

Challenges to realize the gender dividend

-Analysis of the time use patterns in Costa Rica-

Pamela Jiménez-Fontana¹

PRELIMINARY DRAFT

Abstract

The gender dividend is considered a potential opportunity for economic growth that comes from an increase in women's labor force participation. Previous studies conclude that if nonmarket production is included; the gender dividend would be higher. However, considering that the domestic production has a low economic value in the market, most of the opportunities of the gender dividend come from a higher female labor force participation. Furthermore, nonmarket production might be considered a barrier that women face to increase their participation in the work force. This article analyzes the time use patterns of nonmarket production and consumption of the Metropolitan Area of Costa Rica using the National Time Transfer Account methodology. The article also disaggregates the main activities of non-remunerated production by working status. In addition, a potential unmet demand for childcare is estimated.

Keywords: National Transfer Accounts; National Time Transfer Accounts; Gender dividend; Household production; Time use.

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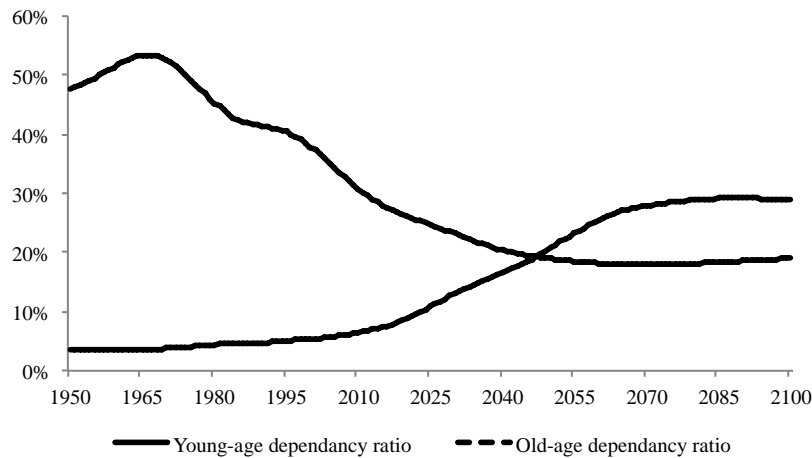
Challenges to realize the gender dividend -Analysis of the time use patterns in Costa Rica-

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INTRODUCTION

In the last decades, Costa Rica has been experiencing an accelerated demographic transition that resulted in a fast decrease of mortality and fertility rates. At the beginning of the twentieth century, Costa Rica was a poor country with several limitations for economic growth, currently the country is considered an outlier of the region, with an outstanding human development index. In 1960, the Total Fertility Rate was 7.25 births per women, after fifty years this indicator is below replacement level at its historical lowest level of 1.76 births per women. The young-age-dependency ratio reflect these changes of fewer births per women, in 1950 there were 48 people aged less than 18 per 100 people at working ages, while in 2013 this ratio was about 20% less (Figure 1). Costa Rica started the demographic transition in 1970 and this potential opportunity is expected to end around 2022 (Rosero-Bixby & Jiménez-Fontana, 2012). Since then, Costa Rica is approaching the end of its demographic transition, new attention has been given to the challenges of aging.

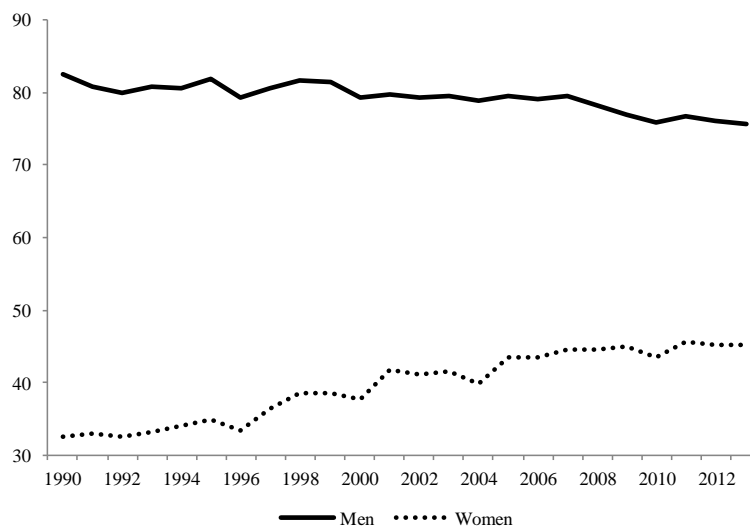
Figure 1: : Dependency Ratios in Costa Rica. 1950-2100.



Source: Central American Center of Population (2014).

These demographic changes implied a deep transformation of social and cultural norms. Women were part of a social revolution; they are spending less time childrearing and are increasing their participation at the labor market at a higher pace than men's (Figure 2). The increased in women's labor force participation rate is a potential opportunity that might contribute to increase the potential benefits of the demographic dividend and balance the negative effects of the anti-dividend, this opportunity is called the gender dividend.

Figure 2: Labor force participation rate, by sex. 1990-2013.
(% of total population ages 15+)



Source: National Institute of Statistics (2014).

Estimations of Martinez-Gomez et al (2013) state that the gender dividend in Latin America is almost as big as the demographic dividend. These estimations acknowledge that women's main contribution to the economy in Latin America is done at the households and that if this nonmarket production is included; the gender dividend will be higher. However, even though women spend almost the same time as men doing some type of production (market or nonmarket), in terms of the economic value there is still a significant gap by sex (Jiménez-Fontana, 2014). Furthermore, there is a large multiplication factor in the market production, since it is part of a chain of production. Therefore, most of the opportunities of the gender dividend come from a higher female labor force participation, nonmarket production might be considered a barrier that women face to increase their economic contribution in the market. Several governmental programs seek to increase women's participation at the market, however, most of these programs assume that women can easily move from the state of being the main responsible of home production to an active worker at market, which is not the case (Rivero et al, 2014). Some of the nonmarket production have good substitutes that can be purchase at the market, but others, like care, are harder to purchase or are available at a high price.

Currently, in Costa Rica, there is a government program called "Network of Care" which offers child care for women in poor economic conditions and day care for elderly. The purpose of the program is not only provide care for the dependents, but also encourage the women who provide these care without an economic remuneration to increase their participation at the labor market. However, critics have pointed out that there is an unmet need for these services and that little is known about the potential users.

Using time use data and the methodology of the National Time Transfer Project, this paper examines home production, which is considered one of the main challenges

women face to increase their participation at the labor market. The article analyzes the nonmarket production Metropolitan Area of Costa Rica. Also, the article disaggregates women's age-profiles by working condition, in order to analyze the differences of the time use patterns of women that work in the labor market and those who do not. The last section of the article estimates the main nonmarket consumption profiles and analyze a potential unmet demand of childcare.

MATERIALS AND METHODS

2.1 Data

Nonmarket production and consumption age-profiles are estimated using the Time Use Survey of the Metropolitan Area of Costa Rica of 2011 (National Institute of Women, 2013). The survey interviewed the members of the household aged 12 years or more about the amount of time dedicated weekly to a detailed set of activities. The survey interviewed more than 6.000 people from around 2500 households of the Metropolitan Area.

2.2 Methods

The methodology of the paper is based on the framework of the National Time Transfer Accounts (NTTA) project (Donehower, 2014), which establishes the methods to estimate non-remunerated production and consumption by age. The survey includes the time dedicated to non-productive activities such as sleeping and eating. The “third-party criterion” is used to choose which of the activities reported were considered production. The “third-party” criterion consists of choosing those activities that a person can pay someone else to do (Reid, 1934). For example, a woman can pay a housekeeper to cook or clean for her, but she cannot pay someone else to sleep or eat for her.

Given that the survey does not specify the beneficiaries of the home production, using the information of the family roster, the consumption is inputted. Two type of consumption are considered. First, those activities with no specific beneficiary, like cleaning and cooking, consumption is assigned equally to all the members of the household. Second, the activities in which the age-target is defined, like childcare, are assigned to the members of the family in the same age range using regression methods.

PREELIMINARY RESULTS

This section is divided into three parts. The first part analyzes the age profiles of nonmarket production by sex, the second part analyzes the main groups of nonmarket production produced by women by working status, the third part analyzes the consumption of childcare, and the last part presents the total production, consumption, and lifecycle deficit.

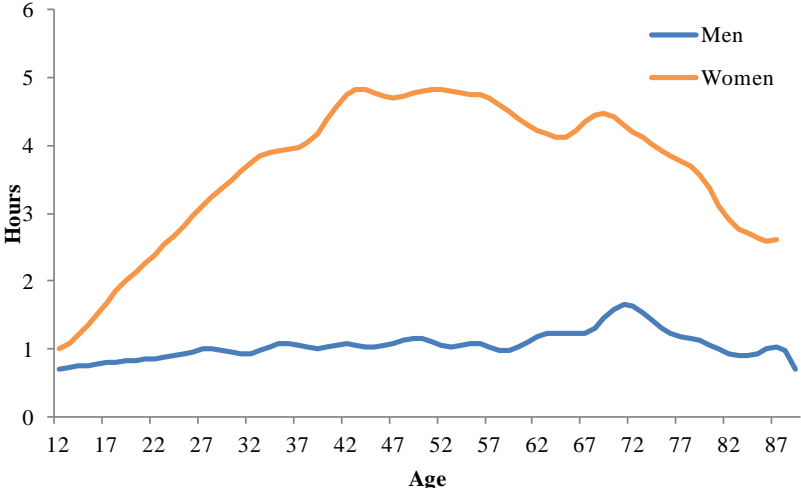
3.1 Nonmarket production

In terms of the amount of time dedicated to each activity, the main groups of non-remunerated production are defined as Group 1 (cooking, cleaning, and laundry) and childcare. Figure 3 and 4 presents the age-profile distribution of these activities.

Regarding the production of the activities of Group 1, there is a significant gap by sex. After the age of 18, women produce more than the double of men's production. The production of this group of activities done by men is almost flat by age. Therefore, the graph suggests a normative division of labor, in which women are the main responsible for these types of activities. This responsibility can be an obstacle for women who want to increase their participation at the labor market. Furthermore, women dedicate more than three hours to this group of activities until old ages. It can be considered that this type of

production is necessary for families, but the data reflect the deep specialization of labor by sex (Becker, 1965), with no evidence of a generational co-responsibility pattern by sex.

Figure 3: Hours spent on cooking, cleaning, and laundry, by sex.



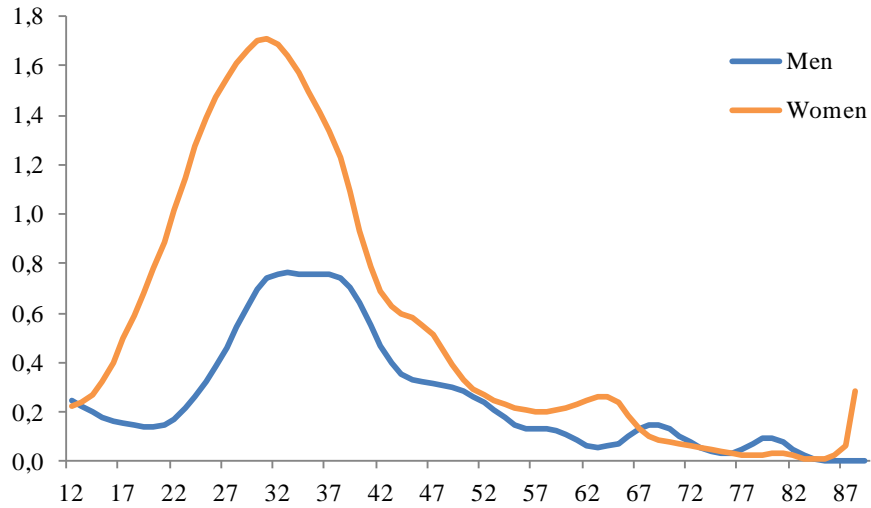
Source: Author’s estimations using the Time Use Survey, 2011.

The age-profile of the production of childcare differs considerably from the production of activities of Group 1 (Figure 4). The profile is concentrated on the reproductive ages and the distribution of women increases considerably at the age of 15. After the age of 30, women’s production of childcare experienced a fast decrease, which is explained by the end of the childbearing ages. Men’s production of childcare increases almost five years after women’s, and never reached the high levels of production women's. However, proportionally, men contribute more to childcare than to general activities like cooking, cleaning, and laundry.

Regarding the production of eldercare of the household, even though the survey asked separately for this type of activity, the time reported was very small. Two hypotheses can explain the time under-reported: first, eldercare is given to elderly that live outside the household, therefore the roster of eldercare only capture a small proportion of eldercare that is done in the same household. Second, people might consider production of eldercare as

companionship and does not reported in the survey. Further research needs to be done using specialize aging surveys.

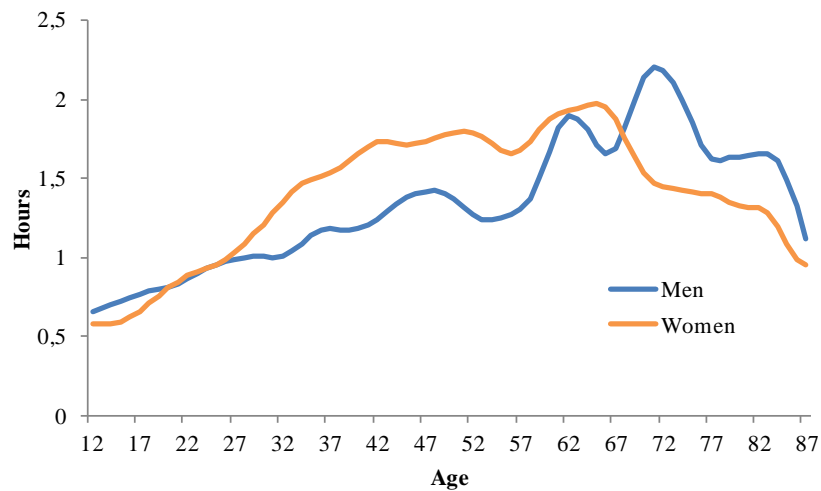
Figure 4: Hours spent on childcare, by sex.



Source: Author's estimations using the Time Use Survey, 2011.

The rest of activities were grouped in one profile and are presented in Figure 5. Women produce more of these type of production than men for most ages but the gap observed is significantly smaller than the ones observed for previous activities.

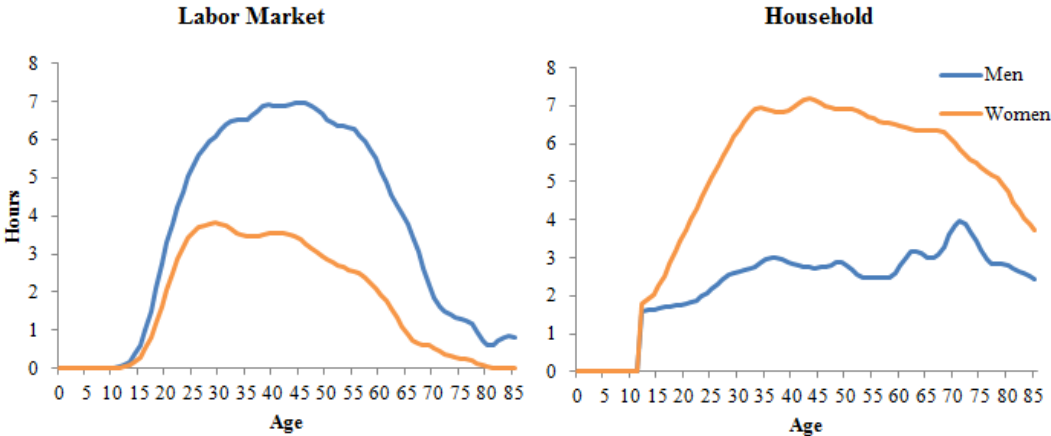
Figure 5: Hours spent on other activities, by sex.



Source: Author's estimations using the Time Use Survey, 2011.

The results presented above suggest that the theory of division of labor holds for Costa Rica, Figure 6 confirms this finding. After the age of 25, the gap of the time dedicated to the labor market started to increase, and at the age of 40, men spend almost the double of the time women spend on the labor market. Regarding the time doing nonmarket production, women spend more than the double the time men dedicate to the type of activities. These results not only confirm the normative division of labor that occurs in Costa Rica, but also impose a challenge for policy makers. If the materialization of the gender dividend is a goal, policy makers should focus on programs that help women incorporating to the labor market with a decrease in the responsibilities women are having at the household. It is important to acknowledge that the survey only interviews families of the Metropolitan Area, if the rural area of Costa Rica is considered, the gap by sex will probably be larger.

Figure 6: Hours spent on the labor market and domestic production, by sex.



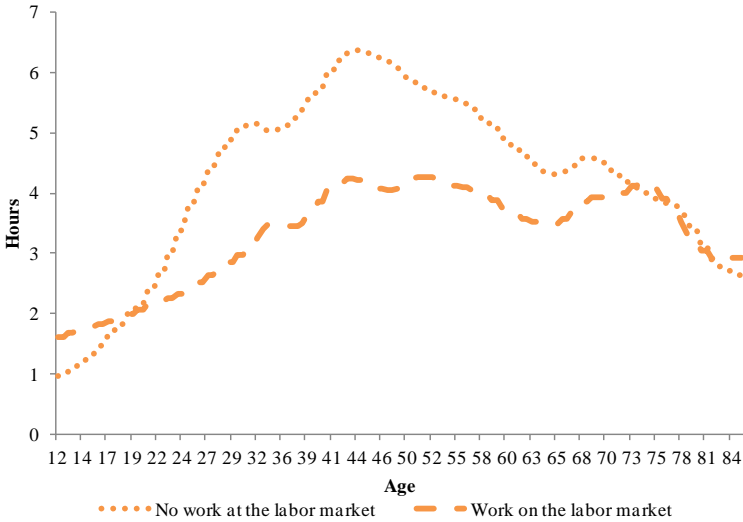
Source: Author’s estimations using the Time Use Survey, 2011.

3.2 Women’s nonmarket production by working status

This section disaggregates the two main categories of home production by working status. There are considerably differences between the production profiles by working

status. Regarding the production of cooking, cleaning, and laundry, the gap increases as women approach the working ages, women that do not work at the labor market produce 1.5 hours more of these activities, than women that do work at the labor market (Figure 7). Probably, families substitute non-remunerated production for goods and services purchased at the market.

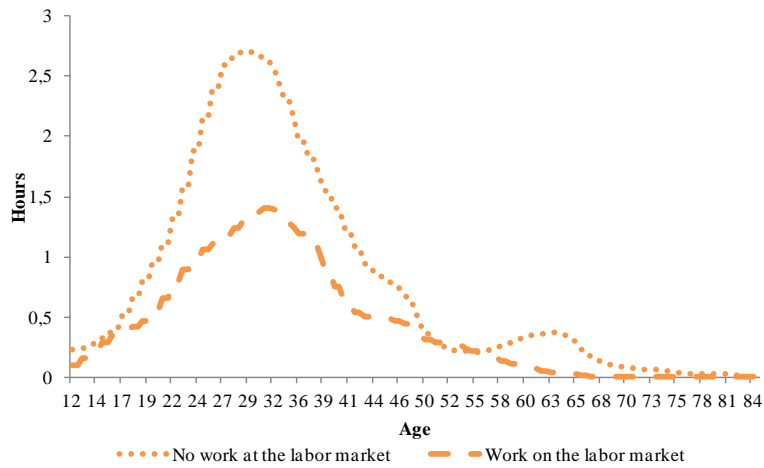
Figure 7: Hours women spent on cooking, cleaning, and laundry, by working status on the labor market.



Source: Author’s estimations using the Time Use Survey, 2011.

Regarding the production of childcare, at the peak of the distribution, those women that work at the labor market dedicate half the time women that does not. Also, the distributions show the delayed of childbearing for women that work at the labor market, which might be explained because these women have a higher opportunity cost of having a child. However, these result might be biased by differences in the Total Fertility Rate. Women with higher educational level have higher fertility levels (Robles & González, 2012).

Figure 8: Hours women spent on childcare, by working status on the labor market.

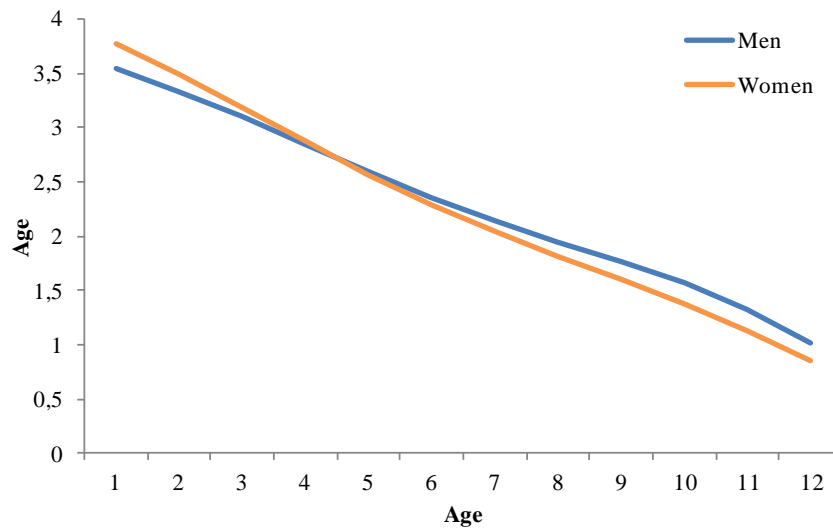


Source: Author's estimations using the Time Use Survey, 2011.

3.3 Consumption of childcare

Most of the nonmarket production does not have an age-target, therefore is assigned equally among the members of the household. Care is the only activity that it is specify in the survey the age-target of the population. However, from all the types of care reported, only the time reported to childcare was significant. Figure 9 presents the consumption of childcare. There is no significant gap by sex, which might be explained by the regression method. The distribution has a negative slope, which means that the demand of childcare decreases with age. The distribution of care represents an unmet demand of childcare that women have to produce, and difficulties their incorporation to the labor market. The amount of hours are the price or opportunity cost of staying at the household.

**Figure 9: Nonmarket childcare consumption.
Unmet demand for childcare**

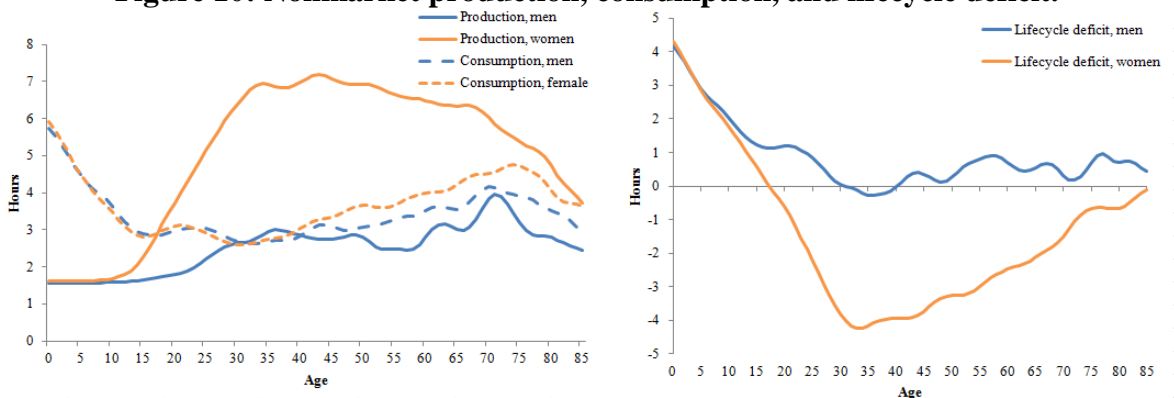


Source: Author's estimations using the Time Use Survey, 2011.

3.4 Household Life Cycle Deficit

This section analyze the total nonmarket production and consumption, and the lifecycle deficit by sex. Both men's and women's have a surplus before age 12, which corresponds mostly to childcare. Once men approach the working ages the surplus is reduced. On the other side, women have a large deficit after the age of 20 and remains negative most of their life, this situation is explained since women are the normative responsibilities for childcare and general activities like cooking, cleaning and laundry.

Figure 10: Nonmarket production, consumption, and lifecycle deficit.



Source: Author's estimations using the Time Use Survey, 2011.

The results presented above confirmed the theory of division of labor holds for the Metropolitan Area in Costa Rica, in which women are normatively the main responsibilities for domestic activities. Little co-responsibility is observed, in other words, men contribute little to these activities. These normative responsibility might be an obstacle for women to incorporate to the labor market, which might reduce the potential opportunities of the gender dividend. However, there are significant differences on the production profiles by working status, which might means that once women entered to the labor market, some goods and services that were produced at the household are being purchased at the market.

The final paper will analyze the results with more detail and it will also include the age-specific transfer profiles. The lifecycle deficit of the goods and services produced and consumed from the market is not included, because the latest household income survey is not available.

BIBLIOGRAPHY

- Becker, G. S. (1965). A Theory of the Allocation of Time. *The economic journal*,75 (299), 493-517.
- Donehower, G. (2014). Incorporating Sex and Time Use into NTA: National Time Transfer Accounts Methodology. Disponible en <http://ntaccounts.org/web/nta/show/Sex%2c%20Time%20use>
- Jiménez-Fontana, P. (2014). *Analysis of Non-Remunerated Production in Costa Rica*. Journal Economics of Aging. In press.
- Martínez-Gómez, C., Miller, T., & Saad, P. (2013). "Participación laboral femenina y bono de género en América Latina." Santiago: CEPAL.
- Rivero, E. & Pederzini, C. (2014). "No todo es tiempo perdido. Cómo pasan las horas los NiNis mexicanos" Coyuntura Demográfica.
- Robles, A. & González, A. (2012). *La fecundidad en Costa Rica: 1992-2010*. In Ministerio de Salud, Visualizando la salud reproductiva y la sexualidad desde diversas perspectivas: un análisis a partir de la Encuesta de salud sexual y reproductiva. San José, Costa Rica: 17-29.
- Rosero-Bixby, L. & Jiménez-Fontana, P. (2012). "Retos y oportunidades del cambio demográfico para la política fiscal". San José: Universidad de Costa Rica.
- Reid, M. Economics of Household Production. Pp. 408. New York: John Wiley and Sons.
- United Nations (2009). *National System of National Accounts 2008*. New York, United States.
- United Nations (2013). *National Transfer Accounts Manual: Measuring and Analyzing the Generational Economy*. New York, United States.