemented in an ongoing basis for many decades. This has led to the weakening of the ancient principle of male superiority dictated by ideology Confucian (Khuat, 1991). According to Truc (2008), Vietnamese family is in a transition from traditional to modern in a variety of ways and different trends. This is a comprehensive change in both form and function, as well as
the relationship among members of the family and the role of women in the family (Truc, 2008).

Similarly, Hirschman and Loi (1996) argue that Vietnamese families are the core social units of the society. Children are formalized to societal norms and values, in large measure, through family interactions. For most of Vietnamese history, families, over time, were the primary economic unit as well as the social group that sanctioned sexual relationships and provided intimacy and social support (Hirschman \& Loi, 1996b). Admittedly, in most tribal societies, kinship patterns form the significant part of the whole social structure. In contrast, the family is only a small part of the social structure of modern industrial societies (Goode, 1982). It is evident that over the past decades, the world witnessed a dramatic change in family form.

This is due to the fact that family is affected by many factors - both outside and inside factors. It can clearly be seen that family size today has trended towards smaller families than before, with the shrinking in number of family's members. Traditionally, Vietnamese family could comprise up to three or four generations living together under the same roof. In contrast, the modern family of Vietnam only has two generations living together: parents - children. In addition, the number of children in the family is not as many as before. According to the Household Survey of Vietnam in 2006, the highest percentage in family structure is the model two generations (including parents and children or nuclear families), which accounted for approximately
63.4\%. The model three generation households and upper, (extended family) tends to decrease. In particular, the model of small-scale family tends to be more common in urban than rural areas, and more typical in wealthier households than poor households (Institute for family and gender studies et al., 2006).

Similarity, Hong (2015) suggests that the family ceases to be highly valued. Career and freedom are becoming more valued for people. The rate of those who choose celibacy and divorce increases over time. This is similar to what has been happening in countries with many similarities in culture in the region such as Taiwan, South Korea as well as Japan. The main cause of this phenomenon is probably the economic independence of individuals and with it the relationship of equality and democracy in the family (Duncan \& Edwards, 1999). Instead of having pressure from the family in the past, now individuals actively decide to break ties when having conflicts with the couples. Economic independence is also a reason why people who are not satisfied with their marriage decide to divorce. Moreover, the openness of the society regarding divorce has encouraged them to make divorce decision (Hong, 2015).

One of the most important reasons which can be seen as the foundation of soci-cultural change and a change in the structure of Vietnamese family is a comprehensive policy innovation in 1986. Along with the rapid development of industrialization and modernization, the life of a modern society with the strong development of various economic sectors, to a certain extent, has broken the routines,
morals and structure of traditional Vietnam families. Comfortable life with high-tech media has created the "oasis" in every family, making individuals aloof. Relations between family members become loose. This is also one of the causes of the rift in the family today, leading to an increase in the status of divorce, separation, cohabitation, pre-marital sex, extra-marital sex, and abortion among young people (Truc, 2008).

Bélanger (2004) indicates that the adoption of "innovative policy" in 1986 that affected many aspects in Vietnam include the Marriage and Family law that has facilitated and supported single mothers who are unmarried. The Law recognizes all children as legitimate children, no matter whether their father was declared or not on their birth certificate (Bélanger, 2004). To be more specific, this law indicates that children under 36 months of age shall be forwarded directly to the mothers (Ministry of Judicial, 1986, 2000, 2014). In other words, in Vietnam society today the single mother phenomenon was recognized and empowered. Moreover, it is possible that single motherhood also becomes "fashionable". Increasingly there are young women, who are successful and economically stable but do not like to engage in family and hence prefer to become single mother (Lan, 2016).

However, single motherhood has raised some concern about the future of the children who grow up in absence of father and father's kin as well as concern about the hardship that single mother families may suffer. In the book "Single women
in Vietnam", Le Thi (2008) suggest that single women make up a large proportion of the population that suffer inequality and deprivation (Thi, 2008). The exhibition on the Story of Single Mothers at the Vietnam Women's Museum partnered with the Embassy of Finland in 2011 aims at improving the economic status of single mothers in Vietnam, who face many difficulties such as lack of health insurance, social insurance, the denial of responsibility for child care from her husband, family economic difficulties, a series of expression discrimination, limited jobs, and lack of child care assistance from relatives or friends. However, there is an interesting finding that single mothers in Vietnam are completely independent without husband, and only want to live for their children (Vietnam Women's Museum \& Embassy of Finland, 2011). It is potentially clear that the Vietnamese society accepts the situation in which children grow up with single mothers who provide adequate care instead of living in families with both parents but having fathers who are bad examples.

Moreover, the responsibility of child care after family broken down is always given to single mothers. Millar (1989) indicates that the prevalence of single mothers as primary caregiver is a part of traditional parenting trends between mothers and fathers (J Millar, 1989). In Vietnam, similarly, to express the role of mothers in the traditional Vietnamese family, Xuan Quynh, the poet, said that "Con dù lớn vẫn là con của mẹ; Đi suốt đời lòng mẹ vẫn theo con", which means "Even though you are grown up, you are still a small child of your mother; Wherever you go to during the course
of your life, your mother still follows every of your steps in all the paths of your life". Thus, the role of women, mothers, and wives associated with caring and teaching children in the family has been formed for a long time in all the walks of life, regardless of region, nation or territory.

### 2.2 Single mother family in Vietnam

Similarly to the definition in developed countries, in Vietnam, there are also four types of single mothers, who are considered as mothers raising children alone. They can be widowed mothers, divorced, separated or single mothers (J Millar, 1989; Rowlingson \& McKay, 2014).

### 2.2.1 Widowed mothers

Historically, death of a partner was a common cause of single parenting. Diseases and maternal death not infrequently resulted in a widower or widow responsible for children.

The terminology "single mother" have existed and universally recognized since the recent history. They were women who were youth volunteers, or guerrillas who came out from the Vietnam War. When they came back home, they were too old to find husbands. Although they were just only under 30 years old, in the old Vietnamese society, if a woman cannot get married before 20 years old, they would be called "ế chồng", which means "cannot get married". Alternatively, they are married women whose husband sacrificed or died from the War, or migrated abroad. In
addition, the terminology "xin con", meaning "asking for children", has been associated with single mother. This is a woman who is in a short relationship only for the purpose of reproduction. She will raise the child by herself and the identity of the father is a kept secret. Although these forms of widowhood was not generally accepted traditionally, from the 1980s the Vietnamese has become more open-minded regarding the views on single motherhood (Vietnam Study Encouragement Society Center, 2013)

### 2.2.2 Separated and divorced mothers

The rise of single mother families is marked by the rise of mothers' labor force participation. Particularly, during the latter half of the twentieth century, we have seen the considerable increase in the proportion of mothers attending to workforce. This trend is converse with primitive family norms that fathers assumed the role of breadwinner by going out of home to work and earn money and typically the mother acted as homemaker. In American from 1860 to 1960, the number of children in the two-parent farm family declined dramatically from 60 percent to 10 percent. However, the corresponding rise in working mothers from 10 percent to 60 percent required only half that time, from 1940 to 1990. And by the year 2000, it is estimated that seven in ten children lived with mothers who worked for pay. Following the explosion of mothers' labor force participation, the next twenty years had another revolution in family life that began an unprecedented increase in lone-mother families by a remarkably steady increase in divorce occurred between the 1860s and 1960s
(Arendell, 1995; Coltrane \& Hickman, 1992; Hernandez, 2005; Lenore J. Weitzman, 1985).

Similar to this trend, according to the Nationwide Survey on the Family in Vietnam in 2006, divorce has increased rapidly in recent years, most likely because of changes in public opinions about divorce, or the increasing social acceptability of divorce. Three main reasons for divorce were (i) differences in opinion about lifestyle, (ii) adultery, and (iii) economic difficulties. There were 2.6 percent of people aged 1860 years were divorced or separated, with higher rates in urban areas compared to rural areas ( 3.3 percent compared to 2.4 percent). The proportion was highest in the Southeast and Mekong River Delta (about 4 percent), and lowest in the Northwest (less than 1 percent). In addition, the proportion of married people without marriage certificates who got divorced was substantially higher than those with marriage certificates. Among divorcees, women (47.0 percent) initiated the proceedings more than twice as men (28.1 percent), revealing an increase in women's awareness of their rights (Institute for family and gender studies et al., 2006).

The average number of years of marriage before divorce is relatively short (about 9 years). Those who have low education have years of living together before divorce less than others. Those who live in the South East and the Mekong Delta have years of living together marriage before divorce less than other regions. Central Highlands and Southeast regions have the second time marriage rate higher than other
areas. People with low education have the second time marriage rate higher than those with higher education. From the difference in the rate of divorce, it can be shown that the rate of single mothers can appear to differ between regions. The rate of divorce was higher in the group with low education, which means that single mothers also tend to be more concentrated in this group (Institute for family and gender studies et al., 2006).

In Vietnam, the National Survey of Vietnam Family in 2006 recorded that there were $64.3 \%$ of children lived with their mother after broken marriage and they really did not receive regularly support from their father or father's kin (Institute for family and gender studies et al., 2006).

### 2.2.3 Single mothers

Cohabiting, pre-marital sex and extra-marital sex are causes that lead to this type of single mothers. According to the 2006 Survey on Family indicates that there were still 20 percent of people who were not interested in marriage registration. They were mainly from ethnic minority groups, rural area, in poverty, with low education, and aged over 50 years old. Additionally, the number of unregistered marriage was highest in Cuu Long River Delta and the Northwest, i.e. 40 percent and 30 percent respectively. The regions also had a substantial proportion (46.4\%) of the 18-60 age group who did not have marriage registration for the reason that "they were not aware of the legal obligation to register their marriage". This survey also has clear definition
of sex outside marriage that was considered to include women who were not married but had children, married women or men having sex with other people if they live far away from their spouses for a long time (Institute for family and gender studies et al., 2006).

It also suggests that the acceptance of sexual relations before marriage depends on the degree of relationship. There was only a very small percentage (4\%) accepts sex before marriage in general. However, for those who were definitely going to get married were more inclined to accept sex before marriage (from 13\% for the elderly to $20 \%$ for adolescents). In sexual matters before marriage, the acceptance level for single women having pre-marital sex was consistently lower than that for single men having pre-marital sex. In general, single respondents approve pre-marital sex more than others as well.

The survey also explored that if these unregistered marriages break up, and they have a child or children from unintended pregnancy, these single mothers will face many difficulties in arranging for stable lives. This is because of a lack of binding legal with the father in child care support.

### 2.3 Research about Single motherhood in Vietnam

In Vietnam as well as other developing countries, there is still no official statistics on the number of single mother families in the family system, and the absence of quantitative research aimed at finding the relationship between single
mother families and disadvantages in life also. Although research on the phenomenon of single women in modern society and single mother family model in Vietnam have also been a subject of many sociologists or psychologists’ interest during the last decade, these studies were only conducted under qualitative research design. Some studies are only done at the local or region level, and surveys are done on small single mother group (N. T. T. Van, 2015).

The qualitative studies about single motherhood in Vietnam are mainly looking at the difficulties of the social position and psychological problems due to the influence of ideological prejudices that do not accept the lack of husband. Besides, many studies of single mothers in Vietnam are mostly small studies in certain areas or in rural areas. These studies show that single mothers often have precarious jobs, difficult economic conditions and need help of matter and spirit to be able to improving their lives. The social prejudice is still a big pressure, making them easy to fall into a state of depression, and psychological stress. In many cases, they have been refused jobs due to psychological pressure in the workplace, leading to difficulty in terms of income and economic life (N. T. T. Van, 2015).
2.4 Social support and policy for single mother

With the variation in the types of Vietnamese family in the past 10 years, it is interesting to note that there have been support and activities of social welfare organizations for single mothers. Single mothers have gradually exited traditional
norms of society, and made an improvement in their independent position. Trend in single mother families and the difficulties or hardship issues regarding their children and life also have become a topic of academic research, and public opinion attention. There has been an emergence of social network belong to civil society organizations to support single mothers such as www.medonthan.com or www.medonthan.net. The websites are established for the purpose of supporting information about employment, legal procedures in marriage and family, experience single motherhood, healthcare knowledge, knowledge of pregnancy and parenting, as well as there is a few famous social media as facebook, twitter, google plus, Pinterest including "Association of single mothers", "Association of single parents love children", "Association of happiness single mothers in Vietnam" in order to connect single mother from different parts of Vietnam. This is in contrast to a limited role of the government and policy restrictions in tackling with an increasing trend in single mother families. These private agencies also strongly urge government to implement policies to support single mothers in raising children, and contributing to the overall development of the society (L. Van, 2014; N. T. T. Van, 2015).
3. Literature review
3.1 Theory about family in transition

Families are changing everywhere. If there is an overall trend, it is individualization. Individual is a different unit from the family and has more autonomy.

As the individuals have gained autonomy, they have made personal decision about the relationship their family. These decisions, about issues like marriage or cohabitation, or living alone, or whether to divorce or stay married, have implications for family structure. In Western countries, the rate of marriage has declined; people get married for the first time in older age; divorce and cohabitation has increased; people have fewer children; there is a significant increase in the proportion of people live by yourself or living alone with dependent children. As these changes have occurred, the proportion of people living in traditional nuclear families has declined (Déchaux, Bahr, \& Stiehr, 1994).

Outside Western countries, some of the strongest effects of individualism are felt in the decisions about courtship and marriage. Traditionally, parents often had a considerable influence over their children's choice of marriage partners if marriages were not arranged directly by the parents. But with urbanization, industrialization and modernization, adult children have acquired greater independence and greater control over the timing of marriage and the choice of partner. For example, in recent decades there has been a transformation from arranged marriages to free-choice marriages in urban China (Xu, 1998).

Modernization theory has hypothesized that industrialization, urbanization, and the growth of modern social institutions such as the welfare state have all led to the declining importance of kinship ties. Geographical distance due to learning and
working has reduced the interaction between family members. For instance, young people migrate from the rural areas to the cities, leaving their parents behind. In recent years, social change has been particularly rapid in many places in the developing world. This is most notably the case in Asia. If kinship ties have been weakening anywhere, it should be most evident there. This is partly because of the effects of urbanization (Lee, 1999).

Additionally, demographers and sociologists predict that, throughout the world, increasing urbanization, industrialization and modernization will lead to rising divorce rates. According to modernization theory, there is an association between modernization and the changing position of women in society. With modernization, the education of women goes up and so does their employment for wages. As married women's education increases, and especially as they become employed in greater numbers outside the home, so the possibilities of their being able to survive without their husbands increase. Wives who are not dependent on their husbands become better able to contemplate divorce if the marriage does not work out. Thus, women's economic independence, which is closely related to their educational attainment, has been recognized as a key determinant in divorce. This finding supports the hypothesis of modernization theories that, over time, improvement in female education raises the divorce rate (Chafetz \& Hagan, 1996).

### 3.2 Definition of single mothers

In the past, single parents were regularly observed in the society because of high mortality of one of the parents. Death of partners was a primary importance cause of being single parents. The example includes having a spouse who died from the plague, war, or natural maternal mortality during pregnancy and childbirth. However, in today's society, single parents appear regularly through the trends of marital breakdown. Generally, traditional family life begins with marriage, proceeds through childbearing and childrearing to be followed eventually by the children leaving home, and culminates in the end of the family when the partners die. However, today we recognize that there is no predictable sequence of family events. Some people follow the pattern of the family lifecycle, but many do not. Couples may cohabit before getting married, or they may live together without ever marrying, and they may separate or get divorced thus dissolving the family prior to the death of one of the partners. All of these complexities mean that family events that will lead to single parenting due to family dissolution (Cheal, 2008).

Azuka Obieke and Uchenna (2013) define that single parenting is a mainstream family type in which one of the two individuals that is to say mother or father lonely responsible for the upbringing of the children. Single parenthood arises when either the male or female parent decides to produce and raise a child or children outside of
wedlock. It could also come about as a result of divorce, separation of various kinds or death of any of the spouses (Azuka-Obieke \& Uchenna, 2013).

Nevertheless, it is interesting to note that instead of being the consequence of family dissolution, becoming single mother today is women's choice because they may be influenced by their relationship with their own mothers and fathers or their experience in their family of origin (Hertz \& Ferguson, 1997; Ludtke, 1997; Stacey, 1990). Children in mother-only families are also more likely to become single parents themselves than children who live with both parents (McLanahan \& Booth, 1989). Valerie (1999) supports this point of view by pointing out that the social contextual influences on women's decisions to mother alone are wide ranging-from her most personal experience in her home of origin to international political forces that provide transnational opportunities for her to adopt a child. In between, greater change in society, expanding reproductive technologies, and even the influence of the media upon her understanding of her options all play a role in shaping her choices (Mannis, 1999). Some were encouraged by family and friends to have a child when no partner was forthcoming. Some used books and periodicals for ideas and practical advice; some referred to film and television examples as short hand means to describe their actions; some were encouraged by physicians (Bock, 2000; Goldscheider, 2008; Joyce, 1986; Kefalas, 2008; Stacey, 2007).

The demography of single parenting has changed a lot over the twentieth century. There are many more single parents today than there were several generations ago. Normally, single parent family is a family type that dominated by single mothers, about nine in ten lone parents are women in London (Marsh, 2001). To be more specific, there are four categories of single mothers, namely, the widowedmother, divorced or separated-mother, and single woman who bears her children outside of marriage. One important thing to note that women in this last category are often misleading called "never married" even though approximately one-fourth of the women who are unmarried at the birth of their child had been married at an earlier time (D.Sugarman, 1998).

According to single parent center of the United States (2011), there are about 14 million single parents in the United States today. They are responsible for raising 21.6 million of our nation's children. It is interesting to note that most single parents are mothers. It is also evident that $83.1 \%$ of the single custodial parents are mothers as compared with $16.9 \%$ being custodial fathers (Single Parent Center, 2011).

In the United States, where most of the studies on single motherhood are conducted, since 1980, the number of single-parent households with children has significant increased. According to Statistical Abstract of the United States of the United States Bureau of Labor Statistic, the number of single-parent households with children increased from 6,061,000 households (19.5\% in compared with the total households)
to $10,536,000$ households (29.5\%) from the year 1980 to 2008 (US Census Bureau, 2012). The significant increase in the number of single-mother families is due to an increase in the number of children born of unmarried mothers and the increase in the divorce rate of couples. Evidence recorded that $40.6 \%$ of births in the US were to unmarried women in the year 2013 (Martin, 2015). While in the year 2000, there were $11 \%$ of children that were living with parents who had never been married, $15.6 \%$ of children lived with a divorced parent, and $1.2 \%$ lived with a parent who was widowed (O'Hare, 2001). Thus, from 2000 to 2013, within 13 years, the number of single-mother families due to unmarried women in the United State has increased by nearly 3.7 times.

The number of single-parent families in the OECD countries (Organization for Economic Cooperation and Development) accounted for 16\% by the year 2007, and $80 \%$ of which were headed by a mother (OECD, 2010). In the years 2004-2006, Australia has 486,000 one-parent families with children under 15 years old, accounted for $22 \%$ of all families with children of the same age group. It is estimated that there was one in five children less than 15 years old (20\%) were in one-parent families (Bureau of Statistics Australia, 2007). In New Zealand, the population and housing census 2013 showed that single-parent families accounted for $17.8 \%$ of families; and among them, women headed families approximate five of sixth. The number of children in singleparent families in New Zealand have fewer than two-parent families; there were 56\%
of single-parent families have only one child and $29 \%$ have two children, while these number were $38 \%$ and $40 \%$ respectively for two-parent families (Statistics NewZealand, 2013).

Traditionally and even presently, women have taken the role of rearing and raising children. Thus, the burden of childcare virtually falls onto mothers including single mothers. According to gender roles and the division of labors in ancient society, men who are husbands and fathers had assumed a major role in the creation and economic income of the family. As fathers need to work all day, spend very little time with children, women, who are wives and mothers, served as caretakers of children and families, and were not involved more in the labor force in society. Today, although the social scenario in the past have changed and women become more empowered to participate in social activities, the role of taking care of the children still belongs to the responsibility and obligation of mothers. In many families, mothers have to take care of children, while taking the main responsibility of financial provision for the family. Therefore, throughout history and also in today's society, mothers are always considered primary caregiver for children, and fathers are always considered secondary caregivers (Colin, 1985; Lamb, 1977).
3.3 Single motherhood and the disadvantages in the living condition

There is an increasing the number of mothers who choose to raise children alone in the context of an openly single mother lifestyle. However, this choice is not
without its difficulties. According to Ruspini (1999), single mothers are a real challenge to social policy. They can be viewed as a highly disadvantaged group in terms of resources, which include money but also time and social networks (Ruspini, 1999). On the one hand single motherhood is an identity that is highly valued by conventional society because it contributes to the maintenance of society. On the other hand, being single mothers is an identity that is not conventionally supported and it is regarded in a negative way. As the result, single mothers find that their identity as mothers is questioned, as many people doubt whether they can be good mothers.

The process of child-rearing after divorce tends to maintain the same as in marriage. Likewise, women usually are the primary caregiver during a marriage. Generally, they also obtain custody of children after divorce. Fathers are determined non-custodial parents, a negligible of 14 percent of custodial parents are fathers. Similarly, fathers help support children during marriage, as a secondary caregiver, they are expected to contribute to child support upon divorce. Unfortunately, many noncustodial fathers have become estranged from their children and delinquent on child care support. Single mothers must often raise children on one slim paycheck. Consequently, more widespread divorce seems to push women and children to the impoverishment, undermined the father responsibilities on economic and emotional commitment to children, and deprived the quality of children life on the emotional and economic goods from two-parent family (Hackstaff, 1999).

There are several reasonable explanations for why single mothers experience more economic distress than other subgroups (Lanahan, 1984). It is generally found that single mothers and their families are more likely to live in poverty and face more disadvantages in the living conditions. Although financial issues can be binding for all types of families, these issues of limited resources are particularly binding in the singleparent families, compared to two-parent families. Espenshade (1979) showed that in the United States, income will be reduced by switching from full-families to singleparent families. In particular, the income of single parent families that headed by mothers in 1984 was just 1/3 family with two-parent families. Also, limited family income will affect the level of education of the children because the reduction of finance support for further study and children are ,as a consequence, more likely to join the labor force sooner (Espenshade, 1979).

In the United Kingdom, according to Gingerbread, a United Kingdom based trust that is a charity to support for single parents, children in single parent families are nearly twice as likely as children in couple families to live in relative poverty. Over 4 in every 10 (42 percent) children in single parent families are poor, compared to just over two in 10 (23 percent) of children in couple families. 43 percent of single parents are social housing tenants compared to 12 per cent of couples. In addition, 63 percent of single parents have no savings compared to 34 per cent of couples (Gingerbread, 2015).

It is found that the economic status of divorced or separated women generally declines, whereas the status of their male counterparts often improves (Hoffman, 1977). The median income in 1984 for female-headed families was one-third the income of married-couple families (U.S Bureau of the Census, 1985). Limited family income may affect the child's educational attainment by reducing financial support for further schooling and by necessitating early entrance into the labor force.

Divorced fathers tend and are less likely to have any contact with their children (Furstenberg, Nord, Peterson, \& Zill, 1983). In addition, the absence of fathers can reduce mother's time for children. Brandwein, Brown, and Fox (1974) speculate that such mothers are forced to spread their time and energy beyond their prior tasks. As a result, children in families headed by a female may endure hardship in life more than others. Even though the mother no longer needs to allocate time to her husband, her home time inputs into childrearing are lower because she must perform many tasks done by fathers in two-parent families (Brandwein, Brown, \& Fox, 1974). Robinson (1980) also illustrates similar findings that when woman become single mother, she will spend less time with children than before (Robinson, 1980).

Although there has not been any study on disadvantages in children from single-mother families in Vietnam and due to limited data availability, this proposed thesis cannot consider such an issue, the 2006 nationwide survey on the family in Vietnam suggested that such disadvantages are likely to be binding for Vietnamese
children who live with single mothers as well. This is because the survey showed that after a divorce, children typically lived with the mother (64.3 percent). The proportion of children living with mothers after divorce in poor households was higher (68.6 percent) compared to children living with mothers in well-off households (57.8 percent). The survey also finds that a number of men fail to pay adequate child support, unfairly burdening the woman and in some cases, actively creating additional difficulties for their ex-wives (Institute for family and gender studies et al., 2006).

Not only is single motherhood found to be related to disadvantages in children's livelihood, it is also found to be directly related to disadvantages in general living conditions. A research in poverty and the lone-parent families by Millar (1989), comparing access to consumer assets in different types of households, finds that loneparent families are less likely to have access to consumer property. In particular, single mother families are worse off in terms of access to assets such as telephone, television, washing machine, fridge/freezer, car, central heating than the two parent families (J Millar, 1989).

Moon et al. (1997) show that total consumption expenditure of divorced single-mother families is nearly a half of that of two-parent families. The differential between the two types of families varies by consumption category. The expenditures of divorced single-mother families in all categories except shelter are substantially lower than those of two-parent families. Divorced single-mother families allocated
about three-tenths of the total consumption expenditures to food at home. More than one-third of divorced single-mother families rented their housing, whereas only 13 percent of two-parent families were renters. Thus rent may play an important role in raising the budget share allocated to shelter in divorced single-mother families (Moon \& Joung, 1997).

In addition, single mothers may face the disadvantage of being homeless. Single mother families have to find new houses when they become husbandless or fatherless. The situation of the unmarried mothers is worst, but the group of separated and divorced wives who have left their husbands also have serious difficulties. Although the mothers can live with kin at times after the family become husbandless or fatherless, it is usually only a temporary, and often inconvenient, and expedient (Marsden, 1969). In particular, mothers' choice of living arrangements is significantly related to their human capital, the quality of their relationship (among those who are cohabitating), and the cost of housing (Wendy, 2002).

Likewise, regarding the property ownership in the Vietnamese counterparts, the nationwide survey on the family in 2006 points out that Vietnamese families have followed the traditional patriarchal structure of Vietnamese society (Institute for family and gender studies et al., 2006). This means that large property is generally in the name of the man/husband, and this largely remains true today. This naturally gives husbands final decisions in significant matters. This suggests a warning that for couples
who cohabitate and are not legally married, when they separate or divorce, single mothers will not be able to be entitled to the share of the property. In this study, I, as a consequence, use the information on household wealth that covers, for example, types of ownership, access to electricity, access to water supply, and toilet facility, from the Vietnam Population and Housing Census, to assess the relationship between single motherhood and living conditions in Vietnam.

Although single mothers generally face difficulties in living conditions, their situation depends on their living arrangement. It has been found that for those who depend on other relatives and do not lead the families by themselves, their living conditions tend to be better. Fatherlessness or husbandless brought a change in the families' relationships with kin and community. Younger mothers receive considerable help from their parents, even though the husbands' kin barely offer help. For instance, Deleire and Kalil (2002) find that teenagers who live with their single mothers and with at least one grandparent have developmental outcomes, such as high school graduation and college enrollment, which are at least as good as or better than that of teenagers in married families (DeLeire \& Kalil, 2002). This thesis, accordingly, uses the information from the census to identify whether individual single mother lives with only children or lives with other adults, and whether she is the head of the household or not, in order to further investigate the relationship between the living arrangement
of single mothers (heads of the household and simple household members) and living conditions.

Although, there are a number of studies that explore the association between single mothers and disadvantages in living condition in general. There is only a modest literature which describes the experience from difficulties in living condition of single mothers under different living arrangements. This is the reason why this study also investigates the association between two kinds of single mothers that are mentioned above with living conditions. The results of this study potentially contributes to new evidence about single motherhood in Vietnam as well as a typical example for modern family form in developing countries which also experience an increase in single-mother families due to family dissolution.
4. Research Objectives

This thesis aims to:

1. Construct single motherhood variable, including different types of single motherhood according to the marital status, household head status, living-status with children or other adults based on dataset of Vietnam CENSUS 1999 and 2009.
2. Construct living condition variables, including dwelling ownership, basic amenities, and durable goods based on dataset of Vietnam CENSUS 1999 and 2009.
3. Describe the trend of single motherhood in Vietnam over the period of 1999 and 2009 based on dataset of Vietnam CENSUS 1999 and 2009.
4. Analyze the relationship between single motherhood and the living condition based on dataset of Vietnam CENSUS 1999 and 2009. The analysis is divided into fourth parts. The first part analyses single mothers in comparison with mothers from two-parent family. The second part analyses the differences in living condition among (i) single mothers who are household heads, (ii) single mothers who are not the household heads, and (iii) mothers from two-parent family. The third part analyses the differences among (i) single mothers, the rest of whose family constitutes only children, (ii) single mothers who also live with other adults, and (iii) mothers from two-parent family. The fourth part compares single mothers who are classified by marital status.
5. Data and variable construction
5.1 Data and sample

### 5.1.1 Dataset description

This study uses secondary data of Vietnam Population and Housing CENSUS which conducted in 1999, and 2009 by the General Statistical Office. The individual sample data are provided by IPUMS - International database (Minnesota Population Center, University of Minnesota). This dataset is derived from individual primary data collected from all provinces and districts of Vietnam.

In Vietnam, the Population and Housing Census has been conducted for four times, covering the years 1979, 1989, 1999, and 2009, since the nation was reunified in the year 1975 (Steering Commitee of Central Population and Housing Census 2010).

Besides, there are two times that the investigation is carried in the North of Vietnam in the year 1960 and 1974. The Census aimed to collect basic data on the population and housing for the entire territory of the Socialist Republic of Vietnam, and to provide data for research and analysis of population and housing developments nationally and for each locality. It responds to the information needs for the assessment of the implementation of socio-economic development plans in the past 10 years, for the development of the 10-year socio-economic development plans, and for monitoring the performance based on the Millennium Development Goals of the United Nations to which the Vietnamese Government is committed.

The census sample is a single-stage cluster sample design with stratification and systematic sample selection. The selection of sample is implemented in two steps: Step 1, select the strata to determine the sample size for each district. Step 2, independently and systematically select from the sample frame of enumeration areas in each district to determine the specific enumeration areas in the sample (Central Population and Housing Census \& Steering Commitee, 2010).

The sample size of the two census sample surveys in 1989 and 1999 was 5\% and 3\% respectively. Sample survey indicators covered fertility history of women aged 15 to 49 years and deaths in the households in the previous 12 months. In the 2009 Census, besides the above two indicators, many other indicators were also included in the census sample survey.

When determining sample size and allocation, the frequency of events was taken into account for various indicators including birth and deaths in the 12 months prior to the survey, and the number of people unemployed in urban areas, etc.; efforts were also made to ensure the ability to compare results between districts within the same province/municipality and between provinces/municipalities.

### 5.1.2 Sample study

In this research, I only extract the sample of women who are at childbearing age and have at least one child in the household. To be more specific, this research concerns single motherhood and the comparison about living condition between single mothers and two parent families and among single mothers who differ in marital status and living arrangements. Thus, the dataset only uses a representative sample size of 283,880 women in 1999 and 2,002,287 women in 2009 (Central Population and Housing Census \& Steering Commitee, 2010).

### 5.2 Measurement construction

### 5.2.1 Single mother variables (independent variables)

In this study, I analyze the relationship between single motherhood and the living condition based on dataset of Vietnam CENSUS 1999 and 2009. The analysis is divided into three parts. The first part analyses single mothers in comparison with mothers from two-parent family. This is because that single mothers usually experience difficulties in life after becoming spouseless. The second part analyses
single mothers who are household heads in comparison with single mothers who are not the household heads. According to the census, household head is defined as the representative of the household recognized by all household members. It does not mean that they own house. Therefore, single mother, who is the household head, has to be responsible to household business. Since she is more likely to face limited resource, household living conditions could be poorer that when the single mother just resides in the household that is headed by the other adult. Lastly, the third part analyses single mothers, the rest of whose family constitutes only children in comparison with single mothers who also live with other adults. This is due to the fact that single mother who lives with only children has no other adult to share household responsibility, and may suffer loneliness in caring children and weaknesses due to lack of family solidarity. This may have a great influence on the ability and conditions to maximize productivity of the single mother, and hence leading to poorer living conditions (J Millar, 1989).

The construction methods of different types of single mother variables and two-parent variable is as follows.

First of all, I construct five secondary variables. First, "no relationship" variable refers to mothers who have no relationship status. They are in one of these situations; never married, widowed, divorced, and separated. The construction uses question 18 which asks about the marital status. Second, "childbearing age" variable is constructed,
since this study focuses on those who are in the ages between 15 to 49 years old. This is constructed by using question 5, which asks the age at last birthday of the respondents. Third, "female" variable is constructed as the study uses only female sample. This is based on question 3 which asks about sex of the respondents. Forth, "raising child at home" variable constructed by using question 33a which asks about the total number of her children who are living with these women at home. A person is defined as mothers raising children at home when the variable "home child" is larger than one. Fifth, "relationship to household head" variable is constructed by using question 2 which asks about the relationship with household head. A person is defined as household head when the variable of question is household head.

Secondly, based on the secondary variables constructed above, I construct main variables include single mother, two-parent mother, and different types of single mother as follows. "Single-mother" variable refers to female at childbearing age, who is not currently married, and raising children at home. The "two parent mother" variable refers to female at childbearing age, who is currently married, and raising children at home. These are two variables used to create "family status" binary variable, which takes the value one if the respondent matches the characteristics of "single-mother" above, and takes the value zero if the respondent has the characteristics of two-parent mother above.

The "Single mother who is the household head" variable refers to single mother (above) who is also the household head. The "Single mother who is not the household head" variable refers to single mother (above) who is not the household head. These are two variables used to create the variable "family household head" is a binary variable taking the value one if the respondent is both single mother and household head and taking value zero if the respondent is single mother but not the household head.

The "Single mothers who live with only children" refers to a single mother whose family size equal to the total of number of children at home plus one person that is the single mother. The "Single mother who live with other adults" variable refers to a single mother whose family size is larger than the total number of children at home plus one person that is single mother. These are two variables used to create the variable "family structure" which is a binary variable taking the value of one for the single mother who lives with only children, and taking the value zero for the single mother who also lives with other adults.

In addition, I also evaluate the differences on demographic characteristic of single mother regarding the differences in the marital status and explore the proportion of single mothers in Vietnam based on dataset census 1999 and 2009. Therefore, I also construct additional four variables namely single mothers who are single, single mothers who are separated, single mothers who are divorced, and single mothers who
are widowed. These variables are constructed by combining variable single mother and variable marital status.

### 5.2.2 Living condition variables (dependent variables)

From the literature review, the definitions and measurements of the living condition vary and are far from being unified. They depend on the objective of the studies, researchers' focuses, and the country context. Nevertheless, a number of countries and researchers have used the terminology of living standard and living condition with similar meaning (Singapore Management University, 2016). Therefore, this section will present measurement methods in both living standard and living condition through the introduction of indicators in the different studies. Additionally, the section shows the construction of living condition index used in this study.

On the one hand, according to OECD (2015), living in satisfactory housing conditions is one of the most important aspects of people's lives. Housing is essential to meet basic needs, such as shelter, but it is not just a question of four walls and a roof. Housing should offer a place to sleep and rest where people feel safe and have privacy and personal space; somewhere they can raise a family. All of these elements help make a house a home. When looking at housing, it is important to examine living conditions, such as the average number of rooms shared per person and whether dwellings have access to basic facilities. The number of rooms in a dwelling, divided by the number of persons living there, indicates whether residents are living in crowded
conditions. Overcrowded housing may have a negative impact on physical and mental health, relations with others, and children's development. In addition, dense living conditions are often a sign of inadequate water and sewage supply. In addition, housing expenditure normally takes up a large share of the household budget and represent the largest single expenditure for many individuals and families, by the time we add up elements such as rent, gas, electricity, water, furniture and repairs (OECD Better Life Index, 2015).

On the other hand, according to the UNDP (2009), the Human Development Research on living conditions and well-being of refugees studies the comparison of refugees' living conditions with those of host populations in the country of asylum and with those of populations on the country of origin. The living condition index in this report covers (i) legal protection; (ii) gender equity and women's empowerment and sexual and gender-based violence; (iii) food security and nutritional status; (iv) water, sanitation and shelter; (v) health and education; and (vi) refugee livelihoods and coping strategies (De Bruijn, 2009).

Moreover, according to the Norwegian Trade Portal (2012), to report about the living condition indicators in Norway, they evaluate heath systems, private life (birth, marriage, and death), finding school for children, accommodation, cost of living, family and maternity benefits (Norwegian Trade Portal, 2012). Whereas, in the report about the first industrial revolution, living condition focuses on single room as big as
apartment where worker lived together, diseases and medical care as well as sanitary (Blakemore, 2016).

Besides, there are other indicators for living conditions, for instance, according to Patsios and Hillyard (2012), the objective of the living conditions concern financial situation and debts, consumer durables, consumption items, social networks and social support, social activities, civic participation, housing, neighborhood problems, and local services (Patsios \& Hillyard, 2012). The Swedish Living Conditions Surveys give the information on living conditions include housing, income, health, leisure, civic activities, social relationships, employment and security among different groups in Swedish society (Statistics Sweden, 2016). Moreover, Boelhouwer (2002) evaluates the living condition index based on the definition of Human Development Index of UNDP, and these indicators include three areas such as health, education and income (Boelhouwer, 2002).

In Vietnam, there are also different kinds of assessment of living conditons. According to VHLSS, which has been conducted regularly by the GSO every two years, from the years 2002 to 2012, its assessment on the living standard is based on education; health and health care; employment and income; expenditure; housing, electricity, water, sanitation facilities and durable goods; and poverty reduction (General Statistic Office, 2012).

In general, there are various ways in order to evaluate the living condition depending on the study's objective. Nevertheless, housing, basic facilities and possession of durable goods are basic indicators of living conditions. Similarity, in this research, I use three variables to evaluate the living condition; (i) home ownership, (ii) basic amenities and (iii) durable goods. All the questions about living condition variables are investigated in housing information part of CENSUS questionnaire. Below, I explain in detail how the three variables that measure the living condition in this study are constructed.

Firstly, ownership of dwelling or home ownership, is a binary variable, taking the value of one for those in the family that owns the dwelling, and taking the value zero for those in the family that does not have home ownership.

Second, "basic amenities" for both 1999 and 2009, is constructed based on three variables; electricity, water supply and toilet, each of which is a binary variable indicating whether the household the mother lives in has each of the basic amenity. I choose these three variables because electricity, water supply, and toilet constitute the basic need of living standard in Vietnam (General Statistic Office, 2012). To construct a single basic amenities variable and capture the full access to basic amenities, I combine the three variable in such a way that basic amenities is a binary variable, taking the value of one if the households meet all the three basic amenities and zero otherwise. The illustration is shown in Table 1.

Table 1: Construction method basic amenities variable

| One of 3 <br> variables | One of 3 <br> variables | One of 3 <br> variables | Basic <br> amenities |
| :---: | :---: | :---: | :---: |
| 0 | 0 | 0 | No |
| 1 | 0 | 0 | No |
| 1 | 1 | 0 | No |
| 1 | 1 | 1 | Yes |

Regarding the variable "durable goods" in 2009, I constructed one scale (binary) variable based on 6 variables which are television, radio, phone, computer, washing machine, and refrigerator in dataset. These variables are binary variables. There is no clear definition about terminology "having enough durable Goods" in the household. Therefore, in this study, based on six variables in dataset 2009, I specified that households were evaluated that have enough "durable goods" must meet at least three of variable mentioned (half of the set). Construction method is presented as table below

Table 2: Construction method durable goods variable in dataset CENSUS 2009

| One of 6 variables | One of <br> 6 <br> variables | One of 6 variables | One of <br> 6 <br> variables | One of <br> 6 <br> variables | One of <br> 6 <br> variables | Durable goods |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 0 | 0 | 0 | 0 | 0 | Not enough |
| 1 | 0 | 0 | 0 | 0 | 0 | Not enough |
| 1 | 1 | 0 | 0 | $0$ | 0 | Not enough |
| 1 | 1 | 1 | 0 | 0 | 0 | Enough |
| 1 | 1 | 1 | 1 | 0 | 0 | Enough |
| 1 | 1 | 1 | 1 | 1 | 0 | Enough |
| 1 | 1 | 1 | 1 | 1 | 1 | Enough |

As there are only information on television and radio in the 1999 dataset, regarding the variable "durable goods" in 1999, I construct one scale (binary variable) based on 2 variables; television and radio. Households that are evaluated with one (i.e. having durable goods must meet all the conditions; television and radio. Construction method is presented in the table below.

Table 3: Construction method durable goods variable in dataset CENSUS 1999

| One of 2 variables | One of 2 variables | Durable goods |
| :---: | :---: | :---: |
| 0 | 0 | Not enough |
| 1 | 0 | Not enough |
| 1 | 1 | Enough |

5.2.3 Summary statistics: The prevalence of single mothers

In this section, I provide an overview of the descriptive statistics of single motherhood, and related socio-economic factors.

Figure 1 shows that over the past decade, the trend of single motherhood in Vietnam based on dataset CENSUS, is increasing from 14,468 families to 127,684 families, it is accounted by from approximately $5.10 \%$ in 1999 to somewhere in the vicinity of $6.38 \%$ by the year 2009 .

Figure 1: The trend of single motherhood in Vietnam over decade

Two-parent family
$■$ Single-mother family
Table 4: Marital status of single mother families

| Categories | 1999 |  | 2009 |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Frequency | Percent | Frequency | Percent |
| Single | 1,103 | 7.62 | 11,832 | 9.27 |
| Separated | 1,631 | 11.27 | 12,827 | 10.05 |
| Divorced | 3,089 | 21.35 | 33,089 | 25.79 |
| Widowed | 8,645 | 59.75 | 69,936 | 54.77 |
| Total | 14,468 | 100 | 127,684 | 100 |

Table 4 reveals the change in marital status of single mother families over time. There is also a slight change in the marital status of single mother family from 1999 to 2009. The proportion of single mother who are widowed and separated has decreased over time. Whereas in contrast, the proportion of single mothers who are single and divorced has increased. This result strikingly shows the change in the trend of marital status broken down. To be more specific, the rates of single mothers who
divorced increased by $4.44 \%$ which is the highest proportion increased in group of single mothers. Likewise, it is also important to consider that the substantial unusual change in family structure pattern with the increase of single mothers who are single. This rate has climbed from $7.62 \%$ in 1999 to $9.27 \%$ in 2009 .

Figure 2: Living arrangement of single mother family


Figure 2 indicates the information about living arrangement of single mother families. Family structure of single-mother families has also transformed substantially due to changing in living arrangement. It is clearly that there is a dramatic increase the gap between proportion of those who live only with children and those who live with other adults from 1999 to 2009. For more details, in the year 1999, compare to those who live with other adult, the proportion of those who live only
with children is approximately 1.27 times higher, from about $58 \%$ to nearly $42 \%$. Meanwhile, in 2009, compare to those who live with other adult, the proportion of those who live only with children is approximately 3.57 times higher, from about 78.13\% to a modest rates $21.87 \%$.

Figure 3: Living area by family status


Figure 3 shows the distribution of family status (single mother and two-parent family) by living area from 1999 to 2009. It is evident that there was a dramatic shift in trends and marital status of Vietnam corresponding to the pace of growth, urbanization and modernization. In 1999, the proportion of families which locate in urban and rural area are approximately equal (in both single-mother families and two parent families). Then by the year 2009, the proportion of rural families increased nearly 3 times
compared to urban family (in rural area, single mother families increased 2.7 times, and two-parent families increased 3.0 times). This corresponds with tendency to delayed marriage in urban area in Vietnam. According to the General Statistics Office, delayed marriage rates in men increased 1.45 times and women increased 1.25 times in 2009 compared to 1999 in urban area (General Office of Statistic, 2009).

Table 5: The relationship with household head in the comparison between single mothers and two-parent families

| Relationship | Single mother |  | Two-parent |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1999 | 2009 | 1999 | 2009 |
| Head | 11,610 | 96,750 | 36,034 | 182,929 |
|  | (80.25\%) | (75.77\%) | (13.38\%) | (9.76\%) |
| Spouse/partner | 35 | 145 | 205,655 | 1,400,443 |
|  | (0.24\%) | (0.11\%) | (76.33\%) | (74.71\%) |
| Biological child | 2,075 | 24,817 | 5,605 | 58,484 |
|  | (14.34\%) | (19.44\%) | (2.08\%) | (3.12\%) |
| Grand child |  | 367 |  | 1,750 |
|  | - |  | - | (0.09\%) |
| Other relative | 748 | 5,605 | 22,118 | 230,997 |
|  | (5.17\%) | (4.39\%) | (8.21\%) | (12.32\%) |
| Total | 14,468 | 127,684 | 269,412 | 1,874,603 |

Table 5 presents the relationship with household head in the comparison between single mothers and two-parent families. Regarding the group of single mother
families, the percentage of the household head which is single mother, is the highest (80.25\% and approximately $75.77 \%$, in 1999 and 2009 respectively.) The second highest percentage of the relation to the household head is biological child, which accounts for $14.34 \%$ in 1999 and $19.44 \%$ in 2009.

In stark contrast, with regard to the group of two-parent families, the highest percentage of household head is husband that is called spouse or partner, which is approximately $75 \%$ at both 2 years. The second highest proportion of the relation to the household heads is wife that is marked by mother and relatives.
6. Empirical methodology: The relationship between single mother families and living condition

There are fourth models in this thesis to investigate the disadvantages in living conditions of single mothers. The first model compares the living condition of single mothers and that of two-parent mothers. The second model compares the living condition among (i) single mothers who are household heads, (ii) that of single mothers who are not the household head, and (iii) mothers from two-parent family. The third model compares the living condition among (i) single mothers who live only with children, (ii) that of single mothers who live with other adults, and (iii) mothers from two-parent family. The fourth model compares single mother are different in marital status.

To doing so, I use the binary logistic regression model to investigate the relationship between these independent variables (single mother, single mother who is household head, single mother who live only with children, and mothers from twoparent families) and dependent variables (dwelling ownership, basic amenities, and durable goods) in each year 1999 and 2009 in Vietnam. The equation of binary logistic regression model is as the following:

$$
y_{i}=\alpha_{i}+\beta_{1} \text { singlemother }{ }_{i}+X_{i} \gamma+\varepsilon_{i}
$$

Where $y_{i}$ is a binary variable measuring living conditions, including dwelling ownership, basic amenities and durable goods, singlemother $r_{i}$ measures single mother variables, is independent and binary or nominal variable. With regard to family status, singlemother $r_{i}$ equals one if the respondent is single mother and equals zero if the respondent is the mother from two parent families. With regard to family structure, singlemother $r_{i}$ equals one if single mother lives only with children, equals two if single mother lives with other adults, and equals three if the mother from two parent families. With regard to family household head, singlemother equals one if single mother is the household head, equals two if single mother is not the household head, and equals three if the mother from two parent families. With regard to marital status, singlemother ${ }_{i}$ equals one if she is single, equals two if she is separated, equals three if she is divorced, and equals fourth if she is widowed. $\boldsymbol{X}_{i} \boldsymbol{X}_{i}$ is a vector of control
variables that includes level of education, age, region, sector of employment, and living area.

## CONCEPTUAL FRAMEWORK

This section illustrates the content of empirical method above to investigate the relationship between living condition and single mothers. As the mentioned above, there are fourth model in the conceptual framework. The explanation about why this thesis research on various types of single mothers because Sugarman (1998) argued that these various types of single mothers are significant because they raise different issues, and of course they have yielded very different policy solutions and proposals for reform (D.Sugarman, 1998).

First model: Explore the relationship between single mothers and living
condition compared to mothers from two-parent families.

| Independent variable | Dependent variable |
| :--- | :--- |



Second model: Explore the relationship among (i) single mothers who are household head and living condition compared to (ii) single mothers who are not household head, and (iii) mothers from two-parent families.
Independent variable

Dependent variable


Third model: Explore the relationship between single mother who live only with children and living condition compared to single mother who live with other adults.

| Independent variable | Dependent variable |
| :--- | :--- |



Fourth model: Explore the relationship with living condition among single mothers who are different in marital status.


Dependent variable

Single mothers who are classified by marital status

- Single.
- Separated.
- Divorced.
- Widowed.

Living condition indicators
Dwelling ownership

Basic amenities

Control variables

- Durable goods

Age.
Region

- Education.
- Sector of employment.
- Living area


## 7. Empirical results

In this section, I report the odds ratio of the binary logistic regressions.

The first model:

This section compares single mothers and two-parent mothers in relation to dwelling ownership.

Table 6: Single mothers and Dwelling ownership

|  |  | Dwelling | wnership |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 99 |  | 009 |
|  | Odds ratio (1) | Standar d error (2) | Odds ratio <br> (3) | Standar d error <br> (4) |
| Single mother | 0.55*** | 0.023 | $0.61^{* * *}$ | 0.009 |
| Education (baseline: le | primar |  |  |  |
| Primary | $0.61^{* * *}$ | 0.024 | 1.10*** | 0.012 |
| Secondary | 0.54*** | 0.024 | 0.94*** | 0.014 |
| University | 0.54*** | 0.031 | 1.08*** | 0.020 |
| Age | 1.03*** | 0.002 | 1.05*** | 0.001 |
| Region (baseline: South |  |  |  |  |
| Red River Delta | 0.92** | 0.033 | 3.06*** | 0.042 |
| Northern Midlands and | 2.06*** | 0.071 | 2.46*** | 0.029 |
| Mountains |  |  |  |  |


| North and South Central | $2.17^{* * *}$ | 0.084 | $2.47^{* * *}$ | 0.031 |
| :--- | :--- | :--- | :--- | :--- |
| Coast |  |  |  |  |
| Central Highland | $2.27^{* * *}$ | 0.133 | $2.10^{* * *}$ | 0.038 |
| Mekong River Delta | $1.21^{* * *}$ | 0.051 | $2.46^{* * *}$ | 0.034 |
| Sector of Employee (baseline: Public) |  |  |  |  |
| Private, not elsewhere |  |  |  |  |
| classified | $2.04^{* * *}$ | 0.263 | $1.08^{* * *}$ | 0.018 |
| Individual/family, self- | $3.60^{* * *}$ | 0.099 |  |  |
| employed |  |  |  |  |
| Foreign | $2.49^{* * *}$ | 0.460 | 0.99 | 0.020 |
| Mixed: public-private | $1.43^{* * *}$ | 0.155 | - | 0.029 |
| Collective or cooperative | $21.51^{* * *}$ | 1.43 | $1.49^{* * *}$ | 0.124 |
| Living area (Urban) | $0.30^{* * *}$ | 0.009 | $0.31^{* * *}$ | 0.003 |
|  | 283,880 |  | $2,002,287$ |  |

Note: * ${ }^{* *}$, *** denote significance at $10 \%, 5 \%$, and $1 \%$ levels, respectively.

Table 6 describes results regarding to the association between single mother families and dwelling ownership, compared to two-parent families. After controlling confounding factors such as age, level of education, region, sector of employee as well as living area, the research results show that there is a statistical significant difference in "dwelling ownership" between single mothers and two-parent families. Compared
to two-parent mothers, single mothers are 0.45 times and 0.39 times less likely to have dwelling ownership in 1999 and 2009 respectively.

With regard to level of education, appearing to be somewhat counterintuitive, it is noticeable that in the year 1999 mothers whose level of education at "less than primary" are more likely to live in the house with home ownership than others who are at primary, secondary as well as university. Conversely, there is not different in home ownership when level of education is changed by the year 2009.

With regard to region, in the year 1999, mothers who live at "Northern Midlands and Mountains", "North and South Central Coast" and "Central Highland" are nearly more than 2 times compared to mothers who live at Southeast area. Whereas, there are not different among mothers who live at "Red River Delta", "Mekong River Delta" and Southeast region in home ownership. In contrast to 1999, there are large differences between Southeast and other regions of the home ownership status of mothers by 2009. To be more specific, those who live in "Red River Delta" and "Central Highland" region are more than 3 and 2 times more likely to own home than those in Southeast region respectively.

With regard to sector of employment, there are differences on the impact of sector of employment on home ownership between 1999 and 2009. We can see the impact of "Collective or cooperative" sector is huge to have home ownership in the year 1999, odds ratio equal 21.51 compared with 1.49 by the year 2009. It also seems
that mothers who work at Public sector have more difficulties in home ownership than other sectors.

By the year 1999, compared to mothers who work at Public sector, mothers who work at "Private, not elsewhere classified" sector are more than 2 times likely to have dwelling ownership, mothers who work at "Individual/family, self-employed" sector are more than 3.6 times likely to have dwelling ownership, mothers who work at "Foreign" sector are more than 2.49 times likely to have dwelling ownership, mothers who work at "Mixed: public-private" sector are more than 1.43 times likely to have dwelling ownership, and mothers who work at "Collective or cooperative" sector are more than 21.51 times likely to have dwelling ownership. This could be because mothers who work in the public sector are likely to stay in houses provided by the government.

In contrast by the year 2009, there is nearly no difference on home ownership between mothers who work at "Private, not elsewhere classified" and "Foreign" sector in the comparison with mothers in Public sector.

With regard to living area, mothers who live in urban have more hardship in having home ownership than others who live in rural area. The specific difficulty is less than 0.7 times than the others in both two decades. This finding corresponds with land or home ownership status in Vietnam that is the price is quite high and the area of
land and housing are limited in urban areas compared to rural areas. Therefore, individual ownership of real estate status is less than those who live in rural.

Table 7: Single mothers and basic amenities


| Mekong River Delta | $2.30^{* * *}$ | 0.054 | $1.48^{* * *}$ | 0.012 |
| :--- | :--- | :--- | :--- | :--- |
| Sector of Employee (baseline: Public) |  |  |  |  |
| Private, not elsewhere | $1.56^{* * *}$ | 0.114 | $1.14^{* * *}$ | 0.013 |
| classified |  |  |  |  |
| Individual/family, self- | $0.85^{* * *}$ | 0.013 | $0.58^{* * *}$ | 0.004 |
| employed | 1.19 | 0.135 | $0.71^{* * *}$ | 0.011 |
| Foreign | $1.38^{* * *}$ | 0.111 | - | - |
| Mixed: public-private | $0.16^{* * *}$ | 0.004 | $0.92^{* *}$ | 0.042 |
| Collective or cooperative |  | $18.95^{* * *}$ | 0.44 | $14.33^{* * *}$ |
| Living area (Urban) | 0.3284 |  | 0.3131 |  |
| Pseudo R-squared | 283,880 |  | $2,002,287$ |  |
| Observation |  |  |  |  |

Note: * ${ }^{* *}$, *** denote significance at $10 \%, 5 \%$, and $1 \%$ levels, respectively.

Table 7 shows results regarding the association between single mother families and "basic amenities" compared to two-parent families. After controlling for confounding factors such as age, level of education, region, sector of employment as well as living area, the research results showed that there is a statistical significant difference in "basic amenities" between single mothers and two-parent families. The relationship also hardly changes between the two decades.

With regard to living area, there is a major distance in basic amenities among urban and rural, mothers who live in urban area are more than nearly 19 times and
14.33 times to likely have basic amenities than others who live in rural area. This result has pointed out the huge distance concerning the development of living standard between urban and rural in Vietnam from the year 1999 to 2009

Table 8: Single mothers and durable goods

|  | Durable goods |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1999 |  | 2009 |  |
|  | Odds <br> ratio <br> (1) | Standard error <br> (2) | Odds <br> ratio <br> (3) | Standard error <br> (4) |
| Single mother | 0.50 | 0.010 | 0.50*** | 0.004 |
| Education (baseline: less than primary) |  |  |  |  |
| Primary | $1.57^{* \prime \prime}$ | 0.017 | $2.48 * * *$ | 0.012 |
| Secondary | $2.22{ }^{* * *}$ | 0.033 | 5.41*** | 0.036 |
| University | 3.60 "** | 0.115 | 10.29** | 0.110 |
|  |  |  | * |  |
| Age | $1.04 *$ | 0.001 | 1.04*** | 0.000 |
| Region (baseline: Southeast) |  |  |  |  |
| Red River Delta | $0.45{ }^{* * *}$ | 0.007 | 0.74*** | 0.005 |
| Northern Midlands and | $0.36{ }^{\prime \cdots}$ | 0.005 | $0.48 * * *$ | 0.003 |
| Mountains |  |  |  |  |
| North and South Central | 0.50 "** | 0.007 | 0.41*** | 0.002 |
| Coast |  |  |  |  |


| Central Highland | $0.55^{* * *}$ | 0.011 | $0.44^{* * *}$ | 0.004 |
| :--- | :--- | :--- | :--- | :--- |
| Mekong River Delta | $1.62^{* * *}$ | 0.028 | $0.64^{* * *}$ | 0.004 |
| Sector of Employee (baseline: Public) |  |  |  |  |
| Private, not elsewhere | $1.41^{* * *}$ | 0.098 | $0.57^{* * *}$ | 0.006 |
| classified |  | $0.78^{* * *}$ | 0.010 | $0.39^{* * *}$ |
| Individual/family, self- |  |  |  |  |
| employed | $1.22^{* *}$ | 0.117 | $0.41^{* * *}$ | 0.005 |
| Foreign | $1.30^{* * *}$ | 0.095 | - | - |
| Mixed: public-private | $0.68^{* * *}$ | 0.011 | $0.58^{* * *}$ | 0.022 |
| Collective or cooperative | $1.60^{* * *}$ | 0.015 | $3.12^{* * *}$ | 0.012 |
| Living area (Urban) | 0.0872 |  | 0.1904 |  |
| Pseudo R-squared | 283,880 |  | $2,002,287$ |  |

Note: *, **, *** denote significance at 10\%, 5\%, and 1\% levels, respectively.

Table 8 shows results regarding to the association between single mother families and "durable goods" compared to two-parent families. After controlling for confounding factors such as ages, level of education, region, sector of employment as well as living area variable, the research results showed that there is a statistical significant difference in "durable goods" between single mothers and two-parent families. In the both ears, single mothers have more difficulty in having durable goods than mothers from two-parent families. Durable goods ownership in two-parent
families is twofold compared with single mother families by both 2 years 1999 and 2009.

With regard to level of education, similar to the results of home ownership and basic amenities, the higher level of education mothers have, the more durable goods ownership in household will be. However, in the year 2009, there was a clear differentiation of living conditions among university level and the other levels. Mothers at university level are more than 10.3 times likely to own durable goods in the comparison with mothers at less than primary level.

With regard to living area, the result is intuitive that mothers who live at urban area are more than 1.60 times and 3.12 times compared to those who live at rural area in 1999 and 2009 respectively.

Regarding region, it seems that those who live at Southeast region having durable goods more than mothers in the other regions in both two years.

With regard to sector of employment, the finding demonstrates the reversed ability to own durable goods ownership of Public sector compared with other sectors in 1999 and 2009. In the year 1999, mothers who work at Public sector are less likely to have durable goods ownership than the others. Conversely, by the year 2009 those who in Public sector are more 2 times more likely to have durable goods than those other sector of employments.

In summary, the results on average indicate that single mother is more likely to face difficulty in living conditions regarding home ownership and having durable goods, than two-parent families, based on dataset Vietnam CENSUS 1999 and 2009. It is clearly that two-parent families having both home ownership and durable goods are more than at least twofold single mother families.

A reasonable explanation for this finding is that single mothers are likely to suffer difficulties in life due to the isolation from community and kin that are caused by traditional culture in Vietnam which is based on Confucius ideology. In the series of investigation about single mothers in Vietnam in Le Van (2014), it indicates that single mother families are not only faced the social stigma, but also difficulties in family economic conditions as well as in raising and caring for children. This is because of a lack of supporting from the husband's kin and mother's family members (L. Van, 2014). This result corresponds to the assessment of poverty and the difficulties in living condition of single mother families in the comparison with two-parent families in other studies. For instance, it is clear that there are a vast majority of studies demonstrating that poverty is always associated with single mother families (Jarrett, 1994; Jane Millar, 1992; Pedersen, Weise, Jacobs, \& White, 2000).

In addition to, there are statistical significant differences between these confounding variables except age variable with living condition during these two decades. To be more specific, regarding education, it is evident that the higher level
of education, the higher living condition in both two years. Regarding living area, mothers who live in urban area are less likely to have home ownership than mothers in rural area; however, they are more likely to have basic amenities and durable goods than those in rural. Furthermore, regarding sector of employment, those who are "Individual/family, self-employed" sector are more likely to have home ownership than those in public sector. In contrast, those who work in public sectors have basic amenities and durable goods more than nearly twofold in the comparison with the other sectors.

## The second model:

This section compares (i) single mothers who is household head, (ii) single mothers is not household head, and (iii) mothers in two-parent families in relation to living conditions.

Table 9: Dwelling ownership: Single mothers i household head vs. single mothers is not household head and mothers from two-parent families

| Dwelling ownership |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1999 |  | 2009 |  |
| Odds | Standard | Odds | Standard |  |
| ratio | error | ratio | error |  |
| (1) | (2) | (3) | (4) |  |

[^0]| Single mothers are not household head | $2.36 * * *$ | 0.285 | $3.66 * * *$ | 0.146 |
| :---: | :---: | :---: | :---: | :---: |
| Two-parent | 2.11 *** | 0.095 | 2.23 *** | 0.040 |
| Education (baseline: less than primary) |  |  |  |  |
| Primary | 0.61 *** | 0.024 | $1.10 * * *$ | 0.012 |
| Secondary | $0.54 * * *$ | 0.024 | 0.94*** | 0.014 |
| University | 0.54*** | 0.031 | $1.08{ }^{* * *}$ | 0.019 |
| Age | $1.03 * * *$ | 0.002 | $1.05 * * *$ | 0.000 |
| Region (baseline: Southe |  |  |  |  |
| Red River Delta | 0.92** | 0.033 | $3.09 * * *$ | 0.04 |
| Northern Midlands and Mountains | $2.08 * * *$ | 0.071 | 2.50*** | 0.030 |
| North and South Central Coast | 2.18*** | 0.084 | $2.48 * * *$ | 0.030 |
| Central Highland | 2.28*** | 0.134 | $2.12 * * *$ | 0.039 |
| Mekong River Delta | 1.21 *** | 0.050 | $2.44 * * *$ | 0.034 |
| Sector of Employee (baseline: Public) |  |  |  |  |
| Private, not elsewhere classified | $2.02 * * *$ | 0.260 | $1.07 * * *$ | 0.018 |
| Individual/family, selfemployed | 3.60*** | 0.099 | 2.31 *** | 0.029 |
| Foreign | $2.47^{* * *}$ | 0.455 | 0.98 | 0.020 |


| Mixed: public-private | $1.41^{* * *}$ | 0.154 | - | - |
| :--- | :--- | :--- | :--- | :--- |
| Collective or cooperative | $21.53^{* * *}$ | 1.436 | $1.48^{* * *}$ | 0.123 |
| Living area (urban) | $0.30^{* * *}$ | 0.009 | $0.31^{* * *}$ | 0.003 |
| Pseudo R-squared | 0.1806 | 0.1063 |  |  |
| Observation | 283,880 | $2,002,287$ |  |  |

Note: * ${ }^{* *}$, *** denote significance at 10\%, 5\%, and 1\% levels, respectively.

Table 9 indicates results regarding to the association between (i) single mothers who are household heads and "dwelling ownership" compared to (ii) single mothers who are not household head and (iii) mothers from two-parent families. After controlling for confounding factors such as ages, level of education, region, sector of employment as well as living area, the results show that there is a statistical significant difference in "dwelling ownership" among single mothers who are household head, single mothers who are not household head and mothers from two-parent families. Single mothers who are not household heads have home ownership more than 2.36 times and 3.66 times in 1999 and 2009 respectively, and mothers from two-parent families have home ownership more than 2.11 times and 2.23 times in 1999 and 2009 respectively, in the comparison with single mothers who are household head.

There are statistical significant differences between these confounding variables except age variable with dwelling ownership during two decades.


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Table 10: Basic amenities: Single mothers are household head vs. single mothers are not household head and mothers from two-parent families

| Basic amenities |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1999 |  | 2009 |  |
|  | Odds | Standard | Odds | Standard |
| ratio | error | ratio | error |  |
| (1) | (2) | (3) | (4) |  |

Family household head (baseline: Single mothers are household head)
Single mother are not
$1.45^{* * *}$
household head
hwo-parent

Education (baseline: less than primary)

| Primary | $1.82^{* * *}$ | 0.036 | $1.44^{* * *}$ | 0.009 |
| :--- | :--- | :--- | :--- | :--- |
| Secondary | $3.21^{* * *}$ | 0.073 | $2.42^{* * *}$ | 0.020 |
| University | $6.14^{* * *}$ | 0.220 | $2.75^{* * *}$ | 0.031 |
| Age | $1.02^{* * *}$ | 0.001 | $1.02^{* * *}$ | 0.000 |

Region (baseline: Southeast)

| Red River Delta | $1.61^{* * *}$ | 0.038 | $1.13^{* * *}$ | 0.008 |
| :--- | :--- | :--- | :--- | :--- |

Northern Midlands and $0.67^{* * *} \quad 0.014 \quad 0.49 * * * \quad 0.004$
Mountains
$\begin{array}{lllll}\text { North and South Central } 0.79 * * * & 0.017 & 0.61^{* * *} & 0.005\end{array}$
Coast

| Central Highland | $0.25^{* * *}$ | 0.010 | $0.18^{* * *}$ | 0.003 |
| :--- | :--- | :--- | :--- | :--- |
| Mekong River Delta | $2.29^{* * *}$ | 0.054 | $1.48^{* * *}$ | 0.012 |
| Sector of Employee (Baseline: Public) |  |  |  |  |
| Private, not elsewhere | $1.55^{* * *}$ | 0.114 | $1.13^{* * *}$ | 0.013 |
| classified |  | $0.85^{* * *}$ | 0.014 | $0.58^{* * *}$ |
| Individual/family, self- |  |  | 0.004 |  |
| employed | 1.19 | 0.134 | $0.71^{* * *}$ | 0.011 |
| Foreign | $1.38^{* * *}$ | 0.110 | - | - |
| Mixed: public-private | $0.16^{* * *}$ | 0.005 | $0.91^{* * *}$ | 0.042 |
| Collective or cooperative | $18.95^{* * *}$ | 0.440 | $14.32^{* * *}$ | 0.068 |
| Living area (Urban) | 0.3285 |  | 0.3132 |  |
| Pseudo R-squared | 283,880 |  | $2,002,287$ |  |

Note: ${ }^{*}{ }^{* *}$, *** denote significance at $10 \%, 5 \%$, and $1 \%$ levels, respectively.

Table 10 indicates results regarding to the association between (i) single mothers who are household head and "basic amenities" compared to (ii) single mothers who are not household head and (iii) two-parent families. After controlling for confounding factors such as age, level of education, region, sector of employment as well as living area, the research results showed that there is a statistical significant difference in "basic amenities" among single mothers who are household head, single mothers who are not household head and mothers from two-parent families. Single
mothers who are not household heads have basic amenities more than 1.45 times and 1.34 times in 1999 and 2009 respectively, and mothers from two-parent families have basic amenities more than 1.19 times and 1.03 times in 1999 and 2009 respectively, in the comparison with single mothers who are household head.

There are statistical significant differences between these confounding variables except age variable with basic amenities during two decades.

Table 11: Durable goods: Single mothers are household head vs. single mothers are not household head and mothers from two-parent families

|  | Durable goods |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | 1999 | 2009 |  |  |
|  | Odds | Standard | Odds | Standard |
| ratio | error | ratio | error |  |
| (1) | (2) | (3) | (4) |  |


| Single mother are not | 2.57*** | 0.121 | $2.45 * * *$ | 0.041 |
| :---: | :---: | :---: | :---: | :---: |
| household head |  |  |  |  |
| Two-parent | 2.48 *** | 0.058 | 2.51 *** | 0.023 |
| Education (baseline: less than primary) |  |  |  |  |
| Primary | $1.58{ }^{* * *}$ | 0.017 | $2.48 * * *$ | 0.012 |
| Secondary | $2.23 * * *$ | 0.034 | 5.42*** | 0.036 |


| University | 3.60 *** | 0.115 | $10.32^{* *}$ | 0.110 |
| :---: | :---: | :---: | :---: | :---: |
| Age | $1.04 * * *$ | 0.001 | 1.04*** | 0.000 |
| Region (baseline: |  |  |  |  |
| Southeast) |  |  |  |  |
| Red River Delta | $0.45 * * *$ | 0.008 | 0.74*** | 0.005 |
| Northern Midlands and | 0.36 *** | 0.005 | 0.49*** | 0.003 |
| Mountains |  |  |  |  |
| North and South Central | 0.50*** | 0.007 | 0.41*** | 0.002 |
| Coast |  |  |  |  |
| Central Highland | $0.55 * * *$ | 0.011 | 0.44*** | 0.004 |
| Mekong River Delta | 1.61 *** | 0.028 | 0.64*** | 0.004 |
| Sector of Employee (baseline: Public) |  |  |  |  |
| Private, not elsewhere <br> classified | $1.39 * * *$ | 0.097 | $0.57 * * *$ | 0.006 |
| Individual/family, selfemployed | $0.78 * * *$ | 0.011 | 0.39*** | 0.003 |
| Foreign | 1.19* | 0.115 | 0.41*** | 0.005 |
| Mixed: public-private | 1.29*** | 0.094 | - | - |
| Collective or cooperative | $0.688^{* * *}$ | 0.011 | 0.58*** | 0.022 |
| Living area (Urban) | 1.59*** | 0.014 | $3.11 * * *$ | 0.012 |
| Pseudo R-squared | 0.0882 |  | 0.1915 |  |


| Observation 283,880 | $2,002,287$ |
| :--- | :--- | :--- |

Note: *, **, *** denote significance at $10 \%, 5 \%$, and $1 \%$ levels, respectively.
Table 11 indicates results regarding to the association between (i) single mothers who are household head and "durable goods" compared to (ii) single mothers who are not household head and (iii) two-parent families. After controlling for confounding factors such as age, level of education, region, sector of employment as well as living area, the research results showed that there is a statistical significant difference in "durable goods" among single mothers who are household head, single mothers who are not household head and mothers from two-parent families. Single mothers who are not household heads have durable goods more than 2.57 times and 2.45 times in 1999 and 2009 respectively, and mothers from two-parent families have durable goods more than 2.48 times and 2.51 times in 1999 and 2009 respectively, in the comparison with single mothers who are household head.

Generally, this research indicates that single mothers who are household heads, face more difficulty in living condition indicated by dwelling ownership, basic amenities and durable goods than single mothers who are not household heads and mothers from two-parent families based on dataset Vietnam CENSUS 1999 and 2009.

To provide explanation and discussion for the relationship between the disadvantages in living condition and single mother who is household head, we may want to look back at the summary statistics of single motherhood. Regarding the
dimension of being a household head, the study clearly shows that the role of women in the families from 1999 until 2009 in Vietnam is still low. In two parent families, household heads always are mainly husband, at approximately $75 \%$ at both 2 years. In single mother families, the second highest rate of the relationship of the household heads is biological children. Truong Phuc Hung mentions this issue in the report on "Gender analysis and its role to the decision" in the year 2008, that women have limited right in deciding important things in family and society. Their weak role comes from patriarchal family structure and the feudal ideology "gender prejudice". The identification of household head is an administrative requirement in Vietnam. The household head is usually the oldest person in the family, and often male. This ideology leads a norm that the decision of the family often belongs to the male household head. It is evident that in the summary statistics if this family does not have a husband, the mothers are more likely to be biological children of the household heads (Hung, 2008). In addition to this, the definition according to the CENSUS is that "household head is the representative of the household recognized by all household members", and it does not mean they own house. Therefore, for single mothers who are household head, they are more likely to have more responsibility with the house, and small children, due to the absence of male responsibilities in household. As a result, the household that is led by a single mother is more likely to face difficulties in living conditions than those led by male member, in the Vietnamese society.

The third model:

This section explores the correlation among (i) single mothers who live with only children and various measures of living conditions, compared to (ii) single mothers live with other adults, and (iii) mothers from two-parent families.

Table 12: Home ownership: Single mothers live with only children vs. single mothers live with other adults and mothers from two-parent families

|  | Home ownership |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1999 |  | 2009 |  |
|  | Odds ratio | Standard error <br> (2) | Odds ratio (3) | Standard error <br> (4) |
| Family structure (Baseline: Single mother live with only children) |  |  |  |  |
| Single mother live with other adults | $1.83 * * *$ | 0.164 | $2.36 * * *$ | 0.074 |
| Two-parent families | 2.21 *** | 0.108 | $2.22^{* * *}$ | 0.038 |
| Education (baseline: less than primary) |  |  |  |  |
| Primary | $0.62^{* * *}$ | 0.024 | 1.10*** | 0.012 |
| Secondary | $0.54 * * *$ | 0.024 | 0.94*** | 0.014 |
| University | $0.54 * * *$ | 0.031 | $1.08 * * *$ | 0.019 |
| Age | $1.03 * * *$ | 0.002 | $1.05 * * *$ | 0.000 |
| Region (baseline: Southeast) |  |  |  |  |
| Red River Delta | 0.92** | 0.033 | $3.08 * * *$ | 0.042 |
| Northern Midlands and Mountains | 2.09** | 0.072 | 2.49*** | 0.030 |
| North and South Central Coast | 2.19*** | 0.084 | $2.48 * * *$ | 0.030 |


| Central Highland | $2.29^{* * *}$ | 0.134 | $2.12^{* * *}$ | 0.038 |
| :--- | :--- | :--- | :--- | :--- |
| Mekong River Delta | $1.21^{* * *}$ | 0.050 | $2.45^{* * *}$ | 0.340 |
| Sector of Employee (baseline: Public) |  |  |  |  |
| Private, not elsewhere | $2.02^{* * *}$ | 0.260 | $1.07^{* * *}$ | 0.018 |
| classified |  |  |  |  |
| Individual/family, self- | $3.59^{* * *}$ | 0.099 | $2.31^{* * *}$ | 0.028 |
| employed | $2.48^{* * *}$ | 0.458 | $0.98^{* * *}$ | 0.020 |
| Foreign | $1.42^{* * *}$ | 0.155 | - | - |
| Mixed: public-private | $21.51^{* *}$ | 1.435 | $1.49^{* * *}$ | 0.123 |
| Collective or cooperative | $0.30^{* * *}$ | 0.009 | $0.31^{* * *}$ | 0.003 |
| Living area (Urban) | 0.1804 |  | 0.1054 |  |
| Pseudo R-squared | 283,880 |  | $2,002,287$ |  |

Note: *, **, ${ }^{* * *}$ denote significance at $10 \%, 5 \%$, and $1 \%$ levels, respectively.

Table 12 indicates results regarding to the association between (i) single mothers who live with only children and "dwelling ownership" compared to (ii) single mothers who live with other adults and (iii) two-parent families. After controlling for confounding factors such as age, level of education, region, sector of employment as well as living area, the research results showed that there is a statistical significant difference in "dwelling ownership" among single mothers who live with only children, single mothers who live with other adults and mothers from two-parent families. Single
mothers who live with other adults have home ownership more than 1.83 times and 2.36 times in 1999 and 2009 respectively, and mothers from two-parent families have durable goods more than 2.21 times and 2.22 times in 1999 and 2009 respectively, in the comparison with single mothers who live with only children.

Table 13: Basic amenities: Single mothers live with only children vs. single mothers live with other adults and mothers from two-parent families

|  | Basic amenities |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1999 |  | 2009 |  |
|  | Odds ratio (1) | Standard error <br> (2) | Odds ratio <br> (3) | Standard error <br> (4) |
| Family structure (Baseline: Single mother live with only children) |  |  |  |  |
| Single mother live w other adults | 1.42 *** | 0.076 | $1.28 * * *$ | 0.023 |
| Two-parent families | $1.25 * * *$ | 0.043 | $1.05 * * *$ | 0.012 |
| Education (baseline: less than primary) |  |  |  |  |
| Primary | 1.82 *** | 0.036 | $1.44 * * *$ | 0.010 |
| Secondary | 3.21 *** | 0.073 | $2.42 * * *$ | 0.020 |
| University | 6.14*** | 0.220 | $2.75 * * *$ | 0.030 |
| Age | 1.02 *** | 0.001 | $1.02 * * *$ | 0.000 |

Region (baseline: Southeast)

| Red River Delta | 1.61 *** | 0.038 | $1.13 * * *$ | 0.009 |
| :---: | :---: | :---: | :---: | :---: |
| Northern Midlands and Mountains | 0.68*** | 0.014 | 0.49*** | 0.004 |
| North and South Central Coast | 0.80*** | 0.017 | 0.61*** | 0.005 |
| Central Highland | $0.25 * * *$ | 0.010 | $0.18^{* * *}$ | 0.003 |
| Mekong River Delta | $2.30 * * *$ | 0.054 | $1.48 * * *$ | 0.012 |
| Sector of Employee (base | Public) |  |  |  |
| Private, not elsewhere <br> classified | 1.55*** | 0.114 | 1.13*** | 0.013 |
| Individual/family, selfemployed | 0.85*** | 0.014 | 0.58*** | 0.005 |
| Foreign | 1.20 | 0.135 | $0.72^{* * *}$ | 0.011 |
| Mixed: public-private | $1.39 * * *$ | 0.111 | - | - |
| Collective or cooperative | 0.16*** | 0.005 | 0.91** | 0.042 |
| Living area (Urban) | $18.95^{* *}$ | 0.440 | $14.32^{* *}$ | 0.068 |
| Pseudo R-squared | 0.3285 |  | 0.3132 |  |
| Observation | 283,880 |  | 2,002,287 |  |

Note: *, **, *** denote significance at $10 \%, 5 \%$, and $1 \%$ levels, respectively.

Table 13 indicates results regarding to the association between (i) single mothers who live with only children and "basic amenities" compared to (ii) single
mothers who live with other adults and (iii) two-parent families. After controlling for confounding factors such as age, level of education, region, sector of employment as well as living area, the research results showed that there is a statistical significant difference in "basic amenities" among single mothers who live with only children, single mothers who live with other adults and mothers from two-parent families. Single mothers who live with other adults have home ownership more than 1.42 times and 1.28 times in 1999 and 2009 respectively, and mothers from two-parent families have durable goods more than 1.25 times and 1.05 times in 1999 and 2009 respectively, in the comparison with single mothers who live with only children.

Table 14: Durable goods: Single mothers live with only children vs. single mothers live with other adults and mothers from two-parent families

| Durable goods |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1999 |  | 2009 |  |
|  | Odds | Standard | Odds | Standard |
| ratio | error | ratio | error |  |
| (1) | (2) | (3) | (4) |  |



Region (baseline: Southeast)
$\begin{array}{lllll}\text { Red River Delta } & 0.45 * * * & 0.008 & 0.74 * * * & 0.005\end{array}$
$\begin{array}{lllll}\text { Northern Midlands and } \quad 0.36 * * * & 0.005 & 0.49^{* * *} & 0.003\end{array}$
Mountains
$\begin{array}{lllll}\text { North and South Central } \quad 0.50 * * * & 0.007 & 0.41^{* * *} & 0.002\end{array}$
Coast

| Central Highland | $0.55^{* * *}$ | 0.011 | $0.44^{* * *}$ | 0.004 |
| :--- | :--- | :--- | :--- | :--- |
| Mekong River Delta | $1.61^{* * *}$ | 0.028 | $0.64^{* * *}$ | 0.004 |
| Sector of Employee (baseline: Public) |  |  |  |  |
| Private, not elsewhere | $1.40^{* * *}$ | 0.098 | $0.57^{* * *}$ | 0.006 |
| classified |  | $0.78^{* * *}$ | 0.011 | $0.39^{* * *}$ |
| Individual/family, self- | $1.21^{* * *}$ | 0.116 | $0.01^{* * *}$ | 0.005 |
| employed | $1.29^{* * *}$ | 0.094 | - | - |
| Foreign | $0.68^{* * *}$ | 0.011 | $0.58^{* * *}$ | 0.022 |
| Mixed: public-private | $1.60^{* * *}$ | 0.014 | $3.11^{* * *}$ | 0.012 |
| Collective or cooperative | 0.0882 |  | 0.1914 |  |
| Living area (Urban) | 283,880 |  | $2,002,287$ |  |
| Pseudo R-squared |  |  |  |  |
| Observation |  |  |  |  |

Note: ${ }^{*}{ }^{* *}$, *** denote significance at $10 \%, 5 \%$, and $1 \%$ levels, respectively.

Table 14 indicates results regarding to the association between (i) single mothers who live with only children and "durable goods" compared to (ii) single mothers who live with other adults and (iii) two-parent families. After controlling for confounding factors such as age, level of education, region, sector of employment as well as living area, the research results showed that there is a statistical significant difference in "durable goods" among single mothers who live with only children, single mothers who live with other adults and mothers from two-parent families. Single
mothers who live with other adults have home ownership more than 2.17 times and 2.18 times in 1999 and 2009 respectively, and mothers from two-parent families have durable goods more than 2.75 times and 2.70 times in 1999 and 2009 respectively, in the comparison with single mothers who live with only children.

Generally, the results indicate that single mothers who live with other adults or mothers from two-parent families, have less difficulty in the living condition, including dwelling ownership, basic amenities and durable goods than single mother who live with only children, based on dataset Vietnam CENSUS 1999 and 2009.

In conclusion, the shift in Vietnam family structures from single mother families that live with other adults to live with only children potentially have a significant impact on single-mother families. It is interesting to note that single mothers, who are living with only children, have more difficulties in living conditions compared to single mothers who are living with other adults. Given the nature of single mother families that only have mothers and children, single mothers will have more difficulty in sharing the burden of caring for children and relatives. Thus, children in single mother families potentially face the risk of a lack of affection, caring about education, health, mentally inferior to the children who are living in two parent families and families with other adults, where these children have one more important caring is that the attention from the father or other adults. Single mothers who only live with children may suffer loneliness in caring children and the weaknesses of family solidarity, for
example a lack of childcare support from her husband's kin and husband's kin may have great influence on the ability and conditions to maximize productivity of the single mothers, who are in working age (Burghes, 1994).

## The fourth model:

This section explores the correlation between single mothers who are classified by marital status and various measures of living conditions.

Table 15: Dwelling ownership: The differences among single mothers
who are classified by marital status

|  | Dwelling ownership |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | 1999 |  | 2009 |  |
|  | Odds | Standard | Odds | Standard |
|  | ratio | error | ratio | error |
|  | $(1)$ | (2) | $(3)$ | $(4)$ |
| Marital status (baseline: Single status) |  |  |  |  |
| Separated | 0.94 | 0.163 | $0.58^{* * *}$ | 0.040 |
| Divorced | 0.94 | 0.144 | $0.56^{* * *}$ | 0.034 |
| Widowed | $1.93^{* * *}$ | 0.298 | $1.00^{* * *}$ | 0.061 |
| Education (baseline: less than primary) |  |  |  |  |
| Primary | 0.86 | 0.099 | $1.19^{* * *}$ | 0.040 |
| Secondary | $0.79^{*}$ | 0.108 | 0.96 | 0.048 |
| University | $0.68^{*}$ | 0.148 | $1.16^{* *}$ | 0.081 |
| Age | 1.00 | 0.006 | $1.01^{* * *}$ | 0.002 |

Region (baseline: Southeast)

| Red River Delta | $0.80^{*}$ | 0.107 | $2.39^{* * *}$ | 0.120 |
| :--- | :--- | :--- | :--- | :--- |
| Northern Midlands and | $1.71^{* * *}$ | 0.199 | $2.12^{* * *}$ | 0.087 |
| Mountains |  |  |  |  |
| North and South Central Coast | $2.20^{* * *}$ | 0.288 | $1.86^{* * *}$ | 0.076 |
| Central Highland | $3.71^{* * *}$ | 0.906 | $1.50^{* * *}$ | 0.090 |
| Mekong River Delta | $2.87^{* * *}$ | 0.472 | $2.45^{* * *}$ | 0.116 |
| Sector of Employee (baseline: Public) |  |  |  |  |
| Private, not elsewhere | 1.58 | 0.657 | $1.17^{* *}$ | 0.078 |
| classified | $3.63^{* * *}$ | 0.348 | $1.79^{* * *}$ | 0.082 |
| Individual/family, self- | 3.25 | 2.420 | $1.30^{* *}$ | 0.114 |
| employed | $1.92^{*}$ | 0.722 | - | - |
| Foreign | $17.91^{* *}$ |  | 1.10 | 1.48 |
| Mixed: public-private | $*$ | 4.10 |  | 0.419 |
| Collective or cooperative | $0.35^{* * *}$ | 0.038 | $0.35^{* * *}$ | 0.010 |
| Living area (Urban) | 0.1694 |  | 0.0791 |  |
| Pseudo R-squared | 14,468 |  | 127,684 |  |
| Observation | $106,5 \%$ |  |  |  |

Note: *, **, *** denote significance at $10 \%, 5 \%$, and $1 \%$ levels, respectively.
Table 15 indicates results regarding to the association between single mothers who are single and dwelling ownership compared to single mothers who are separated, single mothers who are divorce, and single mothers who are widow. After controlling for confounding factors such as age, level of education, region, sector of employment as well as living area, the research results showed that there is a statistical significant difference in "dwelling ownership" among single mothers who are single, single
mothers who are separated, single mothers who are divorce, and single mothers who are widow. Single mothers who are widow have home ownership more than 1.93 times in 1999 compared with single mothers who are single. Whereas, in the year 2009, single mothers who are single have home ownership more than nearly 2 times in the comparison with single mothers who are separate and divorce, and there are no differences in home ownership between single mothers who are single and who are widow.

This finding noticeably shows that single mothers who are separate and divorce status have more difficulty in terms of home ownership compared with other single mothers after marital dissolution. The explanation for this result can be as same as the explanation about household head authority in Vietnam. These findings are corresponded with the real situation in Vietnamese social context that is most of women have limited right in deciding important things in family and society. Their weak role comes from patriarchal family structure and the feudal ideology "gender prejudice". Similar to household head, the identification of ownership is an administrative requirement in Vietnam, and the main ownership tends to often refer to male, mostly husband or son. This ideology leads to a norm that the decision of the family often belongs to the male. This is also mentioned in Truong Phuc Hung's report on "Gender analysis and its role to the decision" in the year 2008. Consequently,
wives or mothers after family broken they are often can not own valuable things such as house or land.

Table 16: Basic amenities: The differences among single mothers who are classified by marital status

|  | Basic amenities |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1999 |  | 2009 |  |
|  | Odds ratio <br> (1) | Standard error <br> (2) | Odds ratio | Standard error <br> (4) |
| Marital status (baseline: Single status) |  |  |  |  |
| Separated | 1.10 | 0.155 | 1.09* | 0.047 |
| Divorced | $1.55^{* * *}$ | 0.193 | $1.38{ }^{* * *}$ | 0.05 |
| Widowed | 1.11 | 0.136 | 1.08** | 0.040 |
| Education (baseline: less than primary) |  |  |  |  |
| Primary | 1.91*** | 0.137 | $1.45 * * *$ | 0.032 |
| Secondary | $3.12{ }^{* * *}$ | 0.276 | $2.57 * * *$ | 0.081 |
| University | 7.89*** | 1.40 | 2.68*** | 0.129 |
| Age | $1.02{ }^{* * *}$ | 0.004 | 1.01*** | 0.001 |
| Region (baseline: Southeast) |  |  |  |  |
| Red River Delta | $1.42{ }^{* * *}$ | 0.144 | 1.03 | 0.030 |
| Northern Midlands and Mountains | 0.51 *** | 0.044 | 0.46*** | 0.013 |


| North and South Central | $0.58^{* * *}$ | 0.051 | $0.50^{* * *}$ | 0.014 |
| :--- | :--- | :--- | :--- | :--- |
| Coast | $0.24^{* * *}$ | 0.037 | $0.18^{* * *}$ | 0.009 |
| Central Highland | $2.54^{* * *}$ | 0.220 | $1.52^{* * *}$ | 0.043 |
| Mekong River Delta | 1.55 | 0.490 | 0.97 | 0.046 |
| Sector of Employee (baseline: Public) |  |  |  |  |
| Private, not elsewhere <br> classified | 0.94 | 0.068 | $0.65^{* * *}$ | 0.020 |
| Individualfamily, self- <br> employed | 0.51 | 0.717 | $0.63^{* * *}$ | 0.041 |
| Foreign | 0.97 | 0.293 | - | - |
| Mixed: public-private | $0.18 * * *$ | 0.027 | 0.79 | 0.138 |
| Collective or cooperative | $26.17^{* * *}$ | 3.25 | $13.98^{* * *}$ | 0.253 |
| Living area (Urban) | 0.3093 |  | 0.3028 |  |
| Pseudo R-squared | 14,468 |  | 127,684 |  |
| Observation |  |  |  |  |

Note: *, **, *** denote significance at $10 \%, 5 \%$, and $1 \%$ levels, respectively.
Table 16 indicates results regarding to the association between single mothers who are single and basic amenities compared to single mothers who are separated, single mothers who are divorce, and single mothers who are widow. After controlling for confounding factors such as age, level of education, region, sector of employment as well as living area, the research results showed that there is a statistical significant difference in "basic amenities" among single mothers who are single, single mothers who are separated, single mothers who are divorce, and single mothers who are widow. Single mothers who are divorce have home ownership more than 1.55 times and 1.38
in 1999 and 2009 respectively compared with single mothers who are single. In 1999, there is no statistical significant difference in "basic amenities" among single mothers who are single, single mothers who are separated, single mothers who are widow. Whereas, in the year 2009, single mothers who are separate and widow have home ownership more than 1.09 times and 1.08 times in the comparison with single mothers who are single.

Table 17: Durable goods: The differences among single mothers who are classified by marital status

|  | Durable goods |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 999 |  | 009 |
|  | Odds ratio (1) | Standard error <br> (2) | Odds <br> ratio <br> (3) | Standard error <br> (4) |
| Marital status (baseline: Single status) |  |  |  |  |
| Separated | 0.99 | 0.099 | $1.14 * * *$ | 0.043 |
| Divorced | 1.04 | 0.094 | 1.56 *** | 0.050 |
| Widowed | 1.16 | 0.098 | $1.30 * * *$ | 0.040 |
| Education (baseline: less than primary) |  |  |  |  |
| Primary | $1.30 * * *$ | 0.062 | $2.40 * * *$ | 0.047 |
| Secondary | 2.17*** | 0.149 | 5.55*** | 0.153 |
| University | $3.19 * * *$ | 0.514 | 9.20*** | 0.416 |
| Age | 1.01** | 0.003 | 1.01 *** | 0.001 |
| Region (baseline: Southeast) |  |  |  |  |
| Red River Delta | $0.36 * * *$ | 0.030 | $0.53 * * *$ | 0.014 |
| Northern Midlands and | 032*** | 0.021 | $0.37 * * *$ | 0.009 |
| Mountains |  |  |  |  |
| North and South Central Coast | 0.54*** | 0.034 | 0.33*** | 0.008 |


| Central Highland | $0.53^{* * *}$ | 0.046 | $0.32^{* * *}$ | 0.0123 |
| :--- | :--- | :--- | :--- | :--- |
| Mekong River Delta | $1.64^{* * *}$ | 0.109 | $0.68^{* * *}$ | 0.017 |
| Sector of Employee (baseline: Public) |  |  |  |  |
| Private, not elsewhere | 0.71 | 0.200 | $0.65^{* * *}$ | 0.028 |
| classified | $0.81^{* * *}$ | 0.050 | $0.50^{* * *}$ | 0.014 |
| Individual/family, self- |  |  |  |  |
| employed | 1.16 | $0.88^{* *}$ | 1.125 | $0.512^{* *}$ |
| Foreign |  |  | 0.028 |  |
| Mixed: public-private | $0.64^{* * *}$ | 0.051 | $0.52^{* * *}$ | 0.083 |
| Collective or cooperative | $1.82^{* * *}$ | 0.079 | $3.18^{* * *}$ | 0.050 |
| Living area (Urban) | 14,468 |  | 127,684 |  |
| Pseudo R-squared | 0.0914 |  | 0.1719 |  |

Note: *, **, *** denote significance at $10 \%, 5 \%$, and $1 \%$ levels, respectively.

Table 17 indicates results regarding to the association between single mothers who are single and durable goods compared to single mothers who are separated, single mothers who are divorce, and single mothers who are widow. After controlling for confounding factors such as age, level of education, region, sector of employment as well as living area, the research results showed that there is not statistical significant difference in "durable goods" among single mothers who are classified by marital status in the year 1999. Conversely, there is statistical significant difference in "durable
goods" among single mothers who are single, single mothers who are separated, single mothers who are divorce, and single mothers who are widow by 2009.

In the year 2009, single mothers who are separate, divorce and widow have home ownership more than 1.14 times, 1.56 times and 1.30 times compared with single mothers who are single respectively.

Generally, the empirical findings indicated that single mothers who are separate and divorce status have more difficulty in terms of home ownership compared with other single mothers after marital dissolution. By stark contrast, single mothers who are single status have more difficulty in terms of basic amenities and durable goods compared with other kinds of single mothers.

In conclusion, after controlling confounding variables, there is still a statistical significant difference in the living conditions (i) between single mothers and mothers from two-parent families; (ii) among single mothers who are household heads, those who are not household heads and two-parent families; (iii) among single mothers who live with only children, single mothers who live with other adults and mothers from two-parent families; (iv) among single mothers who are different from marital status. There are also statistical significant differences in living conditions among those who differ in level of education, region, ages, sector of employment, especially in living area.

Generally, the results on average indicate that single mother is more likely to face difficulty in living conditions regarding home ownership and having durable goods, than two-parent families. It is clearly that two-parent families having both home ownership and durable goods are more than at least twofold single mother families. Moreover, single mothers who are a household head, who live with only children face more difficulty in living condition indicated by dwelling ownership, basic amenities and durable goods than single mother who are not a household head, who live with other adults and mothers from two parent families. In addition, single mothers who are separate and divorce status are difficult in terms of home ownership compared with other single mothers after marital dissolution. By stark contrast, single mothers who are single status are difficult in terms of basic amenities and durable goods compared with other kinds of single mothers. Finally, there are also statistical significant differences in living conditions among those who differ in level of education, region, ages, sector of employment, especially in living area based on dataset Vietnam CENSUS 1999 and 2009.

It is interesting to note that the hardship in "durable goods" is the hardest one to achieve in terms of living condition of single mothers. Research findings are consistent with numerous studies on the disadvantages in the life of single mothers in the world, which show that there are a lot of struggles single mothers must face. It almost seems as though the deck is stacked against a single mother from the beginning.

Precisely, the single mothers need to know how to balance work, housework, childcare, visitation schedules not to mention the children's activities (Rowlingson \& McKay, 2014). One of the biggest struggles that a single mother faces is the financial one (Single Parent Center, 2011).
8. Conclusion and Recommendation
8.1 Policy implications of this study

Becoming a single mother has a strong impact of the quality of life of women in Vietnam, where social context is still influenced by Confucianism and gender stereotypes. Disruption of family relationship potentially makes single mothers and her children undergo many challenges (Jensen, 1994). Importantly, when the trend of single motherhood starts to emerge as one of the significant family pattern in Vietnam as well as other developing countries, thus social policies that support such a trend become more relevant.

In this paper, the hardship of single motherhood is illustrated by poorer living conditions. Especially this happens clearly with single mothers, who are single (by marital status) and have lower basic amenities and durable goods than other single mothers. Thus, there is a possible call for policies to be developed to help single parents to enter or be able to go reenter the labor force (Kiernan, 1996; Waldfogel, Danziger, Danziger, \& Seefeldt, 2001; Winkler, 1993). Special supports, reconnected reciprocity and solidary in single-mother families in order to maintain and balance the
natural and fundamental of society, and ensure that single-mother families are not isolated in society and full of love from kinship are potentially needed.

Three types of policies could potentially be able to help tackle single motherhood's hardship mentioned above. First of all, it is important to elicit social constructions of department as it is to elicit those of victimhood in relation to single mothers. This can aid the understanding as to how these families function and how they can be served. Secondly, scholars and public servants can contribute to the transformation of public dialogue and social welfare practices related to single mothers to better reflect the variance in this family group. To be more precise, active rejection of a blaming, pejorative, scapegoat of single mothers and insistence that the discourse and the social institutions flowing from that discourse be supportive to all family arrangements will facilitate that transformation. Finally, we acknowledge the diversity of single mothers. Whether affluent or needful, young or mature, having achieved single motherhood through a variety of means, for instance divorce, widowhood, and even choice, we can grant them the presumption that positive forces include desire to nurture, love of family life, encouraging social support network to drove them toward motherhood (Mannis, 1999).

Regarding family policy, instead of offering universal support to the majority of families, the government should targets assistance to vulnerable families (Moller, 2002). Similarly, from the findings from this paper, in order to meet trends of single
motherhood, Vietnamese government may want to consider a welfare policy that gives support to single mothers, connects single mothers with kin and community or encourages single mother live in extended family, and promotes intergenerational solidary with loving and caring for each other to reduce difficulties in life.

In particular, such policy may especially pay more attention to single mothers who live with only children, and single mothers who are household heads in terms of supporting all living condition such as home ownership, basic amenities and durable goods. While the government should be noticed to support only home ownership for single mothers who are separated or divorced after family dissolution this is due to the fact that the Vietnamese social context has still affected by "gender prejudice" that is most of women have limited right in deciding important things in family and society. Policy makers can also learn from policies and welfare system for single mothers from different countries that have similar social context to Vietnam (Evans, 2011; Jane Millar \& Rowlingson, 2001; Snell \& Millar, 1987).

### 8.2 Contributions to single mother families research

Despite research interest in single mother families and the consistency of the based on the evidence from Western nations, comparable research based on nonWestern countries is rare (Pong, 1996). Nevertheless, the shift towards single mother families in developing countries, especially in Asian countries, is particularly noticeable. Single-mothers in Asian countries are rapidly becoming a replacement of traditional
marriage due to family dissolution or feminization of family. Children with single mothers are likely to suffer more in a collective culture that stigmatizes single motherhood or a society that lacks public policies to help single mothers (Hirschman \& Loi, 1996a).

As a consequence, this study can be seen as having a contribution towards the study of single motherhood in developing countries, based on the evidence from Vietnam. This research can also be viewed as an initial stepping stone providing a foundation for further studies on single mother families in the transition of family in Vietnam as well as developing countries that also experience a rapid change of social context in recent years.

This study classifies and analyzes by groups of different single mothers including by different marital status (single, separated, divorced, and widowed) and different family structures (household head or not household head; living with only children or living with other adults). Through this classification, the analysis finds various disadvantages in the living conditions of each group.

### 8.3 Limitations of the study

This study has some limitations due to the use of secondary dataset of Vietnam Population and Housing Census, which has different objectives from the current study. Therefore, some variables that may be related to single motherhood and its disadvantages cannot be included. The examples of such variables include (i)
economic variables such as individual household income; and level of expenditure, and (ii) child care variables such as level of education of the children, health status, child well-being or food consumption; as well as (iii) single mother variables such as mother's depression, kin relationship and child care support or social position. The census, furthermore, does not collect the information about the social welfare or the public services that the families are entitled to.

The literature review also indicated that one of the difficulties of single mother families are the denial about father's responsibility in terms of child care after marriage break down (Braver, Ellman, \& Fabricius, 2003; Hetherington \& Mavis, 1979; Luepnitz, 1982; Rodgers \& Pryor, 1998; Lenore J Weitzman \& Dixon, 1979). Likewise, single mother families must suffer the vast majority hardships due to the collapse of solidary in family relationship along with the deficiency of reciprocity of social networks because of discrimination in society perspective (Dunifon \& Kowaleski-Jones, 2007). Therefore, the lack of the number of variables above could pose limitations to this study.

Equally importantly, the census dataset provided by IPUMS does not allow us to match questions to recognize who are children of each mother, so that we cannot have some information on education of children. As a result, we cannot analyze the relationship between single mother and child development outcomes. This potentially is a crucial missing information leading to limitations. Existing studies show
that universal social policy such as a child support assurance system, child care, health care, children's allowances, and a full-employment macro economic policy significantly reduce single mother poverty and retard the growth of an underclass in society (Brady \& Burroway, 2012; McLanahan \& Garfinkel, 1989).

### 8.4 Directions for further studies

This research only explores the trend of single motherhood in Vietnam from 1999 to 2009, and determines the difficulties in living conditions which covers dwelling ownership, basic amenities as well as durable goods in the households. It makes the comparison between two parent and single mother families, and among single mothers. Thereby, there are still majority issues relating to single mothers that could also be interesting to study such as their economic and social well-being, their consequences for children, and their role in the politics of gender, race, and social class (Ezawa, 2006). The possible topics for future research are as follows.

1. Children well-being: A comparative approach between single-mother and two parent families, and among single mothers in Vietnam.
2. New evidence about single motherhood and the disadvantages in the living condition in Southeast Asian: A comparison among Vietnam, Indonesia and Cambodia in 1999 and 2009.
3. Outcomes of children: Reciprocity and solidary in single mother families in Vietnam
4. Single mother well-being: Society solidary and welfare support affect to living standard.
5. The impact of social support networks on the happiness among single mothers in Vietnam
6. The husband's responsibility on child care support in single mother families in Vietnam.

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## VITA

My name is Truc Ngoc Hoang Dang. I hold a Bachelor Degree of Public Health Science at Ho Chi Minh city University of Medicine and Pharmacy at the end of the year 2011. During study time at University of Medicine and Pharmacy, I was President of Student Association of Faculty of Public Health, and I took part in numerous research and projects as a researcher or research supervisor for Professors and Lectures, worked at a non government organization which conducts Health research (Partner in Health Research). I got a lot of Certificate of Merit that have made excellent achievements in academic years 2007-2011 of University of Medicine and Pharmacy, Youth Union, The Communist Youth Union, Student Association, and Women's Union as President of Student Association. I got high marks and got a scholarship for excellent student every semester. My Bachelor's thesis title is "Situation and feasibility of waste-segregation at source in Ho Chi Minh city, Vietnam"

After I graduated Bachelor Degree, I was a Lecturer at Department of Epidemiology, Faculty of Public Health for 6 months, before । become a Government's Officer as a policy maker about Health management, Health care science, Population and Family Planning and so on to improving health care system, quality of life and in terms of training and teaching about Health sciences at Ho Chi Minh city - Department of Health from 2012 until now. I am in charge of management and having responsibilities of designing lectures for training local health workers (county/district and commune/ward/township) of 5 major health projects of Ho Chi Minh city - Department of Health about Reproductive Health care and enhance the quality of Population, such as "Prenatal screening and neonatal screening in 2011-2020", "Counseling and Health care Elderly based on Community in 2011-2020", "Counseling and Reproductive Health care for Adolescents and Youth in 2011-2020", "Intervention reduce gender imbalance at birth in 2011-2020", "Logistic management on contraceptive methods in Ho Chi Minh city".


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[^0]:    Family household head (baseline: Single mothers are household head)

