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**Enhancing the resources of frontline workers in
welfare-to-work policy: is it financially effective?
Findings from a local pilot in Southern Switzerland**

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Abstract

Aims: this paper reports findings of a counterfactual analysis measuring the direct financial impact of a 20-months pilot project in the field of welfare frontline delivery in the Canton of Ticino (Southern Switzerland). The "OSA 100 incarti" project consisted of a reduction of the administrative workload and in a tailored training focusing on social work skills that has been offered to the administrative case workers.

Methods: we adopted a theory-driven evaluation approach based on the construction of an impact theory that considers the point of view of the main stakeholders as well as theoretical elements. The financial impacts have been measured in the framework of a counterfactual quasi-experimental design combining a propensity score matching technique and fixed-effect regressions.

Findings: the evidence suggests a direct financial benefit for the public administration. The main source of savings comes from the reduction in the social assistance ordinary benefits. The gain is mainly driven by the savings obtained for the households that were economically inactive at baseline. Interpretation and possible policy implications of these findings are presented.

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- > Impact evaluation
- > Impact theory
- > Counterfactual approach
- > Active social policies

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1. Background

This article summarizes findings of an evaluation study aimed at understanding the impacts of a pilot-project implemented in the field of social assistance in the Swiss Canton of Ticino.

Like most federal countries, Switzerland has developed over the years a multi-tiered system of social protection, where different levels of the government share the financial and decisional powers, as well as the implementation of social protection mechanisms (Armingeon & al., 2004). The social insurances system, lying within the Confederation's scope of responsibility, represents the main instrument of Switzerland's social protection system. It protects households and individuals against a number of social risks (e.g. old age, unemployment, invalidity) and their financial consequences. Cantons retain substantial power and room for manoeuvre in several important areas of social policy: for instance, social assistance is entirely decided upon at the cantonal level.

The social assistance regime is a means-tested safety net that aims at providing households with financial independence and social integration by preventing them from falling into poverty. Social assistance is available irrespective of the causes that make it necessary and includes a detailed evaluation of the applicant's situation. According to the Federal Constitution, anyone in need and unable to provide for themselves have the right to assistance and care, and to the financial means required for a decent standard of living (Art. 12), and they shall be supported by their Canton of residence (Art. 115). Social assistance legislation lies thus within the cantonal competence scope, so that there are as many different social assistance schemes as there are Cantons.

The social assistance financial support is generally provided in accordance with the guidelines laid down by the Swiss conference of social action institutions at the national level (CSIAS, 2005), contributing to a certain degree of harmonization. The benefits recommended by the CSIAS are in particular as follows:

- *Ordinary benefits* for subsistence to cover everyday life expenses (food, clothing, transportation, etc.), housing and compulsory health insurance costs.
- *Benefits based on circumstances* may be corresponded according to the state of health or to specific economic and family situations.

Unlike in the past, many people who are relatively socially well integrated and, at least theoretically, able to re-enter the labor market are benefiting from social assistance. To do this,

however, they often need to receive an employment-oriented support by their social service (Bonoli & Champion, 2013), which call for an adequate organization, skills and strategies.

The work integration of “hard-to-place” jobseekers is a difficult task, requiring a wide variety of skills. The latter include, on the one hand, a good understanding of how the labor market works; on the other hand scientific evaluations indicate the effectiveness of a close and intensive coaching supporting the job search, but intervening also on a psychological plan (e.g. self-esteem, self-efficacy, motivation), and seeking solutions to practical challenges such as transport problems, childcare or debt problems (Bonoli & Champion, 2013). If, for specialized and targeted coaching measures, a favorable ratio is between 30 and 60 people followed per coach, in the case of social services it should not exceed 100 beneficiaries (CSIAS, 2008).

The employment-oriented mission also requires the adoption of an adequate strategy and the offer of effective work integration measures. A series of evaluations on the Public Employment Service in Switzerland have highlighted the effectiveness, for the purposes of work integration, of early activation, of the adoption of constraints related to job search and the use of sanctions (Lalive et al., 2005; Behncke et al., 2007). With reference to the latter, possible reductions in benefits are also envisaged in the social aid sector, but they are more limited in scope, as they cannot exceed 30% of the ordinary benefit covering life expenses (CSIAS, 2005). In addition, a study by Arni & colleagues (2009) shows that the application of sanctions can have negative effects on job stability and wage levels.

Regarding the offer of activation programs, the evaluations of the unemployment insurance often mention, among the effective measures, subsidies to employers, contacts with companies, the allocation of vacancies and internships (Behncke et al., 2007). Although most cantons have adopted integration measures for beneficiaries of social assistance, these often have a social inclusion goal (Pfister, 2009) and access to job search advice and to employment-oriented programs is mainly guaranteed by collaboration agreements with the Public Employment Service and regional employment centers.

A balance of international experiences in the field of activation shows how “work first” approaches, which aim at rapid reintegration at any cost on the labor market, hide the risk of trapping people with fewer credentials in low-quality employment sectors, with the consequence of producing chronic cycles characterized by periods of work and periods of total or partial dependence on public

aid (Konle Seidl & Eichhorst, 2008; Theodore & Peck, 2001). It therefore seems pertinent to combine work first strategies with policies more oriented towards training and investment in human capital. In this regard, if training measures appear to be ineffective for obtaining employment in the short term (Behncke et al., 2007), some research seems to indicate that they obtain positive long-term effects, both on employment and on earnings (Konle-Seidl & Eichhorst, 2008).

The “OSA 100 incarti” pilot project

This paper focuses on the evaluation of a pilot project implemented in the social assistance regime by the Canton of Ticino – a State located on the southern part of Switzerland. According to the Federal Statistical Office, the number of annual social assistance recipients in the Canton of Ticino grew from 6'087 in 2005 to 9'242 in 2015. During the same period, the average annual expenditure per recipient increased from 8'045 to 10'431 Swiss francs. The total expenditure in 2016 was 109.6 million Swiss francs, an increase of about 80% if compared to 2010 (Divisione dell’Azione Sociale e delle Famiglie, 2017). Further 5.5 million Swiss francs were invested that year in activation programs.

The Social Assistance Law and its regulation stipulate that the *Ufficio del Sostegno Sociale e dell’Inserimento* (USSI) is the cantonal office in charge of social assistance delivery. USSI’s frontline workers, the so-called OSA¹, cover tasks that include the validation of applicant’s eligibility for social assistance and the decisions around the payment of both ordinary benefits and benefits based on circumstances.

Beyond deciding upon financial benefits, OSA are asked to evaluate the employability of unemployed social assistance recipients in collaboration with the regional employment center for the purpose of activation². The regional employment centers are responsible for the employment integration of all individuals claiming unemployment benefits as well as social assistance recipients who are considered to be likely to quickly find a paid job. On the other hand, unemployed recipients who are judged as not (immediately) employable in the ordinary labor market should be activated by USSI, in so-called *Attività di Utilità Pubblica* (AUP). This is a secondary labor market program which aims to foster the social integration and, where possible, the employment integration of “hard-to-place” welfare recipients. AUP programs consist of temporary work-training periods, to be completed in the public and non-profit sectors (Avilés, 2016). The participant receives a monthly integration supplement of 300 Swiss francs over the ordinary benefit. A lump-sum reimbursement for public transport costs and meals may also be granted. Conversely, in accordance with the workfare paradigm, refusal to participate in a program without valid and proven reasons involves the risk of incurring a sanction in the form of a temporary reduction of the welfare benefit.

In recent years, a single OSA has been managing an average of 270 household cases³, up from 180 in 2010. This number represents a much larger workload compared to the CSIAS guidelines, which recommend a workload of 80 to 100 files for an effective intervention, both in terms of administrative control and support towards social and work integration (CSIAS, 2008). This work overload is deemed to increase the risk of evaluation mistakes and a substantial reduction of the time available to the OSA for seeking an appropriate activation program (Avilés & al., 2018). This unsatisfactory condition led USSI to launch in 2015 a two years pilot-project called “*OSA 100 incarti*”, allowing three OSA to test the recommended workload of 100 files per officer. The experiment implied the need to temporarily hire three additional OSA.

After a preparatory phase, the operative stage of the project started in March 2016 and lasted until the end of October 2017 (20 months of duration). The new modality of intervention has been tested on around 300 cases, equally spread among the three main municipalities of the Canton: Lugano, Locarno and Bellinzona. In total, three OSA were selected to manage these cases, whilst the remaining cases continued to be managed according to the usual approach, representing thus a “control group” for the purpose of a scientific evaluation. The same selection procedure applied to the households that began to receive social assistance during the project.

The University of applied sciences of southern Switzerland (SUPSI) provided the three OSA with a specific training focusing, during 15 separate lessons, on basic social work skills such as the helping relationship, interpersonal communication, relational styles and the capacity of successfully use the interview instrument for emancipatory purposes.

By reducing the number of managed cases and by acquiring specific “social” skills, the three selected OSA were expected to improve the frequency and the quality of their relationship with the welfare beneficiaries. Moreover, the decreased administrative workload and an increased geographical mobility, should have led to a better knowledge and a more in-depth cooperation with the institutional partners, more particularly the activation program organizers and the municipal social services.

Beyond providing the training, SUPSI was also in charge of performing an impact evaluation of the “*OSA 100 incarti*” project. On the one hand, the effects have been examined from the subjective point of view of the main stakeholders, through a survey on a sample of “treated” welfare recipients and a series of qualitative interviews with the OSA, the municipal social services and two organizers

of collective AUP programs. On the other hand, the evaluation included a statistical monitoring of the occupational trajectories of all the treated individuals and a counterfactual impact assessment on the following outcomes: ratio of households leaving the welfare regime, reasons for leaving, time spent on welfare since the beginning of the project, and the average social assistance expenditure per household. As is apparent from the above outcomes, active social policies can significantly influence the socio-economic trajectories of vulnerable households.

The complete research findings are described in an unpublished research report (Avilés & al., 2018). This contribution focuses on the counterfactual impact evaluation implemented in order to test whether the project had the expected, or any other, direct financial consequences, i.e. the financial gains or losses for USSI in terms of social assistance expenditure.

The paper structure is as follows. In the second chapter, we describe the impact theory of the project. In the third chapter, we present our dataset and the methodology. In the fourth section, the main findings are summarized. Finally, the fifth chapter is devoted to the conclusions.

2. Impact theory

The evaluation of the financial impacts, presented in the paper, links the costs to the benefits of the project. In order to guide the analysis and interpretation of the financial outcomes, we developed a specific impact theory. The impact theory is a causal theory that describes a cause-and-effect sequence in which every program activity is the triggering factor and the intended (social) benefits are the effects they eventually produce (Rossi & al., 2004). Evaluators, therefore, typically represent program impact theory in the form of a causal diagram or a logic model showing the cause-and-effect linkages presumed to connect a program's activities with the expected outcomes.

When a program's theory is not explicitly defined, as it was the case with the "*OSA 100 incarti*" project, the evaluator must derive and describe the logic chain before analyzing and assessing a program. For an existing program, one should describe the theory that is actually embodied in the program's structure and operation. The primary sources of information for developing a program theory are (Rossi & al., 2004): 1) review of program documents; 2) interviews with program stakeholders and other selected informants; 3) site visits and observation of program functions and circumstances; and 4) the scientific literature. With the purpose of eliciting the financial impact theory, we relied on a stakeholder-driven evaluation of the project: we performed a survey with a sample of welfare recipients and collected qualitative information from the OSA, two integration

program (AUP) organizers and the three municipal social services involved in the project. Moreover, we did consider elements suggested in the literature on the impact evaluation of active labor market programs⁴.

The (expected) impact theory is summarized in Table 1. It is composed of a logic chain connecting inputs, outputs, outcomes and impacts.

Table 1: Financial impact logic model

Inputs	Outputs	Outcomes	Impact
Hiring of three additional OSA	Decreased administrative workload and improved quality and control over the administrative records	Decrease of average time spent on welfare (A) <i>A.1: A higher ratio of closed files</i> <i>A.2: An increased rapidity of file closure</i>	Decrease of overall social assistance expenditure
Specific training for the OSA	Increased number of interviews and better quality of human relationships with welfare recipients	<i>A.3: A smaller number of households re-entering in the social assistance regime</i>	
	Increased frequency and rapidity of welfare recipients activation	Increased ratio of open files without any payment (B)	
	Better cooperation between USSI and the institutional partners	Increased employment revenues of welfare recipients (C)	
		Decrease of wrongfully paid benefits (D)	
		Increased costs related to AUP programs (E)	
		Increased costs related to benefits based on circumstances (F)	

Source: elaboration by the authors.

Inputs of this project are mainly twofold. The main source of expenditure is related to the temporary hiring of three additional OSA. The reduction of the number of cases in charge to a single OSA increased the administrative costs for USSI, which have been estimated in 1'128 Swiss francs per file during the whole duration of the project (i.e. 20 months). On the other hand, as already outlined above, the three OSA had the opportunity to attend a specific training focused on social work skills. The evaluation that follows tries to understand whether the project outcomes have compensated or even exceeded this additional cost.

The inputs seem to have generated a series of positive *outputs*⁵. The latter have not been measured systematically with “objective” indicators, but the expected outputs have been generally confirmed by the subjective point of view of the main stakeholders. Firstly, the OSA reported a rise in the level of completeness and control over the administrative documents due to an actual reduction of their administrative workload from around 270 files to 100 files per officer⁶. Secondly, they reported an increase in the depth and quality of the human relationship and cooperation with the welfare recipients, due to an increased number of interviews and to the skills acquired during the training. The OSA evaluated the acquired skills as very useful for their job, they perceived an improvement in their abilities of structuring and conducting the interviews, as well as entering in the private sphere of welfare recipients in a non-invasive manner. They also felt a change in their attitude to relativize their initial representations of the beneficiaries. The social assistance recipients also frequently experienced a better relationship with the OSA and a consequent positive impact on psychological well-being and motivation. Thirdly, the increased time available for consultations, and for other tasks linked to work integration, produced a positive effect on the frequency and the rapidity of the beneficiaries’ activation in AUP programs. Finally, the interviewees reported an improvement in the quality of the cooperation between USSI and the AUP organizers; this was especially the case for some important organizations offering collective programs⁷. A better understanding of the welfare recipients’ needs and a strengthened contact with the AUP organizers has been commonly recognized as an important factor in the choice of an appropriate activation program.

Concerning the project’s *outcomes*, we have elaborated a list of six hypotheses. Hypotheses A to D predict a decrease of the social assistance expenditure, whereas hypotheses E and F predict an increase. In the section regarding the results, we will provide empirical evidence allowing the verification of each causal mechanism.

A. Decrease of average time spent on welfare

This outcome can be assessed by measuring the time elapsed between the start of the project and the administrative closure of the case, which take place six months after the last payment. The expected reduction of time spent on welfare comes from the possible combination of one or more of the following mechanisms:

- *A.1: A higher ratio of closed cases.* A higher proportion of cases are closed in the “treatment group” (TG) compared to the “control group” (CG).
- *A.2: An increased rapidity of cases closure.* The ratio of records closed is not necessarily higher in the TG, but the OSA are able to close them more rapidly.
- *A.3: A smaller number of households returning in the social assistance scheme.* If, for example, the members of the TG exit social assistance by finding jobs of greater quality than people belonging to the CG, they will be less likely to claim welfare benefits again in the future.

Following the qualitative subjective findings, it is reasonable to assume a positive influence of the project on the transition to the ordinary labor market. In this respect, we assumed that a faster and a more adequate matching between the candidates and the activation programs would increase the probability of finding a job. Moreover, the enhanced subjective well-being and motivation reported in the qualitative analysis by the welfare recipients is also likely to improve the chances of re-employment. On the other hand, the higher frequency of consultations with the OSA (possibly perceived by some people as a form of control), as well as the higher ratio of activation, are likely to generate a so-called “filter effect” of social assistance recipients having an undeclared job or being unmotivated to work (Bonoli, 2008). A filter effect would produce an increase of the number of exits from the welfare regime and an increase of the financial sanctions (temporary cut of welfare benefits). However, the positive impact predicted on duration spent on welfare is likely to be reduced if the higher activation ratio is correlated with so-called “lock-in” or “stigmatization” effects (Bonoli, 2008). The former takes place if the participants of an AUP program lose their motivation to seek a regular job (possibly because they feel good in the program) or do not have enough time for job searching. On the other hand, the stigmatization effect is linked to a possible reinforcement of the stigmatization attached to vulnerable groups if the participation in an activation program is perceived as a negative signal by potential employers.

B. Increased ratio of open cases without any payment

Consistently with the hypothesis of a reduction in the duration spent on welfare, we did assume that during the last six months of the project one would observe a higher ratio of open cases without any benefit in the TG, i.e. records that will be possibly closed six months after the last payment. Considering the limited time horizon of the analysis, this could be an important causal mechanism for the interpretation of the financial impact.

C. Increased employment revenues of welfare recipients

An increase of the re-employment chances (or of the job revenue of already employed welfare recipients) does not necessary lead to an exit from the social assistance regime. This can be the case if the wage is not enough to get over the poverty threshold. Nevertheless, an augmentation of job revenues would have a positive impact for USSI in terms of a reduction of its financial costs.

D. Decrease of wrongfully paid benefits

Thanks to a better knowledge and control over the administrative records, we assumed that the OSA would have been able to reduce and/or revise decisional mistakes and thus the amount of wrongfully paid benefits. An indicator capturing this positive effect is the amount of money deducted from the ordinary welfare payments, i.e. the “deductions”. Conversely, when a revision of the administrative decision leads to the cancellation of the household right to perceive social assistance, this effect is reflected in an increase of the outflows from the welfare regime (cfr. hypothesis A).

E. Increased costs related to AUP programs

Beyond the costs related to the recruitment of three additional OSA, the project might generate other costs. For example, an increase in the number of activated welfare recipients produces additional expenditures for the integration supplements paid to AUP participants and the reimbursements set for collective AUP organizers.

F. Increased costs related to benefits based on circumstances

Additional costs might also arise because beneficiaries that take part in the pilot are better informed and aware of their duties and rights. Therefore, we did hypothesize an increase of the requests of benefits based on circumstances.

The global financial *impact* of the project results theoretically from a combination of the six abovementioned outcomes. Our research hypotheses are as follows. On the whole, it appears

reasonable to predict a reduction of the average direct costs of social assistance. However, the hypothesized financial gain is likely to be only slight, since the duration of the pilot project is limited to less than two years. Moreover, the causal mechanisms are likely to affect differently the three main groups of social assistance beneficiaries: the employed, the unemployed and the economically inactive. For instance, only unemployed people are eligible for AUP programs, so that activation outcomes cannot affect other welfare recipients groups, even though between-groups transitions are of course possible. Therefore, we measure the financial impacts of the project not only at an average level, but also within each single group.

3. Data and Method

In order to estimate the financial impact of the project we extracted data from the registry of the welfare benefits, commonly referred to as GIPS - “*Gestione Informatizzata delle Prestazioni Sociali*”, with the support of the cantonal government.

The research is set in a standard counterfactual framework. This approach requires a control group (CG) to act as the “counterfactual”, namely the situation a treated subject would have experienced had he or she not been exposed to the program. This approach was first developed by statisticians (Rosenbaum & Rubin, 1983) and econometricians (Heckman, 1978) as a new method for the estimation of causal effects from observational data. The main challenge is to identify a valid and convincing CG. However, our setting was particularly favorable for the implementation of a counterfactual evaluation. Indeed, within the three municipalities chosen for the experiment only a small proportion of cases were selected into the treatment, whilst the remaining cases have been managed by other OSA following the usual practice (approximately 270 records per OSA). Moreover, the “treated” files, i.e. the treatment group (TG), were selected according to the initial letter of the family name of the household head, thus following a quasi-random approach. At baseline (i.e. t_0 corresponding to the beginning of the operative stage of the project) we extracted information on all registered social assistance beneficiaries (i.e. the “active records”) in the municipalities of Bellinzona, Locarno and Lugano. A second data extraction from GIPS has been performed at the end of the project (t_1) on the same records.

The 2’557 observations in our dataset correspond to the number of households/cases and not to the number of individuals, since the members of a household are included in a single “case” and are thus counted as one observation. After the data cleaning⁸, only 2’361 cases were considered for the analysis: 274 in the TG and 2’087 in the CG.

Table 2 describes the socio-demographic profile of the sample, comparing the mean characteristics of both TG and CG by the employment status of the householder.

Table 2: Socio-demographic characteristics, by employment status

	Active		Unemployed		Inactive		Total	
	TG	CG	TG	CG	TG	CG	TG	CG
Gender								
Male	65.6%	59.2%	47.4%	38.3%	55.6%	49.1%	54.4%	46.4%
Female	34.4%	40.8%	52.6%	61.7%	44.4%	50.9%	45.6%	53.6%
Nationality								
Swiss	55.7%	57.0%	60.5%	58.4%	56.6%	56.1%	58.0%	57.3%
Foreigner	44.3%	43.0%	39.5%	41.6%	43.4%	43.9%	42.0%	42.7%
Municipality								
Bellinzona	31.1%	25.2%	21.9%	21.8%	45.5%	25.7%	32.5%	23.9%
Locarno	34.4%	14.7%	35.1%	14.5%	28.3%	19.0%	32.5%	16.2%
Lugano	34.4%	60.1%	43.0%	63.7%	26.3%	55.3%	35.0%	59.9%
Time spent on welfare (months)	37.5	35.6	37.4	35.6	43.6	43.0	39.7	38.4
Age (years)	43.2	42.7	42.5	41.5	44.2	44.2	43.3	42.8
Residency in Switzerland since birth	37.7%	38.6%	47.4%	43.9%	35.4%	39.4%	40.9%	41.2%
Dependent children	31.1%	34.0%	21.9%	18.9%	30.3%	26.5%	27.0%	24.7%
Type of household								
Single	90.2%	84.1%	86.8%	86.9%	91.9%	87.0%	89.4%	86.4%
Dual earner couple	1.6%	5.1%	2.6%	3.6%	2.0%	4.4%	2.2%	4.2%
Single earner couple	8.2%	10.8%	10.5%	9.5%	6.1%	8.6%	8.4%	9.4%
Civil status								
Married	11.5%	13.2%	12.3%	13.0%	10.1%	15.3%	11.3%	13.9%
Not married	88.5%	86.8%	87.7%	87.0%	89.9%	84.7%	88.7%	86.1%
Educational level								
Without completed vocational training	42.6%	42.3%	32.5%	39.8%	59.6%	49.4%	44.5%	43.8%
With completed vocational training	52.5%	51.1%	59.6%	54.0%	34.3%	41.7%	48.9%	48.9%
N.A.	4.9%	6.6%	7.9%	6.3%	6.1%	9.0%	6.6%	7.3%

Overall, a large majority of households are made up of one single person, whereas other types of households represent a minority. In the whole sample, there is a gender balance. Among the economically active householders, however, there is a prevalence of men over women (the opposite is found among the unemployed). The average time spent on welfare at t0 is around 39 months. Among the economically inactive there is an average longer duration (43 months). In the same subgroup, the proportion of people without completed vocational training is above average. These

characteristics seem to confirm a greater distance of the inactive households from the labor market, also considering that these people are often affected by health problems.

The basic assumption in a counterfactual approach is that the CG acts as the treatment would have done in the absence of the policy change. This assumption is usually relaxed by assuming that the outcome variables are independent of the treatment conditional on a set of observables, this is the so-called “unconfoundness assumption” (Rosenbaum & Rubin, 1983). The unconfoundness assumption is likely to hold when the TG and the CG are statistically equivalent (or balanced) on a large set of covariates that are likely to have a major impact on the outcome.

We did compare the TG and the CG using the standardized bias, a standard statistic in the counterfactual analysis context. The latter represents the result of the comparison between the standardized average values of the selected observable characteristics (Rosenbaum & Rubin, 1985). The smaller the bias, the more balanced the covariates are between the two groups, and the more robust the unconfoundness assumption is. In the empirical literature, an average standardized bias between 3 and 5 is considered sufficient to ensure the validity of the statistical findings.

The results of the comparison between TG and CG are reported in Table 3. The characteristics of the covariates refer to the householder.

Table 3: Standardized bias between TG and CG (before and after the matching adjustment)

Variable	Distribution		Standardized bias (%)	
	TG	CG	Raw	After PSRM
Gender (male)	54.4%	46.4%	16.0	0.8
Nationality (foreigners)	42.0%	42.7%	1.6	2.6
Municipality				
<i>Bellinzona</i>	<i>Reference group</i>			
<i>Locarno</i>	32.5%	16.2%	38.6	2.4
<i>Lugano</i>	35.0%	59.9%	51.3	0
Time spent on welfare (months)	39.7	38.4	3.4	0.1
Age (years)	43.3	42.8	4.1	1.9
Residency in Switzerland since birth	40.9%	41.2%	0.7	1.4
Dependent children	27.0%	24.7%	5.3	3.1
Type of household				
<i>Single</i>	<i>Reference group</i>			
<i>Dual earner couple</i>	2.2%	4.2%	11.5	3.9
<i>Single earner couple</i>	8.4%	9.4%	3.5	2.1
Married	11.3%	13.9%	7.8	1.5
Educational level				
<i>Without completed vocational training</i>	<i>Reference group</i>			
<i>With completed vocational training</i>	48.9%	48.9%	0.1	0.7
<i>N.A.</i>	6.6%	7.3%	3.0	3.6
Employment status				
<i>Employed</i>	<i>Reference group</i>			

Unemployed	41.6%	43.5%	3.8	2.7
Inactive	36.1%	36.9%	1.6	0.9
Total			10.2	1.8

Despite the quasi-random selection criteria, the two groups are not as similar as one could expect. In fact, the raw standardized bias is in some cases very high: for example, the proportion of men in the TG is 8% higher than in the CG, resulting in a bias of 16%. Considering all the covariates, the average bias is 10.2, thus lying above the recommended threshold of 5. Therefore, we decided to implement a “matching” approach to reduce the statistical imbalance between TG and CG. Amongst the various techniques available, we opted for the Propensity Score Radius Matching (PSRM). This is a very intuitive method, which has the advantage of dropping fewer individuals than an exact matching technique (Dehejia & Wahba, 2002). The first step is to estimate the probability of being treated, i.e. the propensity score. The propensity score is calculated by means of a standard logistic regression model estimating the probability of being selected in the TG for each participant in both the TG and the CG, conditionally to a set of covariates. Each treated case is then paired with all the cases in the CG that lie within a fixed distance from its own propensity score, i.e. the radius. In our case, after testing several alternatives, we decided to select all the households within a 0.1 percentage points radius. This has been chosen as a good compromise between comparing similar observations and not losing too many observations because of a restrictive matching. In fact, when a control or a treated observation does not have a counterpart in the other group, it is dropped and considered to be out of the *common support*. It happened that only one record in the TG has been excluded from the analysis, as no comparable controls were available.

As shown in the last column of Table 3, applying the matching technique resulted in a significant reduction of the bias. Indeed, the average standardized bias after matching is 1.8, which is well below the suggested threshold of 5. Therefore, the difference observed in the outcome variables between TG and CG are now interpretable as the Average Treatment Effect on the Treated (ATET). In the remaining of the paper, we will focus on the impact estimates resulting from the matched sample analyses. Separate estimates will be presented for employed, unemployed and inactive households, considering the initial employment status of the householder as the selection criteria.

The limited number of observations in the TG has a negative influence on the statistical power of the inferential tests of hypothesis, especially when segmenting the sample into sub-groups in order to analyze the heterogeneity of the effects. Therefore, we decided to consider as statistically significant all the tests generating a p-value below 0.1 (i.e. at the 90% confidence interval).

Regarding the financial impact, the net social assistance expenditure for USSI between t_0 and t_1 is calculated by *adding* the benefits based on circumstances (including the costs related to activation programs, i.e. the integration supplements paid to AUP participants) to the ordinary benefits and by *subtracting* the deductions, the latter including the financial sanctions due to a refusal or a misconduct during the participation in an AUP program. Considering that there might already be a difference in the average costs between TG and CG at t_0 , we implemented a fixed-effect regression, as did for instance Bonoli & al. (2017). This procedure allows adjusting the estimates to possible initial differences in the independent variable.

4. Results

In this section, we firstly present the results concerning the financial impact of the project. These will be subsequently interpreted in the light of the logic chain outlined in Section 2.

4.1. Financial impact

The results of the fixed-effect analysis, both for the overall population and for the three sub-groups (the employed, the unemployed and the economically inactive), are displayed in Table 4.

Table 4: Financial impact of the project, in Swiss francs (CHF), average value per case

	Employed	Unemployed	Inactive	Total
Total (O+C-D)	-2376 (3347)	-1621 (2523)	-6203** (3160)	-3440** (1748)
Ordinary benefits (O)	-1039 (2075)	-1525 (1751)	-3918** (1770)	-2285** (1083)
Based-on-circumstances benefits (C)	-1324 (2366)	-94 (1481)	-2427 (2564)	-1202 (1270)
Integration supplements	142 (215)	487** (246)	389* (224)	376*** (141)
Deductions (D)	13 (114)	2 (87)	-144 (99)	-48 (57)
Sanctions	-4 (13)	14 (51)	-8 (26)	2 (24)

***, **, * respectively represent the 99%, 95% and 90% significance level of the difference between TG and CG, computed using the standard errors in brackets. Note: for “Total”, “O” and “C” a negative estimate means that there has been a saving for USSI thanks to the program, whilst a negative estimate for “D” reflects an additional cost (i.e. a reduced saving).

Over the 20-months period of observation, we have estimated an average financial benefit of CHF 3'440 per case. This result is statistically significant and has to be attributed mostly to a reduction in the ordinary benefits (-CHF 2'285).

The only other impact that is statistically significant at the average level (cfr. the last column of the table) is the increase of CHF 376 linked to the integration supplements paid to the participants in an activation program. This result confirms hypothesis E, i.e. an increase of the costs related to activation programs. On the contrary, the evidence does not confirm hypothesis D, suggesting that the experiment has not led to a decrease of wrongfully paid benefits and, thus, to an increase in the amount of deductions. The same applies to hypothesis F: the statistical tests have not confirmed an increase of the benefits based on circumstances; the direction of the estimates indicates even a possible decrease.

The financial impact is not homogeneous. Indeed, a statistically significant saving is observed only for the inactive group (-CHF 6'203). Once again, the financial gain has to be explained mostly by an important decrease of CHF 3'918 in the ordinary benefits. It is also interesting to observe the existence of additional costs related to the integration supplements (+CHF 389). Since only the unemployed are eligible for participation in an activation program, this finding reflects a more significant and/or rapid transition from the inactive to the unemployed group in the TG.

Despite a consistent direction of the estimates, the evidence does not allow to confirm any significant financial gain for the other sub-groups of welfare recipients, i.e. the employed and the unemployed. The only statistically significant outcome concerns an increase of the integration supplements for the unemployed (hypothesis E).

4.2. Time spent on welfare since the beginning of the project

Table 5 displays the findings concerning the effect of the project on the time spent on welfare. For cases that were still open at t1, the variable “time spent on welfare” corresponds to the time elapsed between t0 and t1, whereas for the closed cases it corresponds to the time elapsed between t0 and the date of the administrative closure of the record.

Table 5: Duration of the social assistance spell since the beginning of the project (in days)

	TG	CG	Difference	t-test	p-value
Active	460	477	-16	-0.63	0.532
Unemployed	466	498	-31*	-1.65	0.100
Inactive	478	491	-14	-0.78	0.437
Total	469	490	-21*	-1.83	0.068
Closed records only					
Active	269	254	15	0.45	0.653
Unemployed	241	274	-33	-1.10	0.272
Inactive	322	273	49*	1.86	0.065
Total	279	269	10	0.60	0.547

***,**, * respectively represent the 99%, 95% and 90% significance level of the difference between TG and CG.

We did estimate a statistically significant reduction of 21 days spent in the social assistance regime for the overall population. This result confirms the causal hypothesis A, i.e. a decrease of the average time spent on welfare. Nevertheless, the between-groups comparison shows a significant outcome only for the unemployed (31 days less spent on welfare). This reflects in particular the faster pace of closure observed for that category of beneficiaries in the TG, i.e. a reduction of 33 days spent on welfare considering only the closed files. Conversely, a negative effect on the rapidity of the closure has been estimated for the economically inactive households. On the whole, there is no significant effect on the rapidity of closure, so that the evidence does not confirm hypothesis A.2.

Table 6 presents the estimates regarding the ratio of closed cases. At t1, over a third of the files in the TG (36.6%) were closed, compared to 28.5% in the CG. The difference of 8.1pp is statistically significant; therefore, the evidence confirms hypothesis A.1, i.e. a higher ratio of closed records for the TG. The findings suggest a potential gain for all the sub-groups considered, however only the estimate for the inactive beneficiaries is statistically significant, with an increase of 10.7% of closed cases.

Overall, these findings indicate that, as opposed to other categories of welfare recipients, the project led to a higher ratio of closed records for the economically inactive households at t0. Nevertheless, we did observe, for the same category of welfare recipients, a longer permanence in the social assistance regime if measured on the closed files only. Therefore, the significant increase in the ratio of closed cases in the TG is probably due to the administrative closure of an additional number of records that need more time to exit from the social assistance regime than the “average case”.

Table 6: Ratio of closed files

	TG	CG	Difference	t-test	p-value
Employed	38.3%	31.6%	6.8pp	0.93	0.355
Unemployed	33.3%	26.7%	6.7pp	1.36	0.175
Inactive	39.4%	28.7%	10.7pp**	1.96	0.050
Total	36.6%	28.5%	8.1pp**	2.47	0.014

***,**, * respectively represent the 99%, 95% and 90% significance level of the difference between TG and CG.

Table 7 suggests that the higher ratio of exits from the social assistance regime is due to a higher proportion of transitions towards the labor market (the difference in the ratio of transitions to other welfare regime is not significant). In this respect, we did record a significant difference of 9.5pp

between the TG and the CG. On the contrary, no difference exists with respect to the transitions to other welfare regimes. However, we observe a decrease of 7.9pp in the proportion of closed files for unknown reasons, i.e. situations when there has been no contact between the former welfare recipient and USSI after the last payment. This could be explained by the better and more frequent communication between welfare recipients and their OSA during the course of the experiment. Despite not being statistically significant, this finding makes the interpretation of the results less clear. In fact, if the higher proportion of “unknown reasons” registered in the CG was due mostly to people returning (or entering) in the labor market, the suggested explanation would be challenged.

Table 7: Reason for leaving the social assistance scheme

	TG	CG	Difference	t-test	p-value
Transition to the labor market	35.0%	25.5%	9.5pp*	1.77	0.078
Transition to other welfare regimes	28.0%	29.2%	-1.2pp	-0.23	0.816
No more contacts/unknown reason	25.0%	32.9%	-7.9pp	-1.49	0.137
Other reasons	12.0%	12.4%	-0.4pp	-0.12	0.903

***, **, * respectively represent the 99%, 95% and 90% significance level of the difference between TG and CG.

To test hypothesis A.3, we have verified the rate of re-entry in the social assistance regime for the cases closed between t_0 and t_1 . Results show that 3.3% of TG members return to social assistance compared to 3.0% of the CG. The difference of 0.3pp is not statistically significant. This seems to disprove our hypothesis; however a longer observation period might help evaluating this assumption more properly.

To summarize, the general positive effect on time spent on welfare is driven, on the one hand, by a reduction of the average spell duration for the unemployed, which is linked to a higher speed of records closure in the TG. Another important determinant is the higher ratio of closed records. In this case, the largest gain (and the only one which is statistically significant) has been observed among the initially inactive welfare recipients.

However, the global findings supporting hypothesis A (cfr. Table 5) and showing a greater reduction of time spent on welfare among the unemployed, are not consistent with the stronger financial benefits estimated for the economically inactive. Thus, there should be other causal mechanisms at stake.

4.3. Other causal mechanisms

Hypothesis B of the logic chain model assumes a possible increase in the ratio of open files without any payment. This mechanism is linked to the administrative procedure, which requires a six-month period without payments before closing a file. Table 8 suggests the existence of such an outcome, although not statistically significant, among the inactive households, since the ratio of open files without any payment is always higher in the TG.

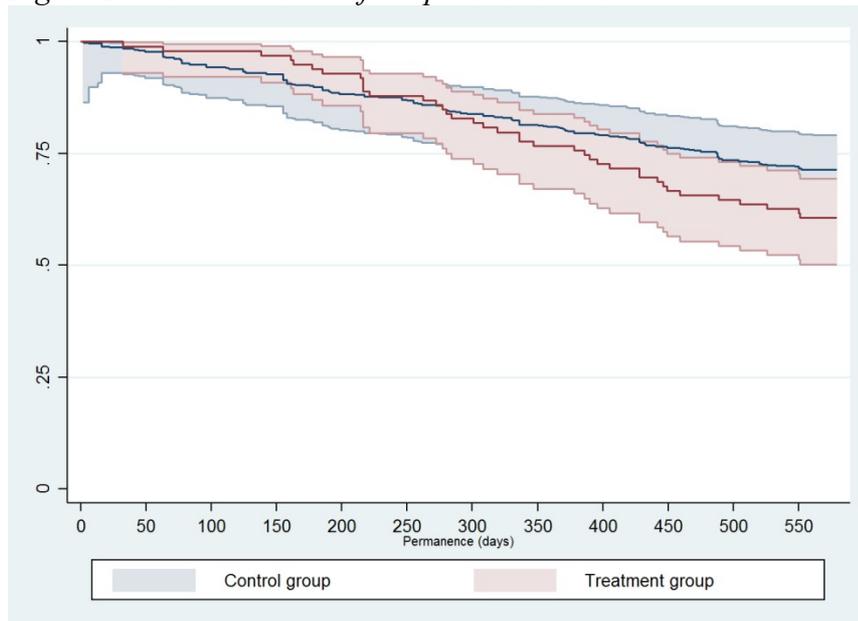
Table 8: Difference in the share of open files without payments (TG – CG), in percentage points

	Active	Unemployed	Inactive	Total
May 2017	-6.8pp	0.5pp	0.8pp	-1.0pp
June 2017	2.0pp	0.6pp	6.4pp	2.9pp
July 2017	-0.1pp	-0.9pp	6.9pp	1.9pp
August 2017	0.9pp	2.7pp	6.4pp	3.6pp
September 2017	-4.0pp	3.0pp	7.3pp	2.9pp
October 2017	-6.9pp	3.8pp	3.2pp	1.2pp

***, **, * respectively represent the 99%, 95% and 90% significance level of the difference between TG and CG.

Moreover, this result is consistent with the survival analysis of the permanence in the social assistance scheme for the inactive households (Figure 1). The plot indicates a progressive increase in the gap between TG and CG, which becomes favourable for the treated after ten months of project duration and tends to rise on the long run. In Appendix A, we present the same graphs for the active and the unemployed population. Although confirming an overall benefit of the project, in these cases the long-run trends are less clear⁹. These findings are thus consistent with the higher financial benefit measured for the initially inactive sub-group.

Figure 1: Survival curves of the permanence in the social assistance regime, inactive households



Concerning hypothesis C, since data on employment revenues were not available for this study, we did use a proxy variable, i.e. the employment status transition between t0 and t1 for the household's files that were still open at the end of the project. The analysis does not show any higher transition rate from inactivity and unemployment to employment for the TG compared to CG. On the contrary, in the TG there has been a higher number of active people at t0, that lose their job thereafter – a difference of 15.3%, which is statistically significant at the 90% confidence level. Therefore, the findings seem to reject hypothesis C. However, in order to definitively discard this causal mechanism, one should perform statistical analysis on the wage levels.

Finally, Table 9 shows the difference between TG and CG in terms of average “raw” – i.e. without fixed-effect correction - welfare spending at baseline for the subsequently closed files. The findings show an overall statistically significant difference of 309.30 CHF. However, the heterogeneity analysis indicates that the initial gap is important and statistically significant only for the inactive households (+CHF 612.80 in the TG at t0). This unexpected difference contributes to explain the strong financial benefit of the project for this specific group of welfare recipients. Unfortunately, the available data does not allow an interpretation of the underlying reasons of this initial gap¹⁰.

Table 9: Difference of average welfare spending at t0, closed files at t1 only, in Swiss francs (CHF)

	TG – CG	%
Active	155.2	16.9
Unemployed	94.8	7.6
Inactive	612.8**	34.3
Total	309.3**	22.4

***, **, * respectively represent the 99%, 95% and 90% significance level of the difference between TG and CG.

5. Conclusions

To summarize, the “*OSA 100 incarti*” pilot project, consisting in a reduction of the administrative workload and in a tailored training on social work skills for the frontline workers in charge of the delivery of welfare-to-work policy, had a direct financial benefit for the public administration. The main source of savings comes from the reduction in the social assistance ordinary benefits. The gain is mainly driven by the financial savings obtained for the initially inactive households.

Contrary to most impact evaluations, the interpretation of the “raw” impacts has been facilitated by the elaboration and the subsequent verification of the impact theory of the program. Such a theory-driven evaluation can be highly useful for the decision-makers, since it helps understanding the

underlying reasons of the (un)effectiveness of a program. Moreover, the heterogeneity analysis of the effects allows the identification of the target-groups who benefited the most from the intervention.

Table 10 displays the results of the statistical test of hypothesis concerning the causal mechanisms.

Table 10: Overview of the statistical test results concerning the causal mechanisms

Causal mechanism	Active	Unemployed	Inactive	Total
A. Decrease of average time spent on welfare	-	√	-	√
A.1 Higher ratio of closed files	-	-	√	√
A.2 Increased rapidity of file closure	-	√	x	-
A.3 Smaller number of households re-entering in the social assistance regime	-	-	-	-
B. Increased ratio of open files without any payment	-	-	-	-
C.* Increased employment revenues of welfare recipients	x	-	-	-
D. Decrease of wrongfully paid benefits	-	-	-	-
E.** Increased costs related to activation programs	-	√	√	√
F.** Increased costs related to benefits based on circumstances	-	-	-	-

*For the verification, we did use a proxy variable.

**Hypotheses E and F assumed a negative financial impact.

“√”: evidence supports the hypothesis. “-”: evidence shows no effect; “x”: evidence contradicts the hypothesis.

The financial gain for the overall sample has to be explained by a decrease of the average time spent on welfare, which is linked to a higher ratio of closed files in the TG.

Similarly, the significant benefit for the inactive sub-group is due to a higher proportion of closed records, but has also to be understood in the light of other causal mechanisms. On the one hand, the empirical evidence suggests an increase in the ratio of open files without any payment (i.e. records that are likely to be closed in the short run). On the other hand, an initial gap in the average welfare expenditure between TG and CG – barely explainable in the absence of a qualitative in-depth analysis - also contributes to clarify this result.

Although the evidence does not allow for a solid conclusion concerning the trajectories out of the social assistance scheme, it seems fair to assume that the higher number of closed records is due to the higher transition rate towards the labor market observed in the TG. This effect might be due to several factors: a) a more efficient collaboration with (and reporting to) institutional partners

providing activation programs; b) a higher rate of referral to activation programs resulting in filtering the population; c) an increased valorization and self-esteem of the welfare recipients due to a positive experience within the activation system; d) a perceived increased control and pressure coming from the frontline public workers (i.e. the OSA). Whilst the qualitative evidence at least partially supports the first and the third factor, the remaining two factors could also have been partially responsible.

The overall findings indicate that avoiding an excessive administrative workload and enhancing the opportunities for positive human relationships between welfare recipients and frontline workers in charge of welfare policy delivery produce significant financial gains for the public administration, at least in the case of the economically inactive households. Concerning other sub-groups of welfare recipients (i.e. the economically active and the unemployed), these improvements do not seem to be sufficient in order to yield tangible results. It is likely that activation and training programs that are more varied and tailored to the personal needs are necessary. Moreover, an employment-oriented mission requires personnel with a specific function and with training appropriate to that goal (combining both psychosocial skills and a good knowledge and understanding of how the labor market works).

Despite the heuristic potential of our evaluation approach, the small sample size and the short time frame of the study restrict the power of the counterfactual analysis. Thus, the empirical findings are mainly of an indicative value and will need to be confirmed in larger-scale evaluations. This is especially the case for analyses on small size sub-groups. Even though the cost-benefit ratio seems to be positive already in the short run, a reliable cost-benefit analysis is not recommended because of the great span of the confidence intervals.

Beyond the direct financial impact, further analysis should also consider other potential benefits at the individual and the collective level, such as the impacts on the financial condition and the physical and mental health of the welfare recipients, as well as the tax impact on the public budget and the financing of the social insurances.

6. Notes

1. The acronym OSA stands for “Operatore Socio-Amministrativo”. Despite this title, OSA are not social workers: they usually have a commercial education background.
2. Conversely, there are currently no specific active labour market programs conceived for social assistance recipients who are employed or economically inactive (the latter include for example sick and injured people, people taking care of children or other relatives, etc.).

3. Although a “case” represents in most situations a single person, in other circumstances it refers to a household composed of many persons. Therefore, it is important to distinguish between “cases” and “individuals”.
4. Further methodological details are included in the research report (Avilés & al., 2018).
5. The evaluation results concerning the outputs are reported in detail in Avilés & al. (2018). We include here only a short summary.
6. Indeed, during the project the overall number of files showed only a slight deviation of 7.3% above or below the desired figure of 300 files (the mean value was 308).
7. On the contrary, according to the interviewees, the cooperation with the municipal social services did not significantly change during the project.
8. The cleaning procedures consisted of several steps aimed at removing those observations that were not suitable for the analysis. Specifically, we excluded the following records: cases that were transferred to another regional structure and whose reference code had changed; cases that resulted already closed at t0; situations of people with an apparent re-entry in the social system prior to the closing of their previous record (administrative errors in coding); cases with an immediate re-entry in the system after a previous closure (for them we merged the consecutive spells in a single record); some cases changed OSA during the project switching between TG and CG (it was thus not possible to attribute them to a specific group); finally there were a few cases with incomplete information.
9. These results relativize the outcomes of hypothesis A (average time spent on welfare), that are clearly favorable to the unemployed group.
10. The comparison of the inactive households at t0 which have been closed by t1 shows no significant differences in the socio-demographic variables affecting the social assistance cost (i.e. the presence of dependent children and the type of household).

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7. Appendix

Figure A.1: Survival curves of the permanence in the social assistance regime, economically active households

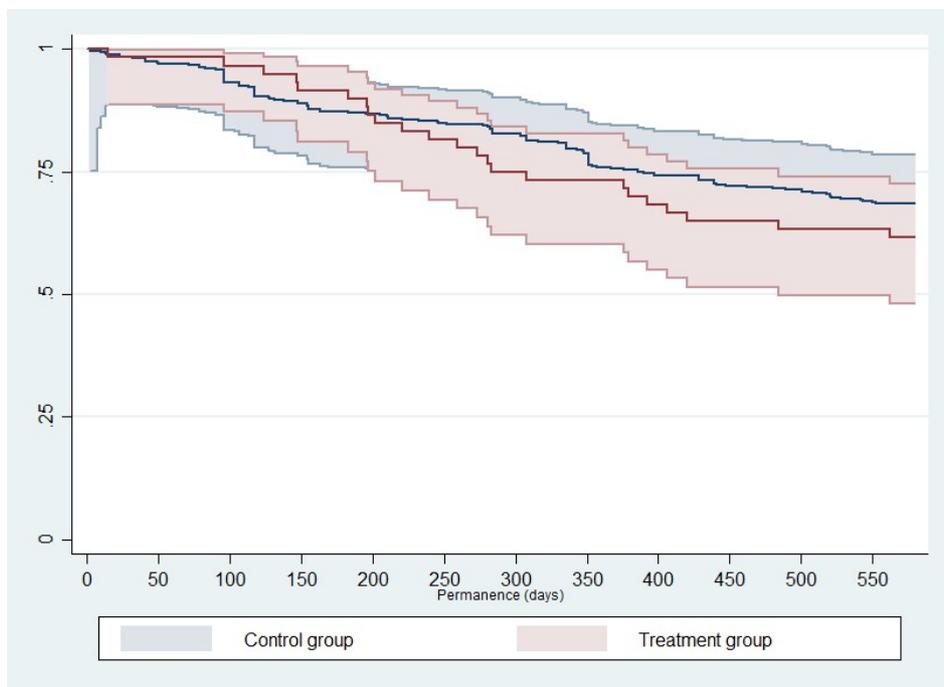


Figure A.2: Survival curves of the permanence in the social assistance regime, unemployed households

