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**Master's Thesis of Public Administration**

**Conditional Cash Transfers Programs and Labor  
Supply in Dominican Republic: Analysis of  
Policy Outcomes in the Context of their  
Governance Structure**

**도미니카 공화국의 조건부 현금 이전 프로그램  
및 인력 공급: 거버넌스 구조상 정책성과 분석**

**February 2023**

**Graduate School of Public Administration  
Seoul National University  
Global Public Administration Major**

**Jean David De Jesus Adon**



**Conditional Cash Transfers Programs and Labor Supply and  
in Dominican Republic: Analysis of Policy Outcomes in the  
Context of their Governance Structure**

**Academic Advisor Lee Sukwon**

**Submitting a master's thesis of Public Administration**

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**Graduate School of Public Administration  
Seoul National University  
Public Management and Public Sector Reforms Major**

**De Jesus Adon, Jean David**

**Confirming the master's thesis written by**

**De Jesus Adon, Jean David**

**December 2022**

Chair            Kwon Illoong (Seal)

Vice Chair    Ko Kilkon (Seal)

Examiner      Lee SukWon (Seal)



## **Abstract**

# **Conditional Cash Transfers Programs and Labor Supply and in Dominican Republic: Analysis of Policy Outcomes in the Context of their Governance Structure**

**Jean David De Jesus Adon**  
**Global Public Administration Major**  
**Graduate School of Public Administration**  
**Seoul National University**

The proposed investigation pretends to be a study about the relationship of Conditional Cash Transfers of the 'Progresando con Solidariad' program in Dominican Republic and determined labor outcomes of participant households during the period 2012-2019 in the context of the National Social Protection Policy, using repeated cross-sectional data and analysis of the Governance Structure. The preliminary results pointed out a negative relationship between the participation in the program and the labor outcome of participants, notwithstanding, using more powerful econometric tools it was determined that the relationship of the program and the labor outcome of participants is not statistically significant, with few exceptions according to demographics groups. The qualitative analysis of the program Governance Structure pointed out that weak program design and ambiguity in goal setting as a possible explanation to the unexpected results.

**Keywords:** Cash Transferences, Employment, Social Protection, Labor Supply, Governance Structure

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# 1 Introduction

Conditional Cash Transfers (CCT) programs, as one of the most innovative strategies to fight Poverty, have become one of the most implemented policies by Government in Developing Countries. In this context, Dominican Republic CCT program, ‘Progresando Con Solidaridad’ is considered as successful example by some international and national authorities due to its highly innovative Governance Structure that decentralizes the policy process in 3 distinct Government Agencies. In the program, the selection of beneficiaries is conducted by a distinct organization, while the application and the transferences of money are down the supervision of other two different agencies respectively.

However, there is few hard evidence with qualitative and quantitative data in how the program is working and achieving its goals, especially regarding its benefits on the labor condition of individuals of participant households. Thus, the present document will help to complement the deficit of information on the topic. This research pretended to provide insights of policy formulation in Dominican Republic and exploratory data about the Conditional Cash Transferences and their relationship with labor supply/outcome of participants, including a deep understanding of the Governance configuration of Conditional Cash Transfers in Dominican Republic in the context of the country’s Social Protection Policies.

This research will be relevant for Dominican Republic policy making, as there are attempts of reform in the Social Protection Policy in the Country. Therefore, deep analysis concerning the mechanism of the policy are necessary. The research is also relevant for policy makers in Social Policy around the world, in a context of fast digitalization where social policies need to be adapted to informal labor, tele-working, automatization of labor, etc. Even more due to the impact of Covid-19 that could accelerate many of these trends.

The main objective in the investigation is to ascertain what is the relationship of CCTs from the Progresando con Solidaridad program with labor outcomes of participants in the context of the implementation of the initiative in its Governance structure and find out how this Governance Structure is boosting – or conditioning – the implementation of the policy, using repeated cross-sectional data and qualitative analysis of the Governance.

## 2 Problem statement

### 2.1 Conditional Cash Transfers programs in Dominican Republic: characterization of the ‘Progresando con Solidaridad’ program

In the Dominican Republic, social safety is provided through a combination of contributing and non-contributory social security systems, labor regulation governing job stability and minimum salaries, and anti-poverty initiatives (Nopo & Barinas, 2021). According to these authors, we can further classify Government Social Protection Policies in Dominican Republic in the ones related to workers activities in the labor market (such as insurances for sickness, disability, longevity, and death; basically, Social Security) and the ones that transfer income to people classified as poor (or in simple worlds, Social Assistance).

The Program “Progresando con Solidaridad” was the policy tool for Cash Transference Programs in Dominican Republic, and the main visible tool for Social Assistance Policy in the country for its scope and goals, during the period 2012-2020 (Lavigne & Hernan Vargas, 2013). It was formally created in 2012 when the fusion of the programs “Solidaridad” and “Progresando”, two distinct social assistance/promotion systems (one administrated by the Presidency and the other one by the First Lady of the nation) that were established in the aftermath of the Dominican bank crisis of 2003. The program granted allowances to the poorest households assigning debit cards to beneficiaries that can be used in selected commercial establishments.

The initial objectives of the program according to decree 536-05 that creates the Program Solidaridad in the context of the Social Protection Network of the Presidency were supplement the diet of households in extreme poverty, fostering the School Attendance and work to decrease school dropout at the basic level, of minors between 6 and 16 years old and promote and facilitate the registration of births and obtaining documentation to Dominicans without identity documents.

In decree 488-12 (that integrated “Progresando” and “Solidaridad” programs), the functions were extended to:

- Realization of home visits to check compliance of conditionalities;
- Developing activities to improve income of participant households;
- Foster education activities to facilitate employment and entrepreneurship of beneficiaries;
- Raise awareness of beneficiary households about available social serviced provided by the Public Sector and Civil Societ;

- Generating and coordinating actions to foster abilities and opportunities for households in extreme poverty and social vulnerability.

The Policy has been regarded as a successful example of Conditional Cash Transfer Program in the Latin American Region due to its configuration, based on 3 distinctive entities in charge of administering each a phase of the program cycle (see Table 1) (Székely, 2019). The organizations that support the program are: 1) “Siuben” in charge of identifying in classifying potential beneficiaries; 2) “Prosoli” in charge of management of beneficiaries and overseeing that conditionalities are met by participant households; and 3) “Adess” that is in charge of a) executing the cash transferences to the participants accounts and b) administrating the network of commercial establishments where the transferred funds can be used. The 3 organizations overseeing a phase of the program are coordinated by the Cabinet of Social Policies that has the goal of advice the president in Social Policies Issues. The three organizations, along with the Social Policy Cabinet (which purpose is to define and coordinate the Government's social policy) are essential to the delivery of the Cash Transfers.

**TABLE 1. ORGANIZATIONS IN THE SOCIAL PROTECTION NETWORK (IN THE PROCESS OF CONDITIONAL CASH TRANSFERENCE DELIVERY)**

<b>Organization</b>	<b>Function</b>
Gabinete de Política Social [Social Policies Cabinet] - Gabinete de Coordinación de Políticas Sociales [Coordination Policies of Social Cabinet]	The purpose of the Cabinet for the Coordination of Social Policy is to define and coordinate the Government's social policy; articulate the objectives and coordinate the actions of social programs, eliminating the dispersion and overlapping of functions
Sistema Unico de Beneficiarios (SIUBEN) [Unique Beneficiaries System]	Categorization and identification of households' social conditions
Administración de Subsidios Sociales (ADESS) [Social Subsidies Administration]	Administration of the Subsidy Card and Subsidy Transferences to households
Programa Progresando con Solidaridad (Prosoli) [Progresando con Solidaridad Program] (the actual Conditional Cash Transfers program)	Accompaniment of households and checking conditionalities Foster initiatives to increase income of beneficiary households and link them to actions of social promotion

Source: own elaboration based on Red de Protección Social. <https://gabinetesocial.gob.do/el-gabinete-social/red-de-proteccion-social/> [in Spanish] and in the legal framework

As to what refers to Progresando con Solidaridad program, it was composed primarily of 5 components listed in Table 2: three Conditional cash transfers and two social subsidies (unconditional cash transfers). These cash transfers are accompanied by socio-educational accompaniment to beneficiary families to foster better results. School and job training no compulsory opportunities are offered to household adult members, especially when they are out of the work force.

After 2012 when the program was modified, the Dominican Republic experienced an important reduction in poverty levels, after years of stagnation in poverty indicators produced by 2003 crisis. Interestingly, the relative slow-paced poverty reduction before 2012 gained attention not only from Dominican citizens but also International Organisms interested in the systemic constraints that impeded the national economy to improve the quality of life of most Dominicans (Carneiro & Sirtaine, 2017) (The World Bank, 2014). After 2012, rapid economic growth, low inflation and external favorable conditions permitted Dominicans to increase considerably real wages, but it is still in doubt if the structural deficiencies of the Dominican model have been surpassed.

**TABLE 2. SOCIAL TRANSFERENCES IN DOMINICAN REPUBLIC**

<b>Conditional Transferences</b>	<b>Goal</b>
Comer es Primero (CEP) [Eating is first]	Improving diet of poorest households by providing a small but constant source of complementary income.
Incentivo a la Asistencia Escolar (ILAE) [Incentive to School Assistance]	Boost School Assistance in Primary School
Bono Escolar Estudiando Progreso (BEEP) [School Grant 'Studying and Progress']	Decrease school dropouts during High School
<b>Subsidies</b>	
Bono Gas [Gas-Bonus]	Grants money to pay for cooking combustible, propane gas (there is a version for drivers syndicalists); the intention is disincentive cooking with biomass combustibles that contribute to deforestation.
Bono Luz (Electricity-Bonus)	Help families to pay for electricity in the condition of creating a contract with the Distributive Enterprises.

Source: Own Elaboration

Add to the transferences and the visits by volunteers working with the program, the numerous side services and projects offered by the program that cover from community gardens for food production to fashion brands to promote works done by the beneficiaries (Székely, 2019). Between these extra services we can find the training component of the program, that is offered to beneficiary families, but it is not compulsive.

Finally, in addition to these transferences, in 2013 Lavigne and Hernan identified other 5 cash transfers programs by the Dominican Government counted with other subsidies (Conditional or not), administrated by other public organizations, although some of them shared the structure of the transferences offered by Prosoli (as the same debit card for the transferences). In most circumstances, other subsidies, even the ones sharing resources with Prosoli, in the practice were not under the jurisdiction of any of the 3 institutions delivering the transferences of Prosoli program, thus we cannot include them in the analysis of the policy implementation, but they should be included in the institutional framework.

## **2.2 Background: origin and evolution of the program from 2000 to 2012**

As stated before, the antecedents of the Cash Transferences programs in Dominican Republic and the institutional actors that are part of its governance network can be traced back to the period of 2003-2004, when poverty in Dominican Republic skyrocketed due to the consequences of the economic crisis originated in the financial sector. The crisis resulted in increased inflation, a deteriorated interchange rate, and an important increase in unemployment. All this elevated substantially poverty levels; according to data from the World Bank, the Poverty headcount ratio at \$5.50 a day (2011 PPP) soared from 30.2 % in 2002 to 45.0 % in 2004. This reflects the dramatic situation in where current social assistance policies of Dominican Republic were originated.

Before the 2000-2004 administration, Social Assistance Policies in the country were delivered almost exclusively through a serial of community programs, oriented to improve lives collectively in neighborhoods, or as specific interventions oriented to provide direct services or goods to households in poverty (as for instance, improving living places, giving general subsidies, etc.)<sup>1</sup>. In addition to this situation, during the second half of the XX century and early 2000's, social policy in the country was associated with clientelism, inefficiency and populism especially during the administrations of Joaquin Balaguer, who installed the tradition of giving free bags of food (or money) to people during holidays (Canate Alonso & Dotel, 2007). Thus, the introduction of Cash Transfer Programs – that are more focalized and institutional

---

<sup>1</sup> See Decree 1554-04 articles 6-7 to see a list of organizations dedicated to social assistance policies in the country created during the XIX century and the first years of the 2000s [in Spanish].



– in the Dominican Republic social policy was an interesting contrast with how social assistance was typically administrated in the country.

This Social Assistance works were also very scattered as a big number of public organizations have their own assistance programs, but at the same time, they were excessively associated to the president and were not very institutionalized. For 2002 it was estimated that the Dominican Government had registered 42 different programs of social assistance, some of them created by decree, other generated informally through budget items, and some of them associated directly to the budget account of the Presidency without clear distinctions of who was using the money – or for what – (Canate Alonso & Dotel, 2007). The Social Assistance Policies were probably at that moment one of the biggest expressions of poor institutionalism in the Dominican State and the Dominican Public Administration System.

Due to the 2003 crisis, the Public Sector was forced to find more efficient ways to delivery public policy, in part helped by International Organism, and in consequence, there was a re-structuration of the Social Assistance Policies. In order to offset the negatives effects of the economic downturn, the incumbent Government at that time initiated various programs directed to alleviate poverty conditions of the less fortunate population, this times more focalized, such as the “Comer es Primero” program, that consisted in a monetary transfer to families in situation of high food insecurity rather than general subsidies.

After winning the elections of 2004, Leonel Fernandez created a set of Cabinets, including a Social Policy Cabinet with the Decree 1082-04 in September of the same year. The Cabinets were created to guarantee and to increase government coordination, and to foster efficiency in the public sector. Specifically, Cabinets had to coordinate the process of formulation, execution and evaluation of public policies linked to the institutions that comprise it, but in reality, competences were not transferred (this means, every institution retained competence on its policy sphere, and budgets remained separated). The Social Cabinet was comprised by 27 ministries, programs and secretaries, and the Vice President of the Republic at that Moment was assigned as the coordinator of it.

After the decree of 2004, Leonel Fernandez’s administration continued to work in organizing how Social Policies would work during his next two mandates. In Table 3 we find a summary of the main legal documents surrounding social assistance program in the country during the first months of the administration and as we can see, most of them were created by decree. The urgent situation generated by the 2003 crisis – and also the lack of Congress Support<sup>2</sup> – probably influenced the relative institutional

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<sup>2</sup> Congressional and Presidential elections were separated in Dominican Republic; when president Leonel Fernandez took power in august of 2004 the contrary parties had majority in both Congress Chambers\*

informality of this set of changes as most of them were issued by decree (rather than by law) and assigned directly to the presidential office (rather than a Ministry). However, as we saw, lack of proper regulatory frameworks was the custom in the social protection/social assistance sector.

**TABLE 3. LEGAL ENACTMENTS RELATED TO THE REORGANIZATION OF THE SOCIAL ASSISTANCE REFORM FROM 2004 TO 2007**

Decree	Date	Goal
1082-04 (Modified by Decree 1251-04)		Creates Governments Cabinets, Including the Social Policy Cabinet
1073-04	2004-08-31	Declares of importance crating the Unified System of Beneficiaries
1554-04	2004-12-03	Creates the Presidency's Social Protection Program
1560-04	2004-12-16	Creates the Administration of Social Subsidies
536-05		Creates the Solidaridad Program, antecedent of the current Progresando con Solidaridad program, main Cash Transference Program in Dominican Republic
426-07	2007-08-18	Creates the Unified System of Beneficiaries

Source: Own elaboration

We can also mention that these changes in the Government Assistance Policy were implemented in parallel to the reform of the Social Security Sector initiated in 2001 as one of the several reforms aimed to modernize and to open the Dominican economy. The Social Security reform was aimed to install an Individual Capitalization System for pensions and other labor benefits, a structure considered by some groups in the country as little solidary, thus it is not difficult to imagine why Social Assistance elements were not discussed together with it. As consequence of this divorce, Social Assistance Policies not only were installed on a weaker legal framework than the ones in the National Social Security, but they also were isolated respect to Social Security Policies in the country as they do not share the same Governance Network, neither institutional framework; actually, it is difficult to assess whether the Reforms in the Social Assistance policies of the Dominican Republic would have been upgraded as they did without the 2003 crisis and the support of International Organisms of Cooperation (Canate Alonso & Dotel, 2007).

After the last decrees, the programs expanded, hence, increasing the number of families beneficiaries. By the end of 2012 almost 700,000 households were receiving the component for Nutrition Security, and other

250,000 were receiving the Education Promotion component<sup>3</sup>. As the Prosoli program was being developed and extended, the First Lady of the Nation during Fernandez administration, Margarita Cedeno, initiated by herself a group of social assistance policies and social promotion policies aimed to improve quality of life of the poorest population – with budget provided by the Central Government –. Between these initiatives we can highlight ‘Progresando’ Training and Production Centers that were centers for training ubicated in vulnerable areas (Observatorio de Politicas Sociales y Desarrollo [Social and Development Policies Observatory], 2018). As we are going to see, these initiatives were later integrated with the Solidaridad program.

### **2.3 Consolidation of the Program after 2012**

After being elected in 2012, newly appointed authorities merged the programs ‘Solidaridad’ and ‘Progresando’, setting the new objectives already mentioned. Margarita Cedeno, the new vice president – and former first lady –, was administering ‘Progresando’ initiatives and after merging said intervention with ‘Solidaridad’ program, she was appointed as the Coordinator of the Social Cabinet of Social Policies, thus she was put in charge of overseeing the whole social policy sector of the Government, including the Progresando and Solidaridad programs.

Once the Solidaridad and Progresando programs were merged in 2012, policy’s ambitions were extended to include the presented objectives that we already mentioned in sub-chapter 2.1. In simple words, the reform established that the program, in addition of supporting families in the short-term by providing cash transferences expecting benefits in the long term – as it was intended originally –, was also intended to foster employability of beneficiaries to improve their socio-economic conditions. Other works, projects, and initiatives that the Vice-President at that moment generated as first lady also were placed in the boson of the Prosoli Program and the Social Protection Network in charge of it<sup>4</sup>.

Despite the new changes in structure and scope, the Conditional Cash Transference program components and subsidies did not change dramatically, and as we can see in Table 4, there was not change in trends in terms of households added. And in Figure 1 we can observe the budgeted trends that also show low variation in structure and size.

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<sup>3</sup> Statistical Bulletin vol. 6, Program Progresando con Solidaridad

<sup>4</sup> We might highlight Los Centros Tecnicos Comunitarios [Community Technology Centers], transferred trough decree 489-12<sup>4</sup>. They were previously transferred to the First Lady Office trough decree 1538-04.

**TABLE 4. NUMBER OF BENEFICIARIES HOUSEHOLDS IN THE PROGRESANDO CON SOLIDARIDAD PROGRAM COMPONENTS (PRELIMINARY NUMBERS, IN DECEMBER OF EACH YEAR<sup>NOTE</sup>)**

	2013	2014	2015	2016*	2017	2018***	2019**	2020**
<b>Comer es Primero (CEP) [Eating is first]</b>	668,287	724,286	733,019	752,994	828,822	823,598	789,081	863,281
<b>Incentivo a la Asistencia Escolar (ILAE) [Incentive to School Attending]</b>	265,592	188,269	212,318	211,955	220,643	235,981	112,751	85,615
					**			
<b>Bono Escolar Estudiante Progreso (BEEP) [School Grant 'Studying and Progress']</b>	45,650	85,973	100,104	105,288	118,047	115,774	182,152	148,727
					**			
<b>Bono Gas [Gas-Bonus]</b>	853,352	870,176	874,521	897,054	957,061	949,631	920,379	927,819
<b>Bono Luz (Electricity-Bonus)</b>	508,712	461,937	452,694	460,747	448,363	446,456	432,716	442,787

Source: Own Elaboration based on Statistics Bulletin of Progresando con Solidaridad

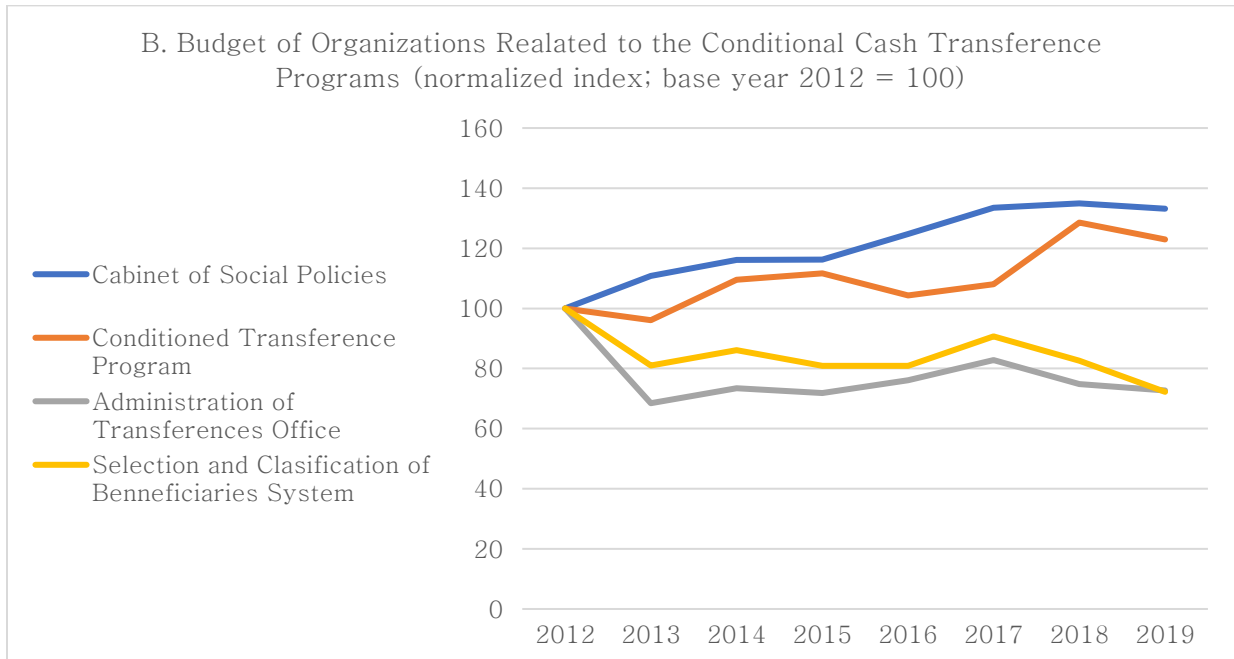
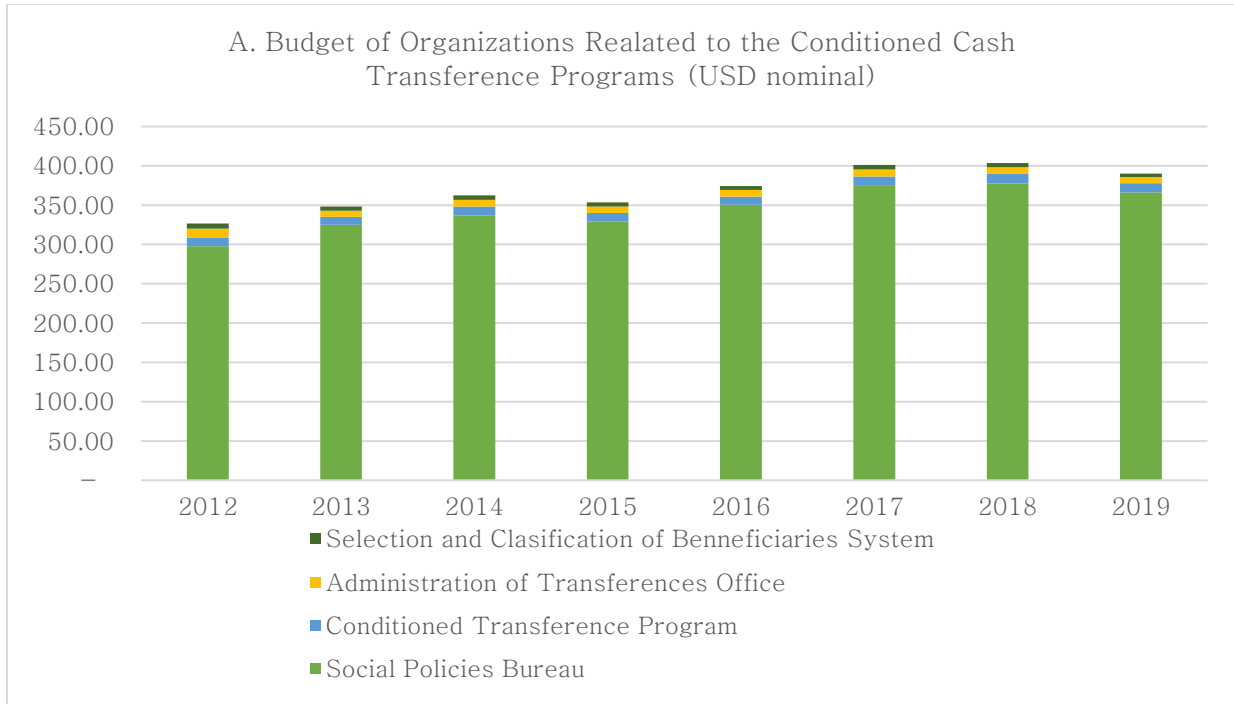
Note: Some years data correspond to a different cut due to missing values

\* Data corresponding of the month of March of that year

\*\* Data corresponding of the month of October of that year

\*\*\* Data corresponding of the month of August of that year

**FIGURE 1 (A & B). BUDGET TRENDS OF ORGANIZATION RELATED TO THE PROGRESANDO CON SOLIDARIDAD PROGRAM**

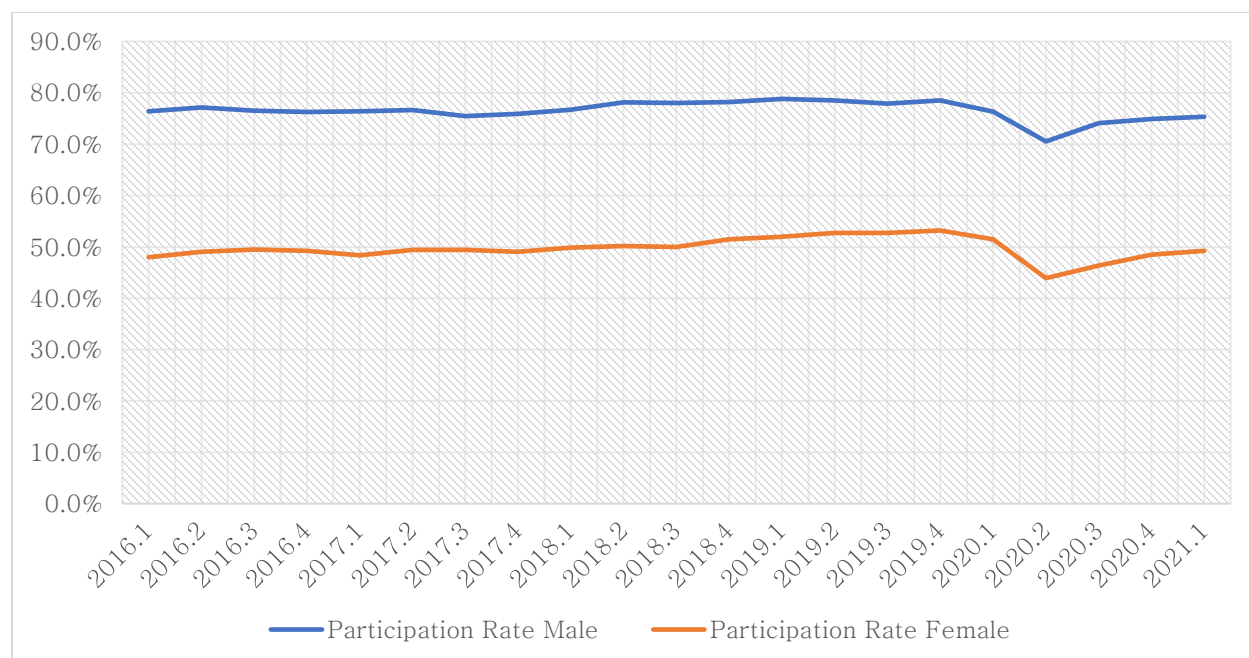


Source: own elaboration in based of statistics of the Direccion General de Presupuesto de la Republica Dominicana [Dominican Republic General Direction of Budget], and Dominican Republic Central Bank 2021

## 2.4 Policy outputs in the context of the Dominican Republic Labor Market

The data base of the Dominican Republic Central Bank Labor Survey estimates a population of 10.5 million people for the country by the first trimester of 2021; these numbers are close to the population projections of the Dominican Republic's National Statistics Office. During this period, the rate of labor participation among the total population rounded 61.2 %, although the participation rate of women was remarkably lower than men during that period, as it can be seen in Figure 2. In the graph it can also be seen that there were very few variations along the years in the participation rate of the population, with the exception of the second trimester of the 2020, when there was a big a notable reduction, probably due to the effects of the sanitary crisis associate to the Covid-19 outbreak.

**FIGURE 2. PARTICIPATION RATE BY GENDER, FIRST TRIMESTER 2016 TO FIRST TRIMESTER 2021**

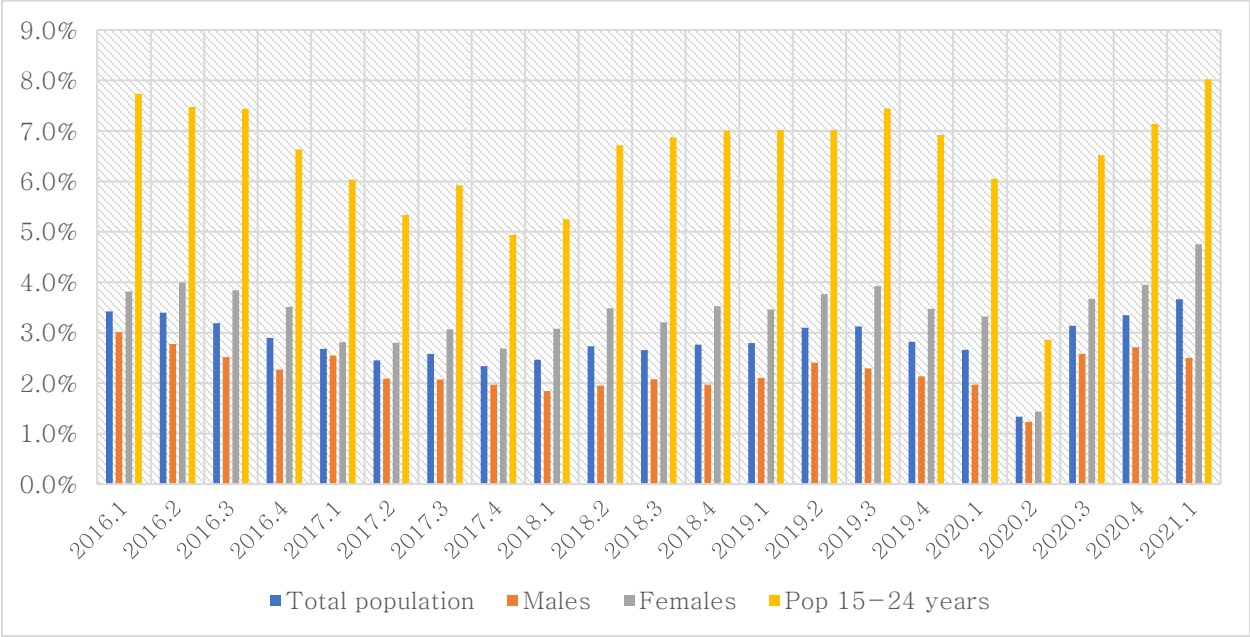


**Source: Own elaboration based on the Labor Force Survey of the Dominican Republic's Central Bank, 2022**

In addition to these trends, we can observe in the same Figure 3 how unemployment affected disproportionately young people and women, and how this was worsened by the pandemic: the female population and young people aged between 15 and 14 years old evidenced higher levels of unemployment than adult men older than 25 years old, two times and 3 times higher respectively by the first quarter of 2021. These reveals the huge gaps of opportunities that affect vulnerable population by gender and age in

the Dominican Republic, and those are part of the problem that a cohesive policy in labor opportunities should take into consideration.

**FIGURE 3. UNEMPLOYMENT RATES, BY TRIMESTER 2016-2021(FIRST TRIMESTER), BY DEMOGRAPHIC CHARACTERISTICS**



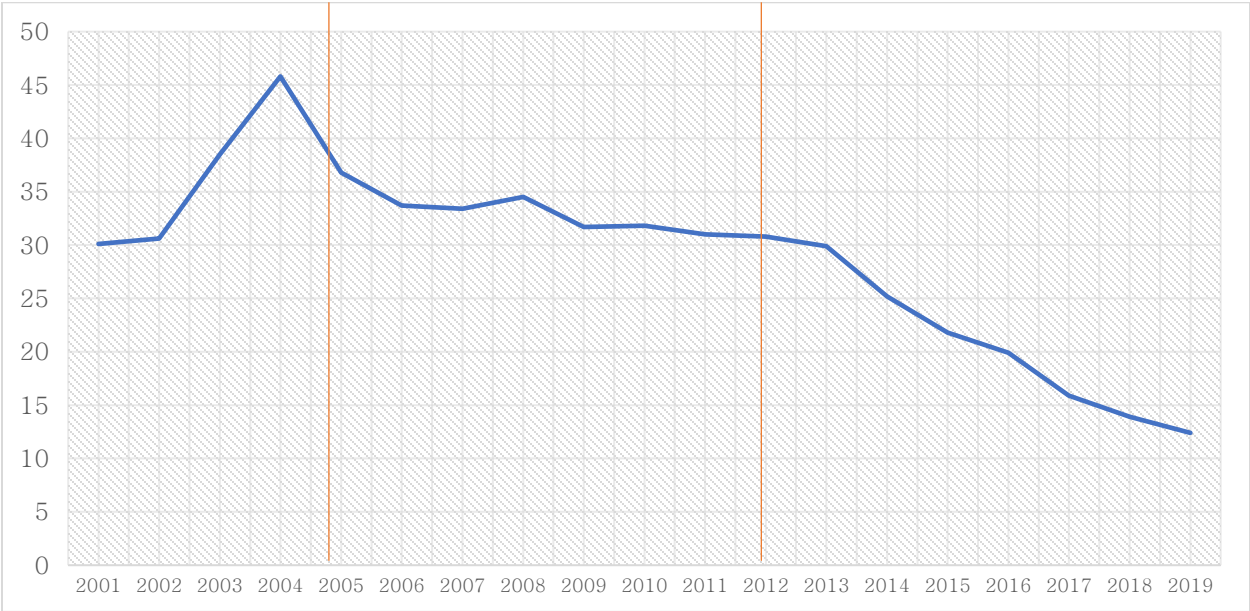
Source: Own elaboration based on the Labor Force Survey of the Dominican Republic’s Central Bank, 2022

Employment rates evidenced, interestingly, a different pattern to labor participation indicators. As it was observed in Figure 3, unemployment rates for the whole population were ubicated between 2 and 4 % during the studied period, except in the second trimester of 2020. If we compare with the data of labor participation, it is observed than during this period there was a contraction in the amount of people available in the labor market. Given the Dominican definition of unemployment (that is very rigid) we could argue that the reduction on the unemployment was given by technicalities rather than an expansion of the labor demand as in Dominican Republic a person should be looking for job actively to be considered as participating in the labor market and being unemployed. In reality, economic activity was very slow during that period due to the quarantine and lockdown measures in the country; as people were not looking for employment, they were not considered inside the labor force, thus, technically they could not be defined as unemployed. As it can be seen in the graphic, unemployment levels rose after the lockdown phase in the third and fourth quarter of that year. These evidence why official unemployment rates sometimes do not reflect market conditions.

**Labor trends and poverty rates in Dominican Republic between 2012 and 2019**

During the following 7 year after the merge of Progresando and Solidaridad, and before the Covid-19 crisis, Dominican Republic experienced an important reduction in poverty levels, as we can see in Figure 4. Interestingly, the relative slow-paced poverty reduction just after the domestic financial crisis gained attention not only from Dominican citizens but also International Organisms interested in the systemic constraints that impeded the national economy to improve the quality of life of most Dominicans (Carneiro & Sirtaine, 2017) (The World Bank, 2014). After 2012, rapid economic growth, low inflation and external favorable conditions permitted Dominicans to increase considerably real wages, but it is still in doubt if the structural deficiencies of the Dominican model have been surpassed.

**FIGURE 4. POVERTY HEADCOUNT RATIO AT \$5.50 A DAY (2011 PPP) (% OF POPULATION), DOMINICAN REPUBLIC 2000-2019**



**Source: Own elaboration based on data of the World Bank, 2021**

At the same time, it calls attention the important reduction in poverty contrasting with expansion of the Conditional Cash Transfer Programs during the same period. This arises questions: if poverty was being reduced, why social programs, especially Conditional Cash Transfers did not reduce the number of beneficiaries, but instead, maintained them, or inclusive, increased their coverage to most people. At the same time, some critics have pointed out that non contributive social protection policies in the country are subsidizing informal labor, thus affecting the capabilities of poverty reduction programs to work properly to lift people out of poverty (Nopo & Barinas, 2021).



One of the possible explanations to that phenomenon given by emerging literature is the hypothesis that CCTs could have been fostering dependency in transfers in beneficiary households by fostering harmful incentives to sub-employment and informality (to avoid get out of the program, etc.). This argument goes in hand with the assumptions provided by some experts that the whole Dominican Social Protection System promotes informality by making attractive not working in the formal sector (Lavigne & Hernan Vargas, 2013).

In resume, labor conditions in Dominican Republic were relatively good before the pandemic, but the measures taken to tackle the pandemic affected the economic and, by spillover, the labor market. If compare the unemployment by sub-groups we can see that women and young people were the most affected by the impact of the 2020 crisis, and despite recuperation in the participation rates, by the first trimester of 2021 unemployment levels were increasing, especially among vulnerable groups.

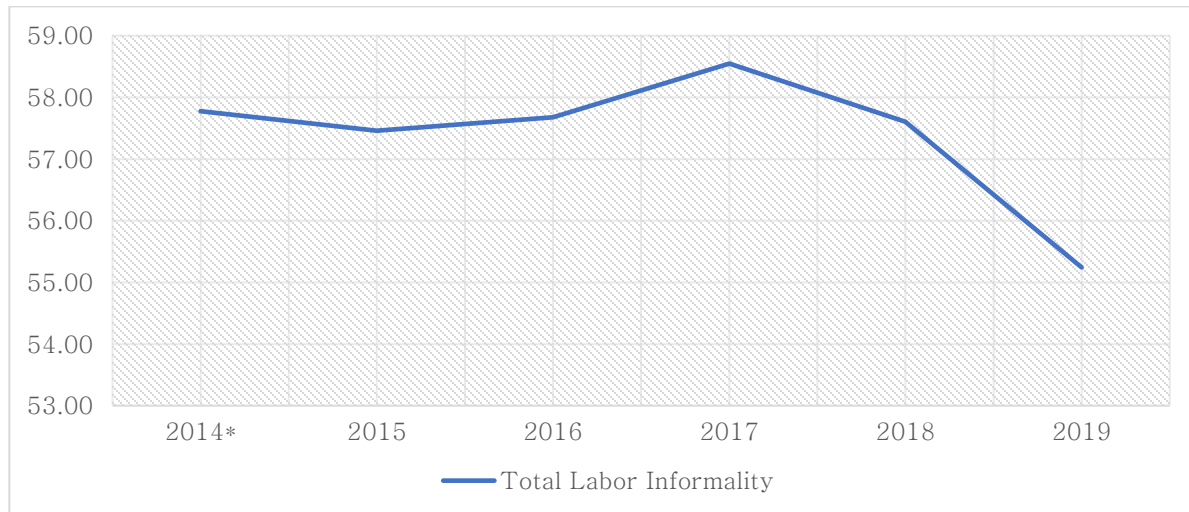
Labor Informality is another huge issue in Dominican Republic, as around 57.3 % of the total employment is working in the informal sector<sup>5</sup>. Informality in the country is characterized for lower levels of productivity and poorer conditions for workers (Observatorio de Políticas Sociales y Desarrollo [Social and Development Policies Observatory], 2018). In Figure 5 we can see the incidence of informality in the total workforce of the country from 2014 to 2019. Despite the increased coverage of Social Programs such as the Conditional Cash Transfers and Rapid Economic Growth, Informality during the period was worsening for the most part.

Labor informality in Dominican Republic is concentrated in urban areas, although the incidence is higher in the rural area. People with low education attainment and males tend to be a major part of the population working in the informal sector (Observatorio de Políticas Sociales y Desarrollo [Social and Development Policies Observatory], 2018). Although there are hypotheses of how social protection policies in the country are fostering informality, it has not been identified whether Conditional Cash Transfers are interacting with this issue, and how the implementation of the policy and the Government agencies in charge could be conditioning those results.

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<sup>5</sup> Mean of total labor informality during the period 2005 to 2019 as defined by the Dominican Republic Central Bank. Own calculation based on data by the Dominican Republic Central Bank.

**FIGURE 5. TOTAL LABOR INFORMALITY AS PERCENTAGE OF THE TOTAL EMPLOYED POPULATION, DOMINICAN REPUBLIC 2014-2019**



**Source: Own Elaboration in based on data by the Dominican Republic Central Bank, 2021**

In resume this observed trends in the number of beneficiary households and in the evolution of the labor market open many questions, mainly: how the program is Interacting with National Labor Output of the individuals in beneficiary families? And how the institutional framework is contributing to the interactions founded between the labor market and the program? What can we do to boost expected positive results of the national policy in this regard?

## 3 Literature review

In the literature there is a huge amount of research about how Conditional Cash Transfers might affect households' labor conditions, and thus their ability to generate stable income. According to Asfaw and Davis (2018), the underlying idea behind Conditional Cash Transfers is that by providing a steady source of income, this policy mechanism could enhance household living conditions, facilitating accumulation of human capital and productive assets as it minimizes the liquidity constraints of beneficiary households. However, there exist concerns about potential harmful secondary effects of the policy on the labor preferences of beneficiaries that could undermine the role this policy instrument can play as part of social protection schemes. Thus, it is important to understand this kind of intervention in the theoretical and evidence research context to check if the instruments are reaching the accorded goal in at what social cost.

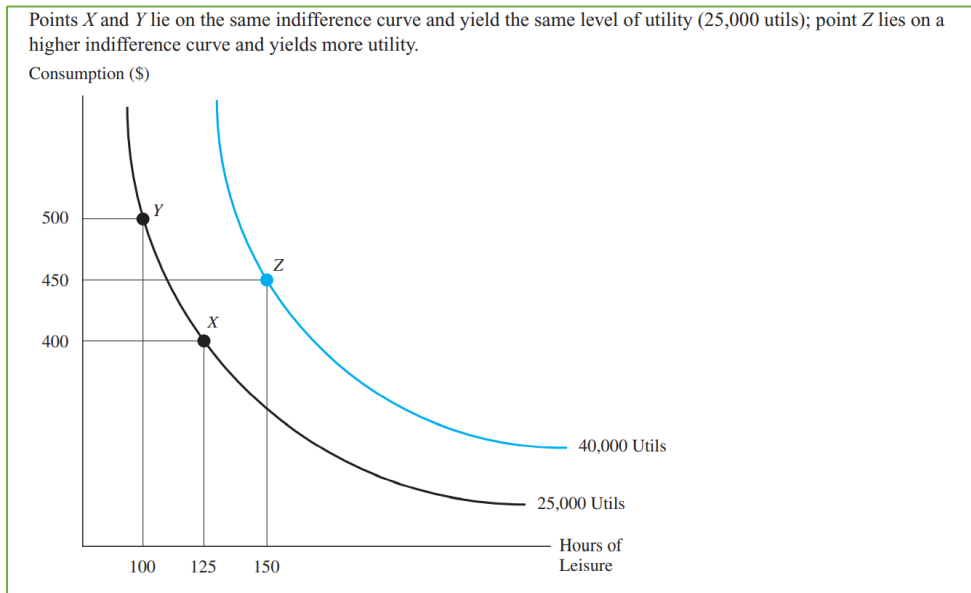
### 3.1 Determinants of Labor Supply: neoclassical model of labor supply

When studying the labor market, the most frequented approach is the neo-classical model of labor-leisure choice (Borjas, 2013). This model assumes that individuals are constantly choosing their optimal hours for work-leisure and earnings in an explicit economic trade-off: not working allows to consume a lot of leisure time but that forces people to forego consumption of goods and services. However, more hours of work allow people to enjoy more goods and services but at the cost of less leisure time. This is the basic block defining the idea in the core of most economic analysis of labor supply at the individual and aggregate levels.

The idea that individuals get satisfaction from consuming goods ( $C$ ) and leisure ( $L$ ) can be summarized in a utility function:  $U = f(C, L)$ . This Utility Function, at the same time, can be expressed in an Indifference Curve as we can see in the Figure 6. Indifference curves are downward sloping, meaning that it is assumed that individuals prefer more of both  $C$  and  $L$  as we move to the right of the graph. Also, higher indifference curves indicate higher levels of utility.

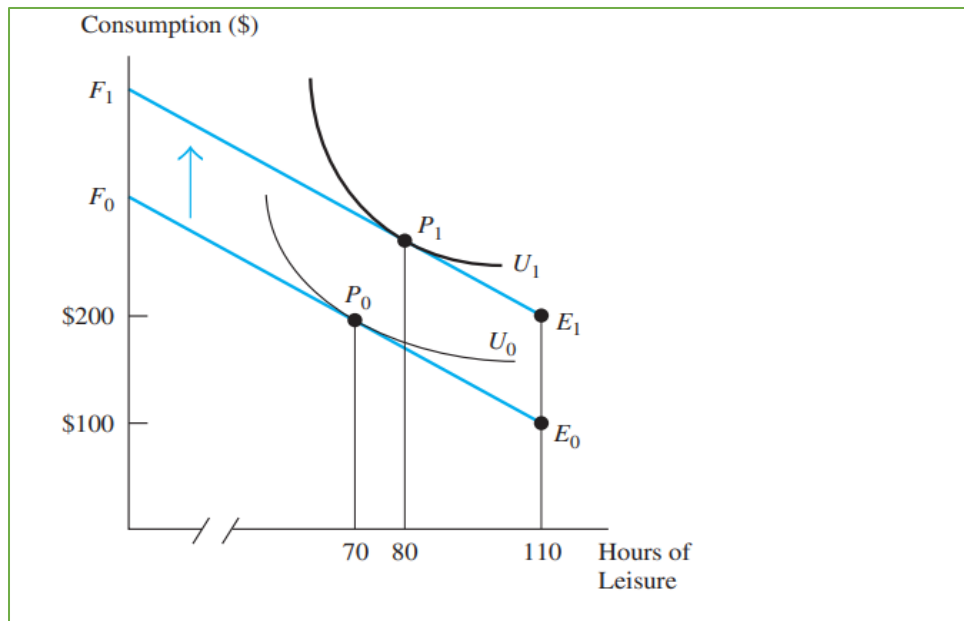
Indifference Curves can reflect preferences among individuals (Borjas, 2013). This is expressed in the slope of the curve. A relatively steep curve indicates bigger preferences for leisure time, while relatively flat curves indicate lower valuation of the leisure time. In addition to individual likings, people's preferences in consumption of goods and leisure are constrained by time and income. The Budget Line works as the Boundary of the Worker's Opportunity Set.

**FIGURE 6. REPRESENTATION OF TWO INDIFFERENCE CURVES OF WORK-LEISURE**



Source: extracted from Borjas, G (2013), *Labor Economics*

**FIGURE 7. THE EFFECTS OF A CHANGE OF NON-LABOR INCOME ON HOURS OF WORK (INCOME EFFECT)**



Source: extracted from Borjas, G (2013), *Labor Economics*

Although the wage rate has the central role in the labor supply decision, a person's working time is also affected by the person's budget constraint that can be written as  $C = wh + V$ , where  $h$  represents the total of hours the person will allocate to the labor market during the period and  $w$  be the hourly wage rate.  $V$  is equivalent to non-labor income; hence, we can interpret that the Budget Constraint "C" be affected not only by the salary but also but external sources of income. This can be observed in Figure 7, as a change in non-labor income moves the Budget Line upwards, allowing the individual to enjoy an Indifference Curve with higher Utility while reducing the total amount of worked hours.

In the theory it is assumed that leisure time is not an inferior good, thus given the opportunity people will always react this way: reducing the total hours worked, when facing situation when the Indifference Curve is raised to a superior level as when there is an increase of income (Borjas, 2013). In the literature, the impact of the change in nonlabor income (holding wages constant) on the number of hours worked is called an Income Effect.

So, in resume, for this model the work output of an individual will be determined by endogenous reasons as preferences and utilities, and exogenous reasons as disponible non-labor income and salary rate. However, this interpretation, although the most common, is not taking into account the possibility that people could not prefer leisure under certain conditions.

## **3.2 Conditional Cash Transferences effects and Labor Supply**

Given the presented theory, the logical conclusion about what would be the effect of Conditional Cash Transfers is already established. Notwithstanding, from theory to reality there can be differences, thus it is important to understand the literature associated directly with Conditional Cash Transfers and labor supply, rather than restrict the arguments to conventional labor economic theory.

### **3.2.1 Cash transferences as social-policy devices**

Conditional Cash Transferences are a type of government subsidy typically provided to the poorest households as a complementary source of income. It is important to understand that Modern Cash Transferences can be classified according to three proprieties: duration, conditionality, and target (Alexander, 2021), and that Conditional Cash Transfers programs are only an example of the ways these initiatives can be implemented. Other common 'types' of Cash Transference program are Unconditional Cash Transfers programs and Universal Basic Income programs, both being characterized by being unconditional, rather than conditional.

Although it is difficult to find a theoretical framework for Conditioned Cash Transfer (since much of the research in the topic is based on empirical generation of evidence, rather than theoretical implications), we can cite Milton Friedman thesis of a ‘negative income tax’ (popularized in his book *Capitalism and Freedom*, published in 1962), as a close alternative. Friedman thought a negative income tax would alleviate poverty but also that it would simplify social assistance systems (making them easier and cheaper to administrate). He also believed that direct cash transferences are more effective than subsidies in kind since families are more capable of allocating resources for themselves than an external Government Agency (Alexander, 2021).

The idea of Cash Transfers as a policy program lost popularity in the United States due to: 1) mixed results of the policy applied according to the framework (Linke, 2018), and 2) opposition from political sectors that did not appreciate the idea of ‘giving free money’ to ostracized groups (such as racial minorities or unemployed young people) (Alexander, 2021). In resume the main concern with Cash Transfers was the possibility that the benefits could disincentive work as a numerous authors provided evidence that led to that conclusion although later additional research put in doubt the veracity of that initial evaluations (Meyer, 2002).

### **3.2.2 Emergence of Conditional Cash Transfers**

Eventually, some Latin American countries would develop a concept close to the United States experience with Cash Transference during the late 90s, with the main difference of applying conditions to the transferences in order to shape behavior in the communities. This time, the programs proposed were characterized by being focalized, conditioned to some actions by beneficiaries and undetermined in duration, and theoretically, anchored in Economic Development concepts such as the Human Capital Theory and the Capability Approach (Dallorso, 2013). The imposed conditions include young children's scheduled appointments to healthcare providers, as well as school enrollment and regular school attendance for school-age children. In modern Conditional Cash Transfers Programs, Social marketing can be used to incentivize investment in diet, health, and education. This constituted a revolution as most programs inside and outside Latin America were characterized by lack of conditions given to the beneficiaries (Molina Milla, Teresa et al., 2019).

Conditional Cash Transfers programs became popular in Latin America due to these countries lacking Social Protection Structures to reach most of their population, a natural situation given the high levels of unreported work (informal labor) in the region (Stampini & Tornarolli, 2012). At the difference of the experience of United States of America with Unconditional Cash Transfers proposals, Conditional

programs in Latin America were not viewed only as a quick way to simplify bureaucratic work; rather, the policies were aimed to break the poverty cycle by connecting rewards to compliance with co-responsibilities, linked conceptually to the Human Capabilities Approach and the human Capital theory (Stampini & Tornarolli, 2012). Other important characteristics of the Conditional Cash Transfers were that: (1) mothers received the money (as women tend to concentrate more income in activities that benefit children); and (2), the programs included comprehensive assessments systems that permitted monitoring and evaluation of the policy.

The theoretical framework provided by the Human Capital theory increased the scope of goals pursued by Cash Transferences policies. In consequence, the underlying premise of the policies was changed from only focusing on alleviating short-term poverty to also address the low investments in children's human capital caused by income constraints and cognitive biases against education in poorest households (Contreras Suarez & Cameron, 2016). In synthesis, Conditional Cash Transfers programs became to be seen as tools to foster resilience in poorest households and breaking the cycle of intergenerational poverty, in addition to alleviating short term poverty and generating economic conditions to increase human and physical capital (Baird, Sarah et al., 2016).

The empirical evidence about the short-term results of the programs has been promising, so far. A meta-study presented by the World Bank summarized that, in general, Conditioned Cash Transfers programs have “been well targeted to poor households, have raised consumption levels, and have reduced poverty—by a substantial amount in some countries” (Fiszbein & Schady, 2009, p. 6). The report contends that Conditioned Cash Transfers programs have been a successful redistribution tool, while also acknowledging that no program, no matter how well-designed or administered, can meet all of the demands of a complete social safety system.

### **3.2.3 Cash Transfers Programs relationship with labor output of beneficiary households**

There is substantial evidence that Conditioned Cash Transfers programs have been successful, at least in the short-term (Fiszbein & Schady, 2009) (Premand & Stoeffler, 2020), (Baird, Sarah et al., 2016) (Contreras Suarez & Cameron, 2016). However, long term impacts are still not widely demonstrated. When programs finalize their life cycle, sometimes the expected long-term benefits that were hoped to be observed cannot be confirmed (Ozler, 2017). This raises questions about the sustainability of the programs, as we can assume that the Conditional Cash Transfers are not appropriately being designed to foster independence from the flows of cash.

Originally, critics of Conditional Cash programs cited the possibility of reductions in the labor market participation of adults due to incentives to appear poor enough to be eligible for cash benefits or simple to

enjoy more leisure time at the same level of income; this would have generated reliance on the subsidies in the long run. This is the so-called income effect. The income effect is produced when due to changes in nonlabor income (holding wages constant) on the number of hours worked by a person. As already presented, the orthodox economic theory of Labor Supply predicts a negative impact of increases of non-labor income in the working time of individuals.

This has not been demonstrated in evaluation studies, and when it happens the effects are considered as negligible, consequently the benefits normally offset the risks (Fiszbein & Schady, 2009). However, most studies agree that Conditioned Cash Transfers beneficiaries often remain highly vulnerable during and after the programs course of action: their endowments of physical and human capital remain scarce, and their labor market outcomes are mostly informal (Stampini & Tornarolli, 2012). This situation has raised questions about other possible ways that Conditioned Cash Transfers programs could have been generating dependence links in beneficiary households.

Authors such as Ribas P. and Veras Soares (2011) and De Braw et al. (2015) have cited that a possible undesired consequence of Conditioned Cash Transfers programs could be fostering labor informality and reduction of working hours in beneficiary households, as some families might prefer to avoid increases in income that could make them ineligible for the program. This could generate over dependence on CCT income flows, hindering permanent transitions out of poverty in the long term, even increasing the probability of high risk decisions by beneficiary households (Asfaw & Davis, 2018) (ECLAC/ILO, 2014).

Since Conditioned Cash Transfers initiatives in Latin America (and Dominican Republic) tend to be an expression of non-contributory social security (Cecchini & Aldo, 2011), it could be that the institutions and organizational structures of these initiatives were not designed taking into account potential interactions with expressions of social protection more integrated with the formal market job. If these presumptions about could be confirmed, it would call to deep transformations in the way Conditional Cash Transfers are granted and designed, as increasing vulnerability and dependence should be outcomes avoided to maintain the logical theoretical basis of the initiatives, that it is sustainable long-term (physical and human) capital accumulation.



## 4 Antecedents

For this investigation, the source of antecedents can be classified in three. First, we reviewed all general research made on Conditional Cash Transfers programs in Dominican Republic. Second, we studied documents about labor in Dominican Republic as a source of context to understand labor dynamics in the Country. And third (and most important), we reviewed papers made on the impact of Conditional Cash Transfers programs on labor supply in the Latin American region.

### 4.1 Studies about the Conditional Cash Transfers programs in Dominican Republic

About the first source of antecedents, the most important study on Conditional Cash Transfers programs in Dominican Republic is The Evaluation of Impact on the program Progresando con Solidaridad (PROSOLI) (2019), published by the Vice Presidency of the Dominican Republic<sup>6</sup> and the Social Cabinet of Social Policies in the country, in collaboration with Center for Effective Global Action (CEGA), University of California in Berkeley (UCB) and the Innovations for Poverty Action (IPA). The study was made with information of the data recollected by the Beneficiaries Unified Systems from households at national level to identify the number of families qualified to be beneficiaries. The datasets of the Unified System of Beneficiaries are closed to public Access; thus, this report contains privileged and valuable information about the results of program. However, the results are not presented in a peer reviewed format but as a publication report without presentation of raw results and tables (instead, we got only interpretation of the data). Despite these shortcomings, the report is the first documental evidence of the program positive results.

Researchers reported in the document increased levels of household food security, attendance at primary and secondary grades and access to health preventive examinations for kids under 5 years old. In addition, authors observed off branch benefits such as increases in women autonomy and health, as well as self-reported well-being of participating households. Another interesting result is that the report found a slightly positive impact in the number of salaried hours worked by women that are household-heads.

Another relevant investigation about the CCT programs in Dominican Republic is a report by Zuchinni (2007), doing a diagnostic of the state of the Prosoli Program at that time. As well, we can cite the study case on the Prosoli program presented by Torres (2008) as a thesis to opt for master's degree. In the study case we find a descriptive analysis addressing the sustainability of the Dominican Conditioned Cash Program, considering the efficacy of the intervention and objectives fulfilment; the analysis is made based

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<sup>6</sup> Progresando con Solidaridad translates literally to Progressing with Solidarity

on its legal-institutional framework and the financial and/or budgetary capability of the program using comparative analysis for the context of other Latin American experiences in Colombia, Mexico, Nicaragua, and Paraguay.

On a regional level, we highlight the work of Sanches (2015), which examines the effects of CCT programs in the political cycle using cross-national data from eighty-four Latin American presidential elections held between 1990 and 2010 (including the Dominican Republic). He found that CCT programs had little effect on incumbents' overall election success in the region, contradicting typical speculative assertions in the literature, a notion that would be interesting to test in the Dominican Republic setting.

## **4.2 Studies about labor market in Dominican Republic**

Labor market and unemployment are recurrent policy topics in Dominican Republic. So far, most analysis are retained in descriptive research (rather than using analytical tools) made by national and international policy analysts. So far, most of the literature on the topic seems to be of descriptive nature and conclude that the reasons behind lackluster performance of the Labor Market in Dominican Republic are structural. Theoretically speaking, most of these works assume that most of the disequilibrium between labor supply and demand is due to the high transaction costs in the economy.

For instance, in a report on informality made by the Dominican Republic's Central Bank (2014), the organism concludes that informality in Dominican Republic is associated with high operating costs associated with the low productivity work force, tax burden, low supply of good public services, and a complex-fragmented legal framework. It also considers that informal activity is normalized due to expected mild penalties. Finally, it also mentioned the lack of programs promoting entrepreneurship; and, in some cases, the opportunity to earn more in informal employment.

In that same argument line Winkler and Montenegro (2021) allude that the problems within the Dominican labor market reside in the need of improving the quality of jobs rather than increasing their quantity. The authors affirm that “[w]hile the Dominican Republic’s economy performs relatively well in terms of the ability to generate jobs, especially in recent years, the country is lagging in terms of the quality of the existing jobs according to several dimensions”. This coincides with the Analysis that say that Dominican Republic has problems of sustainable inclusive growth (Carneiro & Sirtaine, 2017) (Baez, Lopez-Calva, Castaneda, & Sharman, 2014).

In the opposite narrative, econometric evidence by Rodriguez and Guerra (2018) applying the Blinder-Oaxaca decomposition pointed out that in Dominican Republic there is a wage gap that favors formal

workers over informal workers evidencing a fragment labor market, where informal worker is clearly in disadvantage. Thus, the authors conclude the informality in the country might reflect entry in the labor force as a means of subsistence due to fewer opportunities rather than a knowingly choice to gain bigger profits. In any case, the major problem seems to be that, despite relative fast economic growth in the years pre pandemic, rapid productivity growth in Dominican Republic is limited to a few economic sectors, while jobs are being created elsewhere IMF.

We can also use mention relevant works about the Labor market in general, such as Cuevas et al. (2016), utilizing microdata to estimate the Salary Curve of Dominican Republic, concluding that although flexible, salaries in Dominican Republic reported certain degree of rigidity (inelasticity). Other important report that serves as a direct reference for this is research is the work done by Ramirez (2016) – winner of the First Place in the Dominican Republic Economic Research contest organized by the Dominican Republic Central Bank – about the Determinants of Unemployment in Dominican Republic, concluding that the data suggest the existence of the unemployment segmentation in the country, disproportionately affecting women, young people and the poor.

### **4.3 Studies about effects of Conditional Cash Transfers on Labor Output**

Although evidence from Latin America about the positive short-term impacts of CCTs are relatively well document, the amounted evidence is not conclusive, since the papers arrive at different conclusions (ECLAC/ILO, 2014). Precisely, in the literature reviewed, one of the studies found no relationship between the Conditioned Cash Programs and informalization of the beneficiary households; other one found positive effects on formalization (rather than informalization). Finally, at least three studies have shown evidence of increases in informalization when the thesis is tested.

As listed, Medeiros et al. (2008) did not find evidence of reductions in social security contributions in participants in social pensions for older adults and people with disabilities (the program is called Beneficio de Prestacion Continuada (BPC). An analysis made on the program ‘Child Support Grant’ (CSG), using cohort discontinuities in access to the grant to evaluate the impact of the CSG on workers’ allocation across the formal and informal sectors, found that social assistance helped to prevent that beneficiary mothers joined the informal employment (Tondini, 2017).

In the other hand, (De Braw, A. et al., 2015), using panel data of households participating in Brazil’s Bolsa Familia Program, found evidence of large and highly significant shift in household work hours away from the formal sector, particularly in the urban areas. Similar results were found previously by Ribas and Veras (2011) using repeated cross section data at the neighborhood level, studying the same program. In Uruguay,

Vigorito (2014) found that the Equity Plan's Family Allowances program may have a detrimental influence on the formalization of its users, particularly women. Vigorito alludes that frequent re-evaluations of the beneficiaries' income (to re-assess program eligibility) generate strong incentives to informality.

In general, this evidence suggests that Conditional Cash Transfers could affect the quality of job, but there is not sustained proof of reductions in the overall amount of work of beneficiaries.

# 5 Methodology

## 5.1 Research questions and objectives

Given the literature review and the documental review, the objective of the research is to answer the following main research question: How is the relationship of CCTs from the Progresando con Solidaridad program with labor outcomes of participants at individual level – in the context of the implementation of the initiative in its Governance structure? And how this Governance Structure is boosting – or conditioning – the implementation of the policy.

To answer this question, we need to understand first the relationship, whether there is any, between being treated in the program and being unemployed, and then determine how the policy could generate this outcome in its institutional governance framework context. Therefore, this generates the following secondary questions:

- What is the relationship of being treated in the program and labor supply at an individual level?
- What are the mechanisms in which the program could be affecting the labor outcome of participants in relation to the identified relations, taking into account its governance structure?
- And, how these mechanisms work in the in the context of the governance structure of the program, in respect to the Dominican Republic's Social Protection Policies?

And as contribution to policy design for policy makers in Dominican Republic, we could theorize:

- What can we do to boost expected positive results of the national policy in this regard (and suppress adverse effects)?

The objective is to attempt to answer the presented questions by:

- Analyzing statistical trends and determining whether there is a relationship between labor supply of houses and individuals treated by the Cash Conditional Transfers of the Progresando con Solidaridad Program, in Dominican Republic and explaining how's that relationship.
- Describing and explaining, theoretically, the mechanism of impact of the program with emphasis in actors and their links, using process mechanism analysis tools.
- Describing how the program is working in the context of its governance structure framework to recognize implementation bottle necks and good practice at the Governance Level of the intervention, in the context of the National Social Protection Policy.

## **5.2 Research design and empiric strategy**

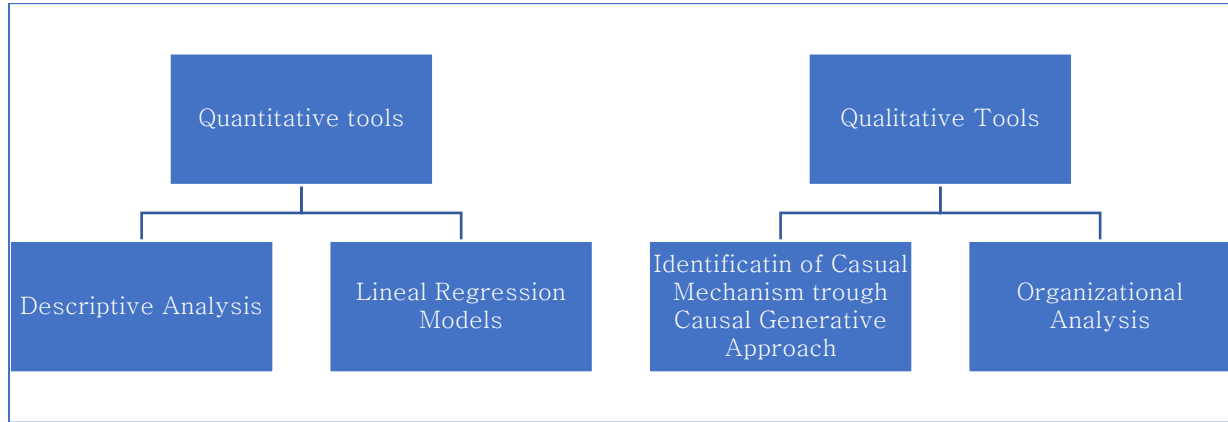
To answer the proposed questions, it was applied a Mixed-Methods Sequential Explanatory Design with emphasis in the qualitative aspects to the formulation of conclusions. According to Sampieri (2014) this implies “collecting and analyzing quantitative and then qualitative data in two consecutive phases within one study”. Explicitly, the Quantitative Analysis will first identify trends and links between the participation on the program and labor outcome of participants households’ family members, and then qualitative methods will help us to explain how the program and its governance structure could be fostering the findings in the context of the National Social Protection Policy.

The objective of this investigation is not a proper policy evaluation, but to find exploratory evidence in how the program is affecting the labor outcome of beneficiary households, especially regarding labor informality, and how the Networked Governance Structure around the program could be affecting policy outcomes. In that sense, it is expected that the institutional context and program configuration is shaping considerably the response of participants to the program. Thus, the need of accompanying the quantitative analysis with a qualitative context.

This thesis will can be interpreted as applied research, but the discussion about the topic inside and outside Dominican Republic is trending topic; the resurgence of arguments for Universal Basic Income and related models of Cash Transferences in the aftermath of the Covid-19 pandemic, makes understanding the effects of this kind of policy and labor conditions of people a priority for better policy delivery.

In resume, the strategy applied Quantitative Approach to understand the relationship of the program with the labor outcome and Qualitative approach to explain better the results and contextualize them in their governance institutional framework. The Quantitative approach is further divided in Descriptive Statistics Tools to describe the data and repeated Cross-Sectional Lineal Regression Models to make inferences about the relationship of the variables – although the conclusion will be very limited ones due to the amount and quality of the data micro-data available –. For the qualitative part first it was used Generative Causation analysis to understand how the program intends to improve labor conditions of People – observing actors, links and process –, and finally it was applied Analysis of the Governance Structure to describe and understand the Governance Structure and how the network are interacting with the program and other Social Protection Policies in the country (see Figure 8), in Table 5 it is shown the matrix of questions, objectives, strategies.

**FIGURE 8. DIAGRAM OF RESEARCH APPROACHES AND TOOLS TO BE USED IN THE THESIS RESEARCH PROJECT**



Source: Own Elaboration

**TABLE 5. MATRIX OF QUESTIONS-OBJECTIVES-STRATEGY**

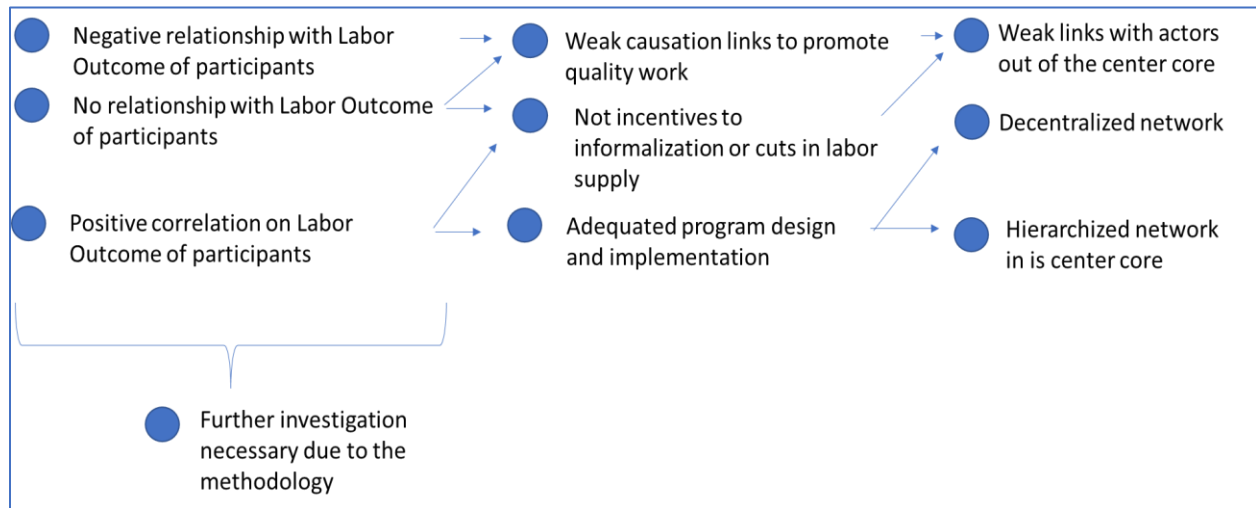
Specific question	Specific objective	Strategy
1. How is the relationship of being treated in the program and labor outcome/labor supply of individuals?	1. Analyzing trends and determining whether there is a relationship between labor supply of individuals treated by the Cash Conditional Transfers of the Progresando con Solidaridad Program, in Dominican Republic and how's that relationship?	1a. Descriptive statistics and aggregated data analysis
		1b. Multiple Lineal Regression with Micro-data
2. What are the mechanisms in which the program could be affecting the labor outcome of participants in relation to the identified relations, taking into account its governance structure?	2. Explaining the findings in trends by identifying theoretically the mechanisms in which the program could be affecting the labor supply of participant households, in the context of its governance structure – described as network – with emphasis in actors and their links, using process mechanism analysis tools.	2. Identification of Causal Mechanism by - process tracing case analysis approach -
3. How the program mechanisms work in the in the context of the governance structure of the program, in respect to the Dominican Republic's Social Protection Policies_	3. Describing how the program is working in the context of its governance structure framework to recognize implementation bottle necks and good practice at the Governance.	3. Organizational Analysis

Source: Own elaboration

### 5.3 Hypothesis map

Depending on the results of the research we hope to confirm or discard the hypothesis described in the hypothesis map (Figure 9).

**FIGURE 9. HYPOTHESIS MAP**



Source: Own Elaboration

### 5.4 Methods of the quantitative approach

The main objective of the quantitative approach of this investigation is to provide sustaining evidence and background for the development of the analysis about the Program Logic Mechanism and its Governance Structure. For the tools used we proposed two kinds. First, we used descriptive statistical analysis and second, we applied Econometric Models (Repeated Cross-Sectional analysis) to observe and understand the relationship between the parameters.

The Descriptive Analysis – along with some simple inferential correlational tests - can be applied to the totality of the analyzed period (August 2012 – 2019), while the Repeated Cross-Sectional Analysis is going to be limited to cover only from 2016 to 2019, since there is not available public micro data for years before that period.

In the other hand, we will work in demonstrating the Equation 1, that express the labor supply of a household or an individual as a function of the condition of being treated in the program plus  $n$  control variables. The control variables should be understood as the attributes of the observations in the sample.

**EQUATION 1. Individual or Household labor supply =  $f(z_{it}, x_{it})$ ;**



... where  $z_{it}$  represents the treatment in the program and  $x_{it}$  individual characteristics of the observed population.

For our models the most relevant characteristics that can be used to control in the equation are defined as common variables in Mincer Functions such as gender, age, experience, marital status, as well as reflection of second level conditions such as residential zone, etc.

#### 5.4.1 Descriptive Statistics and aggregated data analysis

In this research we will apply Descriptive analysis to understand better how the implementation of the program evolved during the period of activity of the policy. We pretend to answer questions such as the number of households and beneficiaries, the amount received, demographic of the population treated by the program, etc. Descriptive statistics contain useful summaries of variables such as averages, distributions of frequency, level of dispersion and other important metrics.

#### 5.4.2 Econometric model

The proposed model is an adaption of the Neo-Classical Model of labor supply where the main explicative variable  $z_{it}$  simulates a movement in the Labor Supply curve when a person participates in the program. The model suggested is a lineal regression model, when the main explicative variable is a dummy that tries to estimate the relationship between participation in ‘Progresando con Solidariad’ program and labor outcome. Only the Conditional Cash Transfers of the ‘Progresando Con Solidarad’ program were considered to identify an individual as participant of not (leaving out subsidies and other aspects).

For the Econometric Model we are supposing that the labor outcome of participant households’ family members is correlated, in some way, with participating in the program, as defined by Equation 1. Thus, applying a multiple lineal model, we are supposing that the labor supply of individuals  $i$  at time  $t$  is giving by the following equation:

$$\text{EQUATION 2. } y_{it} = \alpha + \beta_1 z_{it} + \beta_2 x_{it} + u_{it};$$

Where  $z_{it}$  represents a dummy variable such that

$$z_{it} = \begin{cases} 1: & \text{if individual } i \text{ is treated at time } t \\ 0: & \text{otherwise} \end{cases}$$

It is considered that a household is participating in the program if it’s receiving at least of the Conditional Cash Transferences identified in Table 2. Only Conditional Cash Transfers are considered as it is expected that direct subsidies would have a different effect on the population. Thus, coefficient  $\beta_1$  will be considered

as the regression coefficient between the participation in the program and the labor supply of individuals or households and  $\beta_2$  can be interpreted as the effect of control variables on  $y_{it}$ .

The model assumes spillover effects inside the familiar unit; however, individuals have characteristics that affect their labor supply; hence the proposed model is measured as a two-level regression (where it takes info from the household and individual level). The objective of the model is to measure the relationship between labor output of the individuals depending in if their household is participating in the Program. Giving this, mathematically it can be defined as follow:

- Dependent variable is employment situation, proxy by labor supply (and the sector where these hours are allocated):
  - $y_{ht} = \text{total worked hours given a unit of time}$
- Independent variable / Treatment variable: participation in the program by any member of the households
  - $x_{ht} \rightarrow \{x = \text{treatment} \mid x = 1 \text{ if unit "h" is treated in time "t"}\}$
  - What we need to know is the ATE:  $\beta_1 = X_{ht(1)} - X_{ht(0)}$
- The data available is not good enough to observe the ATE of the participation of the program, thus we appeal to a frequentist approach to estimate the relationship rather than observing the effects.
  - Equation 1:  $y_{ht} = f(x_{ht}, z_{ht}, \beta) + u_i$
  - Control variables “z”: Gender of the head of household, number of household members, Etc.
- We can deepen the analysis if we disaggregate the value of  $x_{ht}$  at the individual level:
  - $E(x_{ht}) = E(x_{hi_1t} + x_{hi_2t} + x_{hi_nt})$  [effect in individual members] +  $E(x_{st})$  [spillover effects on the household]
  - $E(x_{hi_1t}) = E(x_{it})$ ; where *unit "i" household is treated in time "t"*
  - $E(x_{it}) = E(x_{it} + x_{sit})$
- Assuming no other spillovers, this allows to calculate the effect of the program at an individual level using a two-level lineal regression, thus including control variables of personal characteristics such as gender and age.
- Main regression function
  - Equation 3:  $y_{it} = f(x_{ht}, z_{ht}, z_{it}, \beta) + u_i$  [regarding individuals in house treated]

### 5.4.3 Application of repeated Cross-Sectional Analysis using time fixed effects

To approach these equations, we will apply Repeated Cross-Sectional Analysis using time fixed effects. Applying Repeated Cross-Sectional Analysis have some benefits over simple Cross-Sectional models, as the bigger size of the sample will allows to increase the precision of the statistical estimates by reducing Standard Errors and capturing time fluctuations (UK Data Service, 2015).

When applying Time fixed effects, researchers can effectively control for underlying systematic differences - observable and unobservable ones - between observed units in time (Gösser & Moshgbar, 2020). Standard methods for obtaining time fixed effects include using time-dummy variables to adjust for all time unit-specific effects. The use of time dummies is a generic approach of modeling (and testing for) variations in intercept terms or slope coefficients between periods of time. Basically, including time dummies (save for one, excluded date in the sample to avoid the dummy-variable trap) allows the intercept to be different in each period.

- Time effects. Thus, the model will not include macro variables, or the variable time. Every year is represented by a different intercept. Thus, it can be expressed as:

- $\hat{y}_i = \hat{\beta}_0 + \hat{\beta}_1 x_i$ ; or  $\hat{y}_i = \hat{\beta}_0 + \hat{\beta}_1 x_i + \delta t_{2015} + \delta t_{20nn}$

- The final expression of the regression of Equation 3 will be:

- $\hat{y}_{xt} = \hat{\beta}_0 \pm \hat{\beta}_1 x_{ht} \pm \hat{\beta}_2 z_{ht} \pm \hat{\beta}_3 z_{it} \pm \delta t_{2015} + \delta t_{20nn} \pm u_i$

This is the equation that would be used to the estimations of the model.

### Strategies to smooth and improve results of the regressions

Since in our study case households treated in the Progresando con Solidaridad program were not selected randomly – and households needed to give authorization to be evaluated and being participant in the program – we might find in our sample selection bias for the participation in the program. This means, that the characteristics of the population participating in the program are not random in comparison with the population that is not part of the program. A solution to address this problem is using propensities scores to balance the two subject groups – the treatment and control groups –, evaluating observable and unseen qualities.

How this works? According to Faries et al. (2010) in Gant and Crowland (2017), “a propensity score is the conditional probability that a subject receives ‘treatment’ given the subject’s observed covariates. The goal of propensity scoring is to mimic what happens in randomized controlled trials (RCT’s) by balancing

observed covariates between subjects [...]”. When assessing the efficacy of a treatment, randomized controlled trials are regarded the gold standard. In a randomized controlled experiment, individuals are assigned to one of two groups: treatment or control. However, since we do not possess data in enough quantity and quality to address the research questions, the best second option is to mimic what would happen in a randomized trial, even if the research that will be done is not a proper evaluation.

The econometric model could have suffered from heteroscedasticity, that is present when disturbance appearing in the population regression function do not evidence the same variance; and multicollinearity is a common problem that occurs when two or more than our regressor variables are lineally correlated (Gujarati & Porter, 2009). The violation of these and other assumptions for the lineal models constitute treads to the internal validity of the investigation. The estimated equations utilized Generalized Lineal Models to Avoid this problematic.

## **5.5 Methods of the qualitative approach**

Based on the results of the analysis, in the research it was used causal evaluation methodology to address how the program is working in the context of its governance structure framework. We want to understand those mechanism using Network Analysis, to understand the role of institutional actors.

### **5.5.1 Identification of causal mechanisms by Generative Causation**

Causal mechanisms can be explained by a variety of perspectives from which scholars approach the topic. According to Schimitt (2020), in order to determine causation by a theoretical-qualitative approach – that is to say generative causation – researchers can focus on two dichotomies. First, in the types of mechanisms applied – whether behavioral mechanism or processes mechanism – and second, on the methodological scope – using case-based or variance-based methodological approaches – (see Table 6).

For the investigation, we do not pretend to do a proper evaluation, but we want to use a ‘case-base process mechanism approach’ to explain the results obtained from the model and characterize the role of every agent in the Governance Network of the project. Since the program analyzed is delivered by a Network rather than a single institution, it would be appropriate to analyze this in the context of the Network Governance Structure as part of the Social Protection Policy in the Dominican Government.

**TABLE 6. A CLASSIFICATION OF CAUSAL MECHANISMS.**

		Methodological approach	
		Case-based	Variance-based
Type	Behavioral Mechanisms	Realist Evaluation	Experiments, Causal Mediation Analysis
	Process Mechanism	Process Tracing, Contribution Analysis, related Theory of Change approaches	Experiments, Causal Mediation Analysis

**Source: extracted from** (Schimitt, 2020)

Schimitt (2020) interpreting Machamer et al. (2000) defines in process mechanisms causal description analysis as the ones centered in describing cause–effect relationships across multiple steps of the theory of change. And, according to the author and other sources – (Astbury & Leeuw, 2010) (Lemire, S et al., 2020) –, unlike realist evaluation – that describes ‘underlying processes’ – process mechanisms analysis refers to traceable actions. This approach – process tracing case-based analysis – is useful in the context of a program with complex governance because it focusses on actors and actions rather than in invisible mechanics.

### **5.5.2 Inter-organizational Analyses**

For the analysis of the Governance Structure, it is contemplated applying qualitative analysis based on grounded theory coming from the results of the econometric model and the generative causation approach already described. This could be done in base at Network Theory or Inter-Organizational Theory (or a combination of both).

For the analysis of the Governance Structure, the proposal contemplates qualitative analysis based on grounded theory coming from the results of the econometric model and the generative causation approach already described. This could be done in base at Network Theory or Inter-Organizational Theory (or a combination of both).

Inter-organizational relations, it is focused with the interactions between and among organizations, as its title indicates. Understanding the character and pattern, origins, reasoning, and implications of such linkages is the goal of IOR research (Cropper S. et al., 2009). According to the author Network Analysis can be classified as a type of Inter-Organizational Theory approach. Chiesi (2001) define Network analysis as a set of “integrated techniques to depict relations among actors and to analyze the social structures that emerge from the recurrence of these relations. The basic assumption is that better explanations of social phenomena are yielded by analysis of the relations among entities. It entails a thorough examination of the interconnectedness and influence flows among individuals, groups, and institutions (Ward, Stovel, & Sacks, 2011). This kind of analysis are normally done by collecting linkages data in relational matrix tables – or network data – and later extracting qualitative and pseudo-quantitative data (Chiesi, 2001). For this research it was only integrated in the general analysis a basic inter-organization analysis.

## **5.6 Data and sources**

For the quantitative part of the research, it was used statistics reports and official records from the Government Agencies participating in the delivery of the Conditional Cash Transfers in Dominican Republic from 2012 to 2019. Most of this data is going to be aggregated.

For the microdata analysis the source of information is the data base of the National Labor Force Continue Survey published by the Dominican Republic Central Bank. The Survey is Rotating or Refresh Panel – of cycles of 4 periods – gathered 4 times a year with representative socio-demographic data of residents in Dominican Republic, including labor condition and participation in Cash Transference Programs and Social Subsidies delivered by public agencies. The original data base from 2016 to the first semester of 2021 contains 606 variables of 423,802 observations at the individual level.

The qualitative analysis is going to be based mainly on Documental Research of official documents, the legal framework and secondary sources as newspapers and official websites. Communications with public officials and experts (through emails, conversations, etc.) could also be classified as evidence. Depending on the results, deep interviews with experts could be done to contextualize and draw better conclusions.

## **5.7 Scope and limitations**

This research is relevant since it provides insights of policy formulation in Dominican Republic and exploratory data about the Conditional Cash Transferences and their relationship with labor supply/outcome of participants. However, the most important contribution will be a deep understanding of the Governance

configuration of Conditional Cash Transfers in Dominican Republic in the context of the Country Social Protection Policies.

However, due to the quality and quantity of quantitative data the study is going to suffer from internal and external validity concerns, specially about conclusion in the effects of the program. Thus, this investigation should be considered only exploratory in that regard. The Quantitative part of the studio was conducted manly to guide the qualitative part of the studio into arriving to stronger conclusions.

## 6 Results

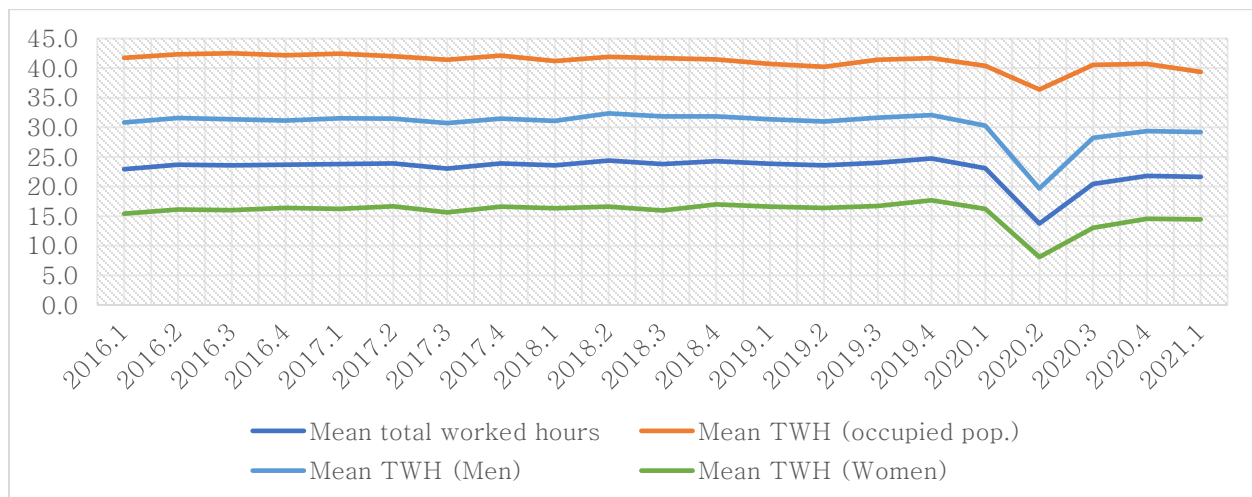
### 6.1 Description of the data and preliminary findings

As stated, the objective of the research is to estimate the relationship between participation in the ‘Progresado Con Solidaridad’ program and labor supply of households’ members. The two main variables of the study are the total worked hours of individuals as a proxy to labor outcome and the treatment variable is participation in the program of the household the individual is member of. Both variables are retrieved in the Dominican Republic’s Labor Force Survey that is the main source of statistics for this report.

Total worked hours is the proxy variable used in the model to measure the individual labor supply of individuals. As it was shown in the literature review, this variable is the most used where measuring impacts of programs, thus this will allow the conclusions of the study being comparable. As well, it is good to choose it because employment and unemployment definitions can affect the measures.

During the studied period, the studied population worked in average 23 hours a week. However, this average is considering the non-active population. When only is considered the working population, the average weekly worked hours are 41.3. Working men work 43.3 hours a week in comparison to 38.0 of women. In Figure 10 it can be seen the average worked hours in the Dominican population during the studied period according to some categories, as for instance the working status. As it can be seen, this variable was also affected by the Pandemic, and it still recuperating to pre-pandemic levels.

**FIGURE 10. AVERAGE MONTHLY TOTAL WORKED HOURS (TWH) IN DOMINICAN REPUBLIC, BY QUARTER (2016-2021)**

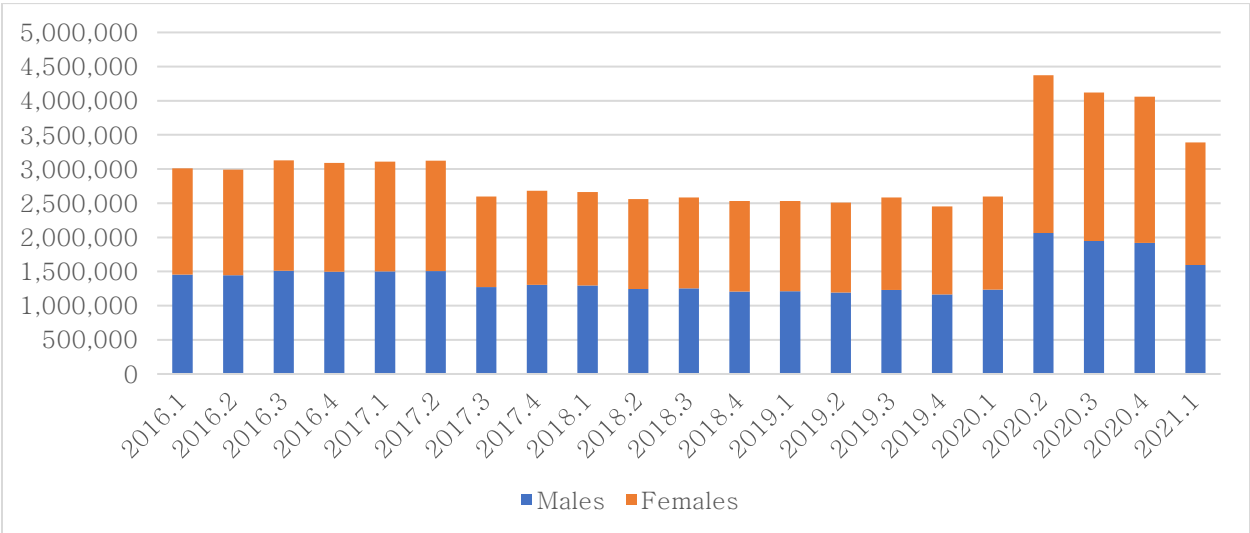


Source: Own elaboration based on the Labor Force Survey of the Dominican Republic’s Central Bank, 2022



Regarding participation in the ‘Progresando Con Solidaridad’ Program, according to the obtained data, by the first trimester of 2021, 4.3 million of people were members of a household receiving any kind of subsidy, Conditional Cash Transfers or benefit by the Dominican Government (This is 41.1 % of the population). This number increased drastically during the last 3 trimester of the 2020 due to public intervention in response to the Global Pandemic. According to the data the gender distribution stayed close in every year, being women a little bit more than the 50 % of the total population older than 15 year that is part of a household participating in the program (see Figure 11).

**FIGURE 11. PARTICIPATION IN THE PROGRAM ACCORDING TO GENDER BY YEAR**

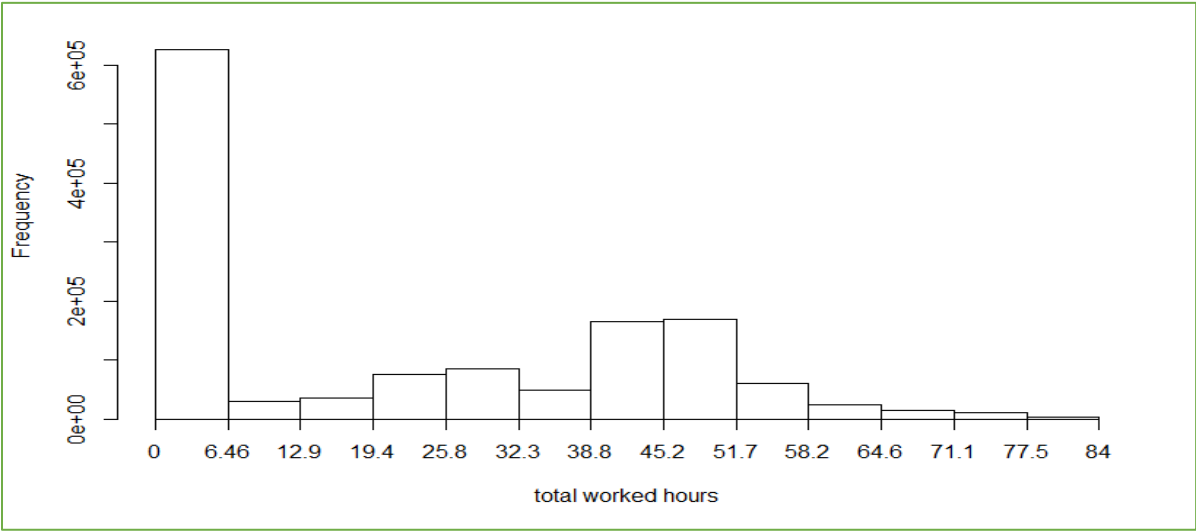


Source: Own elaboration based on the Labor Force Survey of the Dominican Republic’s Central Bank, 2022

In Figure 12 and Figure 13 we can see the distribution of total worked hours of the population aged 14 years old or more, outside and inside the programs, respectively. In both cases, if we do not consider the population out of work, the averages of total worked hours round 43 hours in both groups, close to the maximum legal working hours in the country (between 40 and 44).

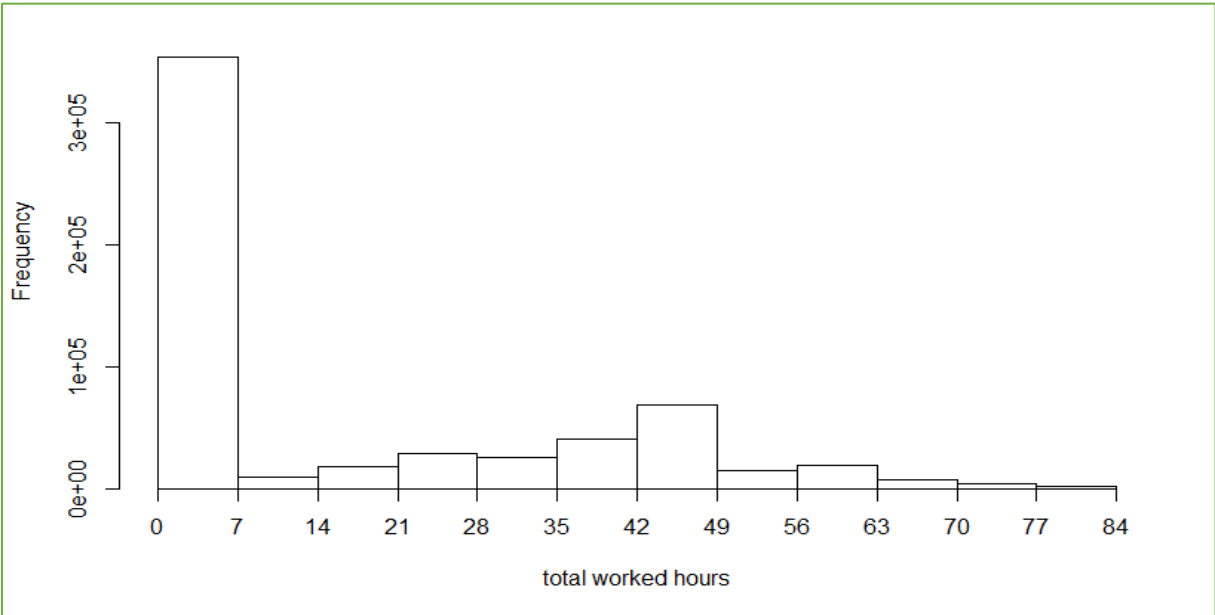
In the Table 7 it is shown the mean total worked hours by condition of participation in the program, for the quarter 2019-1 as representation of the whole studied period, in order to understand the preliminary direction of the relationship. It shows that for the population with household earning less than the poverty line in the quarter, individuals that declare to participate in the program were working, in average, less than people out of the program. According to the t-test, this difference is significative statistically.

**FIGURE 12. DISTRIBUTION OF MONTHLY TOTAL WORKED HOURS, POPULATION OLDER THAN 14 YEARS OLD, NOT RECEIVING ANY GOVERNMENT SUBSIDY**



Source: Own elaboration based on the Labor Force Survey of the Dominican Republic’s Central Bank, 2022

**FIGURE 13. DISTRIBUTION OF MONTHLY TOTAL WORKED HOURS, POPULATION OLDER THAN 14 YEARS OLD, RECEIVING AT LEAST ONE GOVERNMENT SUBSIDY**



Source: Own elaboration based on the Labor Force Survey of the Dominican Republic’s Central Bank, 2022

**TABLE 7. MONTHLY TOTAL WORKED HOURS OF POPULATION AGED 14 YEARS OR MORE, BY PARTICIPATION IN THE PROGRAM AND ACCORDING TO INCOME LEVEL OF THE POVERTY LINE, 2019-1**

	<b>Total population (aged 14 or more)</b>	<b>Population (aged 14 or more) in a household with monthly earning of 4 666.08</b>
Total Population	17.88	15.07
In the program	18.53	15.81
Not in the program	16.32	21.34
<b>Two Sample Weighted T-Test (Welch)</b>		
	t.value	df
	-7.364059e+00	2.300445e+03
		p.value
		2.473577e-13

Note: a/ For the year 2019 4 644.08 was equivalent to the national poverty line

Source: Own elaboration based on the Labor Force Survey of the Dominican Republic’s Central Bank, 2022

These results, in principle, only are showing the means of both population (participating and not participating in the program) and compare them, without taking into account the diversity of the population in both groups and the underlying variables that could also been influencing them; hence we could not assume neither causality, neither the direction of the relationship; it serves as an observation of the general distribution between the main variables. To prove the relationship, it is necessary to test the hypothesis with more advanced tools.

## **6.2 Estimations of the econometric models**

As stated in the methodology, the objective of the research is to find the relationship between participation in the program ‘Progresado con Solidaridad’ and the total worked hours of members of participant households. To ascertain the truth relationship, it was suggested in the thesis methodology a multiple regression model using repeated cross-sectional data of the Dominican Republic Central Bank’s National Labor Survey. Repeated cross-sectional analysis means, as stated in the methodology, that the units of observation of the data do not have relationship from period to period; hence, instead of a panel-data setup, dummy variables for the different periods of the data were integrated into to equation to catch the effect of time in the outcome of the model.

The result of the regression showed in Table 8 points out to a negative relationship between participation in the program and total worked hours; with this exception, the symbols of the parameters mostly

correspond with theory and results of other research as it can be seen in the results, most of them showing statistically significant values.

**TABLE 8. RESULTS OF GLM FOR THE MODEL EQUATION, TOTAL POPULATION IN WORKING AGE (OLDER THAN 14 YEARS OLD) [MODEL 1]**

Variable Names	Estimate Coefficient	Std. Error	t value	Pr(> t )	Significance code
Intercept	26.90	0.28	97.238	< 2e-16	***
Participation in the program	-0.42	0.10	-4.204	2.62E-05	***
Gender (1 = female)	-14.60	0.09	-163.268	< 2e-16	***
Age (Years)	-0.06	0.00	-19.721	< 2e-16	***
Years of Education	0.56	0.01	40.902	< 2e-16	***
Civil Status (1 = married or domestic partnership)	13.80	0.12	113.607	< 2e-16	***
Zone of residence (1 = rural zone)			11.381	< 2e-16	***
Gender of the household (1 = female)	1.06	0.09	-3.014	0.00258	**
Civil Status of the household head (1 = married or domestic partnership)	-0.38	0.13	-63.068	< 2e-16	***
Income from Foreign Remittance (1 = yes)	-9.20	0.15	-38.692	< 2e-16	***
Household Income Per Capita (in DOP)	-5.24	0.14	11.224	< 2e-16	***
Dummy trimester 2016-2	0.00	0.00	3.203	0.00136	**
Dummy trimester 2016-3	0.84	0.26	2.179	0.02931	*
Dummy trimester 2016-4	0.59	0.27	1.991	0.04645	*
Dummy trimester 2017-1	0.53	0.27	1.972	0.04859	*
Dummy trimester 2017-2	0.53	0.27	2.244	0.02482	*
Dummy trimester 2017-3	0.61	0.27	-0.825	0.40953	
Dummy trimester 2017-4	-0.22	0.27	1.872	0.06124	.
Dummy trimester 2018-1	0.51	0.27	0.056	0.95554	
Dummy trimester 2018-2	0.02	0.27	2.505	0.01226	*
Dummy trimester 2018-3	0.68	0.27	0.747	0.45507	
Dummy trimester 2018-4	0.20	0.27	1.895	0.05816	.
Dummy trimester 2019-1	0.52	0.27	1.063	0.28782	
Dummy trimester 2019-2	0.29	0.27	-0.65	0.51588	
Dummy trimester 2019-3	-0.18	0.27	0.225	0.8222	
Dummy trimester 2019-4	0.06	0.27	2.789	0.00529	**
Dummy trimester 2020-1	0.75	0.27	-4.907	9.27E-07	***
Dummy trimester 2020-2	-1.37	0.28	-35.473	< 2e-16	***
Dummy trimester 2020-3	-9.81	0.28	-11.239	< 2e-16	***
Dummy trimester 2020-4	-3.15	0.28	-6.268	3.65E-10	***
Dummy trimester 2021-1	-1.78	0.28	-8.307	< 2e-16	***

Source: Own Elaboration

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1

(Dispersion parameter for gaussian family taken to be 434.1183). Number of Fisher Scoring iterations: 2

### **6.3 Application of propensity scores for the creation of the comparable groups**

The results of Model 1 in the Table 8 suggest that the program is having a negative impact in the total worked hours. This is consistent with the position of the classical theory and the findings of studies made by American researchers about the effects of Cash Transfers on labor outcome of beneficiaries, however most recent literature in Conditional Cash Transfers contradicts that these programs have a negative effect on labor outcome, and where they exist, they are minimal or the benefits outgrow the risks (Fiszbein & Schady, 2009). What cause this result for Model 1?

Although it could be argued design and implementation problems to explain the results of Model 1, ‘Progresando con Solidaridad’ Program was not designed as a controlled experiment-intervention, therefore, there are high probability of selection bias, since people participating in the program have underlying characteristics that make them not comparable to the total population as it was stated in the methodology. Therefore, it is expected that a lineal regression that does not correct by the probability of participating in the program, for instance Model 1, might not reflect the truth relationship between the observed variables. In order the correct this bias, the model equation was re-estimated utilizing propensity scores to obtain more comparable results, as it was also previously informed in the methodology of the document.

The propensity scores were estimated utilizing the ‘1:1 nearest neighbor matching without replacement’ method in a logistic regression and including the sampling weights for the equation. Basically, this equation calculates the probability of participating in the program and generate two comparable groups based on the similarity score of the observations expecting a one-to-one observation. The number of observations matched were 192 852 from an original of 317 233 observations, meaning a significant reduction in the available data, however, the final data set is probably still big enough to be representative of the studied population.

In Table 10 are shown the results of the propensity score matching, comparing the data sets before and after applying the matching setting. The sections A and B of the Table 9 are showing the mean of the statistics used to control the probability of being selected for the program. The reduction on bias resumed in the part C of the table, and although most of the variables utilized for the calculations did not have a considerable impact on the improvement, the data set after the matching is applied is healthier since it contains less bias according to the results.

**TABLE 9. SUMMARY OF THE PROPENSITY MATCH ESTIMATION**

<b>A. Summary of Balance for All Data</b>	Means Treated	Means Control	Std. Mean Diff.	Var. Ratio	eCDF Mean	eCDF Max	
Distance	0.5527	0.5201	0.0654	0.9905	0.0163	0.0325	
Gender (1 = female)	0.52	0.5163	0.0075	.	0.0038	0.0038	
Age (Years)	41.5018	39.0812	0.1209	1.2281	0.0369	0.0801	
Years of Education	7.4451	9.7705	-0.5378	0.993	0.1163	0.2192	
Civil Status (1 = married or domestic partnership)	0.4279	0.4843	-0.1139	.	0.0564	0.0564	
Zone of residence (1 = rural zone)	0.25	0.167	0.1916	.	0.083	0.083	
Gender of the household (1 = female)	0.3881	0.337	0.1048	.	0.0511	0.0511	
Civil Status of the household head (1 = married or domestic partnership)	0.6327	0.631	0.0035	.	0.0017	0.0017	
Income from Foreign Remittance (1 = yes)	0.1117	0.1216	-0.0315	.	0.0099	0.0099	
Household Income Per Capita (in DOP)	6478.398	11580.97	-1.0031	0.0901	0.1553	0.2295	
<b>B. Summary of Balance for Matched Data:</b>	Means Treated	Means Control	Std. Mean Diff.	Var. Ratio	eCDF Mean	eCDF Max	Pair Dist.
Distance	0.5527	0.5274	0.0507	0.9919	0.0126	0.0252	0
Gender (1 = female)	0.52	0.5187	0.0027	.	0.0013	0.0013	0.997
Age (Years)	41.5018	39.014	0.1243	1.218	0.0368	0.0813	0.887
Years of Education	7.4451	9.7784	-0.5396	1.0023	0.1167	0.2183	1.182
Civil Status (1 = married or domestic partnership)	0.4279	0.4791	-0.1034	.	0.0511	0.0511	0.997
Zone of residence (1 = rural zone)	0.25	0.1605	0.2067	.	0.0895	0.0895	0.659
Gender of the household (1 = female)	0.3881	0.3435	0.0915	.	0.0446	0.0446	0.937
Civil Status of the household head (1 = married or domestic partnership)	0.6327	0.6305	0.0046	.	0.0022	0.0022	0.958
Income from Foreign Remittance (1 = yes)	0.1117	0.123	-0.036	.	0.0113	0.0113	0.627
Household Income Per Capita (in DOP)	6478.398	10968.0	-0.8824	0.1058	0.139	0.2071	1.355
<b>C. Percent Balance Improvement:</b>	Std. Mean Diff.	Var. Ratio	eCDF Mean	eCDF Max			
Distance	22.5	14.6	22.5	22.5			
Gender (1 = female)	64.2	.	64.2	64.2			
Age (Years)	-2.8	4	0.4	-1.5			
Years of Education	-0.3	66.8	-0.3	0.4			
Civil Status (1 = married or domestic partnership)	9.3	.	9.3	9.3			
	-7.9	.	-7.9	-7.9			
Zone of residence (1 = rural zone)	12.7	.	12.7	12.7			
Gender of the household (1 = female)	-30.2	.	-30.2	-30.2			
Civil Status of the household head (1 = married or domestic partnership)	-14.4	.	-14.4	-14.4			
Income from Foreign Remittance (1 = yes)	12	6.7	10.5	9.8			
<b>D. Sample details:</b>	Control	Treated					
All (ESS)	163514.7	78117.43					
All	220807	96426					
Matched (ESS)	73432.5	78117.43					
Matched	96426	96426					
Unmatched	124381	0					
Discarded	0	0					

**Source: Own Elaboration**

We re-estimated the model with the new matched data set controlling the selection bias and the results of the equation calculated with the matched dataset (hence, with comparable groups of participants and not participants) are shown in Model 2 (Table 10); while most variables stayed the same, this time the relationship between the participation of the household in the program and the labor supply of individuals of the household is positive, although not statistically significant. Regarding the precision of the model, the results have a low adjusted R-squared, however the general quality of the model seems to be good according to the F-statistics test. The models are estimated again by GLM; hence the produced parameters are assumed to be robust parameters.

**TABLE 10. RESULTS OF THE MODEL UTILIZING PROPENSITY SCORES MATCHED GROUPS, TOTAL POPULATION IN WORKING AGE (OLDER THAN 14 YEARS OLD) [MODEL 2]**

Variable Names	Estimate Coefficient	Std. Error	t value	Pr(> t )	Significance code
Intercept	24.00	0.29	84.026	< 2e-16	***
Participation in the program	0.11	0.11	0.987	0.32346	
Gender (1 = female)	-14.60	0.10	-147.72	< 2e-16	***
Age (Years)	-0.04	0.00	-13.146	< 2e-16	***
Years of Education	0.65	0.01	51.034	< 2e-16	***
Civil Status (1 = married or domestic partnership)	13.50	0.14	98.58	< 2e-16	***
Zone of residence (1 = rural zone)	0.91	0.12	7.396	1.41E-13	***
Gender of the household (1 = female)	-0.13	0.14	-0.956	0.338856	
Civil Status of the household head (1 = married or domestic partnership)	-7.98	0.16	-49.486	< 2e-16	***
Income from Foreign Remittance (1 = yes)	-5.34	0.15	-35.588	< 2e-16	***
Household Income Per Capita (in DOP)	0.00	0.00	42.388	< 2e-16	***
Dummy trimester 2016-2	0.83	0.24	3.463	0.000534	***
Dummy trimester 2016-3	0.58	0.24	2.413	0.015838	*
...					
(Other dummy trimester variables were included in the model but omitted in this table presentation)	...	...	...	...	...

**Source: Own Elaboration**

**Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1**

**Residual standard error: 464 on 192821 degrees of freedom; Multiple R-squared: 0.1827; Adjusted R-squared: 0.1826; F-statistic: 1437 on 30 and 192821 DF, p-value: < 2.2e-16**

The results of Model 2 show in Table 10 (the table above) are consistent with the conclusions of other authors of countries similar to Dominican Republic that point out the Conditioned Transferred Programs do not have a significant negative impact in the labor outcome of beneficiaries. However, these results, if confirmed truth, show that expectation for the 'Progresando con Solidaridad' program were not met, since

according to the institutional objectives of the policy the Government was anticipating a positive impact (rather than neutral) in the labor outcome of family members of the participant households.

The result of the models 1 and 2 provide interesting hypothesis about the Dominican Republic's labor market and the effects of the 'Progresando Con Solidaridad Program'. First, it seems that there is a gap between the total worked hours of the individuals in participating households in comparison to the total population, this according to Model 1. And second, it seems that the program is not being key in correcting this situation (at least it is not having a statically significant impact), although it is not making it worse, as detractors could suggest, (according to Model 2, the relationship is not significative).

Rephrasing our interpretation of the results, Model 1 (General Lineal Model without matching scores) indicates that in fact there is a difference between people participating in the program and the ones not participating relating the labor output of individuals, and that that difference is significative; however, since the population participating in the total population are not necessarily representative of each other, we cannot attribute cause to these differences. Model 2 (the one using matching scores) offers comparing similar groups that the Program itself could have a positive impact in the labor outcome, but the differences produced by the program are not statically significant.

This contradicts the general opinion of experts that have pointed out that 'Progresando con Solidaridad' Program is an example of successful Conditional Cash Transfer for the region; nonetheless, these experts have also suggested that the Dominican Republic Conditional Cash Transfer Program has excessively broad objectives, and some of the goals do not correspond with the new consensus on the expected outcomes from Social Assistance Programs (Székely, 2019). It is good to note that in the previous version of the program (before 2012) this emphasis on labor conditions of participants was absent.

The results of the model also point out differences between the population's labor output depending in socio-demographic characteristics. For instance, the variables of gender, age, and years of education seem to affect importantly (statistically significant) the total worked hours of people, as it was previously stated. It would be interesting to explore how the program could be interacting with the labor outcome depending in groups. Thus, we estimate several models for selected subgroups to observe whether the program would perform regarding these observable differences in the population; this will provide more detail evidence about how the program is affecting to target population according to their characteristics.

In the Table 11, it can be observed the results of the model comparing the general results to the estimations according to selected sub-groups that are key targets of the program: women, young adults aged between



15-24, and children between 5 and 10 years. In one hand, the program is expected to reduce child labor by providing incentives to school assistance and in the other hand the program has extensively focus on young people and especially women in Dominica Republic. Given the focus of the program in these demographics, it could have been expected a strong relationship between participation in the program in labor outcome in those sub-groups. But, as it can be seen, results for these groups were mixed.

**TABLE 11. ESTIMATIONS OF THE MODELS BY SOCIO-DEMOGRAPHICS CHARACTERISTICS**

Variable Names	General Population (Model 2)		Women (Model 3)		Young Population (15-24) (Model 4)		Child Labor (Population age 5 – 13) (Model 5)	
	Estimate Coefficient (std. error)	Pr(> t )	Estimate Coefficient (std. error)	Pr(> t )	Estimate Coefficient (std. error)	Pr(> t )	Estimate Coefficient (std. error)	Pr(> t )
Intercept	2.40E+01 (2.86E-01)	< 2e-16	3.598 (0.4096)	< 2e-16	-35.67 (0.6044)	< 2e-16	-1.974 (0.9207)	0.03209
Participation in the program	1.11E-01 (1.12E-01)	0.32346	0.1643 (0.1476)	0.26571	0.9343 (0.1737)	7.47E-08	-0.01681 (0.07951)	0.83256
Gender (1 = female)	-1.46E+01 (9.91E-02)	< 2e-16	N/A	N/A	-9.626 (0.1573)	< 2e-16	-0.4856 (0.0732)	3.43E-11
Age (Years)	-3.99E-02 (3.03E-03)	< 2e-16	0.003785 (0.003988)	0.34256	2.994 (0.02877)	< 2e-16	0.2276 (0.07461)	0.00229
Years of Education	6.45E-01 (1.26E-02)	< 2e-16	0.9244 (0.01648)	< 2e-16	-0.2984 (0.03013)	< 2e-16	-0.06714 (0.02564)	0.00886
Civil Status (1 = married or domestic partnership)	1.35E+01 (1.37E-01)	< 2e-16	8.285 (0.1836)	< 2e-16	1.586 (0.2618)	1.40E-09	1.196 (1.214)	0.32448
Zone of residence (1 = rural zone)	9.05E-01 (1.22E-01)	1.41E-13	-0.5664 (0.1661)	0.00065	0.243 (0.1964)	0.21601	0.2495 (0.08753)	0.00438
Gender of the household (1 = female)	-1.31E-01 (1.37E-01)	0.338856	3.158 (0.2134)	< 2e-16	-0.2994 (0.2168)	0.16733	0.1124 (0.1156)	0.33112
Civil Status of the household head (1 = married or domestic partnership)	-7.98E+00 (1.61E-01)	< 2e-16	-4.456 (0.2477)	< 2e-16	-1.276 (0.2193)	5.99E-09	0.1428 (0.1181)	0.22645
Income from Foreign Remittance (1 = yes)	-5.34E+00 (1.50E-01)	< 2e-16	-4.899 (0.1899)	< 2e-16	-3.213 (0.2393)	< 2e-16	-0.2323 (0.1169)	0.04689
Household Income Per Capita (in DOP)	1.76E-04 (4.16E-06)	< 2e-16	0.0001962 (0.0000056)	< 2e-16	0.0001703 (0.0000076)	< 2e-16	-0.00000512 (0.0000061)	0.40174
Adjusted R-squared:	0.1826		0.09498		0.2746		0.006733	
F-statistic:	1437 on 30 and 192821 DF, p-value: < 2.2e-16		359.9 on 29 and 99158 DF, p-value: < 2.2e-16		690.6 on 30 and 54627 DF, p-value: < 2.2e-16		3.41 on 30 and 10635 DF, p-value: 9.165e-10	
...								
(Other dummy trimester variables were included in the model but omitted in this table presentation)								

**Source: Own elaboration; Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1**

As we could observed in the Table 11, the effects on the program in women, as it was the case for the general population labor, are not statistically significant. However, the population between 15 and 24 years, regardless of gender, seems to be benefited from their household participation in the program as the results

not only show a positive relationship between the variables, but also this relationship is statistically significant at a 99 % level of confidence.

In the case of the effect of the program in Child Labor, the estimated effect points out to a negative relationship between hours worked by children between 5 and 13 years old, and the participation of their families in the program; however, as it also can be seen in Table 11 this relationship was not significant at any valid confidence level, despite being school assistance one of the main conditionalities in the program. Population aged less than 13 years old were not included in the original models, thus the result of this estimation is particularly interesting.

These results have important implications for the program. Although this methodology implemented for this document is not powerful enough to observe with precision the real impact of the policy, as preliminary evidence the results of the models presented shown a weak relationship between the hours worked and being beneficiary of the program during the studied period, except for young people aged between 15 and 24 years old.

To discard the effect of the 2020 Covid-19 outbreak that affected Dominican Republic and the World, a new model containing data only from 2016 to 2019 was estimated for comparison purpose. The results are shown in Table 12. The symbol of the relationships between variables, and the levels of significance did not change, hence it can be concluded that the effect of the pandemic was not too relevant for the results. Consequently, it was assumed that the bigger data set could be more representative of the reality, and in addition it shows the results in the context of Covid-19 sanitary crisis, and that is very necessary to comprehend better the current situation and prepare resilient public policies.

In conclusion, and as stated before, these results are not a surprise, since most of the reviewed evidence in this regard points out that Conditional Cash Transfer programs do not cause reduction in the labor output of participants measured in total worked hours. However, for the ‘Progresando con Solidaridad’ Program, it was expected to find a positive effect on the amount of worked hours of members of participating families, since the program has as an explicit objective to increase labor opportunities and capabilities of participant households’ members by providing educational and training tools, and other services including facilities for entrepreneurship. In addition, the results of the models are not suggesting a significative decrease in child labor either, or this was a core objective of one of the conditionalities imposed to participants.

In contrast, reports from the Government about the program usually declare with confidence that the Conditional Cash Transfers and ‘Progresando con Solidaridad’ program are achieving their goals

successfully; notwithstanding, the data presented in this report suggest that more studies should be conducted relating the impact in the labor market and job opportunities for individuals in beneficiary households. Therefore, it will be important to allow external scrutiny Government support to reveal more evidence, and perform more studies with stronger methodologies, as well as provide the data of the program.

**TABLE 12. REGRESSION WITH MATCHED DATA SET BY PROPENSITY SCORE FOR YEARS 2016-2019 [MODEL 6]**

Variable Names	Estimate Coefficient	Std. Error	t value	Pr(> t )	Significance code
Intercept	2.40E+01	2.86E-01	84.0263	< 2.2e-16	***
Participation in the program	1.11E-01	1.12E-01	0.9874	0.323460	
Gender (1 = female)	-1.46E+01	9.91E-02	-147.720	< 2.2e-16	***
Age (Years)	-3.99E-02	3.03E-03	-13.146	< 2.2e-16	***
Years of Education	6.45E-01	1.26E-02	51.0345	< 2.2e-16	***
Civil Status (1 = married or domestic partnership)	1.35E+01	1.37E-01	98.58	< 2.2e-16	***
Zone of residence (1 = rural zone)	9.05E-01	1.22E-01	7.3959	1.41E-13	***
Gender of the household (1 = female)	-1.31E-01	1.37E-01	-0.9564	0.338856	
Civil Status of the household head (1 = married or domestic partnership)	-7.98E+00	1.61E-01	-49.4863	< 2.2e-16	***
Income from Foreign Remittance (1 = yes)	-5.34E+00	1.50E-01	-35.5878	< 2.2e-16	***
Household Income Per Capita (in DOP)	1.76E-04	4.16E-06	42.3881	< 2.2e-16	***
...	...	...	...	...	...
(Other dummy trimester variables were included in the model but omitted in this table presentation)					

**Source: Own Elaboration**

**Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1**

**Residual standard error: 464 on 192821 degrees of freedom; Multiple R-squared: 0.182; Adjusted R-squared: 0.1826; F-statistic: 1437 on 30 and 192821 DF, p-value: < 2.2e-16**

## 6.4 Interpretation of the results in the context of the Policy Governance Structure

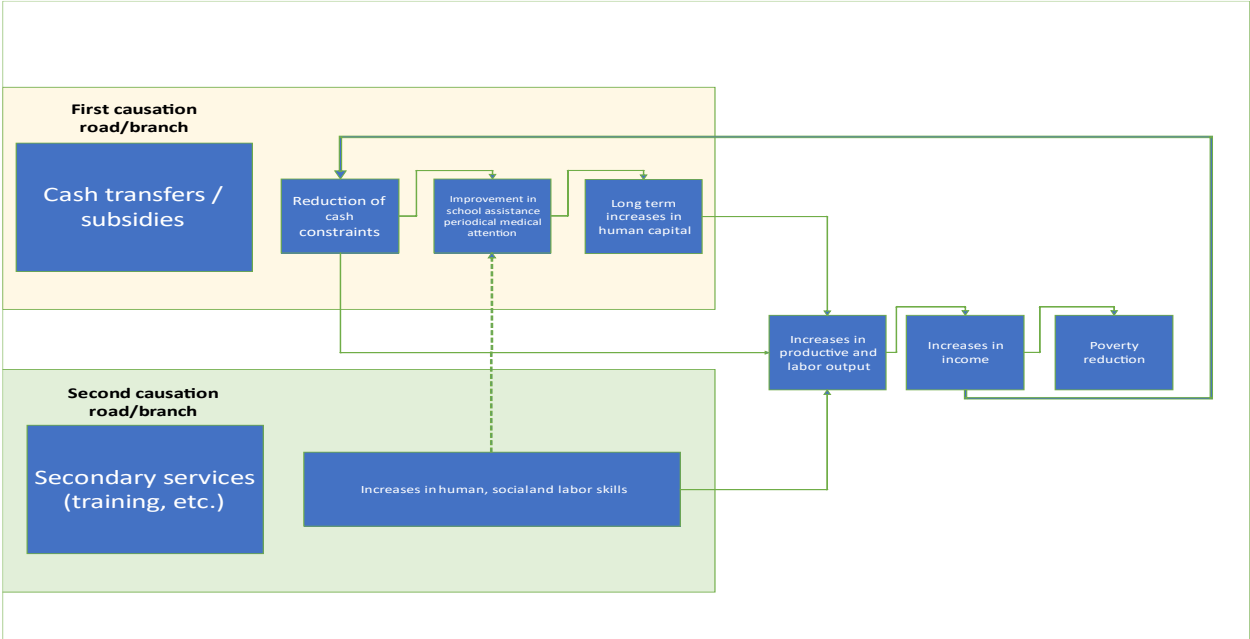
The results of the several models already presented are revealing by themselves. But the results of quantitative analysis always are better understood in the context of the policy. As advance in the methodology, the results of the quantitative part will be contextualized with more qualitative analysis.

### 6.4.1 Generative causation model

Utilizing a 'case-base process mechanism approach' based on documental revision, it was tried to present a causation model for the effects (or lack of it), centered on the participation in the program in the labor outcome of individuals in a household.

According to the documentation of the ‘Progresando con Solidaridad’ program, it was expected that in the long run, beneficiary households would develop tools to improve their economic and social conditions in the short term and this will contribute to overcome the poverty trap. The rationale behind this intervention can be framed in well-developed Human Capital Theories and concepts. Given this theoretical framework and the legal framework in Table 3, in the Figure 14 it is proposed a Change Theory for the program.

**FIGURE 14. PROPOSED THEORY OF CHANGE FOR THE ‘PROGRESANDO CON SOLIDARAD’ PROGRAM, FOCUSED ON THE LABOR OUTPUT OF INDIVIDUALS OF BENEFICIARY HOUSEHOLDS**



**Source: Own elaboration**

As it can be seen in the Figure 14, it could be assumed that ‘Progresando con Solidaridad’ program has two impact roads or impact branches, interconnected but with some degree of autonomy. The first impact road/branch is part of the compulsory program: once a household is inside the program it receives the money from the transferences and it must abide by the exigencies to receive the cash (the Conditional Cash Transfers). The second impact road is composed of secondary services offered in the program, such as training and accompaniment of social agents. In one hand the Conditional Cash Transfers alleviate short term cash constraints and help building human capital; and the other hand the secondary aspects of the program should help adults in the households to be more productive, but they are not compulsory.

There might be different reasons why the program is not increasing total worked hours of the individuals in beneficiaries' households of the program. Effects of the first impact road, as we saw in the Figure 14, probably will not be observable in the short nor mid-term: it might be years before these effects could be measured, especially if the methodologies used are not as robust as Experimental Evaluations and Difference and Difference Models.

About the second identified impact road, since there are not external incentives to participate in this part of the program (in contrast with conditional cash transfers branch), if there exists an impact, this could be very limited. The program only had a statistically significant effect among the young population according to what was shown in the Model 2 (Table 10). A plausible hypothesis is that auto motivation issues could be the underlying variable behind showing better or worse labor output while being in the program. To confirm these hypotheses, it will be necessary to have data about the characteristics of people assisting to the demanding the secondary services, but the current set up difficult estimate effects of the two proposed causality avenues, since the program is designed to feed each other.

At the same time, it seems that the economic incentives given through the Conditional Cash Transfers is not strong enough to generate a substitution effect in working time for leisure time. The design of the program does not incentive people to abandon their work or to diminish the total worked hours, at difference of other programs that are stricter with the conditions.

#### **6.4.2 Inter-organizational analysis**

In order to delve more in how the policy design could have impacted in policy delivery and policy effectiveness it was proposed an inter-organizational analysis based on document review and a questionnaire applied to experts in the matter. According to Organizational Theory, the outcome of policies is affected, every day more, but the context in which they develop. That is especially truth for policies such as Cash Transfers Programs in the context of being a tool for the broader scope of Social Protection by the Government. However, in Dominican Republic Conditional Cash Transfers are policy instrument are mostly isolated from the more global policy goals of the Social Protection Policy.

As previously stated, the 'Progresando con Solidaridad' Program is delivered in a network of institutions rather than being a responsibility of one singular government agency; these institutions are frequently called as the Social Assistance Tripod in Dominican Republic. While there is an agency of the same name of the program that is in charge of checking of the conditions, providing the secondary services and making the social accompaniment, there is a second institution actually delivering the transferences and a third one that identifies the qualified households to receive the cash transfers. There exist a fourth Government Agency, the Coordination Cabinet of Social Policies, assigned to help coordinating the main job of the three main

agencies key to the program delivery that are normally called the Social Assistance Tripod in the Dominican Republic. All these institutions were a dependency of the Presidency during the analysis period; however, they have their own budget and operative plans. During the period 2012 to 2020 the tripod and the Coordination Cabinet of Social Policies were under the supervision of the Vice-President.

According to Anna Hernandez, former Director of the Observatory of Social and Development Policies, one of the interviewed experts for this report, the structure within and around the Social Assistance Tripod was well thought in the sense that it did not interfere with policy delivery. According to the expert the role of a centralized leadership on the organization through the authority of the Vice-president facilitated the achievement of goals, and their alignment with the vision of the Presidency. However, the expert also pointed out that it was also possible to observe friction in the leadership of the different organizations and there was a lack of competence and policy design and evaluation that was filled out but International Organisms, (these International Organisms also helped to finance the policy).

Expert number two, a former researcher in the Observatory, Jerson Del Rosario, also found similar conclusions than in the first interview. Del Rosario expressed that:

“The institutional structure looked fine in paper, that is, having three separate agencies conducting a specialized set of tasks appeared to be good design in principle. Yet I think the governance and political culture of made some processes and internal collaboration difficult. For instance, each head of agency made reference to being exclusively respondent to the Vice-president alone, meaning that they would not collaborate with the other agencies unless the Vice-president asked them to. Similarly, I perceived there was a sort of contentious work environment, where each agency strived to shine on its own rather than as part of the larger institutional structure which was the Social Policy Cabinet. On the contrary, the Social Policy Cabinet itself had an appointed head which usually did not actually oversaw the three agencies. There was a sense that the PROSOLI, ADESS, SIUBEN and the Cabinet’s executive directors each were an independent organization with their own agendas and mandates. I do not think there was a hierarchy among the tripod’s agencies because each felt as directly connected with the Vice-president on a personal level and each conducting their business as a solo dependent of the Vice-president’s Office on its own rather than as a whole.”

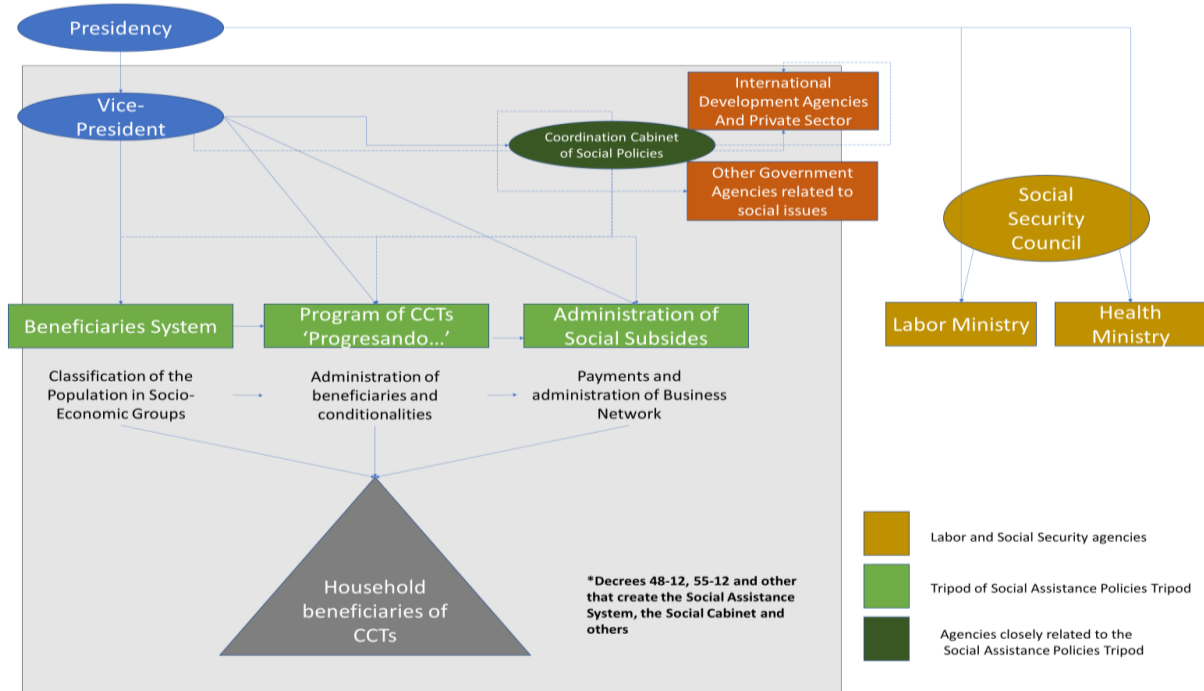
Del Rosario also pointed out that it was difficult for the Cabinet to implement the policy effectively because (1) different priorities in each agency, (2) there was weak oversight of the work of the 3 agencies despite

being coordinated in paper by the Social Policies Cabinet directed by the Vice presidency, and (3) dispersion of policy design and resources between the agencies on the program.

The experts concluded different aspects regarding the role of the vice-presidency in policy delivery, however it seems that both recognized that, although the closeness to the Presidency can be observe as a positive asset, in reality, it could have negatively affected the ability of the organizations to formalize coherent objectives.

The relationship between objectives and structure can be observed in Figure 15 based on the document revision and the interviews; we can observe a simplified diagram of the main agencies related to Social Protection Policy in Dominican Republic during the period 2012 to 2020, and we can see how the agencies in charge of coordinating the Social Security policy of the Government have their own space of governance coordinated by a National Council with participation of the Private and Public sector, but isolated from the Social Assistance. This configuration has its advantages, as it is clear how dense are the relationships between the Tripod and the Presidency (or Vice-presidency), but it also can be observed how weak are the links with the Social Security Institutions and Labor Policy. This is evidence in how, for example, it was necessary a temporal agreement between organizations in both sectors to allow sharing information between them during the Covid-19 pandemic to ensure avoiding giving subsidies to people receiving labor benefits to the massive layouts. Note that by default, public agencies working with social subsidies and Cash Transferences do not have access to Social Security Information and vice versa, due the big anachronism in the Governance Structure of the Conditional Cash Transfers Programs in Dominican Republic.

**FIGURE 15. SIMPLIFIED ORGANIZATIONAL CHART OF SELECTED GOVERNMENT AGENCIES RELATED TO SOCIAL PROTECTION POLICY AND THE LABOR MARKET**



**Source: Own elaboration in based on the Legal Framework of Conditional Cash Transferences Programs in Dominican Republic**

In the Figure 15 it can also observed other agencies and organizations that have in impact in policy delivery and inter-organizational dynamics that cannot be covered inside this research but that would be interesting to deepen, such as International Agencies (that supply financial and technical resources), the private sector, (providing services such as the Card Network where deposits are provided i.e., Visa), and other government agencies crucial to the program activities.

In resume, the major objective of the Tripod is to ensure that the adequate population is receiving the Conditional Cash Transfers, but the connections with the Labor policy is weak as best. None of the institutions related directly to the Cash Transference Program discussed in this document is close to labor policy, or Social Security policies, but to Short Term Goals of the Presidency (or Vice-presidency). Hence, they do not even measure frequently labor status of participants. Given this reality, it is difficult to justify the incorporation of goals related to labor outcomes of participants but for the wish of the authorities to align the program with the vision the head of Government at the moment, as it seems it was the case in the 2012 when the program incorporated the labor outcome goals.



## 7 Conclusions and recommendations

After analyzing all the data, the main conclusion of the study is that there is not a statically significative relationship between participation in the program and the labor output of individuals of beneficiary families of the ‘Progresando con Solidaridad’ program for the general population (aged as least 15 years old) during the studied years (2016-2021). Although initial explorations of the data pointed to a statically significative negative effect on the total worked hours, after applying techniques to improve the comparability of the population inside and outside of the program, it seems that the null hypothesis cannot be dismissed with exception of a modest, but statistically significant, effect on the population aged between 15 and 24 years old.

Rephrasing our interpretation of the results, Model 1 (General Lineal Model without matching scores) indicates that in fact there is a difference between people participating in the program and the ones no participating relating the labor output of individuals, and that that difference is significative; however, since the population participating in the total population are not necessarily representative of each other, we cannot attribute cause to program participation. Model 2 (the one using matching scores) offers comparing similar groups that the Program itself could have a positive impact in labor outcome of individuals in the beneficiary households, but the differences produced by the program are not statically significant.

This has important implications for the Dominican Conditional Cash Transference Program. At difference of most Cash Transference policies, ‘Progresando con Solidaridad’ Program had as one objective improve employability of the impacted households in the program. Even though the evidence seems to point that the program indeed is not negatively affecting the labor output of participants, as detractors could point out, it is also truth that there is no evidence that the program is improving the labor conditions of participants in the general sense, apart from young adults.

The results of the models do not represent a deviation from the literature. In the contrary, as most studies do not find an effect between labor outcome of members of beneficiary families and participation in Cash Transferences Programs, it was expected these results for Dominican Republic and ‘Progesando con Solidaridad Program’ as well. However, at difference of most programs that are satisfied with not having a negative effect in the labor supply of individuals in beneficiary households, Dominican Republic program design elements specified that one of the goals of the program is to improve the income and employability of members of the beneficiary households, hence, the lack of observable positive relationship could be categorized as disappointing in the context of the analyzed policy.

In that regard, utilizing a 'case-base process mechanism approach' based on documental revision, it was presented a causation model for the effects (or lack of it) of the program and the Labor Outcome of Participants. The analysis identified two impact roads or impact chains, interconnected but with some degree of autonomy: the Conditional Cash Transferences and the Auxiliar Secondary Services that beneficiaries can access as job training and general capacitation's, etc. The reasons why it was not observed a significative increase in the total worked hours of the individuals in beneficiaries' households of the program in a general level could be due to the necessary time lag to observe effects of Conditional Cash Transfers in Capital Accumulation. About to the second logical road in the causation model, this is probably the component boosting employment in the young adult population but, as it was observed, the services included on that part of the program are not compulsory, a plausible hypothesis is that auto motivation could be behind the results of the group.

The third conclusion with policy implication is that Cash Transference Programs in the context of the Social Protection policy in Dominican Republic are isolated, despite direct goals regarding labor outcome of participants in 'Progresando Con Solidaridad' transferences. A comprehensive Social Protection Policy should be formed by Social Assistance and Social Security Services, and ideally, these services should be coordinated. Notwithstanding, for Dominican Republic, it was observed that Conditional Cash Transfers are policy instrument mostly isolated from the global policy goals of the Social Protection Policy.

The final policy implication is a critique of the tripod of government agencies delivering the 'Progresando con Solidaridad' program itself in the context of the Social Protection Policy of the country: although, according to the opinions acquired with experts by the interviews, the structure within and around the Social Assistance Tripod was well thought and the process was being held by a centralized leadership trough the authority of the Vice-president that facilitated the achievement of goals, and their alignment with the vision of the Presidency, the experts also pointed out that it was also possible to observe friction in the leadership of the different agencies and there was a lack of competence and policy design and evaluation that was filled out but International Organisms, that also helped to finance the policy. This in combination with its isolation respecting the Social Security Institutions made difficult to justify the emphasis on labor results inside of the program, as it seems it was the consequence of political/campaign pursuits rather than technical motives.

Since evaluation of the program in other aspects have been positive according to Dominican Government, a plausible recommendation will be to redesign the policy to make less emphasis in Labor Promotion. The program could also be incorporated to a more formal structure, ideally closer to institutions related to Social

Protection Policy, although still close to the Presidency if it is considered necessary. The good results observed in the group of individuals aged 15 – 24 could be easily translated to programs coordinated by institutions directly linked to the Labor and Entrepreneurship policies of the Country.

In the other hand, the lack of observation of the relationship for the whole population could sign a weak policy design. The constructed logical causation model points out that the relationship between labor output and participation in the program is weak due to two main factors: first, the participation in training activities is not compulsory to participation in the program, and second, the main logic path of the program is focused in long-impact effects that cannot be observed with the proposed methodology and that could turn negligible taking into account decreasing regrets of the policy with time.

In that sense, it seem that the reason why labor supply goals were included in the 2012 reforms can be the consequence of the closeness of the program to the Presidency of the Republic. When policies are so close to the presidency, new authorities could be tented to imprint personal characteristics to those close programs and agencies; in the case of the ‘Progresando Con Solidaridad Program’ this is exceptionally easy as the governance structure is almost established exclusively by decree in contrast with most Dominican Public Agencies that are created by Law and need congressional approval to make significative changes. As there was a change on the Head of Government in 2012, then President Danilo Medina could have assigned to his then Vice-Prisency to adapt the program with the new vision of the Government focused on employment, as the Social Policy of the Government was often considered as clientele-oriented rather than empowerment-oriented. The validity of this criticism should be put on doubt, as the literature review recommends, but the adaptation of the program to particular administrative goals seems to be confirmed by the changes applied in 2020 with the new administration, as it was done in 2012.

In the other hand, despite the focus on labor outcome of the program since 2012, the organizational analysis reeled great connection to the presidency but lack of connection with labor policy agencies between the Government and the Program. Given this reality, it will probably be beneficial the consolidation and formalization of the program with stronger legal documents, and the assignation of the program to its own structure, independently of the presidency and closer to its core goals of poverty reduction and social assistance. This can be achieved creating a Ministry, or preferably, integrating the program to existing agencies such as the Labor Ministry that it is already supposed to oversee the Social Security component of the Social Protection Policy in the Dominican Republic; assigning the Social Assistance Component to the Labor Ministry will allow greater communication between both aspects of Social Protection and that is necessary in events such as the global pandemic that affected the country (note that for instance, the Social

Protection Data System do not communicate automatically with Cash Transferences extensive records, and that initially affected the Covid-19 response of the Dominican Government).

Finally, it is necessary reassert that it is necessary to delve more into this topic with stronger methodologies to improve the knowledge of the country regarding how to improve policy delivery in Social Protection and Social Assistance. These results should be taken cautiously as it is necessary stronger methodologies such as counterfactual impact evaluation to assess the presence of lack of impact of a program. However, given the available data and other research constrains, the present study only hopped to provide evidence for monitoring the program results in the short term. In that sense, the presented results are of value for understanding the current relationship and in the future that will allow to delve into these questions with stronger methodological approaches.

Currently, the program faced changes in 2021 with the newcomer Luis Abinader Administration, and it seems that it would focus more on young people with the 'Superate' rebrand. This recent policy shift is congruent with the findings of these research, although because of time constraints and lack of data for that period onwards, recent changes were left out of the present study. Notwithstanding, this confirms the susceptibility of the program to changes and why it was so easy to implement this non-sensical focus on labor outcome of participants rather than in Social Assistance, as it was originally intended.

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## 9 Abstract in Korean

국문초록

# 도미니카 공화국의 조건부 현금 이전 프로그램 및 인력 공급: 거버넌스 구조상 정책성과 분석

**De Jesus Adon, Jean David**

서울대학교 행정대학원

글로벌행정전공

이 연구는 도미니카 공화국의 '프로그레산도콘 솔리다리다드' 프로그램의 조건부 현금 이전 관계를 연구하기 위한 것이며, 반복적인 단면 데이터와 를 사용하여 국가 사회 보호 정책의 맥락에서 2012-2019 년 기간 동안 참여 가구의 노동 결과를 결정했다.

거버넌스 구조 분석은 보다 강력한 계량적 도구를 사용함에도 불구하고 프로그램 참여와 참가자의 노동 결과 사이의 부정적인 관계를 나타냈다. 그럼에도 불구하고, 프로그램에 대한 참여와 참가자의 노동 결과 사이의 관계는 통계적으로 유의하지 않았다. 모델 결과를 설명하기 위한 프로그램 거버넌스 구조의 정성적 분석은 예상치 못한 결과에 대한 가능한 설명으로 취약한 프로그램 설계와 목표 설정의 결함을 지적했다.

주요 키워드: 현금 이전, 고용, 사회 보호, 노동 공급, 지배구조

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