A Work Project, presented as part of the requirements for the Award of a Master's degree in International Development & Public Policy from the Nova School of Business and Economics

Youth Guarantee Implementation by *MAXIMUS* in Italy: The Role of Training Within Youth Employment Services

Domenica Andrade

Work project carried out under the supervision of:

Professor Pedro Martins (Nova SBE)

Ania Mendrek (M*AXIMUS*)

04-10-2022

Abstract

This Work Project analyses the Youth Guarantee implementation by MAXIMUS, a private provider, in Italy. We draw on data from MAXIMUS participants in Lombardy and Emilia-Romagna to examine the effects of training for unemployment, the role of the design of Public-Private Partnerships, the expansion of MMS operations and solutions to current problems. Results highlight open-end contracts as the most prominent type of placement, being the variables of referral type the most significant to achieve a sustainable outcome. Training shows a statistically significant effect, giving evidence to a locked-in effect depending on age groups. The importance of monitoring and evaluation systems in the accreditation process. And the need to integrate employment service in the local communities, while delivering personalized support

Keywords: Youth Unemployment, Public-Private Partnership, Youth Guarantee, Italy, Training

This work used infrastructure and resources funded by Fundação para a Ciência e a Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab, Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences DataLab, Project 22209) and POR Norte (Social Sciences DataLab, Project 22209).

Acknowledgements: *We would like to thank our supervisors Professor Pedro Martins and Ania Mendrek for all their help and guidance with this Work Project. The MAXIMUS Italian Team, especially to Giorgia D'Alessandro, whose insights, knowledge and work were fundamental throughout this research. Lastly, we would like to thank our families for the support shown during this period.*

Tabla de contenido

CHAPTER 1: Youth Guarantee Implementation by MAXIMUS in Italy..... 6

Objectives 6

Methodology.....6

Socio-economic Context 7

Young Guarantee Implementation.....8

Public-Private Partnerships:.....8

Italian context 9

MAXIMUS.....11

Evaluating the Italian implementation: pre-MAXIMUS.....12

Literature Review 13

Descriptive Statistics.....15

1. Introduction & Variables.....15
2. General Information: Comparison with ANPAL Reports.....17
3. Cities: 19
4. Gender 21

Regressions:.....25

Cost-Benefit Analysis of the Lombardy Implementation 32

Introduction.....32
Cost of Orientation/ Basic Services.....33
Cost of Training.....33
Costs per Job Outcome.....34
Benefits From Saved Unemployment Benefits Costs 34
Benefits Income Deductions.....35
Limitations 37

Conclusions & Recommendations:.....38

CHAPTER 2: The Role of Training within Youth Employment Services 40

Objectives 40

Introduction 40

MAXIMUS Services 41

Literature Review 43

Lombardy Labour Market 46

MAXIMUS Data on Training 47

Data Description:.....47
Descriptive Statistics:.....48
Regressions:.....50

Policy Recommendations:.....53

Conclusion:.....53

References: Chapter 1 (Group Part).....55

References: Chapter 2 (Domenica) 62

Appendix A: Group Part 66

Appendix B: Chapter 2 (Domenica):.....67

CHAPTER 1: Youth Guarantee Implementation by MAXIMUS in Italy

Objectives

In cooperation with *MAXIMUS* (*MMS*), a private provider of employment and training services in Italy, an analysis was conducted of the implementation of the programme Youth Guarantee (YG) and the establishment of Public-Private Partnerships (PPPs) delivering these types of services.

The objective of this Chapter of the Policy Analysis Project is to supply key insights into what YG programme is, why it exists and the reasons for its presence in Italy, and how the Italian implementation has been perceived by experts so far. Moreover, we aim to explore the role *MMS* plays in YG in Italy, by answering the following questions:

1. What are the characteristics of *MMS*' job seekers (JSs) – how do variables such as City and Gender relate to other personal characteristics?
2. How many days on average does it take for a *MMS*' JS to find employment and what makes this journey shorter or longer?
3. What is the most prevalent contract type for a *MMS*' JS and what variables make an open-ended contract more likely?

Methodology

This project brings forward important insights into the Youth Guarantee implementation in Italy as it is being conducted in partnership with a provider, which from our knowledge has never been done before. Thus, we not only have access to first-hand quantitative data on the implementation but also benefit from constant support from the *MMS* Italy team and from the Director of *MMS* Global Group. This support translates into qualitative data through interviews to Regional Managers that oversee operations, to Case Managers (CM) that have hands-on experience with job seekers, and expert opinions.

The quantitative analysis was done using the statistical software STATA/MP 14.0 for MacBook, by running Ordinary Least Squares regressions to attempt to prove econometric models that respond to the proposed research questions.

Socio-economic Context

The economic recession of 2007, and its repercussions, worsened the challenges youth unemployment posed for the European Union (EU). This has led to a significant spike in youth unemployment in countries with relatively low employment. The transition school-to-work (STW) has become longer, more complex, unstable, and non-linear. The quality of youth employment, mixed with instability, started to deteriorate. Work experience has been important for a successful STW transition, but its availability was rare; increased passivity, hopelessness, and sense of detachment from the job market; and NEETs or more specifically, the underprivileged, low-skilled, migrants, and with disabilities, were extensively affected by the labour market volatility (Caliendo et al. 2018).

Policies promoting economic growth and social equality aim to provide young people with an education, a seamless transition into the labour market, and the possibility of remaining employed longer. Occasionally, weak Public Employment Services (PES) undermine the individualized provision to the NEETs. A disappointing entrance into the job market and long STW transitions can have detrimental consequences on youth regarding earnings, probability of further unemployment periods and poorer health and well-being (Gregg and Tominey 2005; Scarpetta, Manfredi, and Sonnet 2010).

After the 2013 Council Recommendation (European Commission 2020b), the YG was implemented to tackle the cyclical pattern of youth unemployment that was plaguing the EU. All Member Nations agreed to establish YG, providing young people with ages between 15 and 29 with jobs, education and internships, within four months of unemployment or after leaving formal education (Caliendo et al. 2018). Even though with distinct methodologies

such as different target groups, forms of interventions used and styles of partnerships, all EU members implemented the programme. These types of policy ideas have origin in the Nordic countries, with Sweden having implemented similar policies in 1984, Norway in 1993, Denmark and Finland in 1996 (Escudero and López 2017).

In the seven years leading up to the COVID-19 pandemic, NEETs fell and the number of unemployed youth was at a record low (European Commission 2020b). The pandemic reality empathised the vulnerability of young people regarding the labour market and the need to invest in digitalisation (European Commission 2020b).

Young Guarantee Implementation

The European Union report on Youth Guarantee for 2020, showcased a 12.7% of the NEETs were reached by the programme, 60.5% took up an offer within the 4 months of entering the program and 61.1% of the youth are in a positive situation after exiting the program. Even though the implementation and uptake are promising "young people that do not receive an offer within four months risk being left for long periods without one" (European Commission 2020a, 8).

The European Parliament published a brief on the lessons taken up to that point of the YG implementation (Kraatz 2017). The problems identified were the novelty of the programme, therefore results would be limited, the countries most affected by youth unemployment are simultaneously more limited in their programme implementation, due to a structural lack of resources. Moreover, the fixed-term contract cycle, so the quality of employment, was also mentioned as one of the main challenges, as well as the need for the European Commission to establish quality standards for the proposed job offers.

Public-Private Partnerships:

One way to implement YG is through PPPs, which some argue can provide better solutions for hard-to-serve job seekers (Cockx and Baert 2015). The OECD defines PPPs as

"long-term contractual arrangements between the government and a private partner whereby the latter delivers and funds public services using a capital asset, sharing the associated risks" (OECD 2012, 18). Partnerships contribute to the promotion of an efficient delivery of employment services to the youth, as it is an integrated response to their labour market needs (European Commission 2013). OECD also regards partnerships to improve policy outcomes (Förschner 2010). These definitions show that PPPs can be devised to reach various objectives in several sectors, hence, it is an integral policy tool.

Partnerships for the provision of PES cover central policy areas such as labour market participation, demographic change and social inclusion. Their objectives include integrating marginalised groups into the labour market and society, preventing unemployment, poverty and developing local economies and skills, amongst others (European Commission 20133).

Developing the appropriate framework to govern the PPP process should include a clear assessment of the institutional requirements for the implementation of the proposed PPP projects. The resulting structure should match the scale and scope of the programmes and its functions - such as project approval, policy development or technical support - and address any identified weaknesses. To be effective, it is important, as well, that the institutions have the relevant reporting channels, budget support and operational flexibility (European Commission 2003).

Italian context

The Italian population is 59 million, divided into its 20 regions; with a 57.2% of population concentration in urban regions (OECD 2022e, OECD 2022f). There is heavyly marked regionalism within the country and notable differences in the economic productivity, where the southern regions perform poorer and therefore are most affected by negative factors like unemployment and aging population. Adding to this, the economic crisis of 2007, led to the reduction of 2% of employment and in 2012, 2.744 million people were unemployed

(European Commission 2020a). Italy has one of the highest unemployment rates in the European Union, reaching 29.8% in 2021, that even though it had been decreasing since 2014, it has increased since the Covid-19 pandemic (Eurostat 2022a). Youth unemployment was a specific area of concern, specifically in southern regions where it was as high as 47% (ISTAT 2022a). NEETs are also of a very high concern and consist of 1.27 million citizens (European Commission 2013).

The latest report by the Italian National Institute of Statistics, places youth unemployment (people between 15-29 years old) at 19.6% (ISTAT 2022a). When viewing national statistics about youth unemployment, it's important to correctly define the age group being analysed, as when youth is increased to include the age group up to 35-year-olds, the percentage of unemployment drops, demonstrating greater employability for 25 to 35-year-olds, yet this is not the focus of the study as this age group is not included within the YG program. According to the Italian Implementation Plan, even though YG already existed through Legislative Decree N. 181, as a plan to help young unemployed people gain a job four months after unemployment, it did not include certain aspects that were recommended by the European Union like a standardized system and a formal guidance centre. Modifying this in order to have a more effective system was essential (European Commission 2020b).

An important aspect of the program was not only modifying employment services for the youth, but 'capturing' unemployed youth for less than 4 months and having them register in the program through the portal *cliclavoro*[1] or the "competent authorities. Hence, the youth could register voluntarily in the program or have "adequate contact points to be established within the education and training system in order to "capture" early leavers from education and training pathways" (European Commission 2013). Within the NEETs, the program

[1] https://www.cliclavoro.gov.it/

looked to target two groups specifically aged 15-29 years old, who register in the program as "never been employed" or "unemployed" (906 694 individuals) and those who leave education early and do not register and are not 'actively' looking for a job or are ready to work (569 247 people) (Santos-Brien 2018). The program decided, as well, to increase the age range of people supported by YG from 15-24 to 15-29 which as a result increased the beneficiaries from 1. 274 million NEETs to 2.254 or 23.9% of the young population. Initially, the Youth Employment Initiative (YEI) will provide €567 million to Italy, an equal amount of €567 million were invested by the European Social Fund (ESF), while the Italian government finances 40% of the sum, in order to establish and pursue this programme that was initially valued in €1.513 billion (Mandrone and D'Angelo 2014). The programme aimed to not only improve youth unemployment but also incentivize private partnerships to hire and train the youth through apprenticeships and traineeships, increase youth entrepreneurships and boost mobility.

ALMP, in Italy, is under the competency of the Italian Regions and Autonomous Provinces, implying a highly differentiated establishment of measures and structural models. Just 50% of the unemployed are registered in a local office of PES and only 25% contacted them on a monthly basis. This points towards the JS finding a job through different channels, or to their detachment with the labour market (Pacifico et al. 2018).

MAXIMUS

In August 2019, *MMS* entered the Italian employment market, through the mechanism of PPP. *MMS* offers specialized and individual career counselling (skill assessment and analysis of possible training needs and work experience), training for professional qualification and re-employment, self-employment and immediate job placement among other services. All these services are incorporated in the Active Labour Market Policies (ALMP), which are funded and co-funded at national, regional and European Union level.

In Lombardy, *MMS* operates under two programs: Youth Guarantee (Garanzia Giovani) and Dota Unica Lavoro. Both programs are designed to help people enter or re-enter the labour market and are implemented within the initiatives promoted by the Regional Operational Program co-financed by the European Social Fund. In this region *MMS* work as employment and training services provider. In Emilia-Romagna, in every way similar, *MMS* also provides two programs: Youth Guarantee (Garanzia Giovani) and Rete Attiva per il Lavoro. Although, in this case, Rete Attiva per il Lavoro is available for all ages and there is no mandate to choose between both programmes. In this region, they only provide employment services, not training.

The method used by *MMS* to help JSs is divided into three parts. The first one consists of initial contact and assessment, where the creation of a tailored plan to the JSs' needs is created, and suitable jobs are identified. The second part entails support during the job search period, by alerting the applicant about job vacancies or helping with the CV creation, improving skills, and more. The final part involves the support after placement, facing challenges that might appear in the course of employment (MAXIMUS n.d.).

Evaluating the Italian implementation: pre-MAXIMUS

The European Commission issued a report on Italy and the Youth Guarantee using data from 2019 that showcased the national situation before *MMS*' arrival (European Commission 2020a). The report showed that the programme works very well for newcomers; however, Italy faced some issues as, in 2018, 70% of those registered had been waiting for an offer for more than a year (vs.19.25% EU average). Besides this, the NEET take-up remained only at 12.7% (with a decline from 13.6% in 2017 and 14.1% in 2016). Regarding employment outcomes, six months after leaving the programme, 60% of the youth were in a positive labour situation; however, a follow-up study on 2017 leavers showed a decline in the percentage of those in a positive situation after 12 and 18 months.

A working paper by the Italian National Agency for Active Labor Policies (ANPAL) evaluated the impact on different labour market outcomes of the incentives that firms receive to employ people enrolled in YG have (Brunetti and Ricci 2021). In order to do so, ANPAL linked employer-employee data with the public administration's information on all job positions and information from a survey on Italian firms. With this database, it was possible to conclude that incentives to hire people in the programme meant, in the short term, an additional percentage point in the employment of people under 30 years old, with no effect on people outside the programme. The study also found that the effect was region-specific, as southern regions had no significant results regarding the impact of incentives.

Literature Review

Studies on the effects of Public-Private Partnerships in employment services. In favour of public provision, or not having significant differences among the two, Behaghel et al (2014) found, France favoured the public provision of employment. Likewise, in Germany, Krug and Stephan (2016) found it reduced unemployment faster than private provision. On the other hand, Bennmarker et al. 2013, discovered, that in Sweden, although getting employed and the type of providers was not important, the relationship between manager and job seeker was better in the private sector, which favours private provision since a better relationship with a CM is helpful for a JS to keep motivated in a stressful situation and adds to the personalized an individualized approach of private delivery. Moreover, Cockx and Baert 2015, found data supporting private provision when studying a policy on mandatory training for long-term unemployment in Belgium.

Accordingly, to the literature, 4 main factors play a part on being unemployed: gender, area, age and education. On average, married women are less attached to the labour market than single women (Booth 2009), and this trend is exacerbated when compared to men, in both categories. Geographical differences are another important factor and are significant

features of the Italian labour market (Bertola and Garibaldi 2003). According to the typical human capital and search theory approaches, age and education are other structural components influencing unemployment. This implies a positive connection of a person's level of human capital and their propensity to find work (Mincer 1991).

One paper that compiles every factor previously mentioned is by Baussola and Mussida (2016) analysing the determinants of unemployment prospects. Their analysis centres around on four countries - Italy, Spain, France and the United Kingdom. They concluded that when recruitment rates persist low for a longer period, those recently unemployed are less likely to find work and are more exposed to long-term unemployment. This reality has to do with the issue of long-term employment opportunities for the youth and associated income levels. Specifically, in Italy, gender, geographical area, age and education were determinants. Gender plays a significant part in unemployment, with men being in disadvantaged compared to women (man are more prone to unemployment than women, since the economic crisis). Geographical area of residence also has influence due to Italian regionalism. The impact of age changes. They found that pre-recession the young labour force was more impacted, however, post-recession, the persistence of unemployment among older workers has increased. Although the role of education is found insignificant, it is necessary to take into account the growing regional disparity, which also suggests that it is difficult for high-skilled people to enter the labour market successfully in the South and migrate to the North of the country.

Descriptive Statistics

1. Introduction & Variables

This section of the report aims, through the descriptive statistics of *MAXIMUS* implementation of Youth Guarantee, to look at how *MMS*' Job Seekers and their characteristics differ between the two regions, Lombardy and Emilia-Romagna, and compared to regional data. The data presented refers to the period between January 2021 and the end of June 2022, where the characteristics of each JS can be found, and in the case of Lombardy, information on the type of placement they achieved. Lombardy and Emilia-Romagna present very different scales of population, therefore data will be compared using relative values, to ensure the comparisons made represent local realities, this is true for both intra-regional and inter-regions comparisons. Regarding dataset alterations of the provided dataset, we dropped outliers and data that presented incoherent values.

The following (Table 1) describes the variables that will be analysed in the descriptive statistics and regressions.

Table 1: *Variable Description*

Variable	Definition
Gender:	▫ Male ▫ Female
Age	▫ 15 to 18 (group 1) ▫ 19 to 24 (group 2) ▫ 25 to 31 (group 3) *The division took into consideration the ages putting into context for each educational stage and the ANPAL report, for easier treatment*
Education	▫ No formal education (JS didn't finish high school) ▫ Secondary education (JS only has a secondary diploma and did not went into higher education or took up any technical degrees) ▫ Diploma (professional/ vocational degree) ▫ Bachelors (JS only has a 3-year degree in higher education - Laureato)

	▫ Masters (JS has finished two more years of higher education after the bachelors) ▫ Tertiary (Bachelor and Masters)	
Work experience	Took into consideration if the JS had or not prior job experience to his/her enrolment in the programme	
Bands/ Streams	Band: Low, Medium low, Medium high, High The higher the band the least employable the JS is. They are created by the government with the JSs information like age, education, and work experience.	
Training	Accounts for if *MMS* gave the JS training or upskills in Lombardy. *On the other hand, this variable is not applicable to Emilia-Romagna due to MMS only having accreditation for employment and not training services*	
Status of the JS	▫ In programme (JS is still enrolled in the program and did not find a job) ▫ In work (JS with a contract is the amount of young people that found a job through *MMS* and YG) ▫ Closed (JS's experience has come to an end, with no positive outcome, after the pre-established period of the programme) ▫ Cancelled (JSs has cancelled their subscription in the program) ▫ Re-engage (JS returned to the program)	
Region Offices	Lombardy has offices in 2 cities: ▫ Milan ▫ Varese	Emilia-Romagna has offices in 6 cities: ▫ Bologna ▫ Ferrara ▫ Modena ▫ Piacenza ▫ Ravenna ▫ Rimini
Case Managers	People working for *MMS* that oversee the experience of the JS	
Referral Type	Divided into sub-categories. This will show how *MMS* attracts JS to use its services. The providers contact them to gauge their willingness to do the YG with them. Marketing campaigns like Corsidia and Helplavoro lists, target youth that is registered within the government as unemployed and contact them in to hopefully get them enrolled in the YG programme through that private provider.	

Contract Clusters	Created subtracting the variable job start date from the job end date. Where there was no end date, but start date, it is an open-ended contract. The percentage was calculated dividing the number of people in the clusters from the total number of JS with contracts

2. General Information: Comparison with ANPAL Reports

In Lombardy, there are a total of 1515 participants from January 2021 to June 2022. In this sample, the biggest age cluster is people from *19-24 years old*, who make up 51.09% of the JS, followed by the 25-29 age group comprising 47.5%. *MAXIMUS* job seekers in Lombardy have a lower percentage of the younger cluster than what is registered regionally, as *MMS* registers 1.45% of participants between *15-18 years old*, when compared to a 12.8% in the North-West Regional (ANPAL 2022). Participants in *MMS* from Lombardy have usually higher levels of education as it presents just 2.84% of youth with *no formal education*, in contrast to the regional average of 21.6% (ANPAL 2022). Furthermore, 22.97% of the participants have tertiary education (*Master's* and *Bachelor's*) within the *MMS* sample while the regional average is 18.0% (ANPAL 2022). This highlights that the participants of YG with *MMS* in Lombardy have a slightly better education than the regional average.

The total amount of JSs from Emilia-Romagna in *MAXIMUS*, starting January 2021 to the end of June 2022, is 174. Considering the North-East region, which Emilia-Romagna is part of, 50.8% of young people are *males* and 49.2% are *females* (ANPAL 2022). It is worth noting that, for this area, 15.2% of the young people enrolled are of foreign origins (ANPAL 2022). In the sample collected there are 40.8% of *males* and 59.2% *females*, being in line with the characteristics of the geographical area. Regarding the age cohorts, in the region, group 1 accounts for 13.9% of the JSs, group 2 for 55.7% and, finally, group 3 for 30.3% (ANPAL 2022). Contrasting with *MMS* sample where there is no JS with less than 19 years old and group 2 and 3 have 50% of the registries each. Looking at the education profile of the applicants in the region, 23.9% have less than secondary education, 54.9% have *secondary education* and 21.2% have a university degree (ANPAL 2022). Juxtaposing with values from *MMS* sample,

only 9.2% of the participants have *no formal education*, 24.14% only reached *secondary education*, 39.08% have a professional *diploma*, while for tertiary education, *MMS* has 27.59% of JS. In conclusion, *MMS* sample from ER has higher levels of tertiary education and lower levels of JS without formal education compared to regional averages.

The ANPAL report states the employment rate of people with an active policy measure, for Lombardy is 79.7% while Emilia-Romagna is 75.8%, both higher than the national average of 66.4% (ANPAL 2022). Even though the employment rate in these regions is high according to ANPAL, the reality for *MMS* participants is very different, as the majority are *in program* and the percentages of those *in work* (employed) are only 19.34% for Lombardy and 7.47% for Emilia-Romagna. There are 35 CMs in Lombardy, and the average treats 44 JSs; and for Emilia-Romagna the numbers drop, having 11 CMs and an average of 16 JSs per CM; numbers that are more favourable than what is typical in PES (OECD 2020). Even though *MMS* job seekers have better education and the CMs less workload, they don't achieve the national employment rate. This could be explained by the lack of *work experience* they registered, since this statistic for *MMS* JSs in Lombardy is at 38.94%, while Emilia-Romagna has an even lower rate at 22.99%, both extremely below the reported national averages, which reach 88.9% (ANPAL 2022).

Considering the referral types used, the greatest percentage, 43.96%, of participants in *MMS* in Lombardy are referred through an *internet/ job search site*, in comparison, Emilia-Romagna relied more on the *HelpLavoro Lists* with 48.28% of the participants. Having in consideration the small sample size ER, it is understandable that *MMS* reaches out to JSs through this channel.

The journey to employment in Lombardy is on average 71 days for *MMS* JSs, while in 2020, the YG Report states that 60% of the participants found a job within four months of

entering the program (European Commission 2020a). Figures from 2022 ANPAL report, state that 67% reach employment within three months for Lombardy, and that the national average is 52.4% (ANPAL 2022). Regarding the placement of the *in work* JSs in Lombardy, 61.04% of them were allocated to *open-ended contracts*, which puts the quality of employment under *MMS* at a rather better position than the national reality, since according to ANPAL 2022, contracts without an end date accounted for 58.2%.

3. Cities:

Italy faces deep rooted geographical differences, making each region have its own social, political, economic and labour reality, which brings additional challenges to the implementation of a national programme. In our analysis we only have access to two regions, nevertheless we found important to delve into the role that each city has played in the outcomes of the *MAXIMUS* implementation of YG.

Lombardy:

The analysis of the data on the Milan and Varese cities will aim to explore the complexity of the local contexts in variables such as education level, age of the JSs, and current status in the programme. Milan and Varese have very disparate population densities, with 77.23% of the population concentrated in Milan. Moreover, Milan is the Italian city with the highest GDP and one of the most productive cities in Europe (Eurostat 2022b). Alongside this, Milan's cultural outputs influence markets and the *status quo* worldwide.

The age group of people between 15 and 18 make up about less than 2% in both cities (1,37% for Milan and 1,74 for Varese), with the groups of people aged 19 to 24 and over 25 ranging from, 45,22% to 53.04%, depending on the city and age cluster. This is expected since the younger age groups are more likely to still be in the education system, and the older cohorts are more active in job search (Strauss 2020).

The fact that there are so many Universities with recognized quality might justify that *MMS*' JSs from Milan have a better percentage of highly educated people (23.93%) than in Varese (19.71%). The most present education level in both cities is *diploma* certification, reaching over half of the participants in Milan (53.25%) and almost 50% in Varese (49.28%).

In contrast, there is a higher proportion of people *in work* in Varese (22.9%) than in Milan (18.3%), but with both cities, *in programme* participants make up their most relevant status (73.9% in Milan and 61.4% in Varese). This can be attributed also to the novelty of the *MMS*' operations in Italy and the pandemic context.

Emilia-Romagna:

This region is one of the wealthiest and most developed in Italy, with the third highest GDP per capita (Eurostat 2022c). In the region, the cities of Bologna, Parma, Reggio-Emilia and Ravenna are the ones with a lower level of unemployment (ISTAT 2022b). The economic system is characterized by small and medium-sized enterprises and the main industries in the region are machinery, automobile, agriculture, food-related services, construction, health, culture, and tourism (Regione Emilia-Romagna 2018). Bologna is the capital and biggest city in the region. It has the oldest running university in Europe, particularly known for the fields of medicine and law, with large international participation (University of Bologna 2021).

The analysis of the data on the 6 cities belonging to the Emilia-Romagna region, will aim to explore the complexity of the local contexts in variables, as used for Lombardy, such as education level, age of JSs, and current status in the programme. In Emilia-Romagna the JS are scattered throughout the 6 cities almost evenly, Bologna the city with the greater amount and Modena, the one with less.

In the region, *MMS* has no JSs in the age group of people between 15 and 18, with the clusters of 19 to 24 and over 25 making the total number of JSs, split evenly. As in Lombardy, this is expected - younger age groups are most likely still in education, and older

more active in the job search. When looking into the inter-city differences regarding age groups in Emilia-Romagna, it is notable that the city with the relative largest percentage of JSs registered in *MMS* between *19 and 24 years old* are Ferrara and Ravena (both 66.67%) and the city with the relative largest percentage of the older JSs is Modena (69.23%).

Regarding the education levels, the most common type of education in the region is *diploma*, however, when looking into each one of the six cities, this is not always the case. For example, Modena's most prevalent education level is *Master's*, which is also the highest percentage for that education level in all cities (38.46%). On the other hand, Ravena and Rimini are the cities with the highest percentages of JSs enrolled in *MMS* that have no form of formal education, 26.67% and 23.33% respectively. As the sample of JSs for the Emilia-Romagna region is quite small the fact that in the table presented of the cities has higher levels of Masters' students relying on YG to support them in the job searching process. Finally, regarding JSs' status in Emilia-Romagna, the cities with the highest proportion of registered *in work* are Ferrara and Piacenza (15.15% and 14.29% respectively). Overall, the region presents high values of JSs still *in programme*, and this does not seem to vary greatly within the cities.

4. Gender

This analysis seeks to explore the role that gender has on the *MAXIMUS* Youth Guarantee implementation in Lombardy and Emilia-Romagna regions, by interpreting descriptive statistics of the variable *gender* interacting with *education level*, *age groups, types of referrals*, and *work experience* of the JSs. This analysis is enriched with reflections on the ramifications of labour and gender in the Italian context.

When analysing gender statistics, it is important to highlight that there are more *females* in the program in both regions. According to the Italian National Institute for Statistics, youth unemployment is higher for women than men (F 20.6% vs M 18.9%) which

would explain the higher number of women in *MMS* in YG in both Regions (ISTAT 2022a). In relation to work, the gender equality index for Italy is 63.7%, lower than the EU average of 71.6%; it has risen from 2010 by 10.5 points (European Institute for Gender Equality 2021). The NEETs, which are the main focus of YG, also see a variation between males and females, where there is a higher percentage for women (25%) than men (22%) (OECD 2022a). According to the OECD, in Italy, there was a gender wage gap at the median of 7.6 in 2019 (OECD 2021). Even though there is a legislative framework in order to improve gender equality established in 2006 through Legislative Decree No. 198, there is not a general gender mainstreaming national plan and gender equality policies created either through regional or sector-specific plans (European Institute for Gender Equality 2020).

Lombardy:

Regarding youth unemployment in Lombardy (15-29 years old) and the role of gender in that statistic, according to ISTAT (2022a) the youth unemployment rate of the region in 2021 was 14.8% in general (22.3% in Italy), and 14.5% for *females*, and 15.1% for *males* in 2021.

In Lombardy, *MAXIMUS* job seekers have differences in the level of higher education between gender - women with a higher proportion in *Bachelor's* and *Master's* than men (F 26.43% vs. M18.01%). Both genders have similar percentages of *Secondary* level JSs (F 21.5% vs. M 22.35%) and *no formal education* (F 2.24% vs. M 3.70%). Men and women participating in YG by *MMS* both have *diploma* certification as their most common education level (F 49.8% vs. M 55.9%).

Age-wise, genders do not present large variation amongst themselves, with the *15 to 18-year-olds* having the smallest section for both genders (F 2.02% and M 0.64 %), 19 to 24 the highest for males (F 49.38% and M 53.54%), and over 25 years older the most significant for females (F 48.6% and M 45.8%). In regard to the status situation of men and women in

Lombardy, most are *in programme* (F 70.6% and M 71.9%) with women leading the proportion of JSs *in work* (F 20.3% and M 18%).

Looking into differences in the referral types, that brought men and women into the programme, the data does not paint a very differentiated picture. The top three referral types for both genders are the same, the most common being through *Internet/Job Search Site* (F 44.5% and M 43.2%), second the *HelpLavoro lists* (F 18.2% and M 26.2%), and third through *partners* (F 15% and M 20%). Meaning that men and women are attracted by the *MMS* implementation of the programme in similar ways and that in order to bring more people from one of the genders into the programme the approach can be the same. Only partner referral percentages are indicative of differences between genders, with men coming through *partners* about 5% more often.

Regarding the contrasts between genders in *work experience* prior to the enrolment in YG, both men and women have similar trends with about 60% of them not having any prior experience (F 59.9% and M 62.7%). Women present a slightly larger number with experience in the labour market, which could indicate that men with more experience did not enrol or need to enrol in the YG by *MMS*.

Emilia-Romagna:

Considering the youth unemployment in Emilia-Romagna (15-29 years old) and the role of gender in that statistic, according to ISTAT (2022a) the youth unemployment rate of the region in 2021 was 14.3% in general (22.3% in Italy), and 17.9% for females, and 11.5% for males.

In Emilia-Romagna, the gender of the JSs brings differences in the level of higher education, with females with *Bachelor's* being 12% more commonly than males (F 14.56% vs. M 2.82%), whilst the setting changes when considering *Master's* level, as males present higher percentages than females (F 14.56% vs. M 22.54%) while absolute values only differ

by one person. Regarding *secondary* schooling, in the *MMS* sample women make up twice the percentage of men with this level of education (F 30.10% vs. M 15.49%), while both genders have *diploma* certification as their most common education level, with men having 11% more often this type of training (F 34.95% vs. M 45.07%). Lastly, and considering the proportion of those enrolled in YG by *MMS* with *no formal education*, males have 9% more JSs in this situation (F 5.83% vs. M 14.08%), while for women this is their least probable education level.

The JSs supported by *MMS* in this region are split almost evenly among the *19 to 24-years-olds* and *25 to 29-year-old* cohorts (no observation for *15 to 18-year-olds*), moreover, the variation between genders does not suggest that *MMS* is attracting more people from one age group, still, younger men have the largest percentage in the programme (19-24: F 48.54% M 52.11%). Like in Lombardy, it seems that males have a tendency of being selected for the programme or of reaching out to YG earlier on. Regarding status of the Emilia-Romagna JSs (there are only two statuses in the region: *in work* or *on programme*), both genders present low values of *in work* (F 5.82% vs. M 9.86%).

There is a very differentiated picture when observing into differences in the referral types that brought men and women into the programme. For women, more than half (59.22%) came through the *Helplavoro Lists* while for men only 32.39% came from this referral, yet for both, this referral is the most common. The second highest for women is *Partner* (11.65%) while for men it is through P*ersonal reference/ Word of mouth* (23.94%). Men have a more evenly distribution of referral types, while women have a higher concentration which demonstrates a more accentuated role of selection bias in the region. Regarding the contrasts between genders in the *work experience* prior to the enrolment in YG, men have higher *work inexperience.* Both genders show high percentages at 73.79% for women and 81.69% for men.

Regressions:

In order to find stronger links between the variables previously analysed regarding the *MAXIMUS* implementation, in Lombardy, OLS regressions were run on the three different stages participants go through in their employment journey: the waiting time to be enrolled in the program, the number of days it takes to be employed, and finally the type of contracts they obtain.

Waiting Time:

In this regression we consider the question: "How long does it take for the average YG participant to be contacted by *MMS*, and what factors influence this time?"

The model used was the following[2]:

$$\textbf{Waiting Time} = 1.23 + \beta_1 \times \textbf{age} + \beta_2 \times \textbf{female} + \beta_3 \times \textbf{diploma} + \beta_4 \times \textbf{bachelor} + \beta_5 \times \textbf{noformaledu} + \beta_6 \times \textbf{secondary} + \beta_7 \times \textbf{yesexp} + \beta_8 \times \textbf{event} + \beta_9 \times \textbf{internet} + \beta_{10} \times \textbf{jobcen} + \beta_{11} \times \textbf{corsidia} + \beta_{12} \times \textbf{emagi} + \beta_{13} \times \textbf{helplav} + \beta_{14} \times \textbf{partner} + \beta_{15} \times \textbf{personal} + \beta_{16} \times \textbf{school} + e_i$$

***Variables*:**

The variable *Waiting Time* is calculated by subtracting the variable *journey created* (the date when the JS enrolled in the program) from *engagement date* (the date when *MMS* contacted the JS). In this model, we will consider the type of referral that is most effective considering the quickness of the first contact between participant and provider with the objective of finding explanatory variables by generating dummy variables according to the

[2] The original equation is: $\textbf{Waiting Time} = \beta_0 + \beta_1 \times var_1 + \beta_2 \times var_2 + \beta_3 \times var_3 + \beta_4 \times var_4 + \beta_5 \times var_5 + \beta_6 \times var_6 + \beta_7 \times var_7 + \beta_8 \times var_8 + \beta_9 \times var_9 + \beta_{10} \times var_{41} + \beta_{11} \times var_{11} + \beta_{12} \times var_{12} + \beta_{13} \times var_{13} + \beta_{14} \times var_{14} + \beta_{15} \times var_{15} + \beta_{16} \times var_{16} + \beta_{17} \times var_{17} + \beta_{18} \times var_{18} + \beta_{19} \times var_{19} + e_i$

Yet certain variables are omitted, depending on the model run.

nine types of referral sources. *Age*, *education*, and *work experience* dummy variables were added to this regression with the intention of having greater explanatory variables for the model.

Results:

Significant coefficients for the following variables were observed: *gender (female)* and referral (C*orsidia, Help Lavoro, Personal, Partner*). The R^2 for Model 1 is 0.06, meaning that only 6% of the variation is explained by the model and the other 94.31% by the residuals. In other words, the independent variables are correlated with the *waiting time*, however, they do not explain much of the variability. However, even though the R^2 is low in the three models, significant p-values still indicate a statistically significant relationship between the important predictors and the response variable. The coefficients indicate that for every additional day/unit in the variables we can expect waiting time to increase on average by the value of the coefficient of that variable. This means that women take 0.72* more days to get contacted by *MMS*. If a participant comes referenced by a *Partner*, they take 3 more days to get contacted by *MMS*. But if they come from referenced by *Corsidia* (-2.45), *Help Lavoro list* (-1.89) or a *Personal Reference* (-2.23), they take fewer days to be contacted by *MMS*.

Even though the waiting time for participants to be contacted by *MMS* and enrolled was very low, compared to an average of all providers (European Commission 2021), and according to our views regarding the average durations in many PES in Europe, these regressions were included because we have the largest number of observations. This highlights again, that private employment services are more efficient as they have a much lower waiting time compared to PES overall (European Commission 2021).

In summary, the time it takes to be contacted by the private provider is a good indicator of the efficiency of the service, therefore, for *MMS* to continue to deliver fast and

quality results, investments in the Corsidia, HelpLavoro Lists and Personal Reference referral types, should be sustained.

Table 2: *Regression of Waiting Time on Individual Characteristics*

Days a YG participant takes to be contacted by Maximus			
VARIABLES	(1) Model 1 Waiting Time	(2) Model 2 Age 16-24	(3) Model 3 Age 25-31
Age	0.03	-0.29**	-0.08
	(0.06)	(0.14)	(0.18)
Gender: Female	0.72*	0.28	1.11*
	(0.38)	(0.48)	(0.61)
Gender: Male = o,	-	-	-
Education: Diploma	0.01	0.21	-2.11**
	(0.65)	(1.46)	(0.86)
Education: Bachelors	0.76	-0.83	
	(0.79)	(1.61)	
Education: Masters = o,	-		
Education: No Formal	-0.94		-3.77**
	(1.27)		(1.91)
Education: Secondary	0.48	0.56	-1.26
	(0.72)	(1.51)	(1.01)
Work Experience: Yes	-0.07		0.13
	(0.39)		(0.60)
Work Experience: No = o,	-		-
Referral: Event	1.76	1.22	2.60
	(1.19)	(1.53)	(1.85)
Referral: Internet	-0.75	-0.99	-0.54
	(0.73)	(0.94)	(1.15)
Referral: Job Center	-0.55	-0.21	-0.95
	(1.30)	(1.76)	(1.94)
Referral: Corsidia	-2.51*	-1.63	-3.31
	(1.46)	(1.88)	(2.27)
Referral: Emagister	-3.14	-1.65	-4.18
	(3.29)	(4.80)	(4.60)
Referral: HelpLavoro	-1.92**	-1.62	-2.27*
	(0.80)	(1.03)	(1.26)
Referral: Partner	2.99***	3.66***	1.97
	(0.82)	(1.02)	(1.32)
Referral: Personal	-2.25*	-1.59	-2.65
	(1.24)	(1.59)	(1.95)
Referral: School	-1.35	-2.34	-0.42
	(2.82)	(4.01)	(4.04)
Education: Masters		0.16	-2.12**
		(1.78)	(1.05)
Education: No Formal = o,		-	
Work Experience: Yes = o,		-	
Work Experience: No		0.20	
		(0.50)	
Education: Bachelors = o,			-
Constant	1.23	8.06**	6.20
	(1.75)	(3.53)	(5.14)
Observations	1,505	789	716
R-squared	0.06	0.09	0.05

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Days to be Employed:

For this regression we are looking to answer; "How long does it take, for the average *MMS* participant to find a job (since the time they are registered with *MMS*), and what factors influence this process?". We used the following model[3]:

$$\textbf{Days to Employment} = 52.21 + \beta_1 \times \textbf{age} + \beta_2 \times \textbf{female} + \beta_3 \times \textbf{diploma} + \beta_4 \times \textbf{bachelor} + \beta_5 \times \textbf{master} + \beta_6 \times \textbf{secondary} + \beta_7 \times \textbf{yesexp} + \beta_8 \times \textbf{event} + \beta_9 \times \textbf{internet} + \beta_{10} \times \textbf{jobcenter} + \beta_{11} \times \textbf{corsidia} + \beta_{12} \times \textbf{emagi} + \beta_{13} \times \textbf{helplav} + \beta_{14} \times \textbf{partner} + \beta_{15} \times \textbf{personal} + \beta_{16} \times \textbf{yestrain} + e_i$$

Variables:

The variable *Days to Employment* was created by subtracting the *engagement date* from *job start date*, giving us the number of days, it takes a participant, who joined YG through *MMS*, to find a job. A regression was performed on this variable, with the same dummy variables as the previous model (*gender*, *education*, *work experience*, and *referral*) and *age*, which is a continuous variable. In order to simplify our analysis, we considered only individuals who found a job over the period covered in our sample. In future versions of the research, these restrictions may be eliminated, using survival or duration models. Two further dummy variables were added to this model regarding if JSs had received training from *MMS* or not.

[3] Original regression model is: $\textbf{Days to Employment} = \beta_0 + \beta_1 \times var_1 + \beta_2 \times var_2 + \beta_3 \times var_3 + \beta_4 \times var_4 + \beta_5 \times var_5 + \beta_6 \times var_6 + \beta_7 \times var_7 + \beta_8 \times var_8 + \beta_9 \times var_9 + \beta_{10} \times var_{41} + \beta_{11} \times var_{11} + \beta_{12} \times var_{12} + \beta_{13} \times var_{13} + \beta_{14} \times var_{14} + \beta_{15} \times var_{15} + \beta_{16} \times var_{16} + \beta_{17} \times var_{17} + \beta_{18} \times var_{18} + \beta_{19} \times var_{19} + \beta_{20} \times var_{20} + \beta_{21} \times var_{21} + e_i$

Yet certain variables are omitted when the model is run depending on the model

Table 3: *Regression of Days to be Employed on Individual Characteristics*

Days a YG participant within Maximus takes to be Employed	(1)
VARIABLES	Days to Get a Job
Age	1.71
	(1.09)
Gender: Female	3.90
	(7.20)
Gender: Male = o,	-
Education: Diploma	-13.81
	(22.44)
Education: Bachelors	-12.96
	(24.27)
Education: Masters	-8.03
	(25.02)
Education: No Formal = o,	-
Education: Secondary	-2.07
	(23.28)
Work Experience: Yes	-3.17
	(7.23)
Work Experience: No = o,	-
Referral: Event	7.34
	(20.41)
Referral: Internet	-11.78
	(14.21)
Referral: Job Center	-29.24
	(28.12)
Referral: Corsidia	-62.65**
	(26.42)
Referral: Emagister	-91.91
	(69.14)
Referral: HelpLavoro	-57.09***
	(17.89)
Referral: Partner	-19.56
	(15.53)
Referral: Personal	-79.19**
	(30.81)
Referral: School = o,	-
Training: Yes	20.24**
	(7.97)
Training: No = o,	-
Constant	52.21
	(36.83)
Observations	383
R-squared	0.10

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Model 1 shows what variables impact the days in order to get a job

Results:

The coefficient of the *training* dummy variable is 20 and presents a significant p-value, below the 5%, meaning that those that received training from *MMS* took about 20 more days to reach employment. This goes along with the previous literature, as JSs who are receiving training cannot actively be looking for a job or being placed in one, otherwise known as the lock-in effect (Wunsch 2016).

Regarding referral types, *Corsidia* and *Personal Referrals* have p-values lower than 0.05 and the *Helplavoro lists* even less than 0.01, meaning that the influence that these three types of referrals have on the days it takes to reach employment within the programme is almost surely not by chance. Taking the significant coefficients into consideration, they indicate that JSs coming from *Corsidia* take about 63 fewer days to get a job, from *Personal Reference* about 80 fewer days, and if they are coming from the *Helplavoro lists* about 57 fewer days to reach employment. People coming from these referral types are reaching employment faster and producing better results for the provider.

Open-end contracts:

With this regression we address the question "What are the JS characteristics that are more significant to get an *open-end contract*?". To study these variables, we make use of the following model[4]:

$$\textbf{Open-end Contract} = 0.48 + \beta_1 \times \textbf{age} + \beta_2 \times \textbf{female} + \beta_3 \times \textbf{bachelor} + \beta_4 \times \textbf{diploma} + \beta_5 \times \textbf{masters} + \beta_6 \times \textbf{secondary} + \beta_7 \times \textbf{yesexp} + \beta_8 \times \textbf{daystojob} + \beta_9 \times \textbf{yestrain} + \beta_{10} \times \textbf{event} + \beta_{11} \times \textbf{internet} + \beta_{12} \times \textbf{jobcenter} + \beta_{13} \times \textbf{corsidia} + \beta_{14} \times \textbf{emagis} + \beta_{15} \times \textbf{helplav} + \beta_{14} \times \textbf{partn} + \beta_{14} \times \textbf{personal} + e_i$$

Variables:

The variable *Open-end Contract* was defined by having a job start date but no end date. We interpreted JSs with no end date as indicating that they got an open-end contract. This variable was then transformed into a dummy, where the value of 1 was given to JSs who

[4] Original model is: $\textbf{Open-end Contract} = \beta_0 + \beta_1 \times var_1 + \beta_2 \times var_2 + \beta_3 \times var_3 + \beta_4 \times var_4 + \beta_5 \times var_5 + \beta_6 \times var_6 + \beta_7 \times var_7 + \beta_8 \times var_8 + \beta_9 \times var_9 + \beta_{10} \times var_{41} + \beta_{11} \times var_{11} + \beta_{12} \times var_{12} + \beta_{13} \times var_{13} + \beta_{14} \times var_{14} + \beta_{15} \times var_{15} + \beta_{16} \times var_{16} + \beta_{17} \times var_{17} + \beta_{18} \times var_{18} + \beta_{19} \times var_{19} + \beta_{20} \times var_{20} + \beta_{21} \times var_{21} + e_i$

Nonetheless, certain variables are omitted when the model is run

had an *open-ended contract* (235 observations) and 0 to those JSs who had a *fixed-term contract* (150 observations). This type of contract can be regarded as the main goal for sustainable employment of the youth, which is why a regression is performed on this dummy variable. This model includes explanatory dummy variables (based on *gender*, *education*, *work experience*, *training* and *referral*), *age*, and days to employment (*days to find a job*).

Results:

The R^2 on this regression is 0.16, which, again, means that our dependent variable is naturally not fully explained by the variables analysed - more variables would be needed. Once again, even when R^2 is low, significant p-values emerge which indicate a statistically significant relationship between the important predictors and the dependent variable. The most significant variables that explain the outcome of *open-end contracts* are *work experience* which reduces the probability of receiving this contract by 13%; the variable *days the client waits to get a job* that does not have an impact on the model; and *referral Corsidia* which increases the possibility of obtaining an open-ended contract by 48%. Other significant variables are the dummy variable of having *training*, which indicates that JSs whom receive training have 13% less possibility of obtaining this type of contract. The constant, education *bachelor's*, and those referred through *HelpLavoro* have a probability of 31% and 22%, respectively, and those referred through *Job Center* of 32%.

Table 3: *Regression of Open-ended Contract*

Variables that Contribute towards an Open Ended Contract	
VARIABLES	(1) Open Ended Contract
Age	-0.00
	(0.01)
Gender: Female	0.03
	(0.05)
Gender: Male = o,	-
Education: Bachelors	0.31*
	(0.17)
Education: Diploma	0.14
	(0.15)
Education: Masters	0.10
	(0.17)
Education: No Formal = o,	-
Education: Secondary	0.10
	(0.16)
Work Experience: Yes	-0.13***
	(0.05)
Work Experience: No = o,	-
Days Client Waits to Get a Job	0.00***
	(0.00)
Training: Yes	-0.13**
	(0.05)
Training: No = o,	-
Referral: Event	0.01
	(0.14)
Referral: Internet	-0.00
	(0.10)
Referral: Job Center	0.32*
	(0.19)
Referral: Corsidia	0.48***
	(0.18)
Referral: Emagister	0.53
	(0.47)
Referral: HelpLavoro	0.22*
	(0.12)
Referral: Partner	-0.16
	(0.11)
Referral: Personal	0.28
	(0.21)
Constant	0.48*
	(0.25)
Observations	383
R-squared	0.16
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1	

Cost-Benefit Analysis of the Lombardy Implementation

Introduction

This Cost-Benefit Analysis evaluates the short-term financial returns of the investments made by the Government (partly financed by the European Social Fund) in the *MAXIMUS*' delivery of Youth Guarantee, in Lombardy, within July 2022 to January 2024 (18 months) period. All estimations are based on data provided by *MMS* regarding the YG implementation from January 2021 to June 2022, in the Lombardy region, insights from the *MMS* team, ISTAT, OECD and assumptions made by the authors of the study.

Even though this analysis is based on the *MMS* implementation and data, its purpose is to provide insights feasible to be applied to multiple YG deliveries across Italy, under the Public-Private Partnership framework. In this sense, the analysis is conducted from the perspective of the Government and the welfare of the Italian society, meaning that the goals are to increase employment, reduce the expenses associated with unemployment, and increase contributions to Social Security.

The reimbursement model for the provision of YG by private providers was established by the Delegated Regulation (EU) 2017/90 of the Commission of 31 October 2016, and therefore the framework that will be used in this analysis, with some assumptions. It is also important to clarify that the following analysis only contemplates *in work* and *on programme* JSs.

Cost of Orientation/ Basic Services

The total job seekers that are considered in this analysis are the ones in work and on programme, which are 1370, and an assumption here was made regarding the type of job support services provided by *MMS*, since this information was not provided. The assumption is that *MMS* provides above average job support, which, taking in consideration confidential information on the reimbursement model, translates into 319.5 € per JS. When multiplied by the total number of JSs contemplated a cost of 437 715.00 € are registered for the orientation sessions.

Cost of Training

The costs associated with training, according to the Delegated Regulation (EU) 2017/90 of the Commission of 31 October 2016 that establishes the reimbursement model for YG, is dependent on the band of the JS that receives the training.

In that sense, the band types given by *MMS* were matched with the ones stated in the EU Regulation for training vouchers, as the following: Band A from EU corresponds to Band

Low (most employable), and B from EU corresponds to Band Medium-Low and Medium-High, Band C from EU corresponds to Band High (least employable). Taking in consideration the values established by the corresponded Band types and multiplying the hourly values by the average hours of training provided, which according to *MMS*' Italy Operations Manager is 24 hours, the total estimates cost for training is 277 994.88 €.

Costs per Job Outcome

According to the same regulation, part of the reimbursement is based on the type of contract achieved by the JS and their band, under the programme. Here, an original table for the reimbursement model of the job outcomes was created to calculate the programme costs according to the data provided and the EU Regulation. Another assumption had to be made, since in our database we have contracts shorter than six months, but the reimbursement model only contemplates contracts six months or longer as the shorter contract option. We will assume that the possible reimbursements for that contract length is the same as the one for six to 12 months contracts. No fixed term contracts had more than 12 months in our sample, so they were excluded from the table, and a Fixed-Term Contract column was created to contemplate the two types of temporary contracts. Finally, the band types are the same number as the types provided to us by *MMS*, however with different nomenclatures, so an assumption was made, making Low correspond to Low (*MMS*), Medium to Medium-Low (*MMS*), High to Medium-High (M*MS)*, and Very High to High (M*MS*). After getting the product of the values associated with the different corresponded band types and contract types, the total cost associated with the job outcome due to the programme is 646 500.00 €.

Benefits From Saved Unemployment Benefits Costs

The calculation of this benefit is based on the assumption that half of the JS that are now in work through the programme were receiving unemployment benefits. Therefore, the benefits were calculated by considering half of an average unemployment benefit multiplied by the days of the fixed-term contracts, and by the 18 months of the open-ended contracts.

Firstly, to estimate the public expenses saved by the programme the hourly rate of a person between 15 and 29 years in Lombardy was considered, 10.44 € per hour (ISTAT 2019b), and multiplied by 7.2 hours of work per day, since the average work week in Lombardy in 2021, was 36 hours (OECD 2022c), making the average weekly salary of a young worker in Lombardy 375.84 €, and the monthly salary 1 503.36 €. Since the net replacement rate in an unemployment duration of 12 months of a single person without children is of 50% (OECD 2022d), the monthly government savings are of 751.68€ per JS. Thus, for those with an open-ended contract (235 JSs) this means a saving of this value for the 18 months that make up the period of the CBA analysis, so 3 179 606.4 €. For the JSs with a fixed term contract, the calculations for the saved expenses are calculated by multiplying the daily saved amount (10.44€ hourly rate by the 7.2 hours per day, so 75.17 €) by the total number of days from the sum of all the fixed term contracts, 17 521 days, and subtracting half the value due to the already discussed assumption, making the saved amount with the FTCs of 658 509.26 €.

Benefits Income Deductions

Besides cutting unemployment subsidy costs, the government through the employment contracts achieved in the programme, also increased the amount of deductible income. This was estimated by multiplying the average wage according to contract type and assessing the amount of it corresponding to the tax wedge. Firstly, for open-ended contracts, the hourly rate for permanent contracts in Lombardy is 13.33 € and for fixed-term 11.39 € (ISTAT 2019a), meaning that the weekly wage will be 475.92 € for open-ended contracts, and 74.81 € daily for fixed-term contracts, from that a tax wedge of 41.2% will be applied (OECD 2022b). The deductions from the open-ended contracts are applied to the product of the weekly estimated wage, by the 78 weeks that make up the 18 months of the cost-benefit analysis and the number of open-ended contracts (235). Therefore, it is 41.2% of 8 723 613.60 €, which amounts to 3 594 128.80 €. Finally, considering the deductions from the fixed-term contracts, the 41.2% taxation rate is applied to the daily wage of temporary contracts in Lombardy

(78.81€) times the total number of days from all the fixed-term contracts of the *MMS* Job seekers (17 521 days), adding up to 540 012.92 €.

Conclusions

The present cost-benefit analysis estimates a positive outcome of 4 690 989.67 € (Table X) meaning that the public investments made in the *MMS* delivery will benefit the regional economy in that amount in the following 18 months.

However, this positive return does not include costs associated with the delivery of the services by the private providers, such as human resources expenses, and fixed costs, as we intended that this analysis could to be applied to other settings and focused only on reimbursable costs. Additionally, other benefits are not being contemplated by this analysis, such as the presumably long-lasting increase in the value of human capital that comes from receiving labour market training (and increasing labour maker experience e.g., on the job training), which result in the acquisition of skills not exhausted in the contract durations, for example. Along with this, further social and health benefits can be associated with becoming employed that are not being taken into consideration in this evaluation (Modini et al., 2016; Speziale, 2014) - increased wellbeing, longer life expectancy, lower health costs, lower crime levels, increased engagement in politics, etc

Table 4: *Short-term Cost Benefit Analysis (with values)*

Short-Time Cost Benefit Analysis		
Estimation for 18-month-period (from July 2022 to January 2024) using Data from January 2021 to June 2022		
	Orientation	437 715,00 €
	Training	277 994,88 €
	Type of Contract Achieved	646 500,00 €
Total Costs		**1 362 209,88 €**
Benefits		

	From not paying Unemployment Benefits	1 919 057,83 €
	Income deducted from contracts	4 134 141,72 €
Total Benefits		**6 053 199,55 €**
Benefits - Costs		**4 690 989,67 €**

Limitations

There are potentially great differences between public (CPI'S: Centri per l'Impiego – employment centres) and private providers, yet the ANPAL reports join all participants and services provided, hence, conclusions taken from ANPAL data, that we could access, are not necessarily applied to *MAXIMUS*. However, since ANPAL reports are the official source of data compilation for evaluation in the country, they were used as a basis for comparison of the performance from *MMS* to that of those nationally and regionally. Another obstacle was the change in platform to recompile information about YG participants, this barrier caused information to be missing, data mismatches, and other. Access to data was delayed due to data extraction difficulties.

The authors of this work project operated under limited information, and therefore assumptions had to be made Youth Guarantee in Italy operates under a Multi-Agency Environment, which brought challenges regarding the data definition, gathering and processing, as each entity holds part of the information, also highlighting the asymmetries of information between the public and private agencies. Finally, due to the novelty of the analysis, a new database was constructed to cater to the needs of the report. We believe our research can thus be an important stepping-stone towards further research in the future. However, some relevant information such as type of services and hours of counselling per JS could not be included in the dataset. Therefore, assumptions had to be made regarding these parameters. Since there was no previous database, there was an issue with the time to build

the databases and some difficulty in collecting information. This led us only have access to a complete set on Lombardy and an incomplete for Emilia-Romagna.

Conclusions & Recommendations:

The aim of the report is to address the effects of *MAXIMUS* implementation of Youth Guarantee in Italy. *MMS* participants according to our analysis, are more educated and are in a provider which has more CMs per JS (which would assumably deliver better outcomes), however, they display lower values of *in work* status. A possible explanation for this could be that *MMS* job seekers have less work experience, meaning they have on average higher bands (the most common is Medium-High) which makes employment less likely.

When summing Band types, one can confirm that *MMS* takes on 61.19% of the harder-to-serve JSs (Medium-High and High) and through regressions and descriptive statistics, we can see that *MMS* surpasses the national percentage of open-ended contracts. In this way, *MMS* promotes quality employment for JSs that often find themselves in the FTC cycle *MMS* is making a difference, in Italy, in the implementation of YG.

Again, we find it interesting that in all models, referral types from marketing campaigns (like *Help Lavoro*, *Corsidia)* and *Partner* appear to have a positive and significant impact on the stages of the JS journey and contribute to the desired outcomes like having less waiting time, less days till employment and open-ended contracts, suggesting the importance referrals have to the JS and to *MMS*.

As *MMS* has the possibility of picking JS, and chooses to serve those in worst conditions, and yet has better outcomes than the national averages, it highlights again how there is a commitment to quality services and employment, instead of short-term solutions.

Additionally, in the Italian context, private providers differ from PES as they have the ability to attract the JSs of their choosing (Langenbucher and Vodopivec 2022). Therefore,

this particularity translated into a *selection bias* even if, as in *MMS*' case, it provides socially desirable outcome, serving people that are harder to employ. Thus, when interpreting our results, the role that this selection plays cannot be dismissed.

Taking this into consideration, we propose the following recommendations:

- Standardize the internal data gathering strategy by *MMS* between regions, in order to have a better comparison and outcome evaluations across regions, from a business perspective, but also from a policy perspective. This is of high value, especially since currently, *MMS* is considering expanding operations in Italy.
- Our results indicate that Marketing Campaigns are the types of referral that bring the most beneficia outcomes for both MMS and the JSs, as the waiting time, journey to employment and probability of achieving an open-ended contract all have significant coefficients. These referral types are in particular Corsidia and HelpLavoro Lists, which, from out understanding, are plausible investment options for MMS to look into for future operations.

CHAPTER 2: The Role of Training within Youth Employment Services

Objectives

The purpose of this chapter is to perform an analysis of training by *MAXIMUS*. It aims to provide insight into the current reality and future of training in PPP, using literature reviews, descriptive statistics, an econometric analysis of the data provided by the company, and market analysis on Lombardy: This will allow a more tailored training program, that fits into the needs of the youth programme to be created in this region.

Introduction

For Lombardy, youth is of high importance, not only at the national but at the European level, as it shows there are 1,5 million people between the age of 15-29, ranking as one of the top regions with the highest youth populations in Europe (Eurostat 2022a). In 2019, Lombardy recorded the second highest level of GDP across Europe with 399 billion euros (Eurostat 2022b). Again, these statistics highlight the importance and potential this region has, and how preparing the youth workforce adequately can be a strong driver to make this region a leading force. Even though its education system is greatly developed, having some of the largest and best-ranked universities in Italy, the system presents inefficiencies as it is not in harmony with the market needs of the region (OECD 2011). This has led to high levels of unemployment among the youth, with skill mismatch being one of the major sources.

Regional disparities in unemployment rates in Italy are still very high, ranking top 3 within the European Union, currently at 51.7% (Eurostat 2020). These regional disparities are important to take into consideration as they lead to a labour shortage in one region, yet unemployment in another region (OECD 2005). When analysing the latest report on unemployment, youth can be divided into two categories 15-24 and 25-35. This distinction is

important because, even though the youth unemployment percentage is decreasing, and currently stands at 21.7%, yet when analysing the two different categories, ISTAT reports the unemployment rate for the first group is at 23.1%, but for the second group at a much lower rate, at 11.1% (ISTAT 2022b). Youth unemployment hit a historic all-time high in 2014. Due to this, Youth Guarantee was implemented in the country, for youth 15-24 years old it reached 42.7% and for those 25-29 years old 23.6% (Boutsiouki 2022). As a response to this crisis, Youth Guarantee, through various public and private partnerships, was implemented; one of them being *MAXIMUS* who entered the market as a provider in 2019.

MAXIMUS Services

MAXIMUS provides services for two regions, Lombardy and Emilia Romagna, but there are various distinctions. Similarities include the youth being allowed to choose which unemployment service to receive the YG program through and *MAXIMUS* is paid the same per hour and type of service since these are agreed upon nationally. Nonetheless, the program has differences within each region. Starting with the labour market focus, for Lombardy, the key strategy for combating unemployment, in general, is to encourage labour market mobility and work towards sustainable employment. Within battling unemployment, they have a focus on women, youth and older workers. On the other hand, for Emilia-Romagna, the focus is to improve the skills and employability of citizens underprivileged and in need.

The pay-out for job outcome is delivered differently in each region, in Lombardy the provider is paid after the job seeker obtains a job and has been working in it for more than 3 months, while in Emilia Romagna the provider is paid when the job seekers enter a job. Emilia Romagna requires job seekers to register in the public employment service, choose a provider while registering in the PES, and offices must have a minimum availability of 6 appointments a week and 5 offices. On the other hand, Lombardy does not require the participants of youth guarantee to register in the public employment service, the first three

hours of service for the participant are free of charge as no provider can claim the service of hours worked, and this region requires a minimum of 2 offices.

In addition, while conducting interviews, further differences were highlighted. First, the managers within the two regions pointed out that YG in Emilia-Romagna and Lombardy is different due to regional laws and requirements, youth in Emilia Romagna are allowed to choose between unemployment programs, leading to fewer youth entering YG and going into other unemployment programs like Rete Attiva per il Lavoro. On the other hand, in Lombardy, their age is the determining factor for which unemployment program they can access; therefore, all youth is directed towards Youth Guarantee resulting in a greater number of participants, and *MAXIMUS* receives a greater number of participants as well. Overall, during this interview, *MAXIMUS* workers expressed a lack of confidence in the Italian population towards the government and their programs.

One great difference that was also highlighted through this interview, and from the data received from *MAXIMUS*, is that the company was accredited to provide training services in Lombardy but not in Emilia-Romagna. Training is specified as "training related to job placement" and described as training-specific programs targeted toward obtaining a job. Highlighted by the Council of the European Union as a tool to fight NEET, training could count as continued education if it contributes to vocational occupation[5]. The maximum number of hours a provider gives for this service varies per region, but the minimum is 8 hours. According to the European Union delegated commission on YG, the payment for job training for groups is divided according to what band the individuals are in, and is established at €73.13 for band C €117, for band B and €146.25, band A[6]. The costs increase because people are placed in these bands responding to various factors: the more experience they

[5] The Council of the European Union, 2013, preamble point 5

[6] Commission Delegated Regulation (EU) 2017/90 of 31 October 2016

have, the higher professional training is provided, therefore it is more expensive. For individual training, the price is established at €40 per hour. The maximum amount of money the government though YG will invest per person is established at €4000. The YG program will recognise 70% of the services provided and the remaining will be paid, on the condition that the participant obtains a job within 120 days. This occurs to ensure that the training provided is of quality and enhances the individual's job placement.

The courses provided as part of the hard skills training are English for Work, Microsoft Office Tools for Smart Working, Social Media Managing, Administration and Sales, Recruiting and Human Resources and Secretariat and Administration. For soft skills, the course provided is regarding how to carry out a successful job interview (Maximus n.d.). Courses relating to specific labour areas provided like HR or Sales allow job seekers who already have experience in these fields or are looking to enter them to gain specific skills within these traditional labour markets. On the other hand, Social Media Managing, and Microsoft Office focus on providing the youth with the skills and knowledge for future emerging markets such as running a publicity campaign on traditional platforms like Facebook and Instagram but also new ones like TikTok and Twitch. All courses have a duration of 24 hours and are taught remotely through the Zoom Platform. Another training course that *MAXIMUS* offers but is only available for jobseekers registered in Dote Unico Lavoro, is that of a Warehouse Operator with a forklift licence. This course takes 64 hours, 60 online and 4 presential (to learn and obtain the forklift licence).

Literature Review

Unemployment is a macroeconomic indicator of economic shocks and efficiency. Therefore, the high levels of youth unemployment are troubling, because they may reflect not only the current inefficiencies in the Italian labour market but also serve as an indication of

the challenges of the economy. Various economic models explore the dynamics between labour force, training and economic productivity (Ezekiel 1938, Sasaki 2015).

In order to tackle greater problems that arise from the labour force skill mismatch, like inequality (Stijn et al., 2019), it is crucial to focus on the youth and the current skills problems they face, and those that will arise inevitably due to the education gap created in the Covid 19 pandemic. Not only does education, but also training, create a positive externality which leads to positive spill over within the economy. In the individual aspect, good training leads to higher employability and the possibility of higher wages.

Skill mismatch can be categorised into various groups, as it represents any labour market friction that exists; therefore, it can be defined as a vertical and horizontal mismatch, and skill gap, shortage and obsolescence (Mcguinness, Pouliakas, and Redmond 2017). Specifically, in the context of Italy, qualification mismatch regarding how the education job seekers have in relation to job needs and skill mismatch regarding how the skills job seekers have and those the market requires, are of concern for the country (OECD 2019c).

According to ILO, investing in training and skills development can be a great policy tool to help during an economic crisis, in order to accelerate re-employment, prepare workers, and upgrade their skills for when there is a turn in the productivity of the economy to more competitive and avoid skill shortages that can occur when governments implement stimulus packages, and the economy and the labour market is boosted (ILO 2012). Especially during times of crisis, like the economic crisis of 2008-2009, or now the one caused due to Covid-19, training programs can be seen as an economic stabiliser, filler of skills gaps or skill mismatch, and a way to allow the working force to remain connected to the market even though they are not employed (ILO 2012). Due to the high youth unemployment in Italy, it is also recommended that training programs or services are increased (Lechner and Wunsch 2006). Nonetheless, this must be constantly evaluated, for as unemployment rates begin to drop,

training programs may produce counterproductive effects and cause a locked-in effect, reducing the labour force needed for the market (Lechner and Wunsch 2006).

Public-private partnerships in relation to training have shown enhanced crisis response programs and provide training that is greater oriented towards the market (ILO 2012). Even though literature shows that training will lead to job seekers being unemployed for a longer time, as they miss out on at-hand job opportunities by taking that time to work, it also highlights that in long term it is "more effective for addressing individual welfare issues, tackling structural mismatches between worker skills and employer demand, and improving labour market outcomes in the long term" (Osikominu 2021 1).

Since 2011, the OECD has already pointed out skill mismatch as a problem to be addressed and recommended: "transform the potential of higher education into an active asset for local and regional development" (OECD 2011). It is important to take into consideration the needs of the region and prepare the youth towards this direction, taking the regional market and how it is evolving to better understand the needs and give training or capacitation for the youth that fit better into this market. In the same way, training especially for the Italian youth should be focused on bettering the skill mismatch in the country and preparing them for the changing world and the challenges that will be presented in the workplace.

Higher skilled workers, especially those with aptitudes related to the digital space, were able to adapt better and keep their jobs during the recent Covid-19 pandemic, and relocate to remote work, or prove themselves as essential workers, again attesting to the importance of digital knowledge and skills in this era (ILO 2022). The essential elements to adapt and absorb the shocks of an employment crisis are a country must have a sound framework for the unemployment policy, an open dialogue with society, proper funds for the program and adequate institutional ability to implement the policy or programme (ILO 2012). "They are able to enter the labour market in growing sectors, provided that they manage to

gain the necessary skills… Education systems need to equip young people with the basic skills to be able to enter those burgeoning sectors" (ILO 2022 53). The OECD has already reported and recommended a better focus and substantially greater funding in training, to prepare the working force for the changing market within Italy (OECD 2019a).

Labour market training has been a tool already put in place by Finland since 2013, due to the idea that there are jobs available, but individuals cannot apply for them because they do not have the adequate skills to fulfil these vacancies (CEDEFOP 2018). This program provides the skills that are in demand, in a way that better prepares the working force and was specifically designed to address the target mismatch within the market (CEDEFOP 2018). Through labour market and socio-economic indicators, they "…improve the training delivered. New programmes are designed to meet the observed or sometimes predicted labour needs" (CEDEFOP 2018).

Lombardy Labour Market

According to the Lombardy Report by the OECD "the region is undergoing an industrial shift towards services and knowledge-intensive activities" (OECD 2019b 10). In the ISTAT report on region specialisation that presented structural and economic indicators according to the companies of each region, for Lombardy, service is the highest grossing sector in the economy, followed by industry (ISTAT 2022a).

The main available jobs in Lombardy are for skilled workers, specialised professionals, technical occupations, factory managers and operators of machinery, business, service industry and office workers (European Commission 2021). Most of the hires are done within the sector of production of goods and service industry (39.9%) and for sales and commercial activities (21.9%) (European Commission 2021). For young people, the main sectors interested in hiring this portion of the population are sales of motor vehicles and motorcycle retail; large-scale vendors; hotel and tourism services; advanced company

assistance services; transportation and coordination services; and the metal industry (European Commission 2021). The skills in most demand in this region are communication (Italian and foreign languages), digital (IT, smart manufacturing) and mathematics (European Commission 2021).

MAXIMUS Data on Training

Data Description:

The dataset includes YG participants who receive the program and services from *MAXIMUS*, within the province of Lombardy, Italy. The dataset collects information from January 2021 to June 2022. *MAXIMUS* clients, who come through different sources, are referred via partners, the internet, events, jobcentre, marketing campaigns (*HelpLavoro, Corsidia*, and *Emagister*), and schools. Through *MMS,* services like guidance, counselling and training are provided to the YG participants. Once participants find a job, continue the program, re-engage, close or cancel their subscription to the YG program, resulting in Client Status for the MMS database. As they register with the company, they provide different background information like age, education level, and if they have work experience. YG was first created to help people 15-24 years of age, but due to the individual unemployment situation in Italy, it was later expanded to reach a higher percentage of the population, and people up to 29 years old could benefit from it, nonetheless within this database, we have people ranging from 16 to 31 years old. Job title describes the job role or aspiration the youth has based on personal characteristics (desires, education, work experience, training) alongside the evaluation and guidance from the case workers. The education levels of YG participants are *Bachelor´s, Diploma, Master´s*, *no formal education* and *Secondary*. Education in Italy is

divided into multi-tiers ranging from primary, secondary, post-secondary and tertiary (CEDEFOP 2019)[7].

For our analysis, a variable is created that calculates the time a participant takes to find a job. This is done by subtracting the day they start their journey with *MAXIMUS*, or the engagement day, from the day they start a job; giving us the number of days a YG participant needed to find a job. From the database, we, unfortunately, have no information on how many hours of training, or what specific type of service YG participants obtained from *MAXIMUS*, but we do know if they received training or not.

Descriptive Statistics:

A preliminary study on YG implementation from 2017, shows the importance of continued surveillance and monitoring of the participants and the results achieved through the program, showcasing a flaw in the monitoring system so that a proper and tailored service can be provided to the youth (Kraatz 2017). As *MAXIMUS* provides this service from a private perspective, the monitoring of participants has yet to improve from the private as well as public sectors. Due to a change in databases, and that *MAXIMUS* has entered the Italian market and YG recently, it provides a limited database to work with, giving us 385 observations with records regarding receiving training or not. Of these, 106 have received training and using the variable *days to employment,* we can observe that 64 participants have found a job, that the minimum of days to find employment is 0, the maximum is 280, and the mean is 86.88 days. On the other hand, for the 279 participants who have not received training, all have found employment. Of those, the minimum number of days to find a job is 0, the maximum is 430, and the mean is 65.17 days. Within the portion of the population that

[7] Attachment 1 for Annex B for Chapter 2

has received training, when analysing the figures by age groups (16-24 and 25-31), according to the mean, people above 25 years take about a month (32 days) longer to find a job[8].

Table 1 Chapter 2: Days to Employment (Source: Own Production)

Of those who have received training, 25.47% work as attendants (or employees) in different categories such as sales, customer care, and reception. On the other hand, when analysing the job titles from the 106 individuals who received training, their labour can be divided into four categories: unskilled, semiskilled, skilled and professional. We can observe that 85% of the participants aspire to jobs in unskilled or semiskilled occupations. Therefore, this again highlights the great quantity of skill mismatch, as the education level for these segments of participants is high, 76% of them have a *Diploma, Masters or Bachelors*[9]. Cases like youth with a *Masters* who goes to employment services, who aspire to be an "Aiuto Cuoco[10]", jump to attention. Various factors can influence the aspiration for low-skilled jobs in the (highly educated) youth, some are the labour market situation or the lack of skill, work experience or overall confidence in themselves. These cases also highlight the lack of soft skills and skill mismatch within the youth in Italy and *MAXIMUS*

[8] Attachment 2 and 3 for Appendix B for Chapter 2
[9] Attachment 4 and 5 for Appendix B for Chapter 2
[10] Translation: ´Helper to the cook´

Regressions:

In Model 1 presented in Chapter 1, regarding days till employment, we can observe a high significance in training. Even though youth is presented from 15-29 in YG, statistics and literature present unemployment within this age range to be very different upon the division of this age group. Therefore, for the following Models 2 and 3, the same model as Chapter 1 is used, but it is further divided into age groups (16-24 and 25-31) to analyse the variables that influence the employability of a participant in the age ranges[11].

$$\text{Days to Employment} = 52.21 + \beta_1 \times \text{age} + \beta_2 \times \text{female} + \beta_3 \times \text{diploma} + \beta_4 \times \text{bachelor} + \beta_5 \times \text{master} + \beta_6 \times \text{secondary} + \beta_7 \times \text{yesexp} + \beta_8 \times \text{event} + \beta_9 \times \text{internet} + \beta_{10} \times \text{jobcenter} + \beta_{11} \times \text{corsidia} + \beta_{12} \times \text{emagi} + \beta_{13} \times \text{helplav} + \beta_{14} \times \text{partner} + \beta_{15} \times \text{personal} + \beta_{16} \times \text{yestrain} + e_i$$

In Model 2, regarding YG participants below the age of 25, provides interesting insight because only referral type provides strong p-values. It highlights that participants who come from the Marketing Campaign targeting youth from Help Lavoro lists, take about 37 fewer days to find a job. From the descriptive statistics, we can observe that for males who have received training aged 15-24 it takes a mean of 65 days to find a job. On the other hand, it takes females with these same characteristics a mean of 78 days to find a job, and almost two more weeks to find a job.

Comparatively, through Model 3, for people 25 years old and older, it takes people in this age group 289 days to be employed with a significance of 1%. Training has a positive effect, significant at the 5% level, indicating that those who receive training in this age group take 30 more days to obtain a job. An explanation to this is a phenomenon called the lock-in

[11] Original regression model is:

$$\text{Days to Employment} = \beta_0 + \beta_1 \times var_1 + \beta_2 \times var_2 + \beta_3 \times var_3 + \beta_4 \times var_4 + \beta_5 \times var_5 + \beta_6 \times var_6 + \beta_7 \times var_7 + \beta_8 \times var_8 + \beta_9 \times var_9 + \beta_{10} \times var_{41} + \beta_{11} \times var_{11} + \beta_{12} \times var_{12} + \beta_{13} \times var_{13} + \beta_{14} \times var_{14} + \beta_{15} \times var_{15} + \beta_{16} \times var_{16} + \beta_{17} \times var_{17} + \beta_{18} \times var_{18} + \beta_{19} \times var_{19} + \beta_{20} \times var_{20} + \beta_{21} \times var_{21} + e_i$$

Yet, depending on the model certain variables are omitted when it is run

effect, which occurs because when in training JSs are not actively looking for a job and divert time and effort to search for a job (Wunsch 2016). Comparing Models 2 and 3, we can see that training has a more significant locked-in effect for those that are 25 years and older.

The other variables show a decrease in time to employment. From referral types, we can observe that participants who come from the internet, job centres, Corsidia, Help Lavoro, partners and personal references take fewer days to find a job. Those participants who are referred through *Help Lavoro* and a *Job Center,* take 101 and 125 fewer days to be employed respectively (significant at the 1%). From education, those with bachelors take 67 fewer days (significant at 10%) and those with a diploma take about 80 fewer days to find a job (significant at 5%). This goes in line with studies regarding less unemployment for those with a better education in OECD reports (OECD 2020). Yet, again, when comparing education levels for Model 2 and 3, for those under 25, education does not have a significant influence on obtaining a job but for those 25 and above it does.

Days a YG participant within Maximus takes to find a job

VARIABLES	(1) Model 1 Days to Get a Job	(2) Model 2 Age 16-24	(3) Model 3 Age 25-31
Age	1.71	0.10	-3.10
	(1.09)	(2.80)	(3.39)
Gender: Female	3.90		-13.61
	(7.20)		(11.78)
Gender: Male = o,	-		-
Education: Diploma	-13.81	24.88	-79.97**
	(22.44)	(21.43)	(37.03)
Education: Bachelors	-12.96	8.67	-67.23*
	(24.27)	(25.50)	(39.06)
Education: Masters	-8.03		-54.66
	(25.02)		(39.00)
Education: No Formal = o,	-		-
Education: Secondary	-2.07	29.74	-61.59
	(23.28)	(22.51)	(38.84)
Work Experience: Yes	-3.17		-4.33
	(7.23)		(11.60)
Work Experience: No = o,	-		-
Referral: Event	7.34	46.40	-48.38
	(20.41)	(28.26)	(31.51)
Referral: Internet	-11.78	7.92	-48.55**
	(14.21)	(17.16)	(24.18)
Referral: Job Center	-29.24	11.50	-125.22***
	(28.12)	(35.60)	(47.35)
Referral: Corsidia	-62.65**	-43.00	-91.77**
	(26.42)	(40.20)	(37.90)
Referral: Emagister	-91.91	-71.85	
	(69.14)	(65.50)	
Referral: HelpLavoro	-57.09***	-36.79*	-101.00***
	(17.89)	(22.00)	(30.06)
Referral: Partner	-19.56	-2.15	-53.58**
	(15.53)	(18.37)	(27.04)
Referral: Personal	-79.19**	-54.36	-113.22**
	(30.81)	(40.84)	(47.61)
Referral: School = o,	-	-	-
Training: Yes	20.24**	12.87	30.01**
	(7.97)	(9.83)	(13.45)
Training: No = o,	-	-	-
Gender: Female = o,		-	
Gender: Male		-14.44	
		(9.12)	
Education: Masters = o,		-	
Education: No Formal		-5.09	
		(35.42)	
Work Experience: Yes = o,		-	
Work Experience: No		-1.21	
		(9.43)	
Referral: Emagister = o,			-
Constant	52.21	43.03	289.17***
	(36.83)	(68.49)	(104.04)
Observations	383	213	170
R-squared	0.10	0.11	0.18

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Model 1 shows what variables impact the days in order to get a job. Models 2 and 3 show what variables impact the days a YG participant takes to get a job but divided by age group

Table 1 Chapter 2: Days to Find a Job (Source: Own Production)

Policy Recommendations:

Even though there is great debate and strive toward changing vocational and educational training (VET) in Italy, it is a process that has still a long way to go (D'Amico 2020), therefore *MAXIMUS* has an open market to provide Youth with the appropriate right of training that it is lacking in the current education system in the country and therefore are able to succeed and achieve a better job opportunity, not only within Italy but also in that of other developed and industrialised countries. Currently, the government is investing €26 billion in vocational training for youth and women as part of Italy´s Recovery and Resilience Plan, creating an opportunity for better programs (European Commission 2022).

The industrial revolution Italy is going through towards a more automated and smart industry, also called Industry 4.0. Therefore, it is recommended that employment services, such as *MAXIMUS*, act as a broker, or a relationship mediator between the market and job seeker, but in order to do so, they must have a clear view of the demand and supply regarding skills and jobs in the labour market (OECD 2019c). Within Italy, this has been largely neglected, and there is little attention to the labour demand by public employment services (OECD 2019c). The lack of soft skills is a plausible explanation for the lack of connection between the education level, job title, and market needs within the region. Due to the still evident skill mismatch in the country and among *MAXIMUS* YG participants, it is also recommended that a better assessment and training program ensues. Opening the Ware House Operator training program for the youth would allow them to enter this labour market, which is in high demand in this region.

Conclusion:

In conclusion, from the current data, we can still see skill mismatch as a very prevalent problem and the need for a more tailored program for the youth, with a special emphasis on

ages as when the group is divided into two segments (ages 15-24 and 25-31) different needs and factors are evidenced for the unemployment needs. Training and the proper development of skills need to improve to help reduce inequality, unemployment and many future problems that may arise. Finally, a wider evaluation, including a better retrieval, categorization and compilation of data is crucial for a tailored program (with digital and soft skills) to be established

References: Chapter 1 (Group Part)

ANPAL. 2022. “Youth Guarantee in Italia: Nota Mensali N3/2022”. ISSN 2724-5551.

Baussola, Maurizio, and Chiara Mussida. 2016. "Regional And Gender Differentials In The Persistence Of Unemployment In Europe". International Review Of Applied Economics 31 (2): 173-190. doi:10.1080/02692171.2016.1231801.

Behaghel, Luc, Bruno Crépon, and Marc Gurgand. 2014. “Private and Public Provision of Counseling to Job Seekers: Evidence from a Large Controlled Experiment.” American Economic Journal: Applied Economics 6 (4): 142–74. https://doi.org/10.1257/app.6.4.142.

Bennmarker, Helge, Erik Grönqvist, and Björn Öckert. 2013. “Effects of Contracting out Employment Services: Evidence from a Randomized Experiment.” Journal of Public Economics 98 (February): 68–84. https://doi.org/10.1016/j.jpubeco.2012.12.002.

Bertola, Giuseppe, and Pietro Garibaldi. 2003. "The Structure And History Of Italian Unemployment". SSRN Electronic Journal. doi:10.2139/ssrn.395420.

Booth, Alison L. 2009. "Gender And Competition". SSRN Electronic Journal. doi:10.2139/ssrn.1434634.

Brunetti, Irene, and Andrea Ricci. 2021. “Evaluating the Youth Guarantee Incentive: Evidence from Employer-Employees Data.” Https://Oa.inapp.org/Xmlui/Bitstream/Handle/20.500.12916/887/INAPP_Brunetti_Ricci_Evaluating_youth_guarantee_incentive_WP_63_2021.Pdf.

Caliendo, Marco, Jochen Kluve, StöterauJonathan, TübbickeStefan, Claire Dheret, Kari Hadjivassiliou, and Francesco Pastore. 2018. “Study on the Youth Guarantee in Light of Changes in the World of Work. Part 1, Youth Guarantee : Intervention Models, Sustainability and Relevance”. Luxembourg: Publications Office of the European Union.

Brunetti, Irene, and Andrea Ricci. 2021. “Evaluating the Youth Guarantee Incentive: Evidence from Employer-Employees Data.” Https://Oa.inapp.org/Xmlui/Bitstream/Handle/20.500.12916/887/INAPP_Brunetti_Ricci_Evaluating_youth_guarantee_incentive_WP_63_2021.Pdf.

Cockx, Bart L., and Stijn Baert. 2015. “Contracting out Mandatory Counselling and Training for Long-Term Unemployed: Private for-Profit or Non-Profit, or Keep It Public?” SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2684289.

Escudero, Veronica, and Elva Lopez. 2017. “The European Youth Guarantee: A Systematic Review of Its Implementation across Countries.” International Labour Organization.

European Commission. 2003. “EUROPEAN COMMISSION DIRECTORATE-GENERAL REGIONAL POLICY GUIDELINES for SUCCESSFUL PUBLIC -PRIVATE PARTNERSHIPS.” Ec.europa.eu, March 2003.

European Commission. 2013. “PES to PES Dialogue the European Commission Mutual Learning Programme for Public Employment Services Successful Partnerships in Delivering Public Employment Services Analytical Paper,” December 2013.

European Commission 2020a Youth Guarantee Country by Country - Italy. Sept. 2020. https://ec.europa.eu/social/main.jsp?catId=1161&langId=en&intPageId=3340

European Commission. 2020b. “Council Recommendation of 30 October 2020 on a Bridge to Jobs – Reinforcing the Youth Guarantee and Replacing the Council Recommendation of 22 April 2013 on Establishing a Youth Guarantee 2020/c 372/01.” Official Journal of the European Union. https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=uriserv:OJ.C_.2020.372.01.0001.01.ENG.

European Commission. 2021. “Assessment report on PES capacity “ Publications Office of the European Union, https://data.europa.eu/doi/10.2767/629732.

European Institute for Gender Equality. 2021. “Gender Equality Index 2021: Health”. LU: Publications Office. doi:10.2839/633501.

European Institute for Gender Equality. 2020. “Gender Mainstreaming Italy.” European Institute for Gender Equality. 2019. https://eige.europa.eu/gender-mainstreaming/countries/italy.

EUROSTAT. 2022a. “Unemployment Rate - Annual Data.” Europa.eu. 2022. https://ec.europa.eu/eurostat/databrowser/view/tipsun20/default/table?lang=en.

Eurostat. 2022b. “Living Conditions - Cities and Greater Cities.” Europa.eu. 2022. https://ec.europa.eu/eurostat/databrowser/view/URB_CLIVCON/default/table?lang=en&category=urb.urb_cgc.

Eurostat. 2022c. "Gross Domestic Product (GDP) At Current Market Prices By NUTS 2 Regions - Products Datasets - Eurostat". Ec.Europa.Eu. https://ec.europa.eu/eurostat/web/products-datasets/-/nama_10r_2gdp.

Förschner, Michael. 2010. “OECD LEED Forum on Partnerships and Local Governance HANDBOOKS OECD LEED Forum on Partnerships and Local Governance Partnerships in the Recovery: Rebuilding Employment at the Local Level,” 2010.

Gregg, Paul, and Emma Tominey. 2005. “The Wage Scar from Male Youth Unemployment.” Labour Economics 12 (4): 487–509. https://doi.org/10.1016/j.labeco.2005.05.004.

ISTAT. 2019a. “Retribuzioni Orarie Dei Dipendenti Del Settore Privato : Tipo Di Contratto - Prov.” Dati.istat.it. 2019. http://dati.istat.it/index.aspx?queryid=33434.

ISTAT. 2019b. “Retribuzioni Orarie Dei Dipendenti Del Settore Privato : Classe Di Età - Prov.” Dati.istat.it. 2019. http://dati.istat.it/index.aspx?queryid=33432.

ISTAT. 2022a. “Unemployment Rate : Regional Data - Age”. Italian National Institute of Statistics. 2022. http://dati.istat.it/Index.aspx?QueryId=25419&lang=en.

ISTAT. 2022b. ”Unemployment Rate: Provincial Data”. Dati.Istat.It. http://dati.istat.it/Index.aspx?QueryId=56782&lang=en#.

Krug, Gerhard, and Gesine Stephan. 2015. “Private and Public Placement Services for Hard-To-Place Unemployed.” ILR Review 69 (2): 471–500. https://doi.org/10.1177/0019793915615334.

Kraatz, Susanne. 2017. “Youth Guarantee: Lessons from Implementation.” Www.europarl.europa.eu. https://www.europarl.europa.eu/RegData/etudes/BRIE/2017/602024/IPOL_BRI(2017)602024_EN.pdf.

Langenbucher, K. and M. Vodopivec. 2022. "Paying for results: Contracting out employment services through outcome-based payment schemes in OECD countries", OECD Social, Employment and Migration Working Papers, No. 267, OECD Publishing, Paris, https://doi.org/10.1787/c6392a59-en.

Mandrone, Emiliano, and David D’Angelo. 2014. “Youth Guarantee and the Italian PES: Insights from ISFOL plus Survey Data.” Https://Eprints.bbk.ac.uk/. https://eprints.bbk.ac.uk/id/eprint/18446/.

Mincer, Jacob. 1991. “Education and Unemployment.” RePEc - Econpapers. September 1, 1991. https://EconPapers.repec.org/RePEc:nbr:nberwo:3838.

Modini, Matthew, Sadhbh Joyce, Arnstein Mykletun, Helen Christensen, Richard A Bryant, Philip B Mitchell, and Samuel B Harvey. 2016. “The Mental Health Benefits of Employment: Results of a Systematic Meta-Review.” Australasian Psychiatry 24 (4): 331–36. https://doi.org/10.1177/1039856215618523.

OECD. 2012. “OECD Principles for Public Governance of Public-Private Partnerships - OECD.” www.oecd.org, 2012. https://www.oecd.org/gov/budgeting/oecd-principles-for-public-governance-of-public-private-partnerships.htm.

OECD. 2020. “Public Employment Services in the Frontline for Jobseekers, Workers and Employers.” Read.oecd-Ilibrary.org. https://read.oecd-ilibrary.org/view/?ref=131_131935-qg47t7rrfi&title=Public-employment-services-in-the-frontline-for-jobseekers-workers-and-employers.

OECD. 2021. “Decile Ratios of Gross Earnings: Gender Wage Gap.” Stats.oecd.org. 2021. https://stats.oecd.org/index.aspx?queryid=64160.

OECD. 2022a. “Youth not in employment, education or training (NEET) (indicator)”. doi: 10.1787/72d1033a-en (Accessed on 13 August 2022)

OECD. 2022b. “Average Personal Income Tax and Social Security Contribution Rates on Gross Labour Income, Table I.5.” Stats.oecd.org. 2022. https://stats.oecd.org/Index.aspx?DataSetCode=TABLE_I5.

OECD. 2022c. “Average Usual Weekly Hours Worked on the Main Job.” Oecd.org. 2022. https://stats.oecd.org/Index.aspx?DatasetCode=AVE_HRS#.

OECD. 2022d. “Net Replacement Rate in Unemployment.” Stats.oecd.org. 2022. https://stats.oecd.org/Index.aspx?DataSetCode=NRR#.

OECD. 2022e. National population distribution (indicator). doi: 10.1787/7314f74f-en (Accessed on 07 August 2022)

OECD. 2022f. Population (indicator). doi: 10.1787/d434f82b-en (Accessed on 06 August 2022)

Pacifico, Daniele, James Browne, Rodrigo Fernandez, Herwig Immervoll, Dirk Neumann, and Céline Thévenot. 2018. "Faces of Joblessness in Italy: A People-Centred Perspective on Employment Barriers and Policies." Www.oecd-Ilibrary.org 208 (June). https://doi.org/10.1787/e5d510c2-en.

Regione Emilia-Romagna. 2018. "Industrial System." Regione Emilia-Romagna. October 9, 2018. https://www.regione.emilia-romagna.it/en/industrial-system.

Santos- Brien, Ruth. 2018. "Effective Outreach to NEETs." European Commission. https://ec.europa.eu/social/BlobServlet?docId=20118&langId=en.

Scarpetta, Stefano, Thomas Manfredi, and Anne Sonnet. 2010. "Rising Youth Unemployment during the Crisis." OECD Social, Employment and Migration Working Papers. https://doi.org/10.1787/5kmh79zb2mmv-en.

Speziale, Nino. 2014. "Does Unemployment Increase Crime? Evidence from Italian Provinces." Applied Economics Letters 21 (15): 1083–89. https://doi.org/10.1080/13504851.2014.909568.

Strauss, Delphine. 2020. "Young People in UK Staying in Education rather than Seeking Work." Financial Times, November 20, 2020. https://www.ft.com/content/1654622a-8d7c-46b4-95b4-ff82066fd9fc.

University of Bologna. 2021. “The University Today: Numbers and Innovation - University of Bologna.” Www.unibo.it. 2021. https://www.unibo.it/en/university/who-we-are/university-today.

Wunsch, C. 2016. “How to minimize lock-in effects of programs for unemployed workers”. IZA World of Labor 2016: 288 doi: 10.15185/izawol.288

References: Chapter 2 (Domenica)

Boutsiouki, Sofia. 2022. "Youth Guarantee: Context, Implementation, and Challenges." *Higher Education and Research in the European Union*, 297–316. https://doi.org/10.1007/978-3-030-85690-8_16.

CEDEFOP. 2018. "Labour Market Training." CEDEFOP. December 14, 2018. https://www.cedefop.europa.eu/en/tools/matching-skills/all-instruments/labour-market-training.

CEDEFOP. 2019. "VET in Italy" In: Cedefop (2019). Spotlight on VET – 2018 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office, pp. 42-43. http://data.europa.eu/doi/10.2801/009

D'Amico T. (2020). Adapting VET to digitalisation, AI and the future of work: Italy. Cedefop ReferNet thematic perspectives series. http://libserver.cedefop.europa.eu/vetelib/2018/adapting_VET_digitalisation_future_work_Italy_Cedefop_ReferNet.pdf

European Commission. 2021. "Labour Market Information: Italy." Ec.europa.eu. 2021. https://ec.europa.eu/eures/public/living-and-working/labour-market-information/labour-market-information-italy_en

Eurostat. 2020. "Regional Disparities in Unemployment Rates." Europa.eu. 2020. http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do.

———. 2022a. "Welcome to the European Year of Youth!" Ec.europa.eu. May 1, 2022. https://ec.europa.eu/eurostat/en/web/products-eurostat-news/-/edn-20220105-1.

———. 2022b. "GDP at Regional Level." Ec.europa.eu. August 8, 2022. https://ec.europa.eu/eurostat/statisticsexplained/index.php?title=GDP_at_regional_level&oldid=539588#Gross_domestic_product_.28GDP.29.

Ezekiel, Mordecai. 1938. “The Cobweb Theorem.” *The Quarterly Journal of Economics* 52 (2): 255. https://doi.org/10.2307/1881734.

ILO. 2012. “Lessons from the Implementation of Training and Retraining Programmes in Response to the Great Recession.” *Www.ilo.org/Skills*. Geneva: Skills and Employability Branch International Labour Office. https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_244381.pdf.

———.2022. “International Global Trends for Youth.” Geneva: International Labour Organization. https://anoeuropeujuventude.ipdj.gov.pt/wp-content/uploads/2022/08/wcms_853321.pdf.

ISTAT. 2022a. “Infografía del Informe Anual 2022.” Istat.it. July 8, 2022. https://www.istat.it/it/archivio/272623.

———. 2022b. “Employment and Unemployment: June 2022.” *Istat. it*. https://www.istat.it/it/files//2022/08/Employment-and-unemployment_202206.pdf.

———. 2022c. “Indicatori per La Strategia Di Specializzazione Intelligente.” Www.istat.it. Istituto Nazionale di Statistica. August 1, 2022. https://www.istat.it/it/archivio/273548.

Kraatz, Susanne. 2017. “Youth Guarantee: Lessons from Implementation.” European Parliament. https://www.europarl.europa.eu/RegData/etudes/BRIE/2017/602024/IPOL_BRI(2017)602024_EN.pdf.

Lechner, Michael, and Conny Wunsch. 2006. “Are Training Programs More Effective When Unemployment Is High?” *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.936036.

Maximus. n.d. “Corsi Gratuiti per Disoccupati in Lombardia.” Maximusitalia.it. Accessed September 1, 2022. https://maximusitalia.it/it/corsi-gratuiti-disoccupati-lombardia.

Mcguinness, Seamus, Konstantinos Pouliakas, and Paul Redmond. 2017. “How Useful Is the Concept of Skills Mismatch?” ILO. https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_552798.pdf.

OECD. 2005. “Employment Outlook.” http://www.oecd.org/els/emp/36780865.pdf.

———. 2011. “Lombardy, Italy Higher Education in Regional and City Development.” https://www.oecd.org/education/imhe/49001152.pdf.

———. 2019. "Recent trends in the Italian Labour Market", in *Strengthening Active Labour Market Policies in Italy*, OECD Publishing, Paris, https://doi.org/10.1787/575fd92c-en.

———. 2019a. “Italy Should Boost Investment in Training for the Future of Work - OECD.” Www.oecd.org. March 11, 2019. https://www.oecd.org/employment/italy-should-boost-investment-in-training-for-the-future-of-work.htm.

———. 2019b. *Regions in Industrial Transition*. *OECD Regional Development Studies*. OECD. https://doi.org/10.1787/c76ec2a1-en.

———. 2020b. *Education at a Glance 2020*. *Education at a Glance*. OECD. https://doi.org/10.1787/69096873-en.

Osikominu, Aderonke. 2021. “The dynamics of training programs for the unemployed” IZA World of Labor, ISSN 2054-9571, Institute of Labor Economics (IZA), Bonn, https://doi.org/10.15185/izawol.277.v2

Sasaki, Tsuyoshi. 2015. “Heckscher-Ohlin Model with Assignment Problem with Skilled and Unskilled Labor.” *International Journal of Applied Economics* 12 (1): 51–79.

https://www2.southeastern.edu/orgs/ijae/index_files/IJAE%20MARCH%202015%203-29-2015%20ManuscriptHeckscherOhlinAssignment.pdf.

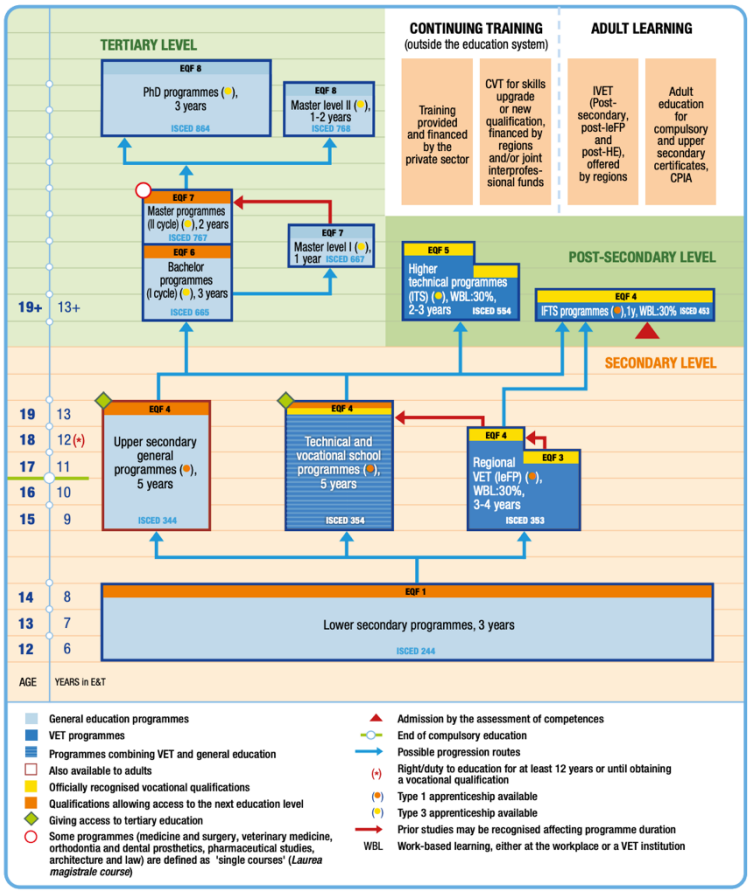
Stijn, B., Glenda, Q., & Marieke, V. 2019. "Wage Inequality and Cognitive Skills: Reopening the Debate". In Charles R. Hulten & Valerie A. Ramey (Eds.), Education, Skills, unemployed. IZA World of Labor 2021: 277 doi: 10.15185/izawol.277.v2

Wunsch, C. 2016. "How to minimize lock-in effects of programs for unemployed workers". IZA World of Labor 2016: 288 doi: 10.15185/izawol.28

Appendix A: ***Group Part***

List of Acronyms	Meaning
JS	Job-Seeker
NEET	Young individual who is not studying, working or receiving training
PES	Public Employment Service (s)
PPP	Public-Private Partnership (s)
ANPAL	Agenzia Nazionale Politiche Attive Lavoro (Italian Agency for Active Labour Market Policies)
YG	Youth Guarantee, in Italy called 'Garanzia Giovani'
STW	School-to-Work
EU	European Union
EC	European Commission
OECD	Organisation for Economic Co-operation and Development
ALMP	Active Labour Market Policies
CV	Curriculum Vitae
ISTAT	Italian National Institute of Statistics
ILO	International Labour Organization
NRRP	National Resilience and Recovery Plan
R^2	Coefficient of determination
P-Value	The probability that the obtained results are due to chance
GDP	Gross Domestic Product
MMS	MAXIMUS
VET	Vocational Educational Training
FCT	Fixed-Term Contract
PAP	Policy Analysis Project
YEI	Youth Employment Initiative
ANAC	National Anti-Corruption Authority
YG	Youth Guarantee
ESF	European Social Fund

Appendix B: Chapter 2 (Domenica):

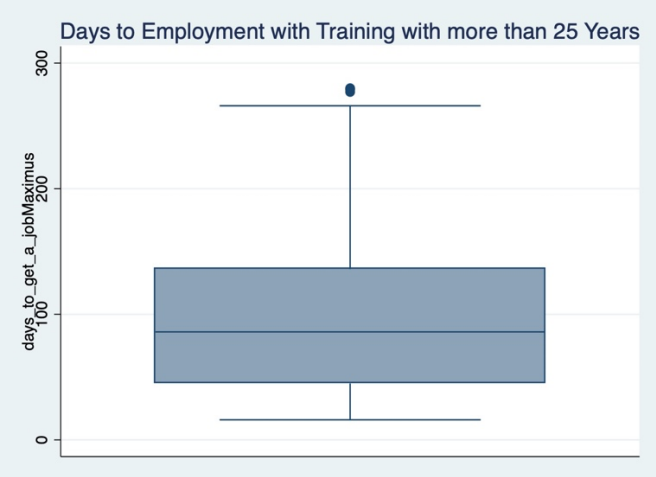


NB: ISCED-P 2011.

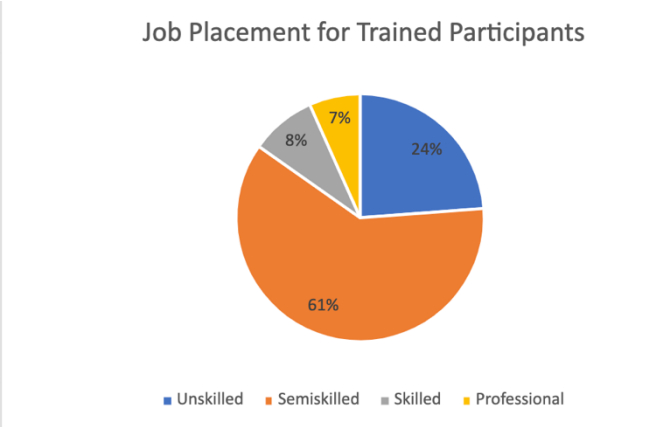
Source: Cedefop and ReferNet Italy.

Attachment 1

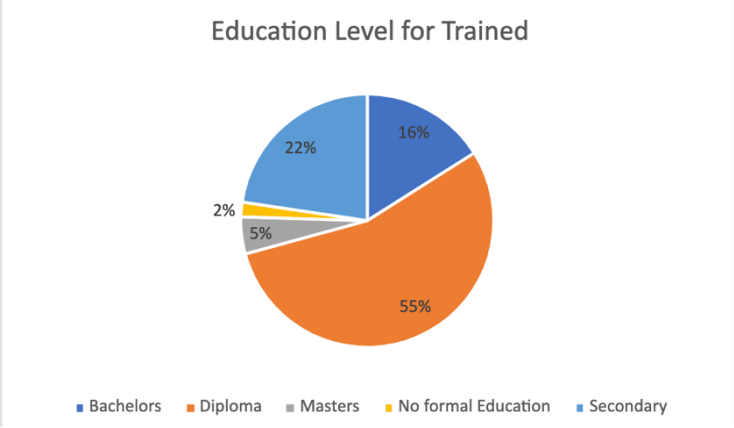
Attachment 2



Attachment 3



Attachment 4



Attachment 5