
***A Study on the Relationship between Early
School Leaving and Socioeconomic Outcomes***

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Abstract

The issue of Early School Leaving is still a big issue affecting individuals personally, as well as the society they live in, and to this day, it remains on the agenda of policymakers. In the light of this, the aim of this research is to understand the socioeconomic outcomes of Early School Leavers and the relationship between the two. To understand this relationship, the study analysed secondary data of the EU Statistics on Income and Living Conditions (EU-SILC) and compared several variables.

Given the data available, both panel data and cross-sectional regression were possible. Through such regression analysis, it resulted that the relationship between education and socioeconomic factors in Malta is inversely proportional with higher education attainment leading to higher income and employment opportunities. However, Early School Leaving can have negative outcomes on health and life satisfaction. Early School Leaving also affects the economy negatively by widening the skills gap and leading to wasted resources. The gender pay gap persists, and those with more work experience have a slightly better chance of employment. On the other hand, Early School Leaving can lead to social exclusion and mental health issues.

Therefore, such findings suggest that pursuing education can lead to better outcomes and higher satisfaction whilst leaving education at an early age can lead to a number of undesirable outcomes in terms of income, health, employment, and satisfaction, amongst many others. Overall, this shows that the study's findings are consistent with those of other studies, with a few slight variations that might be caused by several different variables.

Key Words: Early School Leaving, Educational Attainment, Socioeconomic Outcomes

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Chapter 1 - Introduction

1.1 Introduction

“Education is the passport to the future, for tomorrow belongs to those who prepare for it today” (Malcolm X, 1964)

As the above-mentioned American Muslim minister and human rights activist once said, it is common knowledge that education opens the door to many opportunities. Currently, the completion of secondary school is the basis for being eligible to attend university or other courses of the same educational level. It is also the foundation leading to entry into the labour market. Therefore, secondary education is the minimal level required for fruitful opportunities. Put simply, higher education almost always offers higher pay which is reflective of the level of education. However, this is not the sole benefit of education. Literature shows that both the individual and the whole society are met with positive life occurrences and outcomes when being engaged in high-quality education. Education offers individuals multiple benefits such as the possibility of opening the door to career development opportunities and personal development, gaining skills, social capital, and the possibility of overall life improvement. (Johnston, 2004). It is also believed to reduce the likelihood of the individual engaging in unhealthy habits and conditions such as smoking, teenage pregnancies, unemployment, crime, and suicide. Apart from individual consequences, ESLers create high welfare costs and low tax inputs. Therefore, one can see that what is invested today in terms of education is a preparation for what the future has to offer.

1.1.1 Definitions

The statutory definition of the term *Early School Leavers* by Eurostat (2022) is

“individuals aged 18-24 who have completed at most a lower secondary education and were not in further education or training during the four weeks preceding the labour force survey”.

As highlighted by Daniel Ellul in the Times of Malta (2023), the Ministry for Education, Sport, Youth, Research and Innovation (MEYR) specifies that ESLs have less than two O level exams and don't continue with any training or studying.

Furthermore, the term ESL is sometimes also replaced by the term ELET which stands for Early Leaving from Education and Training. The latter term was introduced so that the focus is not only on educational pathways but also on vocational ones. Similar to ESL, ELET also includes those individuals who have not managed to obtain a minimum of two passes in their SEC examinations.

The MEYR (2012) also defines the term '*school drop-out*' which is sometimes used in the report *An Early School Leaving Strategy for Malta 2012* as well as in other reports and literature. This term is more as a reference to individuals who did not complete an ongoing course, vocational education, or training.

1.1.2 A Social Problem

It is in everyone's interest to have a sustainable economy, and for this to be done, there needs to be sustainable development, which is defined in the Brundtland Report, published by the United Nations in 1989, as the ability to “meet the needs of the present without compromising the ability of future generations to meet their own needs” (p 14). This is a vital objective of the European Union as it aims to make sure that any decision relating to social, economic and environmental issues will aid in enhancing the quality of life both for the present generations

and the future ones. With that being said, in general, any decisions regarding ESLers and education must take into consideration that the long-term purposes of such decisions are sustainable for the current situation in Malta but must not impact future generations.

As the literature shows, there is a lot of knowledge and findings regarding what common factors lead to one becoming an ESLer. These factors may be categorised into four main categories which are individual factors, family factors, social factors, and community factors. Some factors that might lead to ESL include an individual's belief that they are not capable of meeting the requirements for further education, not having the emotional or financial support from family members, the school's lack of ability to provide individualised attention and the lack of different networks made available to the student (Camilleri, 2017). Such factors will then lead to further problems in one's life, which will be analysed and understood in detail in this study.

1.2 Motivation of the Study

This study aims to understand the risks and lifestyle that ESLers are faced with due to the fact that they are ESLers and lack educational qualifications. There is a common belief that ESLers are not able to lead a happy and successful life.

My interest in this subject is the result of my family's high involvement in early-years education. Three members of my immediate family are school educators and growing up, I have always believed that the key to a successful life is through further education. Hence, I have known quite early in my life that I wanted to go to university and reach the highest possible level of education that would provide me with a level of satisfaction with which I could build the career I wanted and enjoy the lifestyle I desire.

Moreover, I am interested in the topic of ESLers, and I find it interesting to understand the different lifestyles faced by such individuals and any difficulties they might face moving forward in life. Apart from that, it is not just a problem on an individual level but rather a social problem as it has multiple effects. Therefore, it should be in everyone's interest to get the highest educational qualification possible.

1.3 Statement of the Problem

Although the issue of ESL in Malta is a common topic that has been studied for more than a century, it is still a current discussion topic by policymakers due to it repeatedly having one of the highest rates of ESL in Europe. Malta has never managed to reach the goals set by the EU in terms of ESL and therefore, it is still a current social issue which puts pressure on the government and policymakers.

The EU 2020 goals required that the rate of ESLs (aged 18 to 24) must be reduced to 10% or less. However, statistics published by the NSO (2021) show that the rate of ESLs in Malta in 2020 stood at 12.6% meaning that the goal was not met. Moreover, studies conducted in Malta show that almost half (42%) of the ESLers suffered from minor physical illnesses which they were not able to treat accordingly due to the low income they earned as well as the insecurity they faced in their jobs. This also led them to not being able to satisfy their basic needs on a daily basis. This is a major concern for society (Camilleri, 2019).

The main problem relating to this study is that there is not enough understanding of the effects on the lifestyle enjoyed by ESLers after they leave school, given that this is not just a financial problem. There is also a lack of knowledge on what can be done to help such individuals.

Furthermore, it not only affects individuals who are considered ESLers but also the economy and the community. Hence, through this research, policymakers might be supported in addressing some of the issues that are present in the education system.

1.4 Research Questions

This research aims to analyse the link between one's education level and the economic situation in Malta. Furthermore, the study will also analyse the relationship between ESL and different social aspects of life like health status and life satisfaction. This will be done by looking at the data obtained from the *Statistics on Income and Living Conditions* survey conducted by the NSO throughout the past years, as this survey obtains data regarding the highest level of education obtained by individuals as well as their income levels and the type of lifestyle they enjoy. Therefore, the research questions for this study are:

- What is the relationship between education attainment and various economic outcomes in Malta?
- How does early school leaving relate to social aspects such as health and life satisfaction?

1.5 Methodology

As already mentioned, this study will analyse the data gathered through the EU-SILC survey meaning that it will take the form of desk research since secondary data will be used for this analysis. This study carried out through quantitative research, aims to offer a deeper and more complete understanding of the findings. It will also take a deductive approach since this will allow for an analysis of the effects and relationships between different variables.

1.6 Originality

Existing literature offers ample information as to why one becomes an ESLer and the process behind such a decision. There is also detailed information and theories behind the factors and risks that increase the chance of one becoming an ESLer. However, there is little to no analysis regarding the aftermath of becoming an ESLer in Malta. Therefore, this research will be a contribution to the existing literature as it will offer a deeper understanding of what happens when one drops out of school prior to completion and shed further light on the importance of reducing the ESL rates in Malta.

1.7 Outline of the thesis

This study is made up of five chapters in total. The first chapter is an introduction to the topic that is being discussed and relevant literature, followed by the objectives of the research. The second chapter provides a look at the existing literature relating to the topic in terms of statistics, theories, and policies and is followed by the third chapter which gives a detailed explanation of the methodology that has been chosen for this research, also mentioning any limitations of this study. In chapter four, a detailed analysis of the study is conducted, putting forward any findings that emerged during this study. The fifth and concluding chapter concludes by highlighting the key findings of the dissertation while giving recommendations for any further studies relating to the topic.

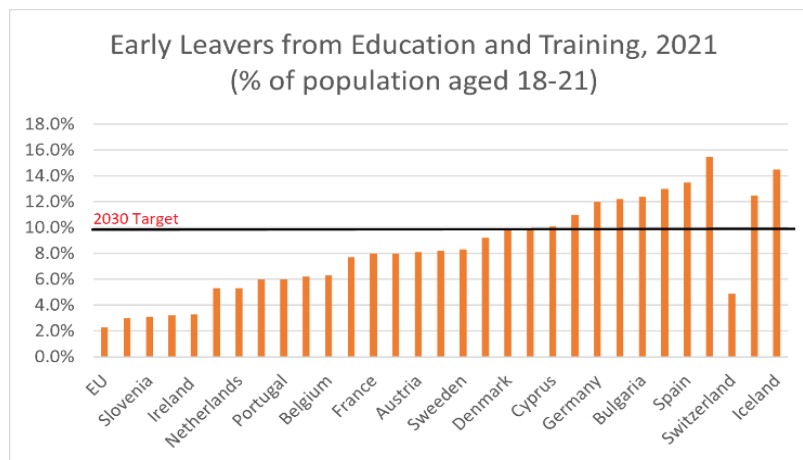
Chapter 2 – Literature Review

2.1 Definition of Early School Leavers (ESL)

As previously mentioned, ESL refers to those individuals aged between 18 to 24 who have only completed lower secondary education level and are not enrolled in any type of post-secondary study or training for four weeks prior to when the survey was conducted (Eurostat, 2021). This is a definition that is accepted and understood within the European Union. Other countries' definition on a national level may differ slightly but will generally refer to the same group of individuals. For instance, in Iceland, the term dropout refers to those who have not completed an upper secondary qualification when reaching 24 years of age while Norway defines this term as someone who did not manage to obtain the graduation requirements of secondary education, or else did not stay in the course till the end (Lamb & Markussen, 2011). Malta also includes those who did not manage to obtain at least two O Levels and stopped studying or training (Ministry for Education, Youth, Research and Innovation, 2023).

2.2 Statistics on Early School Leaving

Figure 2.1: Percentage of Early School Leavers from Education and Training, 2021 in Europe



(Source: Eurostat, 2022)

In figure 1, data provided by the Eurostat (2022) statistics shows that the countries with the highest share of ESL in 2021 include Romania, Spain and Italy with a percentage share that is higher than 13% while the lowest percentages were below 5% in Croatia, Greece, Ireland, and Slovenia. In the same year, ESLers were averaged out to be at 9.7% of this age group within the EU. Compared to 2011, there was a decrease of 3.5%. Eurostat also shows that Malta stood at a percentage of around 33.4% in 2011 and 11% in 2021. This is a huge drop in the percentage rate of Malta as it dropped by two-thirds over ten years. However, Malta still didn't manage to meet the targets set by the EU for 2020, which will be discussed at a later stage. This shows that ESL is a social phenomenon that has been for decades and still is present both on a European level and even locally.

In terms of youth unemployment, the rate for the EU in 2021 was 13% (Eurostat, 2022). This included individuals aged between 15 and 29 years. When compared to 2011, when the rate was 22.3%, one can note a significant decrease (European Commission, 2012). For Malta, the youth unemployment rate includes individuals aged between 15 and 24 years. In 2011, the rate was 13.37% while in 2021 it was 9.78% (Macrotrends, n.d). This shows that there was also a decrease for Malta; however, given that in 2011, the EU's average rate was much higher, there was a relatively lower drop in Malta's rates.

2.3 Effects of Early School Leaving

2.3.1 Employment

"The truth is that early school leavers are struggling." (Borg, 2013)

As Prof. Carmel Borg (2016) said, ESLers do not have it easy in life. As the world advances, individuals gain more knowledge, and this has led to a shift in the labour market from one which required little or no skill, to the present market which is a deeply knowledgeable and intellectual

market. Therefore, ESLers are more likely to remain in unemployment nowadays due to the lack of skills that they have in comparison to the labour market (Business Council of Australia, 2003).

Data has shown that ESLers are very often engaged in the services sector which includes retail, hotels and restaurants, and machine operators. This sector is the largest locally with wholesale and retail being the sector that employs the most people (Borg, 2011). Often, ESLers are engaged in part-time jobs or jobs that offer little security, as they struggle with finding stable full-time jobs. The study also shows that gaining work experience will not lead to a higher chance of being chosen for an interview by employers. However, obtaining certification through the job would help (Cahuc, Carcillo & Minea, 2017).

The consequences of ESL affect not just the individual, but even their family and eventually also the community. In general, employment problems create a social problem, and this is one of the major consequences faced by ESLers (Brunello & De Paola, 2014). As Prof. Carmel Borg (2016) found through his intense research, there are serious financial issues within this group as a result of the low income earned. This, then, makes it even more difficult for these individuals to get access to educational equipment, such as a laptop, for their children. Further studies also show that finances are a major reason for youths becoming ESLers. A study conducted by Foryth and Furlong (2000) support this by showing that it is true that students who are not assisted financially by their parents, find it difficult to continue with their education. What this means is that ESLers will struggle to offer the support their children need in terms of education which increases the possibility of them becoming ESLers too.

Studies also show that the economic cycle is another effect on ESL. This is because when economies are doing well, ESLers increase and the reason for this is because there are more

jobs on the market that do not require a lot of skills or knowledge and therefore, one can find a job easily. This is seen mostly among students following a vocational career as they are more engaged in the labour market (Cabus & De Witte, 2016). This encourages youths to drop out of education and find a job in order to earn money. However, this is not sustainable or feasible for an economy. The reason is that in this way, the economy would be prospering with lack of skills, low pay, and unstable jobs (Borg a Camilleri, 2016)

2.3.2 Low-Income Levels

Literature repeatedly shows that those with low levels of education are met with difficulties when looking for employment. In his study, Psacharopoulos (2007) highlights the fact that a higher level of education will guarantee a higher income. Literature also shows that the process of transitioning from education into the labour market is longer for ESLers than it would be for a qualified individual because of the lack of motivation and skills. Skills that are lacking include all types of skills such as basic reading and writing, critical thinking and problem-solving, as well as industrial abilities (European Commission, 2012). ESLers are also more likely to engage in blue-collar jobs since these jobs do not require a lot of knowledge (De Giorgio, 2019). ESL is also known to lower the total income during one's lifetime as well as increase the frequency and length of time spent in unemployment (Brunello & De Paola, 2014). In this regard, it has been determined that a student who attended school for an additional year would have a lifetime income of more than €70,000 (European Youth Forum, 2007).

In a study conducted by The President's Foundation for the Wellbeing of Society entitled *Early School Leaving and Wellbeing in Malta and Beyond* (2015), a very simple yet interesting factor was analysed, namely, whether individuals owned a DVD player in comparison to their highest level of education. It was found that among the individuals who left education at the age of 14

and 15 years, only 51% owned a DVD player. On the other hand, of the people who remained in education up to 22 years of age, 82% were in possession of a DVD player. Similarly, when analysing those who owned a car, only 55% of the participants owned one from the former group whereas for the latter group, the percentage stood at 80%. This supports what Borg (2016) stated in his study as it shows the difference in the income and living conditions enjoyed by those who remain in education for longer.

An important issue to consider is the gender pay gap in employment. Even though both genders pay the same price for tertiary education, studies show that they do not earn the same wage after graduating. What is implicated by this is that women will have a more difficult life as this will limit their overall abilities (Corbett & Hill, 2012). Those females who are the main providers for their family will find it more difficult than males to provide for it. It will also be more difficult for them to be able to offer educational opportunities to their children and support them. Supporting studies show that the gender pay gap is present in every sector and does not improve because of qualifications or different settings (Miller & Vagins, 2018).

2.3.3 Costs of ESL

ESL brings with it huge costs. Such costs can be classified into three types - private, fiscal, and social costs (Belfield, 2008). Private costs include the income earned from employment, health levels, lifestyle and overall life satisfaction. Fiscal costs, which are borne by the state, include lower tax revenue, more expenditure on criminal justice, and higher requirements for support in terms of healthcare and benefits. As for the social aspect, given that ESLers are less productive and active in society, they generate higher crime rates and less political involvement (Psacharopoulos, 2007).

It is also clear from literature that their lives are impacted by a lot of negative emotions as they are pessimistic about the future (Borg & Camilleri, 2016). One of the main reasons for this is that they do not have the time and financial ability to do things they like and enjoy doing which then makes them feel unsatisfied and anxious. With the stigma that such cases have, ESLers can also feel excluded from society, which is a major issue. This also leads to them not being active within society or worse, in the labour market. Therefore, ESLers rarely ever reach their full potential (Ministry for Education, Youth, Research and Innovation, 2014). This does not allow for the economy to thrive to its best ability and as Gyönös (2011) emphasises, both the economy and society cannot afford to lose young talent.

ESLers and their challenges with employment are seen to also have an effect on one's health and life outcomes. A study by Hammarström and Janlert (2002) shows that those who were unemployed at an earlier stage in life were found to have more unfavourable habits and symptoms, even if they were no longer in unemployment or facing challenges. However, they also note that this group of people were always found to be "worse off" in terms of their habits. This is very clear in health habits like smoking. In this regard, studies show that educational benefits include the ability to make decisions that are better informed in terms of health, employment, marriage, parenting and retirement (Brunello & De Paola, 2014).

2.3.4 Health Problems

In a study conducted in Britain known as the *Birth Cohort Study*, results showed that long-term unemployment among young males aged between 16 and 27 appeared to have an adverse impact on their health. However, it is good to note that this study was solely conducted on men (Psacharopoulos, 2007). Another study in Sweden shows that those who had difficulty finding employment at a youthful age also ranked first in having undesirable behavioural habits and

health symptoms. However, the research notes that this category of people was already in an unfavourable position at the start of this study (Hammarström & Janlert, 2002). Studies also show that ESLers are expected to live a shorter life than those who are not categorised as ESLers.

Having additional education improves many health aspects. It reduces stress mainly because of the stable income earned and the ability to get a secure job (Lochner, 2011). Education also helps in better decision-making which reduces the chances of making decisions that can lead to problems and financial issues. It allows one to have better healthy behaviour and choose the right friends. Having good peers and healthy behaviour leads to having better healthy habits in many aspects such as one's diet, smoking and alcohol consumption, safe sex, exercising and much more (Psacharopoulos, 2007). All this affects one's mental health.

Brunello and De Paola (2014) found that education also makes it more likely for one to have health insurance, ensuring that one's health is taken care of. This is important for the government as it reduces public health costs as well as waiting lists. However, given that highly educated people have a longer life expectancy, they are also expected to require health services for longer. Moreover, since they are better educated, they would also ensure that they do any necessary required health checks resulting in greater usage of the health care services. In fact, literature shows that better educated people have higher mortality (Lochner, 2004).

Many researchers have studied the *Health-education gradient*. Cutler and Lleras-Muney (2006) concluded that in the USA, the gradient was extremely strong for better educated individuals and healthier ones. An interesting factor identified in this study was that educated people had tried illegal drugs on a more frequent basis; however, they were able to discard them from their

lifestyle more easily. This strengthens the fact that better educated people can make wiser and healthier decisions as stated by Brunello and De Paola (2014). Furthermore, their study proves that educated people have a higher chance to engage in physical activity and take health preventive measures. A linear relationship was found when comparing the relationship between the number of years of education and health in the long run.

2.3.5 Fiscal Pressure

Because of the demand that it puts on public services, the problem of ESL creates huge fiscal and social costs for societies (Dale, 2010). Literature shows that ESLers are less productive by 6% than qualified school leavers and this creates an expense for the European economy on average of 1.4% (Commission Staff Working Paper, 2011). It is also shown that ESLers lead to a higher tax burden based on the fact that a significant percentage are not actively engaged in the workforce and so they are not contributing to taxes. The higher demand for financial social services is also a huge burden on the government. This is because fewer taxes are being paid, from which the government has to pay those individuals who meet the criteria for social benefits such as those who are not employed or do not earn enough income. There may be a number of benefits that an ESL may be eligible for such as unemployment benefits, disability benefits, sickness benefits and even pensions (Brunello & De Paola, 2014). The lack of participation in politics and higher crime rates linked to ESLers are two of several other issues that put pressure on the government and policymakers.

2.3.6 Crime

Lack of education is often linked with a higher tendency to engage in criminal activity (Grogger, 1998). According to Machin et al. (2011), this is mainly because of three factors which are related to income, time and patience or risk aversion of the individual.

It is repeatedly shown in literature that a higher level of education guarantees a higher income. This means that those who engage in criminal activities are more at risk as they have more to lose than someone who earns a minimum wage. However, higher wages may also have a negative effect on crime rates, and this is because if the labour market is offering higher wages, staying longer in education will result in less income generated by an individual (Machin et al., 2011). Hence, youths might believe that it would be better to drop out of education and join the labour market immediately (Hjalmarsson, 2008). This would make them ESLers and increase the chance of them engaging in criminal activities. So even though these two factors may be contradictory in terms of remaining in education, both affect the crime rate and should be taken into consideration.

In terms of time, youths who are spending most of their day in school, have less availability to be able to engage in criminal activities or be part of criminally active friend groups (Cook & Kang, 2016). Furthermore, educated individuals will also be equipped with more knowledge to weigh the consequences of crime in terms of the time that one may have to spend in prison, or the time needed to gain back the money lost in fines (Groot & Van Den Brink, 2010).

As for the patience or risk aversion of the individual, someone who is patient is believed to attribute more value to future earnings whereas ESLers are more likely to be impatient and see

education as more costly while also valuing immediate earnings over future earnings (Psacharopoulos, 2007). Youths are also linked more to risky behaviour and education may increase one's patience, making the individual risk-averse. A risk-averse person will link crime with high risks and will have the tendency to move away from criminal behaviour (Machin et al, 2011).

On the contrary, some literature also suggests that sometimes, education may be wrongfully used to gather knowledge and use it for criminal activities. In a study by Lochner (2004), results show that white-collar arrests carry an 11% increase in the rate when considering an average increase in the educational level.

2.4 Theoretical Framework

2.4.1 Cultural Reproduction Theory

Pierre Bourdieu (1973)'s theory states that individuals and families have economic, social, and cultural resources that can be reproduced into further resources or transformed into different resources. These resources can also be transferred through generations. It is a theory linked to cultural practices that are considered to be prestigious and assumes that those coming from a higher social or financial status enjoy easier access to cultural resources that can aid in making better educational and vocational decisions (Praag & Clycq, 2020). Bourdieu was interested in the ongoing cycle and build-up of cultural capital which promoted unfairness and inequality amongst social classes. He was of the idea that this cycle went against the general belief that success or failure is a result of one's knowledge and abilities (Reay, 2004). This theory believes that educators are more connected with students who carry an elite status or culture and therefore, give more attention and assistance to such types of students. However, this does not

necessarily mean that students possess this greater intelligence or educational brilliance but that they just portray this image. This stems from the belief that such students are more intelligent than those who are not familiar with or part of such a high culture with particular traits (Lareau & Weininger, 2003). Therefore, even though this will have a huge effect on youths in their early education, it also affects adults. This is because through this theory, one can understand that an ESLer's probability of engaging in education or training will be lowered as they are not given the attention and communication they deserve from the educator or trainer if they are not part of the dominating social class.

2.4.2 Rational Choice Theory

The rational choice theory, invented by Adam Smith, is used to understand human decision-making. It believes that individuals make decisions based on a cost-benefit analysis of the situation. In this case, the decision to continue with their studies depends on the cost of obtaining an education as well as the benefit that such a decision will offer (Elster, 1986). It is generally believed that essentially, youths' main goal is to reach, at least, the level of education that will lead them to enjoy the same lifestyle that their parents provided for them. That is, they aim to remain at the same level of income as their family. Therefore, this level of education will differ for each student, given the social class they enjoy (Breen & Goldthorpe, 1997). One's parent's level of education will also affect the student's confidence in their ability to obtain a higher education. Therefore, another factor that is taken into consideration when using the rational choice theory is that of personal ability and self-esteem. Higher-achieving students will find it easier to believe that they are able to achieve further education (Beekhove, De Jong & Can Hout, 2002).

Taking into consideration the Cultural Reproduction Theory mentioned previously, those individuals enjoying a high social class have a higher chance of choosing to stay in education because it is more accessible to them than an individual of a lower social class. It would also be less of a struggle for high social class individuals to get by without a full-time job until they are done with their studies. On the other hand, those hailing from a lower social class might not be able to go without earning a full-time salary for a long period of time. Furthermore, for students to weigh the benefits of education as better than the costs, they would need to understand all the benefits that education offers such as health benefits. This theory is to be taken into consideration when drawing up strategies to reduce ESLers or re-engage ESLers in education or training.

2.4.3 Social Capital Theory

Another theory by Bourdieu that can be considered in relation to ESLers is the Social Capital Theory which relates to the previously mentioned three types of capital which are economic, social, and cultural and that can be converted. In this theory, Bourdieu (1986) expresses his belief that social capital is directly linked to class as it defines the level of class one enjoys. One's class, gender and race will determine the availability and ease of access to institutional resources (Praag & Clycq, 2020). Therefore, social capital is linked to advantages and opportunities for advancement. People with more social capital also benefit from broader information and social networks. What this theory implies is that those who are part of the higher social class have much more opportunities for advancement in their life, even in terms of education and employment whereas someone who is in the lower social class will have to work much harder to obtain the same opportunities. On the other hand, those students who come from lower socioeconomic backgrounds are more likely to use unofficial routes to acquire

information and employment. However, this decreases the likelihood of their ability to find a job that offers favourable working conditions (Russel, 2014).

2.5 Europe 2020

Following the financial crisis in 2008, José Manuel Barroso, who at the time was the President of the European Commission, wanted a fresh start for 2010 with the aim for Europe to gain its strength back. The three main goals for Europe were 'smart, sustainable and inclusive growth' (European Commission p8, 2010). The European Commission proposed five EU targets which were measurable targets for 2020. It also suggested that these goals be adapted to national requirements and trajectories. Such goals relate to different sectors of the economy, one of them being education. The goal in terms of education required that

“The share of early school leavers should be under 10% and at least 40% of the younger generation should have a tertiary degree.” (European Commission p3, 2010)

This target was introduced after analysing the education levels within the EU. Studies conducted by the European Commission show that one-fourth of all individuals are poor readers, and only around half the young population reach medium qualifications which are often not enough to reach the requirements for the labour market. Amongst every seven youths, one leaves education early and is considered an ESLer. In Japan, over 50% of those aged 23-35 have a university degree whilst in the US, the rate stands at 40%. However, in the EU, “less than one person in three” (European Commission p10, 2010) is in possession of one. The report suggested that for the Member States to reach such goals, they would need to invest in education and training systems that are effective which in turn enhance the outcomes of education of each segment, i.e. kindergarten, primary, secondary, vocational, and tertiary levels

while targeting a reduction in ESL. The Commission proposed a strategy that included EU mobility programmes such as Erasmus, the recognition of informal and non-formal educational activities and apprenticeship programmes through educational courses.

Following the proposition of the European Commission to translate the targets of the EU into national goals, in 2014, the MEYR published the *Strategic Plan for the Prevention of Early School Leaving in Malta, 2014*. This was aimed at working towards the 2020 goal set by the EU which related to educational factors. Having committed to reducing Malta's ESL rate to 10% by 2020, an effective strategy was required, given that in 2013, the ESL rate stood at 20.9%, making Malta second in having a high ESL rate. Therefore, the main goal of this strategy was to help students make the most of their school years. In the strategic report, Evarist Bartolo expressed that

"A student who has left school without a basic level of education is not just a number feeding into an ESL percentage, but a human being whose fulfilment is curtailed and whose future is prejudiced." (p 2)

Hence, part of this strategic plan was also concerned with ESLers and their integration back into education or training. A set of compensation measures were put in place with the intent of offering access to second-chance education. Some of the goals included offering educational programmes as a second-chance that are relevant, recognised, and flexible; an integrated approach to students wherein teachers are supportive of their students, and a positive experience in education. These goals are explained in further detail in the report *Reducing early school leaving: Key messages and policy support. Final Report of the Thematic Working Group on Early School Leaving (2013)*.

The strategy set forward for Malta established a number of criteria that needed to be taken into consideration by policymakers. It proposed that second-chance education programmes should be flexible, accessible and should open doors to further opportunities. It also proposed that they should be managed by strong leadership and meet student's needs holistically while making their experience the best possible. Finally, educators were expected be able to adapt to student's learning capacities and offer continuous support on all levels.

By 2013, there were a minimum of five institutions that offered education to individuals who had not managed to obtain the requirements needed to obtain the adequate qualifications for MQF Levels 1 to 3. The most popular institutions were the Malta College of Arts, Science and Technology (MCAST) and the Institute of Tourism Studies (ITS). Both institutions allowed one to progress up to MQF Level 6 wherein the majority of the courses included a work placement. Furthermore, FES also offered the possibility of obtaining certification up to MQF Level 2, whilst also offering basic life skills and a work placement. On the other hand, the Giovanni Curmi Higher Secondary School (GCHSS) offered courses for those who were in possession of only two SEC subjects with a pass. Others also joined courses offered by other institutions. For the goals to be met, several recommendations to the institutions were made in this report. These were the following:

- In order to offer a well-designed, more relevant programme and avoid overlapping of material, the providers of second chance education, employers and civil society need to facilitate the link between them through the Early School Leaving Working Group (ESLWG).
- Courses offered by MCAST and ITS need to be made more relevant through the inclusion of entrepreneurship and real-life work experience.
- The ESLGW should aid institutions to adopt new teaching practices that move away from the common teaching methods used in compulsory education. This should include more hands-on activities as well as smart technologies.

- The MQF Level 3 programme of the Youth.Inc must be reviewed to find areas of improvement and find ways to ensure easy access to other pathways at MCAST and ITS.
- The GCHSS should carefully take into consideration its dependency on the success of its revision courses and create revision courses for students who didn't pass any SEC exams at the end of their secondary school. Finding the appropriate people and physical resources to expand the Naxxar campus should be aided by the Directorate for Educational Services.
- The Directorate for Lifelong Learning should work on offering part-time courses in the morning too, rather than just in the evening. (pp 46-47, 2010)

2.6 Europe 2030

In 2021, The Council of the European Union published a set of resolutions and recommendations in order to further reach a common goal among all the EU member states, which is to reduce the rates of early leavers from education and training to less than 9% by 2030. Another goal to be reached by 2030 is increasing the share of 25- to 34-year-olds who are in tertiary education by 45%. Other goals which contribute to the living conditions of ESLers after leaving education or training are aimed to increase work-based learning whilst following vocational education and training to 60%. Additionally, goals include having a minimum of 47% of adults aged between 25 and 64 engaged in education in the past year by 2025.

The main aims for these targets are to enhance the quality and success of all those engaged in training and education, make lifelong learning a realistic option for everyone, and boost the abilities and motivation among educational professionals. They also aim to enforce higher education in European countries and support the digitalisation of education and training.

Further to the above, Malta set its own policy entitled *Early Leaving from Education and Training Policy – The Way Forward* to establish its own strategy. One main difference from the strategy set out in 2014, is that this policy focuses on ELET and not just on ESLers. This term is seen as more fitting since it includes also those who have left vocational training.

The main aims of this policy are to make sure that all students receive high-quality education and encourage lifelong learning, lower the number of underachievers, “raise the bar for literacy, numeracy, and scientific and technology competency” (Caruana p 2, 2021), and the bar for student accomplishment, narrow the gap in educational results between girls and between individuals attending different educational institutions and offer increased support to those who are considered at risk of poverty and carry a high chance of becoming ESLers. Another two aims include the increase of students who remain in education in post-secondary institutions both for education or training, and the promotion of adult and lifelong learning.

It includes a set of compensation measures targeted at adult learning, lifelong learning and even non-compulsory education. They were purposefully constructed to maintain access to higher education while enhancing opportunities for second chances and reducing the likelihood of students quitting post-compulsory education.

There are a total of five compensation measures which are:

- The setting up of a *Post-Secondary and Adult Learning Working Group* where discussions can be held to assess the compensation measures, the strategic plans and development areas, and to communicate best practices among stakeholders.

- Extending the possibility for students to change their subject till the end of November in order to avoid and reduce dropouts for the sole reason that they do not like the subject that they have chosen.
- Students who are seen to be at substantial risk of becoming ELET such as high absenteeism, poor performance, and learning difficulties should be monitored comprehensively. Furthermore, professional support should be offered to these individuals.
- Making learning accessible to everyone through the introduction of blended learning to accommodate a considerable number of students. Blended learning needs to take into consideration the three components of student engagement which are the learner's behaviour, their emotional reaction, and the cognitive process.
- Create a plan of action that reconsiders and examines the current compensation programmes for second-chance education in all post-secondary and adult learning institutions (Early leaving from education and training policy p 43-53, 2020).

2.7 Lifelong Learning

Currently, the Lifelong Learning Unit within the Education Ministry is offering over 400 courses with a variation of 77 different subjects. The motto for the scholastic Year 2022/2023 is *Living is Learning*. Courses vary from MQF Level 1 to Level 4 and comprise creative courses and courses aimed at promoting vocational prospects and a healthier lifestyle. These courses are offered in a number of locations across Malta and Gozo for accessibility purposes to those interested. There is a fee that applicants would have to pay; however, prices vary from €11 to €47 which is very reasonable given that the duration of the course can go up to 32 weeks. To further incentivise lifelong learning, those who choose to apply for the "Introductory Courses in Maltese, English and Mathematics, Media and Financial Literacy courses" and senior citizens when applying for their first course are exempted from paying the course fees.

One of the goals set forward in the *Early Leaving from Education and Training Policy – The Way Forward* for Malta was for all institutions to allow the possibility for one to change their educational course up to November. However, the prospect does not mention anything about making changes after the commencement of the course. Hence, I believe that this measure has not been implemented yet. On the other hand, there has been improvement in the methods of learning since some courses can now be followed online.

2.8 Conclusion

To conclude, the author notes that there are numerous disadvantages and risks that ESLers may be faced with in their life and the existing literature has a general agreement on such disadvantages. The immediate effects of ESL are unemployment or insecure and low-paying jobs. ESLers also struggle with finding jobs that offer vocational training. Over the years, ESL has led to social financial burdens such as the higher demand on the health system as well as economic burdens such as higher social benefits that need to be paid, and the lower generation of tax revenues. As a result of such factors, ESL contributes to the huge loss of opportunities for social and economic prosperity.

Jean Antoine Condorcet (1743–1794) advocated that “public education was an instrument that made the ‘perfect man’ possible” (Castellano et al p 56, 2019). This shows the importance of the part that education has always carried and the crucial role it has in an individual’s life and the whole of society. Hence, this study will provide a deeper analysis of the situation of ESLers in Malta in the past years and the effects on their life of their decision to leave education.

Chapter 3 – Methodology

3.1 Introduction

The aim of this chapter is to provide the reader with a description of the methods used to conduct this research and the reason for choosing such methods. Section 3.2 of this chapter presents information regarding the research process used to conduct this study. Section 3.3 gives a detailed description of the data used, in this case, the Statistics on Income and Living Conditions (SILC), and provides as well an explanation of how the data was collected and analysed, and the process of obtaining the data. This is followed by Section 3.4 which focuses on the process of the data analysis and the models used, while Section 3.5 mentions the limitations encountered as well as the reliability of the data used. Any ethical issues will also be discussed in this section.

“There is a great difference between knowing and understanding: you can know a lot about something and not really understand it.” - Charles F. Kettering (1961)

Even though it is generally known that ESLers do face challenges and higher risks throughout their lives, just knowing is not enough. Rather, getting a deeper understanding can help in many aspects. It can help individuals understand the risks that they may bring upon themselves, help society have better educated individuals, and also, benefit the government vis-à-vis lower unemployment rates and lower dependency on welfare benefits and health services. Besides this, this research also assisted in filling in the gap found in the literature review which can eventually be useful for policymakers.

Therefore, this research helped in obtaining a deeper analysis of the situation of ESLers in Malta. This was done through data gathering and analysis which led to answering the research questions exposed in Chapter 1. The research questions are the following:

- What is the relationship between education attainment and various economic outcomes in Malta?
- How does early school leaving relate to social aspects such as health and life satisfaction?

With respect to the first question, the relationship between income levels and the level of education attained was analysed to understand the economic situation of ESL. With regard to this matter, the employment situation was also analysed. Furthermore, social aspects like health status and life satisfaction were studied to understand what risk being an ESLer poses to their life and lifestyle.

3.2 Research Approach

In order to answer the research questions set forward at the beginning of the study, one would have to decide which data would be best to use: whether primary data or secondary data. Primary data is data that is gathered by the researcher and normally includes information obtained from interviews and observations. Secondary data is information that has been gathered by someone who is not the original user, that is, from readily available sources. Examples of secondary data include books or journals, among many others, which have a level of trustworthiness (Grech, 2011). In this study, secondary data gathered on a European level was used to analyse the situation in Malta.

Furthermore, when conducting research, there are three main ways that may be used to gather data which are a qualitative approach, a quantitative approach, as well as a mixed methodology approach. A qualitative approach can provide a deeper explanation regarding the subject in question as it is a fairly flexible method. This method of data gathering frequently involves fewer subjects, which lessens the statistical reliability of the results but fosters a greater knowledge of the research topic (Guerra-Santin & Tweed, 2015). Comparatively, quantitative research frequently uses large samples and is more objective because it allows for the replication of the results by other researchers (Zikmund et al., 2009). It is more focused on numerical data which is then analysed through mathematical methods.

One can also choose to use a mixed approach to data gathering by making use of both qualitative and quantitative approaches. Researchers may opt to obtain results through one research method and then use the other method to focus deeper on the attained results. Often, quantitative data is obtained first. Then, from the discrepancies found within the data sets, questions are formulated to gather further information (Almalki, 2016). This technique is often used when researching a subject without going into much detail. It focuses on finding out *how much* rather than *how* or *why*. In order to get the best results, for the purpose of this research, a quantitative approach was used which allowed the researcher to see the relationship between the different variables and their effects.

In addition to the above methods, one must also choose whether to use an inductive or a deductive approach. An inductive approach makes use of participants' responses and a 'bottom-up' approach to be able to formulate theories and themes regarding the subject in question (Creswell & Plano Clark, 2007). Qualitative research is generally inductive as the aim is to form theories and explanations of such, rather than to test the theory (Newman, 2000). Normally, the

researcher starts with an observation and looks for common themes in the data. This enables the researcher to develop a preliminary hypothesis that may be tested.

On the other hand, a deductive approach is used in quantitative research as often, a hypothesis is being tested. Trochim (2006) explains that deductive reasoning is typically used for arguments based on commonly accepted principles. This study followed a deductive approach in order to answer the research questions.

3.3 Description of Data

The research questions set forward were answered with the data gathered from the EU Statistics on Income and Living Conditions (EU-SILC). This survey was developed to gather data on structural measures of social cohesion, mainly the rate of those at risk of poverty and the gender pay gap. This survey is the only one of its types because it covers data from all the member states in the European Union as well as Switzerland, Iceland, Norway and Serbia. It is both a cross-sectional and longitudinal survey (Bourke, 2023) as there are two data scopes; the cross-sectional data analysis of several variables such as income and poverty, lifestyle conditions and social exclusion during a fixed period of time (Kesmodel, 2018) and on the other hand, the scope of longitudinal data related to changes that happen to individuals over a number of years (Thomas, 2022). An average of 90% of the variables used in the data collection are annual, while the remaining modules are either collected every three to six years or whenever relevant to policy requirements. The data collection is done both on an individual level and a household level. Information relating to social exclusion and household conditions is collected on a household level whereas that relating to labour, income, education and health is gathered from individuals aged 16 years and over (Eurostat, n.d). Each participating country is free to present national surveys in whichever way they prefer. However, given that this study is

subject to legal restrictions, the output presented must be standardised. Further to this, Eurostat had set out a minimum sample size to guarantee consistent statistical power for cross-sectional as well as longitudinal components. The sample size for the former is 135,000 households and for the latter, 101,500 households are required. In this study, a total of 75,328 observations were used. For the purposes of this study, the data used was gathered for Malta.

It is important to note that even though locally, the Malta Qualifications Framework is used to refer to the different levels of education, for the SILC, the International Standard Classification of Education (ISCED) is used. These classifications make it easier for European countries to be able to compare different between countries and this is why they were implemented. Below is a table which compares the MQF levels to the ISCED standards.

Table 3. 1: Comparison of MQF and ISCED Levels

	MQF Levels	ISCED Levels
1	General Education School Leaving Certificate	Primary Education
2	General Education SEC Grade 6-7	Secondary Education
3	General Education SEC Grade 1-5	Upper Secondary Education
4	Matriculation Certificate Advanced Level Intermediate Level	Post-secondary Non-tertiary Education
5	Undergraduate Diploma Certificate	short-Cycle Tertiary Education
6	Bachelor's Degree	Bachelor's or equivalent level

7	Master's Degree Post-graduate Diploma Post-graduate Certificate	Master's or equivalent level
8	Doctoral Degree	Doctoral or equivalent level

(Malta Further & Higher Education Authority, n.d) (Eurostat, n.d).

Data relating to the EU-SILC can be accessed freely through Eurostat's online database. However, in order to preserve the privacy of the respondents of the SILC, access to the microdata, which are collections of data that include details on specific people, households, and organisations (Winkelmann & Boes, 2006) are not freely available to the public. Access to the data is only given to recognised entities for research purposes after a process of application forms and approvals. Therefore, since this process could take relatively long, the EU-SILC data for Malta was obtained from the National Statistics Office of Malta. A formal application was submitted to the NSO for request of access to such data and after ensuring legitimate use of the data requirements through several email exchanges, the dataset was provided. The data was anonymised to prevent any ethical issues. Furthermore, an Ethics Form was submitted to the EURECA to confirm that through this study, no ethical issues would be raised, and no individual would be identifiable, put at risk, or made vulnerable through the sharing of the EU-SILC data.

This survey is considered important to the Member States and the additional participating countries mostly because it provides insight into the income and health situation in all the countries which has a crucial effect on the social and economic aspects of such countries. Although previous research has looked into the correlation between macroeconomic conditions and health, very few studies looked at the impact of fiscal policies in relation to health. Some countries do analyse the situation through surveys regularly. However, due to the fact that each country formulates its research approach, it is extremely difficult for countries to compare such data. The EU-SILC facilitates this need through its standardisation.

3.4 Data Analysis

Usually, the goal of a regression analysis is to determine how several independent variables affect the outcome. It is simply looking for the line that best fits a researcher's data. Even though trying to include too many variables in a regression analysis can have hazards, there are ways in which such risks can be reduced. One of the main benefits of regression analysis is that it may consider the effects of numerous variables at once (Gallo, 2015). Regression analysis also allows one to predict new relationships among the variables.

For the regression analysis, Stata was used which is a tool used to analyse data in an easy-to-use and efficient manner. Among many of its functions, Stata allows one to import or export data, process thousands of variables, and analyse different types of data such as panel data and cross-sectional data, both of which were used in this study.

3.4.1 Regression Analysis – Panel

Given the number of observations available for a number of years, it was possible to make use of panel data regression since it observes a number of variables over periods of time. Hence, for the panel data, the following equation was used in terms of the gross wage:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \beta_6 X_{6it} + \beta_7 X_{7it} + \beta_8 X_{8it} + \beta_9 X_{9it} + \mu_i + \varepsilon_{it}$$

Where Y = gross wage

β_0 = Constant Variable

$\beta_1, \beta_2, \dots, \beta_9$ = X 's coefficients

X_1 = District

X_2 = Age

X_3 = Age Squared

X_4 = Citizenship

X_5 = Sex

X_6 = Marital Status

X_7 = Participation in formal education and training

X_8 = Educational attainment level

X_9 = Number of years spent in paid work

μ_i = Random effects specific to each individual

and ε_{it} = Random error term

For the panel data relating to health, the same equation was used with the difference that Y = Health and age squared was not used as one of the variables since health worsens as age increases. Then, for employment, Y = Employment, and age squared was included since a person is at their peak employment when they are middle-aged.

3.4.2 Regression Analysis – Cross-Sectional

Since the data relating to satisfaction was only available for one year (2018), cross-sectional analysis was used which analyses different observations at a particular time. The formula used for the cross-sectional analysis is the following:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \beta_6 X_{6i} + \beta_7 X_{7i} + \beta_8 X_{8i} + \beta_9 X_{9i} + \varepsilon_{it}$$

Where Y = Overall life satisfaction

β_0 = Constant Variable

$\beta_1, \beta_2, \dots, \beta_9$ = X's coefficients

X_1 = District

X_2 = Age

X_3 = Citizenship

X_4 = Sex

X_5 = Marital Status

X_6 = Participation in formal education and training

X_7 = Educational attainment level

X_8 = Number of years spent in paid work

and ε_{it} = Random error term

The same formula was used for financial and job satisfaction with the difference that for the former, Y = Satisfaction with the financial situation and for the latter Y = Satisfaction with the job.

3.5 Limitations

Given that this is desk research analysing the EU-SILC data, there were not many limitations in terms of the data collection. Since the data to be analysed was gathered and presented by the Eurostat, it was considered to be extremely reliable and representative of European society. In order to be transparent regarding the reliability of the data, national quality reports are to be issued within three months of the data transmission deadline. These reports should take into consideration any derogations for specific countries which go on until 2023. Currently, quality reports need to be formatted using the Single Integrated Metadata Structure (SIMS). However, since the data analysed relates to 2021, the format used was that of the European Statistical System Standard for Quality Reports Structure (ESQRS) (Eurostat, n.d).

One limitation present in the data is the fact that even though the most important variables like income, living conditions and health were analysed, other factors that may be present in an ESLer's life may not have been considered. Such factors that might not have shown up or might have not been taken into consideration include one's childhood, self-esteem, and intelligence level. Another factor that might have a huge impact is the parent's education level and this was also not analysed in this survey. However, given that such factors are not the only determinants of the lifestyle and condition one enjoys, the data analysed for this study may still be considered highly relevant and reliable.

The EU-SILC provides data on the self-perceived satisfaction of individuals in terms of their financial status, their job and even their satisfaction with life in general. However, this data was only available for 2018, thus only allowing a cross-sectional analysis. This limitation did not allow the researcher to observe changes in the satisfaction levels in relation to changes in the other variables such as engagement in education, years of work, or health. By using a cross-

sectional analysis, it was not possible to determine a causal relationship between the variables and this was another limitation of this study in terms of participants' satisfaction.

Indeed, in the literature review, education and income were seen to have a correlated relationship. This has been proven through previous studies. However, a limitation of this study is that even though evidence about a causal relationship between education and income exists, this could not be proven in this study as the data was not experimental in nature. Nonetheless, given the sample size involved, and by controlling for several key correlates in the regressions, including the use of Random Effects in the panel data regression, the aim of this dissertation was to ensure a high degree of reliability for the results obtained and minimise any potential endogeneity issues which might call into question the causal nature of these relationships.

Chapter 4 - Analysis

4.1 Introduction

In this chapter, the findings obtained from the data analysis will be presented and discussed, making reference to the theories discussed in the literature review. The results will be presented to two main sections – one section for the panel data analysis which will discuss gross wages, health and employment, and another section for the cross-sectional data analysis which discusses overall satisfaction, financial satisfaction as well as satisfaction with one's job.

4.2 Panel Data Analysis

In the section, the observations collected between 2010 to 2020 are used in a longitudinal regression analysis to obtain the results which will be analysed in this section. In order to correct for any key correlations which might be present in the dataset, the *Random Effects* was used to ensure that the results are not influenced by any other correlations having a causal relationship.

4.2.1 Descriptive Statistics

Table 4.1: Descriptive Statistics of the Variables Used for the Panel Data Regression

Variable	Mean	Standard Deviation
District	3.004	1.592
Age	7.151	3.349
Citizenship	1.035	0.185
Sex	1.509	0.500

Marital Status	1.410	0.492
Education Participation	1.913	0.282
Education Level	3.594	1.510
Years of Work	17.554	16.23
Gross Wage	10045.82	15895.32
Health	2.156	0.814
Employment	0.464	0.499
Total Observations	75,328	

The variables were categorised in the following ways:

- District was numbered from 1 to 6 representing the Southern Harbour, Northern Harbour, South Eastern, Western, Northern, and Gozo and Comino.
- The range of ages was grouped into 11 groups. The ages were divided into 5-year bands, commencing with the first group, starting from the employment age of 16 to 19, followed by 20 to 24 years, 25 to 29 years, and so on, going up to 60 to 64 years, and then over 65 years.
- Citizenship was numbered 1 and 2 - 1 being Maltese and 2 being other citizenships.
- Males were ranked as 1, and females were ranked as 2.
- Marital status was numbered 1 and 2 - married and other.
- Education participation was also numbered as 1 and 2 - 1 being yes and 2 being no.
- The education levels were numbered from 1 to 7, with ISCED 1 being the lowest level and ISCEDs 6-8 being the highest.
- The years of work were not grouped as each individual wrote the number of years they have been working. This ranged from 1 year going up to 65 years of work.
- Gross wage is the value in euros of each individual's income in that particular year.

- Health was numbered from 1 to 5 -1 being very bad and 5 being very good. This was a self-perceived measure.
- Finally, employment was numbered 1 and 2 - 1 if participants were employed and 2 if they had a status other than employed such as retired, unemployed, not looking for employment, etc.

For all the above, 0 always meant that the data was missing.

4.2.2 Regression Results

4.2.2.1 Gross Wages

Table 4.2: Panel Data Regression for Gross Wages

Variable	Coefficient
District	205.700 **
Age	5656.876***
Age ²	-479.421***
Citizenship	-2645.901**
Sex	-4600.788***
Marital Status	148.1735
Education Participation	2438.552***
Education Level	3875.769***
Years of Work	96.881***
N	75,328
R-squared	0.354
Wald	8388.84***
Notes:	

***Significant at the 1% level

**Significant at the 5% level

*Significant at the 10% level

The results presented in the table above compare the gross wage of the participants to each variable listed in the table when all other variables are controlled to be the same.

Starting off with the district, it is seen that there is a difference of around €205.70 in wages between the different districts. However, given that Malta is a small island, this is quite insignificant when compared to other large countries which can see a substantial difference between one district and another.

When looking at the different age groups, results showed that as one moves from one age group to the next, the income increases by an average of €5,656.88 per age group. Since experience is sought by the majority of employers nowadays, those who are older and possess more experience are able to get promoted and earn a higher income, or even look for new jobs with competitors who can offer a higher salary, whereas young workers lack the experience and will not get paid as much.

On the other hand, when considering age squared, this shows that when someone is young, they have a low income, which increases as they grow older. However, as age increases, the income will eventually start decreasing again. This decrease is averaged to be €479.42 per age group. This is relevant since someone who is younger does not have a high level of education and lacks experience so their income will not be very high. Then, this changes as one engages

in education and gains work experience which leads to a higher income. Eventually, as individuals start growing older, they may start to lack some skills and abilities which may result in a reduced income. Finally, as one retires and starts receiving a pension, the income will be reduced significantly. This can be backed up by a study conducted to understand the relationship between age and income – *A Generative Model for Age and Income Distribution* – where it was found that both in the US and in the UK, there is an increase in income up to the age of 45. Then the income is stable, until the age of 65 years onwards, where income decreases due to retirement. This study also confirms that the most productive age group is between 22 and 55 and this is reflected in the income earned (Fatih, Oleg & Paolo, 2022).

The results also show that those who are not Maltese citizens earn around €2,645.90 less per annum than those who are local citizens. Given that the regression is controlled so that all the other variables are equal, this result shows that even when a non-Maltese citizen has the same level of education as a Maltese citizen, the same years of work experience and the same age, they will still earn over €2,000 less than a Maltese citizen. In a study by a group of lecturers from the University of Malta (Azzopardi et al., 2021), it was discovered that a quarter of the Maltese population believe that immigration is a huge reason for Maltese wages being very low. This shows that low wages are linked with immigrants.

One dominant outcome is that related to the different genders. Even when all other variables are identical, women are paid approximately €4,600.79 less than men per annum. This significant difference raises concern since it shows that gender pay gaps are still true to this day. This may lead to more females staying in education in order to be able to earn a high enough income whereas males may choose to stop at a lower education level and still get the same pay. The difference in income is rather significant given that even when controlling for

multiple variables such as age, education and experience, the gender pay gap persists. As discussed in the literature review, this is still a social issue which remains present among the genders. In this regard, Eurostat (2018) published a statistic which shows that on average, the gender pay gap stands at a difference of 15% in Europe.

The results also show that those who are married have a gross wage that is €148.17 higher than those who are single, separated, widowed, etc. The literature talks about the 'marriage premium' which is the difference in income between married and single individuals (White, 2013). This is somehow surprising as one would normally assume that someone who is not married is able to focus more on their job and perform better. On the other hand, those who are married may also be more hard working in order to provide as much as possible for their family and this may be the reason for married people earning a higher income. In fact, in the same study by White (2013), it was shown that one of the main focuses of marriage is being able to offer security for the children.

The results also show that those who are engaged in education may earn an average of €2,438.55 more than those who are not. Since studies show that companies are struggling to find skilled employees (Camilleri, 2020), this leads students to be more willing to invest in education and employers to offer better salaries to those engaging in education.

Moreover, one of the most important results of this panel data is that with each higher level of education, one may earn roughly €3,875.77 more per year. This is relatively significant, and it proves that education levels do affect the income that one earns. When taking into consideration the information that the European Youth Forum published in 2007, this makes sense. It stated that for each additional year of education that one completes, their lifetime

income would be increased by more than €70,000 which, based on the Eurostat data from 2007 till 2021, would now amount to roughly €85,700. This also proves what Psacharopoulos highlighted in 2007, namely, that a higher income is guaranteed with a higher level of education. Furthermore, the higher income earned means more taxes being paid by the employed. This means that those who have a higher level of education pay more taxes which reduces the burden on the government of having to pay social benefits with fewer taxes being paid. More taxes being paid also means that the government is able to finance free public services without increasing its debt by a significant amount.

The panel data regression has also shown that for each additional year of work experience, one is able to earn about €96.88 more each year. This is comprehensible since a lot of employers nowadays consider experience as one of the determining factors when choosing who to employ. This also complements the regression result for age which showed that as one gets older, they earn more income. Both variables lead to a more experienced employee, and this is why both lead to a higher income.

4.2.2.2 Health

Table 4.3: Panel Data Regression for Health

Variable	Coefficient
District	-0.003
Age	-.124***
Citizenship	-0.225***
Sex	-0.030***
Marital Status	0.140***

Education Participation	-0.027**
Education Level	-0.073***
Years of Work	-0.004***
N	75,328
R-squared	0.274
Wald	16956.48***
Notes:	
***Significant at the 1% level	
**Significant at the 5% level	
*Significant at the 10% level	

From the coefficients obtained through this regression analysis, as with the difference in the gross wages, it can be noted that one's district makes very little difference in their general health status – 0.3%. This is mainly because locally, we have one health system which everyone can benefit from, regardless of the district.

When comparing the health status to age, keeping all other variables constant, the results show that when a person moves from one age group to another – every five years – their health decreases by 12.4%. This is expected as health is inversely proportional to age. This means that as age increases, health deteriorates.

The results also show that those who are not Maltese citizens perceive themselves to be less healthy by 22.5%. This could be because the majority of immigrants in Malta often come from undeveloped countries which means that they did not have access to good or affordable healthcare systems and might still not afford certain health services and medicines. Given the

increase in migration, the Maltese health system has been facing increased demand (Azzopardi-Muscat et al., 2017). Studies show that between 2012 and 2015, healthcare was demanded mostly by third-country nationals, then by EU citizens, and the least by Maltese citizens (Bonnici, 2017).

Females also believe that they are 3% less healthy than males. Studies show that females are less strong than men physically, and also have more health complications, especially when it comes to having children. These are both reasons for women feeling less healthy, among other factors. This can be backed by the study conducted by Alcañiz and Solé-Auró (2018), where it was found that women do enjoy a less healthy life.

Couples who are married are healthier by 14% and this is proven in a study by Zueras, Rutigliano and Ttias Llimos (2020) where it was found that those who are not married have a higher risk of mortality. Mostly those aged between 50 and 64 were considered less healthy than those who were married. This may be because married couples can afford to take care of their health more. Spouses' concern might also be a form of pressure for one to take care of their health and so married individuals might choose to engage in healthier habits for each other's and for their family's benefit.

This regression also shows that those who are participating in education are 2.7% less healthy. Furthermore, when comparing an individual's health and education level, the results show that the higher the education level one has, the less healthy one feels. There is a decrease of 7.3% with every education level obtained. This is contrary to what most of the literature shows.

Whereas in the literature we have seen that those who have a higher level of education have better health habits and a higher mortality, this result shows that the higher in education one

gets, the less healthy one feels. However, a reason supporting this finding is that highly educated individuals are highly likely to have sedentary jobs and spend most of their day sitting down facing a computer screen. This affects the body's cardiovascular function (Lleras-Muney, 2022), which is the leading cause of death globally (WHO, n.d). Moreover, it is important to note that these observations are provided by individuals themselves for a short period. Therefore, in the long run, they could turn out to be healthier than ESLers since they can afford health insurance and have the knowledge to choose healthy habits and make wise decisions.

This regression also shows that for each year that one has worked, their health level decreases by 0.4%. Therefore, this shows that even though health is expected to decrease to some extent due to ageing, being in employment doesn't necessarily make individuals feel less healthy. This proves what Lochner said in 2011 when he pointed out that having education which leads to employment allows one to be healthier and less stressed due to the stable income. By having less stress, one's mental health will also be healthier, which is as important as physical health.

When considering these results, it is important to remember that the health status is self-perceived by the participants and there is no actual intervention by professionals as to whether their health status is true.

4.2.2.3 Employment

Table 4.4: Panel Data Regression for Employment

Variable	Coefficient
District	0.005**
Age	0.166***

Age ²	-0.019***
Citizenship	-0.074***
Sex	-0.07***
Marital Status	0.039***
Education Participation	0.287***
Education Level	0.057***
Years of Work	0.007***
N	75,328
R-squared	0.5242
Wald	29504.66***
Notes:	
*** Significant at the 1% level	
**Significant at the 5% level	
*Significant at the 10% level	

When doing the panel data for employment, the following outcomes can be noted. Firstly, the district one makes part of is insignificant to one's employment status. This is because as already mentioned, Malta is a small island making it difficult to distinguish between employees based on their residential location.

When comparing employment to age, there is a 16.6% increase in participants being employed as they move from one age group to the next. However, when considering age squared, as discussed in terms of income, it can be understood that when an individual is young, they are less likely to be employed due to lack of knowledge and experience but as they grow up, they will be at their peak time of employment. Then, however, as one starts to get older, one will

become both physically and mentally less capable of certain tasks. In this respect, the literature states that this is a challenge for employers to keep older employees engaged and motivated, and to understand the changes that ageing brings with it (Bal et al., 2014). Therefore, it will be more difficult to find new employment at that stage and this is seen by a decrease of 1.9%.

The results also show that 7.4% more Maltese citizens are employed when compared to immigrants who are living in Malta. This may be because employers prefer to employ people with more stability in their lives and Maltese citizens can offer this more than non-Maltese citizens. This is because the latter may decide to move to another country or look for a new job more easily. On the other hand, someone who is a local will find it more difficult to choose to move to another country. In a study regarding immigration, it was seen that tolerance for immigrants makes a huge difference. In fact, low-level jobs were seen to have more tolerance for immigrants than high-level jobs. The employment rate of a country was also seen to have an effect on the tolerance level (Bonnici, 2014). Grech (2019) states that discrimination is an issue faced by migrants to this day, both when looking for employment and whilst in employment.

In terms of gender, results show that females are 7% less employed than males. Whilst this is not a very high percentage, given the societal movement towards female engagement in employment, this percentage is still slightly high. This is because a female and a male who both have the same variables such as age, citizenship, education level and years of work, should stand the same chance of being employed. However, this result shows that this is not the case in Malta yet. In fact, Malta, together with Italy, Greece and Romania, is one of the countries with the widest gender employment gap with a difference of 16.4% (Eurostat, 2023).

Those who are married are 3.9% more employed than those who are not. This is proven in Banerjee and Blau (2016)'s study where it was found that those who have a status other than 'married' have negative impacts on employment. This complements the income and health status of those who are married which, as aforementioned, were always better than the status of those who are not married. There is no specific reason related to education for this. However, it may be attributed to the higher stability in one's life when married, when compared to that of someone who is not married.

From this regression analysis, it may also be observed that those who are participating in education are 28.7% more likely to be employed. This could be because of the knowledge that they gain from their educational course especially when it comes to theoretical knowledge as often, this may be difficult to learn solely from employment. Employers also look to employ students while they are still in education so that once they graduate, they will be able to offer their expertise, and feel a sense of obligation towards the company who offered to employ them while studying. The literature shows that most students following a postgraduate degree have a job that is related to their studies market (Curaj et al., 2018). This suggests that the ability to combine studying and employment may be the ladder to reaching higher education as well as better the labour market.

In terms of one's education level, this result shows that for each level of education that one gains, there is a 5.7% increase in the likelihood of being employed. This is significant as it proves that as discussed in chapter two, the literature is correct in saying that considering today's highly skilled labour market, ESLers are highly likely to struggle to find employment as they lack skills (Business Council of Australia, 2003).

Finally, we can also see that for each year that one has worked, they stand a 0.7% higher chance of being employed. In this case, this is relatively low since the literature shows that one's work experience is significantly important nowadays. However, the literature also shows that having more work experience will not mean that one stands a higher chance of being chosen for an interview and eventually for the job (Cahuc, Carcillo, & Minea, 2017) and this is supported by the results obtained in this regression.

4.3 Cross-Sectional Analysis

Since the variables used for the observations relating to satisfaction were only available for one year – 2018 – a cross-sectional analysis was conducted in order to compare the differences at one specific point. This resulted in the following findings.

4.3.1 Descriptive Statistics

Table 4.5: Descriptive Statistics of the Variables Used for the Cross-Sectional Regression

Variable	Mean	Standard Deviation
District	3.036	1.586
Age	7.391	3.355
Citizenship	1.037	0.189
Sex	1.506	0.500
Marital Status	1.413	0.492
Education Participation	1.917	0.276
Education Level	3.646	1.549
Years of Work	18.829	16.491

Life Satisfaction	7.348	2.191
Financial Satisfaction	6.594	2.358
Job Satisfaction	2.276	4.878
Total Observations	4,468	

As already mentioned, the variables were categorised in the following ways:

- Districts were assigned numbers from 1 to 6, which stood for Gozo and Comino, Southern Harbour, Northern Harbour, South Eastern, and Western.
- Age was numbered from 1 to 11. The ages were grouped into 5-year bands starting from employment age 16 to 19, then 20 to 24 years, 25 to 29 years and going on to 60 to 64 years, with the final age group being over 65 years.
- For the category of citizenship, Malta had citizenship number 1, whereas other countries had citizenship number 2.
- Sex was grouped as males being 1 and females being 2.
- There were two categories for marital status - 1 being married, and 2 being other.
- Education participation was also numbered as 1 and 2 -1 being yes and 2 being no.
- Education Level was numbered from 1 to 7, starting from below ISCED to the highest level being ISCEDs 6-8.
- As already mentioned previously, everyone listed down the number of years that they had been in employment, and this ranged from 1 year to 65 years.
- All three variables relating to satisfaction, being life satisfaction, financial satisfaction, and job satisfaction were ranked by the individuals from 1 being not satisfied to 10 being most satisfied.

For all the above, 0 always meant that the data was missing.

4.3.2 Regression Results

4.3.2.1 Life Satisfaction

Table 4.6: Cross-Sectional Regression for Life Satisfaction

Variable	Coefficient
District	0.002
Age	-0.028*
Citizenship	-0.242
Sex	0.097
Marital Status	-0.432***
Education Participation	-0.286*
Education Level	0.079**
Years of Work	0.007*
N	75,328
R-squared	0.016
F	7.86***
Notes: *** Significant at the 1% level **Significant at the 5% level *Significant at the 10% level	

When looking at the results for the respondents' life satisfaction, the author notes that the difference among the Maltese districts is only 0.2% which means that, for instance, there is very little difference in the satisfaction levels of someone who lives in the Northern Harbour district to someone who lives in the Western district.

In terms of age, the regression shows that as one moves from one age group to the next, their life satisfaction decreases by 2.8%. The literature shows that whilst it is proven that satisfaction does not increase with age, it doesn't necessarily decline either (Bartra, 2020). The result obtained is a low percentage which might be due to several negative variables such as poverty, poor health and the death of a partner.

As seen in the panel data, non-Maltese citizens are always at a disadvantage in terms of the income they earn, their health status, and even their employment status. All this and other factors are expected to make them feel less satisfied with their lives. In actuality, this is shown in the results obtained above as non-Maltese citizens feel that they are less satisfied with their lives by 24.2% which is significantly high.

When comparing genders, the results show that males are more satisfied with their lives by a percentage difference of 9.7%. This may also be because women are believed to think and worry more. On the other hand, males often have a 'happy-go-lucky' attitude towards the future. Therefore, this difference makes males feel more satisfied with their lives since very often, they give less weight to problems they face than women do. On the contrary, the *General Opinion Survey of the Maltese Population* (Azzopardi et al., 2021) shows that there was no distinction between genders.

Additionally, results indicate that one's marital status portrays how those who are married are more satisfied whereas those who have a status other than married, are 43.16% less satisfied with their lives. This high percentage difference might be because one's marital status impacts one's life significantly. Given that most people have the goal to get married and start a family, those who struggle to find the right person might feel that they are not settled and unsuccessful

in life, even if they have a high education level and a high-income job. This also has a huge impact on one's mental health which greatly affects life satisfaction. In the survey discussed above, results also show that those who are living with a partner, which includes all married couples, are more satisfied (Azzopardi et al., 2021).

Those who are still engaged in education are seen to be less satisfied with their lives by 28.6%. As pointed out previously, even though this group of individuals have a higher salary and better employment status than ESLers, they deem themselves to be less healthy. Therefore, this may be the reason that they feel less satisfied with their lives. Another reason may be that due to the load of work that education requires, they struggle to find the right balance between their educational requirements, employment and their personal life. In support of this, a study conducted among Maltese students shows that the main reason that they work is to cover living expenses rather than to gain experience (Curaj et al., 2018) and this factor has a huge effect on life satisfaction.

On the other hand, the panel data results show that for each education level that a person reaches, their life satisfaction increases by 7.9%. From the results discussed in the previous section, one will assume that this is due to the higher income that one is able to earn with each level of education obtained. This confirms that ESLers do feel less satisfied with their lives as stated by Borg and Camilleri (2016).

As for the number of years worked, life satisfaction increases by 0.7% for every additional year of work. This corresponds to the higher income and better employment status that is enjoyed by individuals with more work experience.

4.3.2.2 Financial Satisfaction

Table 4.7: Cross-Sectional Regression for Health Satisfaction

Variable	Coefficient
District	-0.009
Age	0.035*
Citizenship	-0.295
Sex	0.102
Marital Status	-0.379***
Education Participation	-0.075
Education Level	0.213***
Years of Work	0.010**
N	4,468
R-squared	0.032
F	18.75***
Notes:	
*** Significant at the 1% level	
**Significant at the 5% level	
*Significant at the 10% level	

In terms of financial satisfaction, the author notes an even smaller difference than life satisfaction when looking at the district variable. In this case, there is only a 0.09% difference from one district to another which means that basically, all districts have the same level of financial satisfaction when comparing individuals with identical variables.

When looking at the age groups, the results show that there is an increase in the respondents' financial satisfaction of 3.5%. While previously it has been noted that as age increases, general satisfaction decreases, in this case, one notes the opposite finding. The fact that the annual income increases by an average of €5,656.88 from one age group to the other, this increase is expected as one would be more financially able to live the lifestyle they desire. This is demonstrated in the literature where it is shown that income has a huge impact on lowering the probability of negative life events and poor health (Toshkov, 2022).

Moreover, Maltese citizens are 29.5% more satisfied with their financial status. Whilst there are some non-Maltese citizens who are at the higher end of the labour market and have a higher-than-average salary, the majority do not enjoy this opportunity and face a higher risk of poverty than Maltese citizens (Debono, 2021). This level of dissatisfaction may also be affected by the society they live in where in most cases, Maltese citizens are able to afford and do more, while they have to limit themselves.

Income satisfaction between males and females also resulted in a significant difference of 10.2% which is supportive of the difference in the income earned. Given the problem of the gender pay gap, often, women feel that they are not paid enough and are not satisfied with their income, and this is clearly seen in these results as well as in the literature. For instance, in a study by Fan and Babiarz (2019), it was also found that compared to men, women tend to express less financial satisfaction.

Looking at the marital status variable, the results show that those who are not married are 37.9% less satisfied financially and this is supported by the literature stating that having a partner living in the same household made both individuals more financially satisfied (Fan &

Babiarz, 2019). This can be evaluated against the fact that those who are not married have to bear all the expenses alone, depending, hence, on one income. On the other hand, when married, some financial costs are shared between two breadwinners such as rent or loan payments, water and electricity bills, as well as internet and phone bills. Therefore, the significant difference makes sense.

Those who are still engaged in education are 7.5% less satisfied financially. As already discussed, studies show that students work in order to be able to sustain themselves and their studies (Curaj et al., 2018). Furthermore, considering that education takes time, those who are engaged in education might not have the time to work as much as they would want or need. This obviously causes a financial strain for individuals, especially those who are not financially independent but have no one to rely on such as single individuals, single parents, and widowed individuals, resulting in less financial satisfaction.

More importantly, the author notes that for each level of education that one obtains, there is an increase in financial satisfaction of 21.3%. This corresponds to the increase in wage with every level of education obtained and so, this is a significant percentage which confirms that education leads to a better life income.

Surprisingly, for each additional year of work that one completes, their financial satisfaction only increases by 1%. This may be due to the increase shown in the panel data regression of €96.88 per annum which, considering inflation, is quite low. This is because by less than €100 euro a year, one will not be able to change their lifestyle or improve it and therefore, this increase does not change one's financial status and satisfaction.

4.3.2.3 Job Satisfaction

Table 4.8: Cross-Sectional Regression for Job Satisfaction

Variable	Coefficient
District	0.042
Age	-0.970***
Citizenship	-0.972**
Sex	0.293*
Marital Status	-0.892***
Education Participation	5.171***
Education Level	0.559***
Years of Work	0.103***
N	4,468
R-squared	0.384
F	594.77***
Notes:	
*** Significant at the 1% level	
**Significant at the 5% level	
*Significant at the 10% level	

When looking at participant's job satisfaction, the author observes that in terms of district, there is only a difference of 4.2%. This may be because of the jobs available in the different districts where some may offer numerous manual jobs and others may offer more clerical and professional jobs. Therefore, this will affect one's ability to find a job which is satisfactory and also, convenient in terms of the distance from home to work.

In this case, job satisfaction is seen to decrease by 97% as age increases. A study about job satisfaction found that income is the main motivation and reward for young individuals, whilst older people feel more satisfaction when being able to contribute to and finish off a task successfully (Kollmann, 2019). Hence, even though income increases with age, this does not necessarily mean that as a person gets older they are more satisfied in the job.

A difference of 97.2% can be seen between Maltese and non-Maltese citizens. This result continues with the pattern for non-Maltese who are seen at a disadvantage in every aspect discussed in this study. Here, one can note that these individuals are also significantly less satisfied with their jobs especially since in some cases, non-Maltese citizens have a higher level of education than local citizens but are still unable to find the right employment. In fact, it was found that the majority of non-Maltese female citizens feel that they are not satisfied with their jobs as it does not allow them to use their skills (Merino, 2017).

When looking at male individuals, they are 29.3% more satisfied with their employment. As seen from the previous results, this makes sense since males are paid more than females for their jobs and also have a higher percentage of employment. Complementary to this result, studies suggest that in today's evolving society, gender expectations and stereotypes are still present, limiting women's ability to pursue their aspirations and affecting their job satisfaction (Therefore, these two factors make **males feel more appreciated for their work** (

Dilmaghani, 2022).

Even though there isn't

Married people feel more satisfied with their jobs by 89.2% when compared to those who are not married. This may be because married people earn €148 higher than persons who are single, separated, widowed, etc., as found in the panel data regression.

a lot of literature on this relationship, other studies also show that this increased satisfaction is

Moreover, those who are participating in education are 517% more satisfied with their true (Azim et al., 2013).

employment. Often, those who are participating in education whilst in employment are more satisfied with their jobs because they are being trained and educated on their specific job. This allows them to be able to practice what is being taught during their course of education. On the other hand, those who are in education but do not have a related job, might feel that they are satisfied with their jobs as their employer gives them the flexibility to be able to study and supports their decision. Further to this, studies show that those engaged in employment whilst studying are satisfied with their jobs as it gains them experience and improves time management and social skills (Micallef, 2019).

In terms of one's education level, for each education level that one reaches, their job satisfaction increases by 55.9%. This continues to prove that education leads to a better, more satisfactory life because as Erdogan et al. (2011) found, those with high qualifications are able to contribute more to the organisation and in turn, feel satisfied with their jobs. On the contrary, ESLers will not find this satisfaction in their jobs as they will not be able to get promoted and reach high roles.

For each year of work that one completes, their employment satisfaction increases by 10.3%. This is probably because one's income increases on average by €96.88 for each year. Another reason could be that with each year, employees feel that they are more committed to the company and the company will reward them for their commitment and loyalty. To support this, a study by Irwin et al. (2019) shows that employers consider work experience as a beneficial

factor when assessing whether someone is employable or not as it is almost always linked to one's motivation and commitment.

4.4 Conclusion

The findings that originated from the regression analysis indicate that ESLers do have a disadvantage in life. This disadvantage is seen to be present in multiple aspects of their lives, mainly in their income, health, and employment status as we have seen from the results obtained. This, then, also affects their satisfaction in life.

Research Question 1: What is the relationship between education attainment and various economic outcomes in Malta?

Through this analysis, the author found that those who are still engaged in education have a significantly higher income, and a higher chance of being in employment which complements what the literature suggests. When looking at the different levels of education participants have, this analysis has shown that the higher the level of education one obtains, the higher the income will be. This is one of the main benefits and motives of education and it is where the rational choice theory comes into play as different individuals will give different weight to the cost and benefit of remaining in education.

The analysis has also shown that the issue of the gender pay gap persists to this day as when comparing males and females having identical variables such as age, education and years of work, the income earned is notably different. It was also shown that those who are Maltese citizens or married are at an advantage economically, even when all other variables are equal.

Another result obtained in the regression analysis is that someone with more years of work experience will have a slightly better chance of being employed.

Research Question 2: How does early school leaving relate to social aspects such as health and life satisfaction?

This analysis has also shown the relationship between education and several social aspects such as marital status and citizenship. Even though the literature has shown that education and employment lead to better health status, the results obtained have not shown this very strongly. Instead, the results show that both those participating in education and those that have completed their education, do not necessarily have better health than those who are considered as ESLers.

However, as previously discussed with regard to those who are still engaged in education, this regression has shown that these individuals feel that they are less healthy, less satisfied with life in general, and also, less financially satisfied. On the other hand, these individuals' employment satisfaction is extremely high which is a benefit of being in education. Furthermore, as such individuals reach higher education levels, their lives and financial satisfaction increases. Job satisfaction is also increased with each level of education obtained.

In conclusion, this means that whilst being in education might be challenging and difficult, getting and staying further into education will eventually result in better outcomes and higher life satisfaction. This proves what Borg and Camilleri (2016) found, namely that those who leave education early are faced with negative emotions and have a gloomy attitude about the future and this is because they are not blind to the fact that their income will not be the best it can be.

The fact that highly educated people have a better chance of finding and remaining in employment is also crucial as those who struggle with finding employment at a young age were found to have less favourable habits throughout their lives (Hammarström & Janlert, 2002).

Chapter 5 – Conclusion

5.1 Introduction

This chapter is a conclusion to the study. It represents the salient findings of the research, discusses the importance of such a study and also makes suggestions for further research topics which emerged from the results and findings.

5.2 Salient Findings

This study aimed to analyse the situation of ESLers in Malta and compare the differences that education makes in an individual's life by asking two questions – 'What is the relationship between education attainment and various economic outcomes in Malta?' and 'How does early school leaving relate to social aspects such as health and life satisfaction?' In order to answer both questions, the analysis was split into two main sections; one for the panel data which analysed gross wages, health and employment, and another section for the cross-sectional data which analysed satisfaction of respondents' life, finances, and employment.

Through this study, the different outcomes that ESLers are faced with throughout their life were exposed. As discussed in the previous chapter, these are mainly the risk of having a low income and being less satisfied. Even though it was expected that the study's results would corroborate findings from the available literature and indicate that having higher education leads to better health, the results portrayed the opposite.

5.2.1 Income

This study has shown that those with a higher level of education or those who are still in education have a significantly higher income than those with a very low level of education or no education at all. This gives a reason for the general belief that education means higher income. Therefore, those who decide to leave education are taking a major risk in life both financially, as well as in general, as this would affect other factors in life including lifestyle, health, and satisfaction.

5.2.2 Employment

From the results obtained in the regression analysis, ESLers were proven to be risking their ability to find employment and remain employed. This is because even though they might be manually skilled, they would not have the knowledge and experience that someone who remained in education has. Therefore, this is another risk for ESLers which may lead to them having to spend some time in unemployment, with a low-paying job, or else having to change jobs very often due to instability.

5.2.3 Health

It can be concluded that health is not necessarily affected positively by being engaged in education or having a high level of education. In this regard, it was found that those participating in education feel less healthy than those who are not engaged in education. This applies also to the level of education one holds, wherein results showed that with a higher level of education, individuals feel less healthy.

5.2.4 Satisfaction

When looking at the satisfaction of those participating in education in terms of their life and their finances, the study has shown that this is not improved through educational participation. However, job satisfaction is improved. On the other hand, life satisfaction, financial satisfaction and job satisfaction are higher for those who have a higher level of education. This implies that whilst being in education will not lead to higher satisfaction in all aspects, finishing and obtaining a higher education level will. Therefore, in the long run, it is beneficial, and this means that ESLers are risking missing out on such satisfaction in their life.

5.3 Significance of the Study

This study has been successful at looking at the different economic outcomes in terms of an individual's educational attainment and the relationship between the two in Malta. Further to this, this study has also shown the other effects of ESL (apart from economic ones, mainly health and employment status) together with different aspects of life satisfaction. It has shown that given the sole fact that ESLers have not succeeded in doing what society expected them to do, which is obtaining educational qualifications, they are automatically considered to be at risk in life (Dale, 2010). All this is a contribution to the gap found in the literature with regard to the effects of ESLers both in the short-term and the long-term.

Taking this into consideration, it can be noted that such aspects of ESL may lead to several issues, apart from the ones already discussed. Given the stigma and social judgement of ESLers, such individuals will automatically feel that they have failed in life, even at such an early age, and this affects their self-esteem. The limited opportunities that are given to ESLers, both in terms of education and employment, create barriers which restrict their chances of re-

engaging in education or training and having a chance to improve their life. This could make ESLers feel they are not able to contribute to society due to their lack of knowledge and skills and could also make it difficult for them to participate in social activities. This has a psychological effect on individuals which could lead to an even more challenging life and also, to risky behaviour with long-term negative impact. Moreover, such factors in life may lead to increased risk of mental health problems.

Apart from the economic outcomes of the individuals themselves, this study has also shown how ESLers impact the economy by the widening gap between the skills that the labour market requires, and the skills that those looking for employment have. Given the shortage of qualified personnel in science, technology, engineering and maths (STEM) subjects, the labour market faces a shortage of skilled employees and is not able to meet its demand for skilled labourers. This is one of the main direct impacts of ESL on the economy. Furthermore, due to the percentage of ESLers, apart from the lack of skills, employers also struggle to find individuals with the right qualifications for the job. Additionally, individuals with low educational qualifications may not be able to grow within a company and are limited to low-skilled level jobs. Otherwise, businesses may have to increase their cost and implement training programmes to reduce the skills gap and give the opportunity to ESLers to advance in their career. The lack of skills in key sectors such as the financial services, the gaming sector and the technological sector will lead to many resources being put to waste and to increased risks. In this respect, one of the ways to reduce this is to invest in better education and training programmes.

The gender wage gap and employment gap are also two significant outcomes of this study as they point out how this issue of gender inequality is still relevant. With the number of campaigns addressing gender inequality issues, there is a social belief that this concern is being addressed

and improved. However, given the advancements of the world, the results show that the issue is still very much present.

The results obtained from this study can also be of assistance to the MEYR and its policymakers in order to allow them to understand better the situation of ESLers in Malta, as well as other factors, about the policies that are in place. Whilst there are active policies aiming at reducing the rate of ESLers in Malta, this is still an issue, and this can be seen from the findings that originated through this research.

5.4 Recommendations for Further Research

One of the most remarkable results of this research is the proof of the existing gender pay gap. Even though this issue is a current matter, more work is required to reach equal pay. Hence, further research on this matter would be interesting and could also be a step forward towards more transparent and fairer salaries. Further research could also be done on the equality of opportunities between genders. This is because the results have shown that males stand a higher chance of being employed than women, even when both genders are of the same age, have the same education level and the same years of work experience. Therefore, a study on the gender employment gap could bring out innovative ideas on how to mitigate this issue better. Both studies could be of help to policymakers as new ideas and issues might be discovered.

Another research could analyse the effectiveness of existing policies relating to education. Both the policies on a national level and a European level could be analysed to look for areas of improvement and come up with new ideas on ways to improve the education system in Malta

and encourage more education engagement, with the aim of reducing the rate of ESL and making re-engagement in education easier. The policies in place, as mentioned in Chapter 2, are Europe 2030 and the national policy for lifelong learning. By analysing both policies deeply, the researcher would be able to suggest new reforms which can benefit society.

5.5 Conclusion

The study looked at the relationship between educational attainment and economic results and examined the position of ESLers in Malta. It was shown that those with higher education earn more than people with little or no education. Along with affecting job satisfaction, this risk has an impact on lifestyle, health, and satisfaction. Education does not always have a favourable impact on health because individuals who participate in it feel less healthy. For people with greater education levels, however, life, financial, and job satisfaction are all higher. The study adds to the body of knowledge about the short- and long-term effects of ESLers and can aid in policymakers' understanding of the situation of ESLers in Malta and other issues.

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