Malta's low fertility rate: The implications for the political economy of the smallest EU member state

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Abstract

This study investigates the implications of Malta's low fertility rate for its political economy, highlighting the challenges and policy consequences for the EU's smallest member state. Malta's demographic dilemma, characterised by the lowest fertility rate in the European Union, poses significant questions about its future economic sustainability, workforce dynamics, social welfare systems and cultural identity. Through an in-depth analysis that combines secondary sources, quantitative data, qualitative insights from key stakeholders, this study explores the multifaceted relationship between demographic trends and economic policies, labour market transformations, social welfare provisions and shifts in societal norms and gender roles.

The research identifies several key factors influencing Malta's fertility rates, including economic development, changing societal values, evolving gender roles and the balance between work and family life. It also examines the broader implications of these demographic trends for Malta's political economy, including the sustainability of social welfare systems, the interplays of the labour market and the potential for cultural shifts in Maltese society.

By situating Malta's experience within the larger discourse on population ageing and low fertility rates in developed economies, the study provides a nuanced understanding of the complex factors at play, and offers policy recommendations aimed to address the demographic challenges. The findings underscore the importance of comprehensive policy strategies that integrate economic, social, and cultural interventions to support family life and fertility, ensuring Malta's economic and social sustainability in the face of demographic transformation.

List of Acronyms

CI - Confidence Interval

DTM - Demographic Transition Model

DTT - Demographic Transition Theory

EC - European Commission

EU - European Union

GDP - Gross Domestic Product

GDPR - General Data Protection Regulations

GWU - General Workers' Union

IMF - International Monetary Fund

KNŻ - Kunsill Nazzjonali taż-Żgħażagħ

MEA - Malta Employers' Association

MSPC - Ministry for Social Policy and Children's Rights

NSO - National Statistics Office

OECD - Organisation for Economic Co-Operation and Development

SDT - Second Demographic Transition

TCNs - Third Country Nationals

TFR - Total Fertility Rate

TPB - Theory of Planned Behaviour

UK - United Kingdom

UN - United Nations

WEF - World Economic Forum

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Heartfelt thanks are due to my parents, Joseph and Josephine, and my sister, Nicole, for their endless love, understanding, and belief in my potential. Their sacrifices and unconditional support have been the cornerstone of my resilience and perseverance. Their faith in my abilities has been a constant source of motivation.

Lastly, this dissertation is dedicated to the memory of my late grandfather, Nenu. His legacy of resilience, wisdom, and unwavering love continues to inspire and guide me. His influence has been a beacon of strength, encouraging me to pursue my academic and personal goals with determination and integrity. In honouring his memory, this work embodies the values he cherished and the lessons he imparted.

May this achievement serve as a tribute to his enduring presence in my life.

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Introduction

The Republic of Malta, the European Union's (EU) smallest member state by both area and population, stands at a critical demographic crossroads. This study delves into the diverse implications of Malta's persistently low fertility rate for its political economy, a pressing concern that mirrors broader challenges faced by developed nations, albeit distinctly amplified within the unique socio-economic and cultural landscape of this island nation. Malta's demographic trajectory, characterised by one of the lowest fertility rates in the world and the lowest in the EU, with just 1.13 live births per woman (World Bank, 2021), not only reshapes the fabric of its society, but also poses significant questions about its future economic sustainability, workforce aspects, social welfare systems, and cultural identity. A recent publication by the Parliament of Malta and the Malta Employers' Association (MEA) described Malta's low birth rate as an existential challenge (Parlament ta' Malta and Malta Employers' Association, 2024).

This study aims to dissect the layers of Malta's demographic dilemma, examining the roots of its declining fertility rates against the backdrop of rapid economic development, changing societal norms, and evolving gender roles. It explores the interplay between fertility trends and economic policies, labour market transformations, social welfare provisions, and cultural attitudes, offering a comprehensive overview of the cascading effects on Malta's political economy.

Through a blend of quantitative data analysis and qualitative insights from key stakeholders, this research seeks to reveal the complex aspects at play. It positions Malta's experience within the broader discourse on population ageing and low fertility in advanced economies, offering a detailed understanding of the challenges and opportunities that lie ahead for the smallest EU member state.

As Malta grapples with the implications of its demographic trends, this study contributes to a deeper understanding of how small states can manage the complex balance between fostering economic growth and ensuring social cohesion and sustainability. This is because "any nation

facing this situation is very likely to take action to stop the trend at some time. However, delay of action has important consequences." (McDonald, 2008, para. 2).

Research Context

The exploration of Malta's low fertility rate within the broader framework of the political economy presents a compelling case study for understanding demographic trends and their repercussions for the smallest EU member state. This research context delves into the varied dimensions of fertility transitions, aligning with the broader discourse on demographic changes observed across Europe.

The Second Demographic Transition (Lesthaeghe and Van de Kaa, 1986) theory offers a pertinent lens through which Malta's fertility decline can be analysed, emphasising shifts towards individualism, changes in marital and cohabitation patterns, and the rise in voluntary childlessness.

Economic factors play a crucial role in fertility decisions (Becker, 1960) where higher income levels and increased participation of women in the workforce lead to a decline in fertility rates. This perspective is crucial for Malta, where economic growth and gender roles in the labour market have evolved significantly (Aassve, Mencarini and Sironi, 2015).

Religious influences also contribute to Malta's unique demographic scenario. The Catholic Church's influence, while waning in its direct impact on fertility behaviour, still permeates societal values and attitudes towards family and childbearing (McQuillan, 2004). This interaction between tradition and modernity presents an anthropological backdrop for examining Malta's fertility trends.

The ageing population further complicates the demographic landscape, with ramifications for healthcare, pension systems and labour markets (Bloom, Canning and Sevilla, 2003). Malta's demographic profile, characterised by a significant elderly population, punctuates the urgency

in addressing the sustainability of social support systems in light of declining fertility rates (OECD, 2019).

To date, a discernible gap exists within the academic and policy-making landscapes, characterised by a lack of established or proposed policies specifically designed to encourage family expansion among Maltese households.

Aims and Research Questions

This study explores the effects of Malta's declining fertility rate on its economy, examines factors affecting Maltese individuals' childbearing decisions, and seeks to propose policies to encourage higher fertility rates.

The research questions are as follows:

1. What are the effects of Malta’s low fertility rate on its economic performance?
2. What are the factors that influence Maltese people to have children?
3. What are the policy options for addressing Malta’s low fertility rate in the long-term?

Methodology

This study acknowledges the complexity of human behaviours and embracing multiple solutions for varied problems. It employs a mixed-method approach, combining quantitative and qualitative analyses through triangulation to answer key research questions, enhancing credibility and depth. The research begins with quantitative data collection via telephone interviews to map demographic trends on Malta's fertility rates, followed by qualitative focus group discussions for deeper insights. This explanatory sequential design ensures a well-rounded analysis of the subject.

Readers' Guide

This dissertation consists of six chapters.

Chapter one sets the theoretical backdrop, emphasising the significance of demographic trends in the political-economic sphere.

Chapter two reviews various policies across several countries aimed to boost fertility rates and their impact on economic sustainability.

The methodology, grounded in a positivist perspective and a mixed-method approach, is detailed in chapter three.

Chapter four unveils the study's findings through a quantitative survey. Subsequently, chapter five delves into qualitative insights garnered from focus group discussions.

Chapter six interprets and discusses these findings within the theoretical framework underpinning this study.

Finally, chapter seven concludes the dissertation, summarising key insights while discussing the study's limitations.

1. Literature Review

1.1 Introduction

This chapter examines existing literature, encompassing theoretical frameworks, empirical studies and policy analyses relevant to the study on low fertility rates and their socio-economic implications. Through a critical synthesis of empirical and theoretical research, it aims to establish the theoretical framework that underpins this study.

1.2 Defining Fertility Rates

The total fertility rate (TFR) is the most commonly employed measure to assess fertility. The Organisation for Economic Co-Operation and Development (OECD) defines TFR as “the total number of children that would be born to each woman if she were to live to the end of her child-bearing years and give birth to children in alignment with the prevailing age-specific fertility rates” (OECD, 2023, para. 1).

The differentiation between birth rates and fertility rates is critical in demographic analysis due to their distinct methodological approaches and insights on population trends. Fertility rates, especially the TFR, yield a comprehensive perspective on reproductive behaviour by considering age-specific childbearing patterns among women. This granularity facilitates a deeper understanding of the timing and intensity of childbearing within a population, thus enabling demographers and policymakers to accurately gauge potential population growth or decline.

Contrastingly, birth rates, while informative, offer a broader, less detailed view of population birth numbers, without delving into age-specific fertility behaviours. This lack of specificity can lead to skewed comparisons across different populations or time frames due to unaccounted variations in the age distribution of childbearing women. Consequently, fertility rates are favoured in demographic studies and policy-making contexts for their ability to standardise for age distribution, thereby facilitating more accurate cross-population comparisons. The

preference for fertility rates over birth rates is reflected in the documentation and data dissemination practices of the United Nations (UN), the European Union (UN), The World Bank, and the OECD.

1.3 Demography and Political Economy

Demographic research engages in longitudinal analyses to elucidate population trends over prolonged durations. These studies are quintessential in offering profound insights on evolving demographic patterns, surpassing the temporal limitations of electoral manifestos and the periodicity of general elections, conventionally held every five years. The significance of these studies lies in their capacity to inform policymakers about persistent demographic shifts, whose effects extend beyond the ephemeral nature of political cycles. However, despite the availability of longitudinal studies, “from 1990 to 2019, the global fertility rate fell from 3.2 to 2.5 live births per woman (Figure 1.1). Today, close to half of the world’s population lives in a country where lifetime fertility is below 2.1 live births per woman.” (United Nations Department of Economic and Social Affairs, 2020, para. 3).

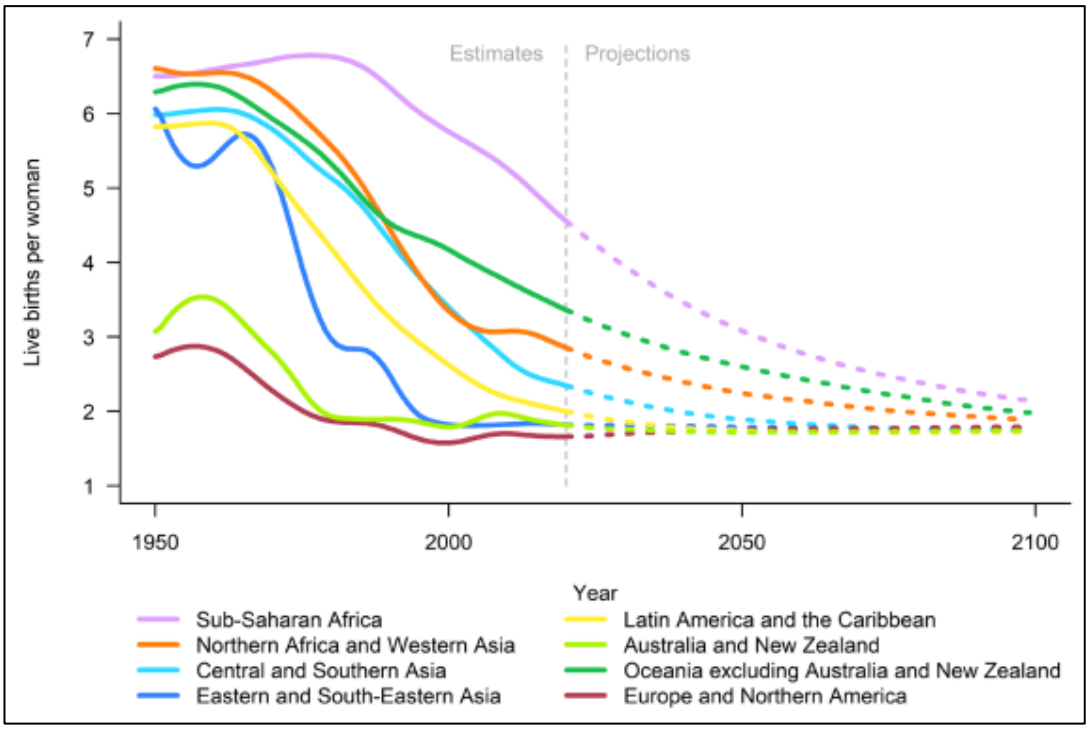

Figure 1.1 - Total fertility rate by region, estimates and projections, 1950-2100 (United Nations Department of Economic and Social Affairs, 2019)

Likewise, the fertility rate in the EU continues to plummet (Figure 1.2), experiencing a persistently declining trend in the number of children born since 2008, when it recorded the birth of 4.68 million children (Eurostat, 2021).

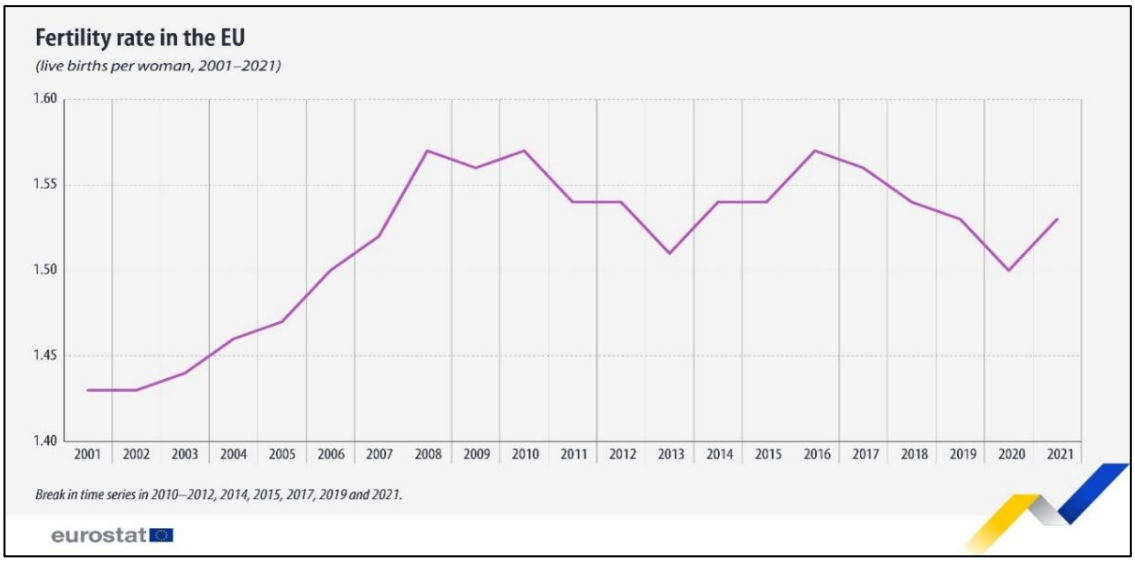

Figure 1.2 - Fertility rate in the EU (Eurostat, 2021)

Even Malta's fertility rate has undergone significant changes over the years. Savona-Ventura, Felice and Guillaumier (2010) report that, throughout the initial half of the 20th century, Malta's crude birth rate remained relatively stable, with approximately 38 annual births per 1,000 inhabitants (Figure 1.3).

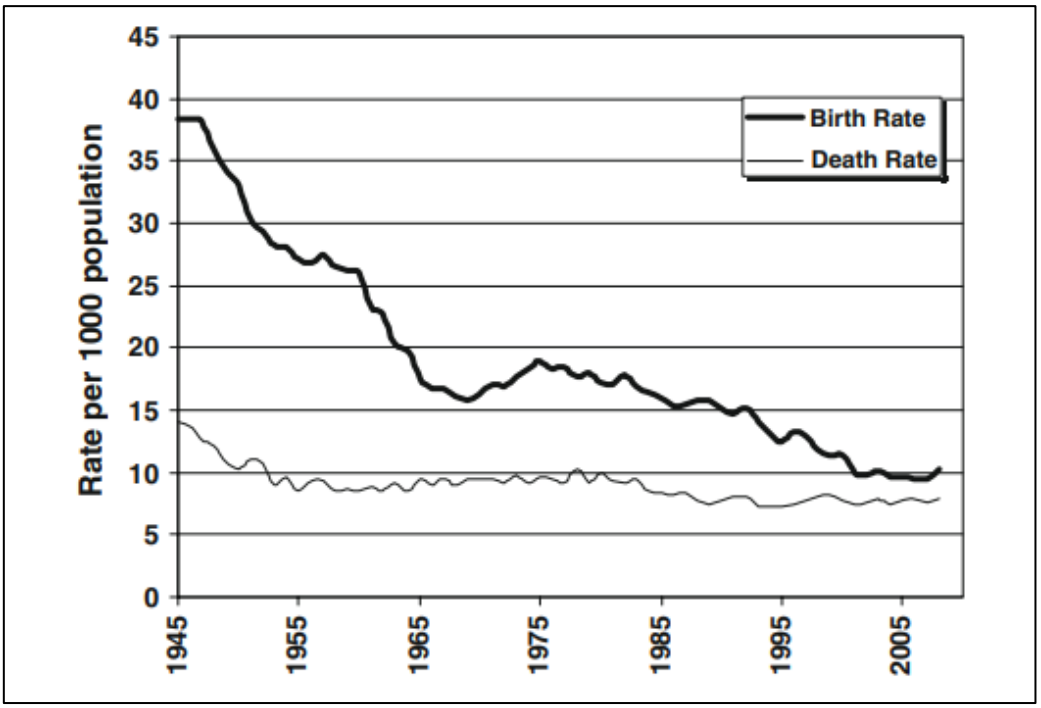

Figure 1.3 - Malta's birth and death rates (Savona-Ventura, Felice and Guillaumier, 2010)

However, this rate experienced a consistent decline thereafter, reaching a rate of 10.2 births per 1,000 people by 2008 (Savona-Ventura, Felice and Guillaumier, 2010), replicating the downward spiral in the EU. In fact, Malta registered the lowest fertility rate in the EU (Figure 1.4), clocking 1.13 children per woman (Eurostat, 2021).

Total fertility rate, 1960–2021
(live births per woman)

	1960	1970	1980	1990	2000	2001	2011	2019	2020	2021
EU (')	:	:	:	:	:	1.43	1.54	*1.53*	*1.50*	*1.53*
Belgium (')	2.54	2.25	1.68	1.62	1.67	1.67	1.81	1.60	1.55	1.60
Bulgaria	2.31	2.17	2.05	1.82	1.26	1.21	1.51	1.58	1.56	1.58
Czechia (')	2.09	1.92	2.08	1.90	1.15	1.15	1.43	1.71	1.71	1.83
Denmark	2.57	1.95	1.55	1.67	1.77	1.74	1.75	1.70	1.68	1.72
Germany (')	:	:	:	:	1.38	1.35	1.39	1.54	1.53	1.58
Estonia	1.98	2.17	2.02	2.05	1.36	1.32	1.61	1.66	1.58	1.61
Ireland	3.78	3.85	3.21	2.11	1.89	1.94	2.03	*1.71*	1.63	1.78
Greece	2.23	2.40	2.23	1.39	1.25	1.25	1.40	1.34	1.39	1.43
Spain	:	:	2.22	1.36	1.22	1.23	1.34	1.23	1.19	1.19
France	:	:	:	:	1.89	1.90	2.01	*1.86*	*1.83*	*1.84*
Croatia (')	:	:	:	:	:	1.46	1.48	1.47	1.48	1.58
Italy (')	2.40	2.38	1.64	1.33	1.26	1.25	1.44	1.27	1.24	1.25
Cyprus	:	:	:	2.41	1.64	1.57	1.35	1.33	1.36	1.39
Latvia	:	:	:	:	1.25	1.22	1.33	1.61	1.55	1.57
Lithuania	:	2.40	1.99	2.03	1.39	1.29	1.55	1.61	1.48	1.36
Luxembourg	2.29	1.97	1.50	1.60	1.76	1.66	1.52	1.34	1.36	1.38
Hungary	2.02	1.98	1.91	1.87	1.32	1.31	1.23	1.55	1.59	1.61
Malta	:	:	1.99	2.02	1.68	1.48	1.45	1.14	1.13	*1.13*
Netherlands	3.12	2.57	1.60	1.62	1.72	1.71	1.76	1.57	1.54	1.62
Austria	2.69	2.29	1.65	1.46	1.36	1.33	1.43	1.46	1.44	1.48
Poland (')	:	:	:	2.06	1.37	1.31	1.33	1.44	*1.39*	*1.33*
Portugal (')	3.16	3.01	2.25	1.56	1.55	1.45	1.35	1.43	1.40	*1.35*
Romania (')	:	:	2.43	1.83	1.31	1.27	1.47	*1.77*	*1.80*	*1.81*
Slovenia	:	:	:	1.46	1.26	1.21	1.56	1.61	1.59	1.64
Slovakia	3.04	2.41	2.32	2.09	1.30	1.20	1.45	1.57	1.59	1.63
Finland	2.72	1.83	1.63	1.78	1.73	1.73	1.83	1.35	1.37	1.46
Sweden	:	1.92	1.68	2.13	1.54	1.57	1.90	1.71	1.67	1.67
Iceland	:	2.81	2.48	2.30	2.08	1.95	2.02	1.74	1.72	1.82
Liechtenstein	:	:	:	:	1.57	1.52	1.69	1.48	1.46	1.53
Norway	:	2.50	1.72	1.93	1.85	1.78	1.88	1.53	1.48	1.55
Switzerland (')	2.44	2.10	1.55	1.58	1.50	1.38	1.52	1.48	1.46	1.52
Montenegro	:	:	:	:	:	:	1.65	1.77	1.75	1.76
North Macedonia (')	:	:	:	:	1.88	1.73	1.46	1.34	1.31	1.44
Albania	:	:	:	:	:	:	1.65	:	1.34	1.31
Serbia (')	:	:	:	:	1.48	1.58	1.40	1.52	1.48	1.52

(') Break in time series in various years between 2000 and 2021.
Italic data: provisional/estimated
Source: Eurostat (online data code: demo_find)

eurostat

Figure 1.4 – Total fertility rate in the EU, 1960-2021 (Eurostat, 2021)

Additionally, Figure 1.5 suggests that the country's fertility situation will be nowhere near the replacement level of 2.1 live births per woman.

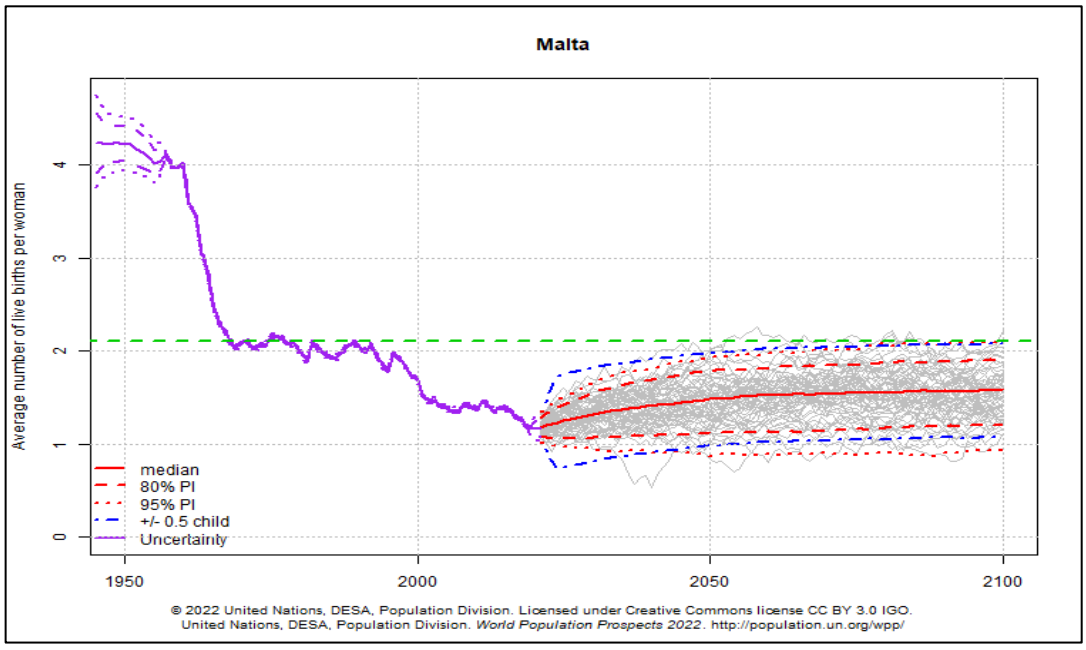

Figure 1.5 – Probabilistic Projection of Total Fertility in Malta (United Nations, 2022)

These longitudinal studies emphasise the argument that demographic factors, such as fertility, mortality, and migration, significantly impact population patterns, with fertility having the most abundant and comprehensive theoretical basis (Namboodiri and Wei, 1998). This shows that policies and demographics are deeply intertwined, and as Caldwell (1996) concludes, policymakers and governments consider demographic trends, patterns, and data when formulating and implementing policies across numerous domains. Consequently, demography and political economy are deeply interconnected, with demographic trends significantly influencing economic policies, labour markets, social welfare systems, and overall economic development. Therefore, by understanding demographic trends and patterns, policymakers can anticipate these challenges and develop appropriate policy responses.

1.4 Exploring Theoretical Perspectives on Fertility Dynamics

The study on fertility integrates a multitude of theoretical frameworks that explain the determinants, trends, and contributing factors of fertility rates within populations. This scholarly endeavour examines the elaborate relationship between social, economic, cultural, and individual determinants that influence decisions on childbearing and the establishment of families. Key among these theoretical constructs are the Malthusian Population Theory, the Demographic Transition Theory, various Economic Theories of Fertility and the Political Economy Theory, each offering unique insights on the mechanisms driving fertility behaviours.

1.4.1 Malthusian Population Theory

Thomas Robert Malthus' theory, formulated in the late 18th century, posits that population growth outstrips resource growth, leading to potential crises, known as the ‘Malthusian Trap’ (Figure 1.6). Malthus observed that, while food production grows linearly, population expands exponentially, testing the limits of resources like food and land. Malthus identified 'preventive checks' (e.g., delayed marriage) and 'positive checks' (e.g., famine, disease) that naturally

regulate population growth. Malthus advocated for moral restraint, including delayed marriage and abstinence, to manage population size and avoid resource depletion.

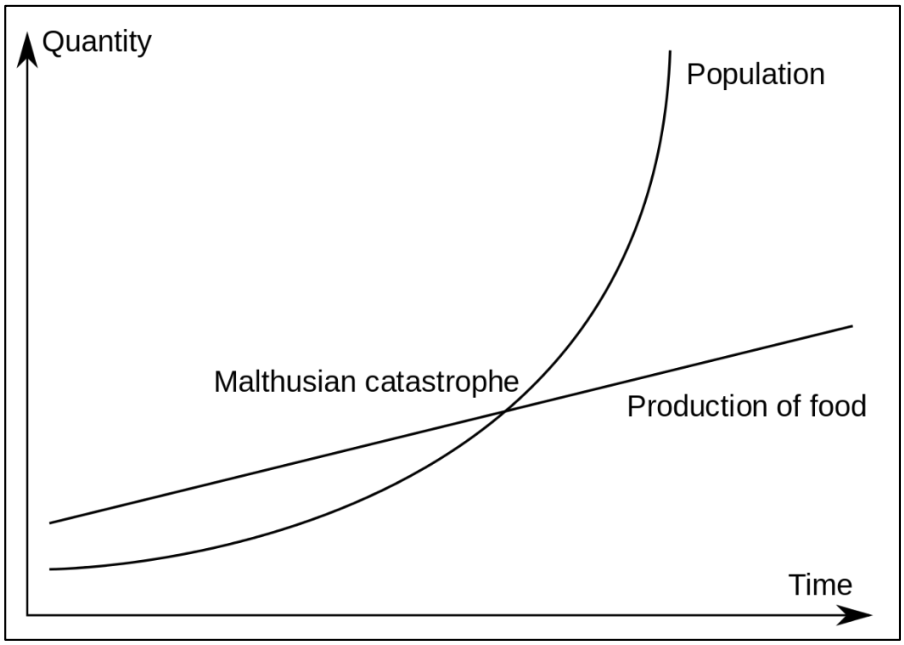

Figure 1.6 – Malthusian Theory of Population (Shaikh et al., 2021)

While Caldwell (1986) commends Malthus for providing a theoretical foundation that initiated discussions on the relationship between population growth, resources, and socio-economic development, Coale (1979) criticises this theory for solely focusing on population growth as the primary cause of social problems, neglecting other factors, such as, technological advancements and resource distribution. Meanwhile, although Preston (1975) acknowledges the framework's role in shaping policy debates on population development, Simon (1981) argues against its pessimistic view on population growth and its disregard to technological processes that can increase food production and resource availability.

Malthus' theory serves as a cautionary reminder about the potential challenges posed by unchecked population growth, prompting ongoing discussions and research on sustainable resource use and population policies. This view is endorsed by Boserup (1993), who argues that population pressures can spur innovations and adaptations in agricultural practices. However, Sen (1981) highlights that Malthus overlooked socio-cultural aspects and

entitlements, arguing that famines are not solely due to population pressure, but also relate to social and economic inequalities. Meanwhile, Singer (2011) refers to Malthusian proposals that advocate harsh measures, such as limiting aid to the poor, based on population control assumptions.

1.4.2 Demographic Transition Theory

The Demographic Transition Theory (DTT) is a theoretical framework that describes the transition of a population from high birth and death rates to low birth and death rates as part of the economic development process of a country from a pre-industrial to an industrialised economy. This theory is fundamental to understanding population changes over time, and is directly linked to the Demographic Transition Model (DTM), which outlines these changes through distinct stages.

The relationship between the DTT and DTM is foundational; the DTT provides socio-economic and cultural explanations for the demographic changes outlined in the DTM. The transition reflects shifts in fertility and mortality rates driven by economic development, changes in family planning, healthcare improvements, and shifts in societal attitudes towards reproduction and family size.

Frank Notestein is often credited with formalising the DTT in the mid-20th century, emphasising the role of industrialisation and urbanisation and changes in societal norms and values in driving these demographic shifts (Notestein, 1945). Notestein's work expanded on earlier observations by Warren Thompson, who, in 1929, introduced the DTM to categorise the population growth patterns observed in Western countries over several centuries (Figure 1.7).

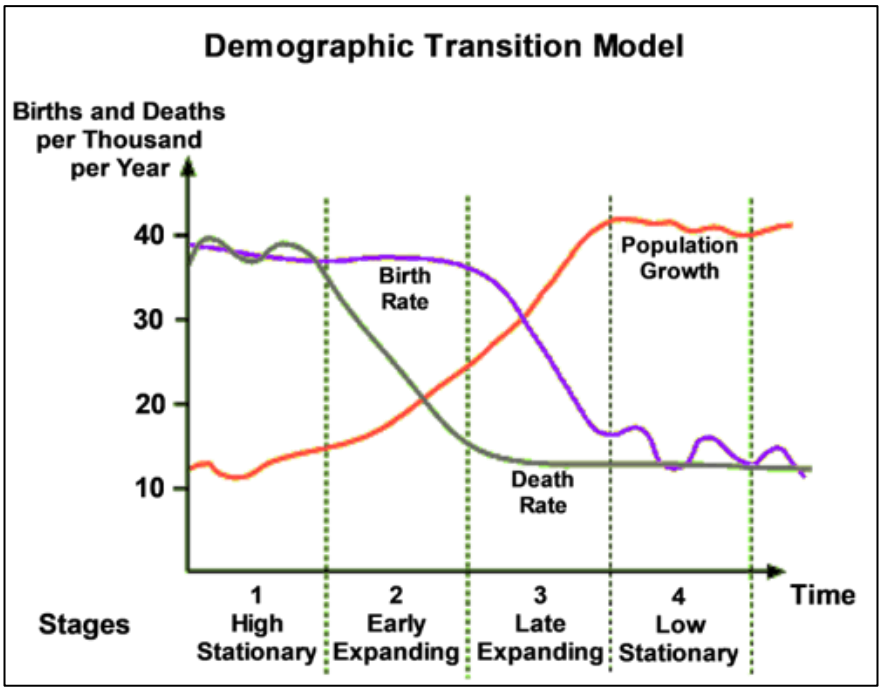

Figure 1.7 – Thompson's Demographic Transition Model (Barcelona Field Studies Centre, 2019)

Thompson (1929) presents several stages that societies steer through during demographic transformations:

Stage 1 - Pre-Industrial Stage: Characterised by high birth and death rates, resulting in low population growth. This stage represents traditional societies with limited technological advancements and high mortality due to wars and famine. This was the world before the Industrial Revolution.

Stage 2 - Transitional Stage: Death rates begin to decline due to improvements in healthcare and sanitation, while birth rates remain high, leading to rapid population growth. This is the stage where many of the least developed countries are in today.

Stage 3 - Industrial Stage: Birth rates start to decline, following the decline in death rates, as a result of changes in societal norms, economic conditions, and access to family planning. Population growth starts to slow down. Most developing countries are in this stage.

Stage 4 - Post-Industrial Stage: Both birth and death rates are low, stabilising population growth. This stage reflects stronger economies, higher levels of education and better access to education, healthcare, and family planning resources.

A potential fifth stage, proposed by Van de Kaa (1987), sees fertility rates falling below the replacement level of two children per woman, leading to population ageing and potential demographic challenges associated with an ageing population. The Second Demographic Transition (SDT) (Van de Kaa and Lesthaeghe, 1986) suggests a move towards persistently low fertility and diverse family forms, driven by shifts towards greater individualism and self-actualisation (Zaidi and Morgan, 2017).

However, Caselli et al. (2006) contest the notion of a universal sequence of demographic transitions, highlighting the influence of cultural, institutional, and historical contexts on demographic patterns. Lesthaeghe (2010) adds that political, cultural, and personal factors, often overlooked by the theory, significantly shape demographic behaviours. Meanwhile, Lutz and Goujon (2003) affirm the theory's utility in shaping policies for education, healthcare, and social welfare. Cleland (2001) questions its global relevance, advocating for adjustments to reflect the diverse realities of developing countries. Conversely, Bongaarts and Watkins (1996) value this theory for enabling comparative demographic analyses and insights on global population trends. Lastly, Cleland and Wilson (1987) criticise the theory for its Eurocentric bias and for underestimating the role of contraception and proactive family planning policies in reducing fertility rates. Despite its debated aspects, the DTM remains a foundational tool for predicting trends in human population growth both regionally and globally.

1.4.3 Economic Theories of Fertility

Economic Theories of Fertility encompass various perspectives that analyse how economic factors influence individuals' decisions about family size and childbearing. These theories revolve around the notion that economic conditions and incentives play a significant role in shaping fertility behaviour.

1.4.3.1 Becker's New Home Economics

Developed in the 1960s, Gary Becker's New Home Economics (1965) applies economic principles to household decision-making, focusing on family formation, fertility and the allocation of time and resources (Figure 1.8.). The theory assumes that individuals within households make rational decisions to maximise their well-being or utility, while weighing the costs and benefits of different choices to achieve their desired outcomes. The concept of human capital is integral, viewing education and skills as investments enhancing productivity and earnings. The theory analyses fertility decisions, considering economic costs and benefits of childbearing, while examining marriage as a partnership formed for mutual economic benefit through specialisation and labour division within the household.

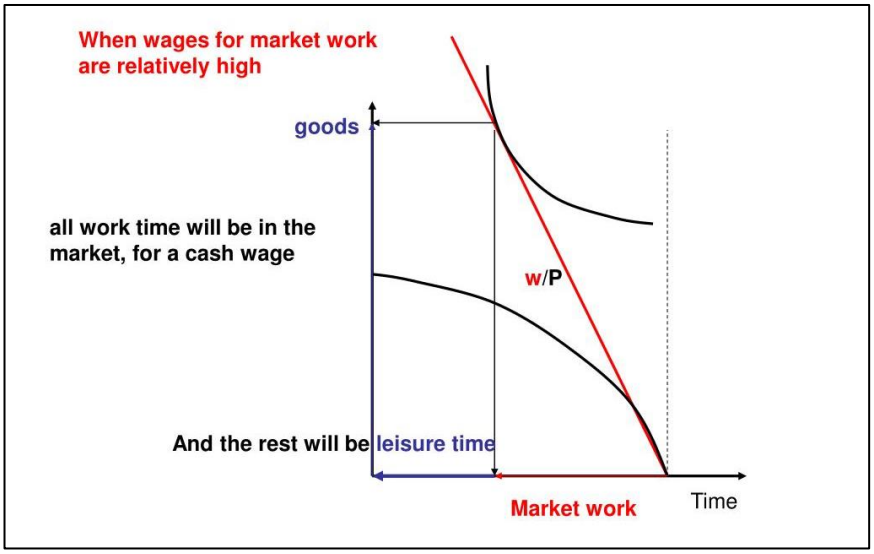

Figure 1.8 – Becker's Economic Behaviour of Household: Theory of Time Allocation (Handayani, 2014)

However, critics like Blau and Winkler (2018) and Folbre (2001) argue that the theory oversimplifies social factors and undervalues non-market activities. Conversely, Becker and Lewis (1973) underscore economic underpinnings, while critics like England (2010) claim that it ignores household gender components and reinforces stereotypes. The theory also discusses the trade-off between child quantity and quality, suggesting a decrease in desired children as income rises, due to increasing costs per child (De Bruijn, 2006).

These socio-economic theories provide a multidimensional understanding of fertility, emphasising that decisions about childbearing are influenced by a complex mix of economic incentives, social norms, individual preferences, and governmental policies. The US National Research Council (2000) endorsed three propositions that are generally accepted: (1) fertility declines in countries with low scores on development indicators cannot be explained by socio-economic theories; (2) the relationship between fertility and development is weaker than would be predicted by socio-economic theories; and (3) the relationship between development and fertility has shifted over time. However, Bryant (2007) questions the accuracy of all three concepts as fertility declines in some countries with low development scores can be reconciled with socio-economic theories.

1.4.4 Political Economy Theory

The relationship between political economy and fertility rates is elaborate and influenced by a myriad of factors. Defined as “how politics affects the economy and the economy affects politics” (Frieden, 2020, para. 6), political economy is often examined through the lens of policies, institutions, and broader societal structures. As countries develop economically, their fertility rates tend to decline. This theory is supported by Lee (2003), who maintains that economic development, improvements in healthcare, and changes in societal values lead to declines in fertility rates. Moreover, Canning and Schultz (2012) argue that decreases in fertility contribute to economic growth by decreasing the proportion of dependent children and young individuals in relation to the working-age population, while also increasing the participation of women in the labour force.

Additionally, the World Economic Forum (WEF) identifies three primary factors that contribute to the decline in global fertility rates: the empowerment of women in educational and workforce domains, decreased child mortality rates, and escalating child-rearing costs (Alvarez, 2022). These economic considerations play a substantial role in family planning decisions in contemporary societies. However, declining fertility rates can potentially be mitigated through several public measures, including family policy, cooperative fathers, favourable social norms,

and flexible labour markets (Doepke et al., 2022), which, collectively, can reverse declining fertility rates. Furthermore, economic policies that promote job security and higher wages can lead to increased fertility rates as people feel more financially secure and able to support a family (Adserà, 2004). Conversely, policies that create economic uncertainty or income inequality can lead to lower fertility rates as individuals are less able to afford to have children (McDonald, 2006). Similarly, labour market factors such as parental leave policies can impact fertility rates by facilitating people's work-family responsibilities (Adserà, 2004).

Figure 1.9 represents the key points under study, further highlighting the relationship between fertility rates and political economy.

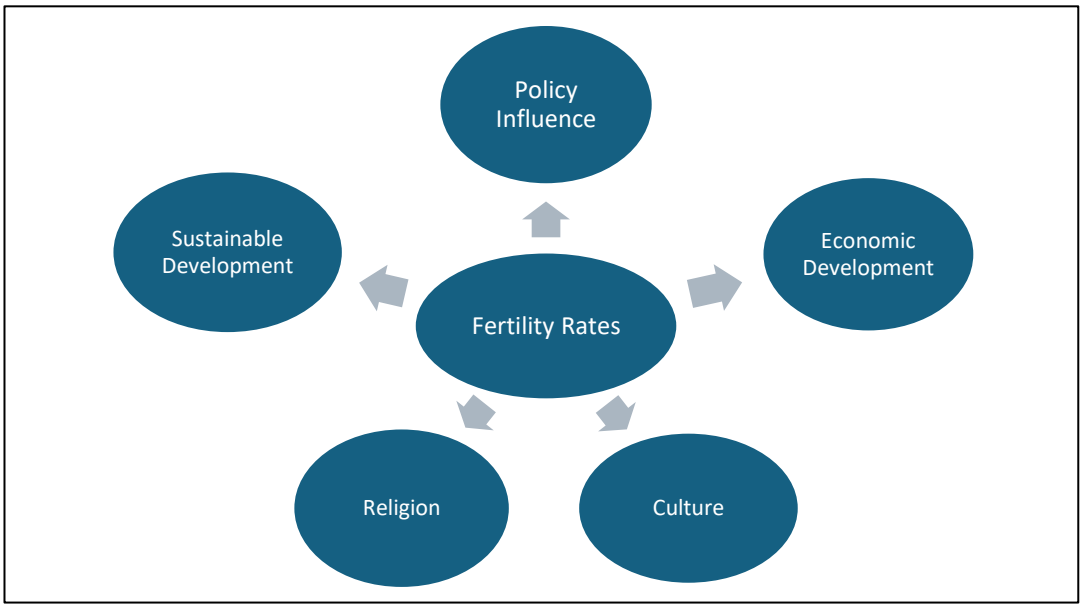

Figure 1.9 – Variables affecting fertility rates

1.5 Policy Influence and Fertility Rates

Policies providing financial support to families, such as child allowances, tax benefits, and parental leave pay, can lower the cost of raising children and incentivise higher fertility. Thévenon (2011) highlights that family policies, particularly those that reduce the direct costs of childbearing and improve work-family balance, are associated with higher fertility rates. Gauthier (2007) also supports the view that financial incentives and support for child-rearing

are effective in moderating fertility decline. Access to affordable and quality childcare and early education services is a critical factor that allows parents, especially mothers, to balance work-family life. Nieuwenhuis, Need and Van Der Kolk (2012) find that the provision of childcare services is positively associated with fertility as it facilitates parental employment and reduces the opportunity costs of having children.

Comprehensive parental leave policies that offer both mothers and fathers significant time off work with adequate compensation can encourage higher fertility rates by alleviating the work-family conflict. Rindfuss, Guilkey, Morgan, Kravdal and Guzzo (2007) suggest that generous parental leave policies are linked to increased fertility intentions and behaviours as they provide security for parents to combine childbearing with career aspirations. Affordable housing policies can also influence fertility decisions. Mulder and Billari (2010) argue that access to affordable housing is a precondition for family formation and childbearing, particularly in contexts where housing markets are tight, and the cost of living is high. Immigration policies can also impact fertility rates. Coleman (2006) observes that immigration has become a demographic solution for countries with declining native fertility rates, despite raising questions about integration and social cohesion.

1.6 Economic Development and Fertility Rates

Economic development often leads to higher labour force participation rates among women, contributing to declines in fertility rates. As women pursue higher education and career opportunities, the opportunity cost of childbearing increases, often resulting in delayed marriages and childbearing, and consequently, lower fertility rates (Bloom et al., 2009). Similarly, Lam (2011) believes that higher levels of education, particularly for women, are associated with delayed childbearing, increased contraceptive use, and a preference for smaller families to focus on their careers (Goldin and Katz, 2002). This can lead to smaller families becoming the norm due to the desire for a higher standard of living and more investments in each child's well-being owing to globalisation (Hoffman and Maynard, 2008).

Mincer (1985) further maintains that women's increased labour market participation and the pursuit of careers lead to a trade-off between work and family life, influencing fertility decisions.

Economic development often leads to affluency. In affluent societies, people have better access to contraception and family-planning services, contributing to more effective family planning and lower fertility rates (Casterline and Odden, 2016). On the other hand, raising children can be expensive, and, in affluent societies, the financial costs of child-rearing, such as education, healthcare, and child care, are significant, potentially acting as a deterrent to larger family sizes (Becker, 1960). Regardless, Furtado and Marcén (2014) argue that economic incentives, including tax benefits, cash transfers, or subsidies for families with children, can help individuals raise families.

1.7 Culture and Fertility Rates

In cultures where larger families are traditionally valued, fertility rates may remain higher, despite economic development (Casterline and Agyei-Mensah, 2017). Ideological shifts, including changes in attitudes toward gender roles, women's empowerment, and family planning, are integral to understanding fertility choices. In fact, Lesthaeghe (2010) argues that, in many societies, women are expected to marry and have children at a young age, and motherhood is often seen as women’s primary role. While Cleland et al. (2006) find that gender inequality is positively associated with fertility rates, Lesthaeghe (2010) suggests that, in societies where women's rights are more advanced and gender roles are more egalitarian, women tend to have fewer children.

The division of labour within households, particularly traditional gender roles, where women are primarily responsible for childcare, can also influence fertility decisions. McDonald (2000) posits that gender equity in both the domestic sphere and the workforce is crucial for higher fertility rates. The cultural importance placed on marriage and the structure of families also affects fertility. Thornton and Lin (1994) discuss that marriage patterns, including the age at first marriage and the prevalence of extended family living arrangements, can influence fertility

rates. Additionally, cultural attitudes towards child-rearing and children's societal value affect fertility rates. For their part, Kohler, Billari and Ortega (2002) found that, in Europe, variations in fertility rates can be partly attributed to differences in cultural attitudes towards the value of children and the costs and benefits of raising them. Although, in different societies children are viewed as a source of economic security (Burner, 2012), children may also be seen as a source of emotional fulfilment (Cleland et al., 2006).

1.8 Religion and Fertility Rates

Many religions promote pro-natalist views, encouraging followers to have large families. McQuillan (2004) discusses that religious institutions and doctrines can valorise fertility and regard children as blessings thereby encouraging higher fertility rates among adherents. Hayford and Morgan (2008) found that highly religious individuals tend to express stronger pro-natalist attitudes and intentions, although the relationship varies by religious affiliation.

However, secularisation also impacts fertility rates. As societies undergo secularisation, there may be shifts in fertility behaviour, away from traditional religious norms (Norris and Inglehart, 2004). This shift is often attributed to greater societal emphasis on self-expression and individualistic values, which tend to correlate with lower fertility rates. Kaufmann, Goujon and Skirbekk (2012) suggest that changes within religious communities, including shifts towards more liberal or secular views, can lead to fertility transitions, with initially high fertility rates declining as religious communities adapt to modern societal norms.

Notwithstanding, religion as an institution still has a significant role in shaping fertility norms because teachings and guidance provided by religious leaders and institutions can influence family planning decisions and fertility behaviour (Heaton, 2011).

1.9 Sustainable Development and Fertility Rates

The relationship between fertility rates and sustainable development is complex, involving economic, social, and environmental dimensions. Götmark and Andersson (2022) argue that low fertility rates can prevent environmental degradation, while Bongaarts and Sinding (2011) suggest that high fertility rates in developing countries threaten sustainability. Urbanisation, a trend often associated with sustainable development, tends to reduce fertility rates due to such factors as higher living costs, greater access to education and employment for women, and more widespread availability of family planning services in urban areas (Martine, 1996).

Conversely, Craig (1994) highlights the challenges of very low fertility rates, including an ageing population. Sustainable development policies should aim to balance fertility rates, incorporating family planning and education for women (Cleland et al., 2012), while supporting work-life balance to encourage sustainable population features (Frejka and Sobotka, 2008). McDonald (2006) suggests that, for sustainable development, policies need to support families to achieve their desired fertility levels without compromising economic and environmental goals. This includes providing support for child-rearing, promoting gender equality, and ensuring access to reproductive health services. The Sustainable Development Goals (SDGs) emphasise the importance of integrating family planning and gender equality into sustainability efforts (United Nations, 2024).

1.10 Bridging the Literature Gap: Establishing the Theoretical Framework

This study addresses a critical literature gap by examining the complex influences on fertility rates within the specific socio-economic and cultural context of Malta. While existing research extensively covers the determinants of fertility rates globally, including economic, cultural, educational, and policy-related factors, there is a scarcity of in-depth, context-specific analyses that consider the unique demographic, economic, and cultural nuances of Malta. Additionally, the Political Economy Framework has been selected for its capacity to explicate the

convoluted interaction between Malta's demographic trends, specifically its diminishing fertility rates and the broader political economic landscape. Given Malta's status as the EU's smallest member state, devoid of significant natural resources, and grappling with persistently low fertility rates, the necessity for the Maltese government to formulate and implement innovative policy measures aimed to foster increased fertility rates is paramount. This is especially critical, considering the current fertility rate that falls significantly below the replacement level of 2.1 children per woman, deemed essential for sustaining a stable population size (Craig, 1994).

1.11 Conclusion

The literature review illuminated the sophisticated link between fertility rates and political economy, engaging with various theoretical perspectives and policy factors, while addressing the literature gap concerning the impacts of low fertility rates in Malta. Moving forward, the next chapter presents case studies that demonstrate the application of these policies in real-world scenarios.

2. Case Studies

2.1 Introduction

The global phenomenon of declining fertility rates has spurred governments worldwide to implement diverse policy interventions to address the challenges of demographics. This chapter presents several compelling case studies, examining the heterogenous approaches and initiatives undertaken by various countries to counteract declining fertility rates.

2.2 France

Known for its pro-natalist policies, France has long been credited with helping to maintain the country’s relatively high fertility rate. In 2021, France had a fertility rate of 1.8 children per woman (World Bank, 2021), which is significantly higher than the EU average of 1.5 (World Bank, 2021). Therefore, as a case study, France was a logical decision.

The nation's maternity leave framework is among the world's most generous, offering mothers 16 weeks of paid leave that, increases to 26 weeks for the birth of a third or subsequent child (Eurodev, 2023). For fathers, paternity leave is set at 11 consecutive days, extendable to 18 for multiple births (Eurodev, 2023). This measure’s effectiveness indicates that the implementation of the 16-week paid maternity leave in 2004 correlated with a 10% rise in the average number of children per woman (National Institute of Demographic Studies, 2010). The country has also implemented laws that promote work-life balance, such as the 35-hour work per week to help parents manage their professional and family responsibilities more effectively.

France provides a comprehensive suite of family support mechanisms designed to aid households with children. Beyond a monthly allowance for families with at least two children under 20, the nation offers benefits under the Prestation d’Accueil du Jeune Enfant framework (République Française, 2024), encompassing a one-time birth payment, a continuing monthly benefit until the child turns three, and financial aid for parents opting for part-time employment

or parental leave to care for their young ones. Furthermore, France implements tax incentives aimed to promote family growth. The family quotient system, a cornerstone of the French fiscal structure, allocates 'parts' to a household according to its composition, which then determines the division of taxable income. This mechanism serves to decrease the effective tax burden on families with children, with a pronounced benefit for those with three or more offspring (Brunori et al., 2020).

Within France's comprehensive childcare framework, families with children under six years attending daycare or under the care of a certified childminder are eligible for tax credits to partially defray childcare expenses. Oversight of childcare services for infants up to 2-3 years is conducted by the Ministry of Solidarity and Health (Eurydice, 2023). Childminders are the primary childcare providers for this demographic, though nurseries (crèches) also contribute significantly. Collective childcare facilities, such as collective or parental crèches, are typically established and managed by local municipalities or non-profit organisations (Eurydice, 2023). The enhancement of this system through the introduction of childcare subsidies in the early 2000s resulted in a notable increase of 3% in the fertility rate (Luci-Greulich and Thévenon, 2014).

2.3 Germany

As one of the six founders of the EU, Germany is the largest economy in the bloc, catering nearly for a quarter of the whole EU economy (Rao, 2023), while ranking as the world’s third largest economy (Barnes and AP, 2024). Despite its economic prowess, Germany has faced persistent challenges related to low fertility rates over the past decade. In 2021, the country's fertility rate was recorded at 1.6 children per woman (World Bank, 2021), reflecting a significant demographic concern that has repercussions for its long-term economic sustainability and social welfare systems.

In Germany, parents are granted 14 weeks of paid parental leave, with a stipulation that both parents must undertake a minimum of two months leave (European Institute for Gender

Equality, 2021). Additionally, Germany boasts an extensive childcare system, encompassing a broad array of services catered to families with young children, including publicly-funded daycare centres, state-supported kindergartens, family daycare services, private caregivers, and after-school programmes tailored for school-aged children (Welcome Center Germany, 2023).

Another policy in Germany is a child allowance given to all families in Germany, which is a fixed monthly payment, regardless of parental income, with additional benefits for lower-income families (Die Bundesregierung informiert | Startseite, 2022). As from 2025, a new basic child benefit allowance package at an initial cost of €2.4 billion will come into place (Reuters, 2023). Apart from a one-time cash bonus per child in 2020, the aforementioned benefits are reconciled with potential tax relief for parents (PWC, 2023).

The implementation of these policies and other factors has had a positive impact on Germany's fertility rate that increased from 1.25 children per woman in 1995 to 1.46 children per woman in 2022 (Federal Statistics Office, 2023). However, the rate is still below the replacement level of 2.1, with the country facing rapid population ageing. In fact, Germany will spend 12.5% of GDP on public pensions by 2050, against 10% on average in the OECD (OECD, 2015).

2.4 Visegrad Group

Focusing on Eastern Europe, particularly the Visegrad Group, comprising Poland, Hungary, Slovakia, and the Czech Republic, presents an intriguing case for analysis. These countries, unified by their EU membership, share ideological and political narratives that significantly influence their fertility rate perspectives. In 2021, these nations formed a 'pro-family coalition' to promote family-centric policies, reflecting a unified approach to addressing demographic challenges. With fertility rates ranging from 1.3 to 1.8 (World Bank, 2021), this analysis focuses on Poland’s and Hungary's policies aimed to increase fertility rates.

2.5 Poland

Under the Law and Justice Party, Poland has pursued conservative family values in alignment with Catholic teachings. In 2020, the 'Family First' programme was introduced to support family-oriented educational and training projects, including an institute focused on Pope John Paul II's teachings and a Catholic foundation for youth. Poland's pro-natalist efforts include the '500+' initiative offering monthly payments per child and 'Mama 4 plus' ensuring a minimum pension for mothers of four or more children (Ministry of Family and Social Policy, 2017). Polish parents can also avail up to 34 weeks of parental leave (Ministry of Economic Development, Labour and Technology, 2024). While free childcare is not universally available, the 'Toddler+' programme has notably increased childcare spaces, facilitating parents' return to work (The Chancellery of the Prime Minister, 2023).

Despite these efforts, Poland's fertility rate in 2021 was 1.3 (World Bank, 2021). Amid warnings from the Polish government regarding the outcomes of prioritising careers over childbirth (Koschalka, 2020), Poland experienced an 11% decrease in birth rates in 2023. With projections indicating that, by 2030, 28.8% of Poland's population will be over 60, escalating to 40% by 2050 (World Health Organization, 2023), Poland faces an ageing demographic and shrinking workforce. This shift is poised to impact the general government deficit, expected to reach 4.6% of GDP in 2024, driven by increased healthcare, pension obligations, and the introduction of the 'Family 800+' benefit programme (European Commission, 2023).

2.6 Hungary

Under the governance of Viktor Orbán and the Fidesz party, Hungary's family policy, deeply rooted in traditional Catholic values, posits the traditional family as the societal cornerstone. Orbán's administration promotes traditional gender roles, emphasising women's primary role in child-rearing, influenced by Hungary's Christian heritage. Hungary extends 24 weeks of maternity leave to new mothers, surpassing the OECD average, with mandatory leave for the initial weeks post-birth (OECD, 2022). Mirroring Poland's pro-natalist incentives, Hungary

provides monthly allowances for child-related expenses, adjusting benefits for larger families (European Commission, 2024), alongside early childhood education services, albeit not provided for free.

A notable policy, initiated in 2019, grants married couples a €30,000 loan, forgivable upon the birth of three children and offered interest-free (Beswick, 2019). This policy is part of a broader Family Protection Action Plan allocating 4.8% of GDP to family support, showcasing Hungary's commitment to bolster family and childbirth rates (Beswick, 2019). The policy structure includes loan repayment suspensions and forgiveness based on the birth of additional children, offering significant financial incentives for expanding families. While longitudinal studies are essential to evaluate the effectiveness of such family-friendly policies on Hungary's fertility rate, it is significant to note that the country's fertility rate surpasses the EU's average of 1.53 births per woman, standing at 1.6 (World Bank, 2021). However, Stone (2018) maintains that these rafts of policies are effective because they are used together as a whole package of pro-natalist policies, and they are working because they induce marriage thereby boosting fertility rates.

2.7 United Kingdom

In 2022, England and Wales saw the lowest birth rate in two decades, with 605,479 live births, marking a 3.1% decrease from three years prior and the lowest since records began (Office for National Statistics, 2023). This decline reflects broader demographic challenges, including delayed childbearing among women, which impacts public finances and growth potential (Ermisch, 2022). Contrary to all its counterparts, the UK’s parental leave policy is characterised by its unpaid nature (GOV.UK, 2024). The UK's approach to addressing low fertility, with a rate of 1.6 children per woman (World Bank, 2021), includes children’s allowance and tax-free childcare scheme offers up to £500 every three months per child for childcare expenses, compatible with 15 or 30 hours of free childcare (GOV.UK, 2024).

While UK's fertility rate is higher than Germany's (World Bank, 2021), its already shrinking working age population, will deteriorate even further in the coming years, leading to greater tax demands on the working population (Romei, 2023). Professor Anthony Travers, as cited in Romei (2023), argues that the falling number of new births translates into more demands for public services as the median age of the population rises, increasing the need for more migration. The UK's economic performance will continue to be affected, unless there is a complete change in the economy, resulting in long-term economic stagnation which will deepen the country's baby bust (Social Market Foundation, 2021).

2.8 Sweden

With a fertility rate of 1.7 children per woman (World Bank, 2021), the success of Sweden's family policies in encouraging childbirth while maintaining high levels of female workforce participation is often cited in scholarly literature as a model for other countries seeking to address declining fertility rates and promote gender equality (McDonald, 2006; Neyer and Andersson, 2008).

Sweden stands out as a compelling case study due to its comprehensive and progressive family policies which have significantly influenced fertility rates and family circumstances. Sweden's approach to encouraging families to have children encompasses generous parental leave, high-quality subsidised childcare, and a strong emphasis on gender equality in both the home and workplace. These policies not only support families, but also aim to integrate women into the labour market, without forcing them to choose between career and family life.

The country is known for its extensive parental leave policies, where parents are entitled to 480 days of paid parental leave to be shared between both parents. A significant portion of this leave is reserved exclusively for each parent to encourage shared responsibility for child-rearing. This policy aims to ensure that both mothers and fathers can actively participate in early childcare without sacrificing their career progress or income (Duvander and Johansson, 2012).

Sweden also emphasises strongly gender equality, both in the workplace and in the home. Policies are designed to encourage equal sharing of parental leave and domestic responsibilities between mothers and fathers. This includes incentives for fathers to take a significant portion of parental leave, challenging traditional gender roles, and promoting a more balanced distribution of childcare and household duties (Haas and Rostgaard, 2011). Furthermore, the Swedish government supports families through child allowances and tax benefits aimed to reduce the financial burden on parents.

Table 2.1 outlines the key policies adopted by the countries explored in this chapter and their current fertility rates.

Policy	France	Sweden	Germany	Hungary	UK	Poland	Malta
Paid Parental Leave	Yes	Yes	Yes	Yes	No	Yes	Yes
Free Childcare Service	No	No	No	No	No	No	Yes
Subsidised Childcare Service	Yes	Yes	Yes	Yes	Yes	Yes	No
Children's Allowance	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tax Incentives	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pension for New Mothers	No	No	No	Yes	No	No	No
Family Housing Allowance	No	No	No	Yes	No	No	No
Fertility Rate	1.8	1.7	1.6	1.6	1.6	1.3	1.1

Table 2.1 – Comparative Analysis of Family Support Policies and Fertility Rates

2.9 Conclusion

This chapter examined several case studies, offering insights on different policies adopted by different countries to address fertility rates. Although the researcher had to limit the cases for practical reasons, this chapter provided valuable insights on the practical implications of policies across different nations. The forthcoming chapter illuminates the methodological approach employed to collect primary data.

3. Methodology

3.1 Introduction

This chapter discusses the methodology adopted for this research. It provides a detailed rationale for the selection of this specific topic for investigation, articulates the research design, and explains the methods utilised for data collection and analysis.

3.2 Study Objectives

This study explored the economic implications of Malta's declining fertility rate and the factors influencing Maltese individuals' childbearing decisions. It sought to identify policy interventions that could encourage childbearing among Maltese families, addressing the issue of sub-replacement fertility rates.

The first research question, posed in the introduction, investigated the economic ramifications of Malta's declining fertility rates, aiming to delineate the consequential economic challenges, such as, a shrinking labour force, reduced productivity, and heightened demand for social welfare services, through the analysis of secondary data on crucial economic indicators, including GDP growth, labour force participation, productivity trends, and governmental expenditures. Information was mainly sourced from the National Statistics Office (NSO), European Commission (EC), World Bank, International Monetary Fund (IMF), Organization for Economic Co-Operation and Development (OECD), and numerous news articles and other grey literature.

The second research question endeavoured to spell out the diverse motivations guiding Maltese families toward parenthood, aiming to uncover the social, cultural, and economic foundations influencing these decisions. It also examined how these factors differ across demographics, offering a comprehensive view of family planning considerations in Malta. This question was addressed through a telephone survey of 400 randomly selected participants, representative of Malta’s whole population. The structured questionnaire facilitated a broad

spectrum of perspectives on the socio-cultural, economic, and personal factors affecting fertility choices.

The aim of the third research question was to identify potential policy interventions that the government could implement to address Malta's persistently low fertility rates sustainably. This inquiry sought to ascertain a broad spectrum of policy initiatives that could effectively address and potentially reverse the demographic challenges posed by the nation's declining fertility rates. To achieve this, open-ended questions were employed during focus group discussions involving a diverse assembly of participants representing a range of perspectives, facilitating a comprehensive dialogue.

3.3 Data Collection Strategy

Using the principles of positivism, this research gained a deeper understanding of the complex nature of fertility trends. This approach allowed for the exploration of the underlying causes, contexts, and contradictions that shape fertility rates, providing insights crucial for effective policy-making and societal understanding. This approach supported the use of both quantitative and qualitative research methods to provide a comprehensive understanding of fertility trends. In fact, the research adopted a mixed-method approach, allowing for convergence of data from both quantitative and qualitative sources, leading to increased validity and reliability through triangulation (Creswell and Plano Clark, 2017). Therefore, the combination of quantitative evidence and qualitative insights allowed for more informed practical applications and policy recommendations (Creswell, 2018).

A multidimensional research approach was employed for data collection from different sources to present a holistic picture and allow for the flaws inherent in any one type of data to be neutralised by other means of data collection (Wilson, 2014). In fact, through methodological triangulation and by employing multiple data collection methods, researchers address the limitations of individual methods, leading to a more robust study (Morse, 1991), while minimising errors and strengthening the validity of the findings (Tashakkori and Teddlie, 2010).

3.4 Informed Consent, Confidentiality and Anonymity

The study used the double-phase research design whereby quantitative data was gathered first, followed by the qualitative method in the form of a focus group, in what is known as explanatory sequential research. Adopting a dynamic approach to the research process, mixed-methods research can be considered as both interactive and iterative, where one phase directs the next phase of data collection and analysis (Saunders et al., 2016). Both primary data collection methods are considered as exploratory approaches because they are intended to discover ways to address challenges posed by Malta's low fertility rates.

During the data collection phase of the study, all participants engaged in the telephone survey and the focus group were required to be aged 18 years or older. The research participants were briefed about the research's purpose and scope beforehand, including a clear explanation of the expectations placed upon their participation. Both the telephone anonymous questionnaire (see Appendices A and B) and the focus group questions (see Appendices C and D) were communicated prior to their completion. For the telephone survey, a read-out page (see Appendices E and F) was communicated to eventual research participants before starting the actual questionnaire. Conversely, the focus group only started after the participants were provided with an information letter (see Appendices G and H) and provided their consent accordingly (see Appendices I, J, K, L, M, N, O, P and Q).

The collected data was exclusively used for its intended purposes, and will be destroyed by not later than June 2025.

3.5 Telephone Survey

The sample size of the quantitative data is around 400 participants, which is a representative sample of the Maltese population based on the demographics of age, sex and district, according to statistics issued by the National Statistics Office (NSO Census, 2021). The telephone numbers were generated at random by using a random number generator through

Microsoft Excel. Hence, for example, fixing the first prefix ('99', '79', '27', '21' ...) since these are standard and the remaining six numbers are generated at random using the random number generator. In order to reach a suitable sample, the researcher called around 3,600 numbers randomly generated.

Due to concerns that might have risen on the type of questions asked, the researcher ensured that participants were not identifiable at any stage of the research since they were selected randomly using a random number generator. Consequently, it was ascertained that no identifiable personal information was attached to any number, including names, surnames, and/or other identifiable participant information. Another layer of safeguarding the participants' anonymity, the researcher had the option to stop the survey instantly to prevent accidental identifiability from the participants' voice. Additionally, these participants were in no way at any stage identifiable, even because the researcher never asked for any personal data that could have, in some way or another, identified them. Therefore, the anonymity of participants was safeguarded throughout the survey. As instructed by the FEMA FREC, the researcher adopted the 'do no harm principle', where any risks of the questions asked during the survey were clearly communicated to each participant involved in the research, and "recognised the rights of individuals to privacy and personal data protection" (Research Code of Practice, 2017, para 2.3).

After this thorough process, participants provided their verbal consent, or otherwise, to participate in the survey of their own free will after being informed about the nature of the survey and the questions that would be asked, including the factors that impact the Maltese population into making decisions about having children. Lastly, participants were informed that any data gathered would be managed and stored in password-protected EXCEL documents. Meanwhile, the General Data Protection Regulations (GDPR) were followed throughout all stages of data collection. Participation was completely voluntary, and individuals could refuse to reply to any question or withdraw from the survey altogether at any time.

After it was collected, the questionnaire data was coded in numerical format in the appropriate SPSS format. Hence, all the respective responses were converted numerically and then, every

number was labelled accordingly in SPSS. Furthermore, any free-text questions obtained from the quantitative survey were cleaned in a way to categorise all the respective responses.

3.6 Data Analysis Strategy (Quantitative)

Statistical inference is intended to generalise the target population aged 18+ years based on information elicited from the randomly selected sample. This is carried out in two ways, either by conducting hypothesis tests or by computing the 95% confidence intervals for population parameters. The Chi-Square and Kruskal Wallis tests were used to make inferences through tests of hypotheses, where a 0.05 level of significance was employed. Data analysis was carried out using IBM SPSS Statistics Version 28.0.

The Chi-Square test determined whether there exists a significant association between two categorical variables in a two-way contingency table. The Fisher's Exact test, which is an extension of the Chi-Square test, was used to compare two binary variables with two categories only. The null hypothesis (H_0) for both tests specified that there is no association between the two variables, and was accepted if the p-value exceeded the 0.05 level of significance. The alternative hypothesis (H_1) specified that an association exists between the two variables, and was accepted if the p-value was less than the 0.05 level of significance.

The effect size for the Chi-Square test was measured by Cramer's V, while the Fisher's Exact test was measured by Phi. Both Cramer's V and Phi are measures that provide an estimate of the strength of the association between two variables. Both Cramer's V and Phi range in value, from 0 to 1, with a value of 0 indicating no association, while a value of 1 indicating complete association. In general, the effect strength as per Cohen (1988) is as follows: Effect Size of less than 0.3 -> small effect, (2) Effect Size between 0.3 and 0.5 -> medium effect and (3) Effect Size greater than 0.5 -> large effect.

To test whether there is any significant association whether they have children or not across various demographics (age, district, education).

H0: there is no significant association whether they have children or not across various demographics (age, district, education).

H1: there is significant association whether they have children or not across various demographics (age, district, education).

The Kruskal-Wallis test was used to compare between-group differences for the number of children which resulted to be not normally distributed when tested against age group, district, and labour status (Appendix T); therefore, a nonparametric test was used. The Kruskal-Wallis test is a rank-based nonparametric test that determines whether there are differences between three or more groups on a continuous or ordinal dependent variable. The null hypothesis specifies that the distribution of scores across three or more groups is equal. Using a 0.05 level of significance, the null hypothesis was accepted if the p-value exceeded the 0.05 criterion.

The effect size for the Kruskal-Wallis test is calculated by dividing the standardised test statistic z and square root of the number of pairs n. Compute the effect size for Kruskal-Wallis test as the eta-squared based on the H-statistic = (H - k + 1)/(n - k); where H is the value obtained in the Kruskal-Wallis test, k is the number of groups, and n is the total number of observations. The eta-squared estimate assumes values from 0 to 1, and multiplied by 100, indicating the percentage of variance in the dependent variable explained by the independent variable. The interpretation values commonly cited in published literature are: (1) Effect Size of less than 0.06 -> small effect, (2) Effect Size between 0.06 and 0.14 -> moderate effect, and (3) Effect Size greater than 0.14 -> large effect.

To test whether there is any significant difference with regards to the average number of children across various demographics (age, district, education).

H0: there is no significant difference with regards to the average number of children across various demographics (age, district, education).

H1: there is a significant difference with regards to the average number of children across various demographics (age, district, education).

These tests were used extensively to determine whether there is association or not between several demographic variables.

3.7 Focus Group

The data analysis employed in this research adhered to the methodological steps outlined by Braun and Clarke (2006). This analytical process was underpinned by a systematic coding strategy aimed to identify and categorise themes and concepts emerging from the qualitative dataset. Such methodological approach is instrumental in mitigating researcher bias and ensuring both the detail and consistency of the analysis. In the case of the focus group, a deductive thematic analysis was adopted in accordance with the different aspects that were asked in the prescribed questions. However, this deductive technique was eventually supplemented by an inductive approach to encapsulate stakeholders' ideas that were not originally contemplated in the prescribed questions.

In qualitative research, the credibility of the findings is paramount as it establishes the trustworthiness of the research through an authentic representation of the collected data. To enhance credibility, several strategies were implemented. Data collection was conducted by the researcher, who, afterwards, followed a systematic procedure for analysing the transcribed data, hence enhancing analytical rigour. Furthermore, the research process included regular discussions and consultations, where the transcriptions and emerging codes were reviewed with the tutor. This validation mechanism served to augment the rigour of the study's findings thereby reinforcing the results' trustworthiness, accuracy, and validity. This was achieved by ensuring that the interpretations of the data accurately reflected the participants' intended meanings.

3.8 Data Analysis Strategy (Qualitative)

Qualitative interviews conducted with depth provided comprehensive data on the research questions, which were subsequently subjected to thematic analysis (Clarke and Braun, 2017). Specifically, the author directly recruited the participants, who were personally identifiable, as well as the identity of the organisation they represent, only after consenting. In fact, a one-time focus group was conducted with 9 participants hailing from diverse backgrounds, but with common interest in the country's fertility rate.

The participants were the Ministry for Social Policy and Children's Rights, Caritas Malta, General Workers' Union, Housing Authority, Kunsill Nazzjonali taż-Żgħażagħ, Humanists Malta, Malta Employers' Association, Metropolitan Tribunal of First Instance, and Ta' Cana Movement. This is known as purposive sampling wherein the focus group participants were asked for their expert informed opinions held in their capacity as representatives of the respective entities.

Before conducting the focus group, the researcher communicated the main results of the telephone survey to the focus group participants to establish research cohesiveness. The focus group generated a discussion based on those results, hence answering the third research question that is the essence of this study: to establish policies that may encourage Maltese people to have children, contributing to a higher and sustainable fertility rate.

3.9 Research Design Limitations

The mixed-method approach, while offering various advantages, also has certain limitations that researchers should always consider.

Combining quantitative and qualitative data requires careful integration, which can be challenging. The complexity lies in harmonising different methodologies, analysis techniques and interpretation of findings (Johnson and Onwuegbuzie, 2004). Additionally, conducting both quantitative and qualitative components can be time-consuming and resource-intensive.

Researchers need sufficient time and expertise to carry out both types of research effectively (Creswell and Plano Clark, 2017).

Special attention was given to potential bias in integration. In fact, Tashakkori and Teddlie (2010) argue that there is a risk of bias when integrating qualitative and quantitative data as researchers' preferences or interpretations may influence the synthesis process, potentially leading to an incomplete or biased analysis. Due to the study's explanatory sequential design, where quantitative and qualitative phases followed each other, caution was applied to avoid challenges in addressing unexpected findings or changes in the research context between phases, leading to limitations in adapting the subsequent phase (Onwuegbuzie and Leech, 2005).

Lastly, the interpretation of mixed-method data required careful consideration to draw meaningful conclusions (Morse, 2003).

3.10 Conclusion

In sum, the methodology chapter outlined the robust framework utilised to investigate Malta's low fertility rate, incorporating both quantitative and qualitative approaches to capture the multifaceted nature of this demographic issue. By detailing the data collection and analysis methods, this chapter ensured the research's reliability and relevance. The subsequent chapter offers a quantitative and qualitative analysis, presenting a comprehensive examination of the factors influencing fertility rates in Malta.

4. Quantitative Analysis

4.1 Introduction

This chapter presents the quantitative analysis from a telephone survey, aimed to understand the factors influencing fertility decisions in Malta. The analysis reveals the complex interplay of socioeconomic, cultural, and personal factors affecting individuals' childbearing decisions. These findings form the basis for the subsequent qualitative analysis, deepening the understanding of Malta's fertility landscape.

4.2 Part A: Socio-Demographic Background

- **Gender**

The sample of 400 participants consisted of 53.9% females and 46.1% males.

- **Age**

Most respondents were aged 66 years or over (23.9%), followed by 18.0% who were aged between 56 and 65 years, closely followed by 17.5% who were aged between 26-35 years. A further 15.8% were 36-45 years old, 13.5% between 46-55 years, and 11.2% aged between 16-25 years.

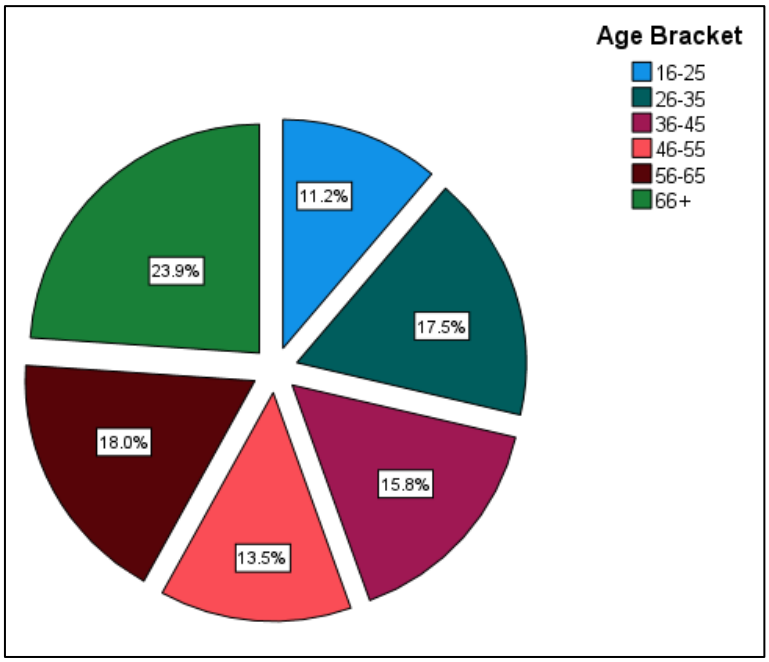

Figure 4.1 - Age distribution of respondents

- **District of Residence**

Several respondents (28.0%) resided in the Northern Harbour district. The remaining respondents resided in Southern Harbour (17.6%), South Eastern (16.2%), Western (16.2%), Northern (14.8%) and Gozo and Comino (7.3%). These statistics of the last 3 demographics also reflect the actual statistics of the Maltese population (NSO Census, 2021).

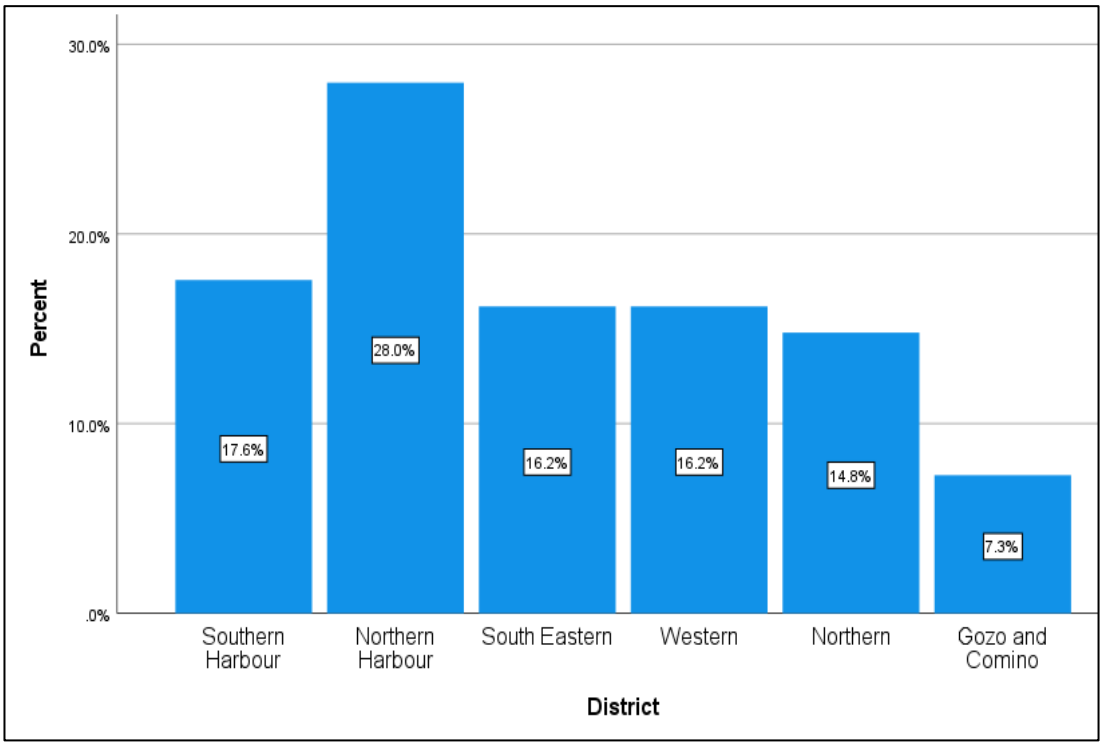

Figure 4.2 - District of residence of respondents

- **Labour Status**

More than half of the respondents (57.7%) are employed/self-employed. A further 26.9% are retired, and 11.1% are homemakers, with only 3.7% still studying and 0.6% unemployed.

Labour status	Percent
Employee	57.7%
Student	3.7%
Stay-at-home woman	11.1%
Unemployed	0.6%
Retired	26.9%

Table 4.1 - Distribution of respondents by labour status

- **Income Tax Bracket**

This question was answered by 63.9% of the respondents, 25.3% of whom are classified in the 0% income tax bracket, 14.9% in the 25% bracket, and 20.0% in the 15% bracket. Only 3.7% were classified in the 35% bracket. Meanwhile, 36.1% did not provide their income tax bracket.

Income Tax brackets	Percent
0%	25.3%
15%	14.9%
25%	20.0%
35%	3.7%
No response	36.1%

Table 4.2 - Distribution of respondents by income tax brackets

- **Marital Status**

A relatively high percentage of the respondents (63.9%) are married, whereas 25.7% are not. Only 4.5% are separated/divorced/annulled, and 5.9% are widows/widowers.

Married	Percent
Yes	63.9%
No	25.7%
Separated/divorced/ annulled	4.5%
Widow/widower	5.9%

Table 4.3 - Distribution of respondents by their marital status

- **Level of Education**

Less than half of the participants (40.3%) completed their secondary level, followed by 35.3% who achieved a tertiary level degree. In addition, 18.5% completed their post-secondary level, with only 5.5% ending their education at primary level.

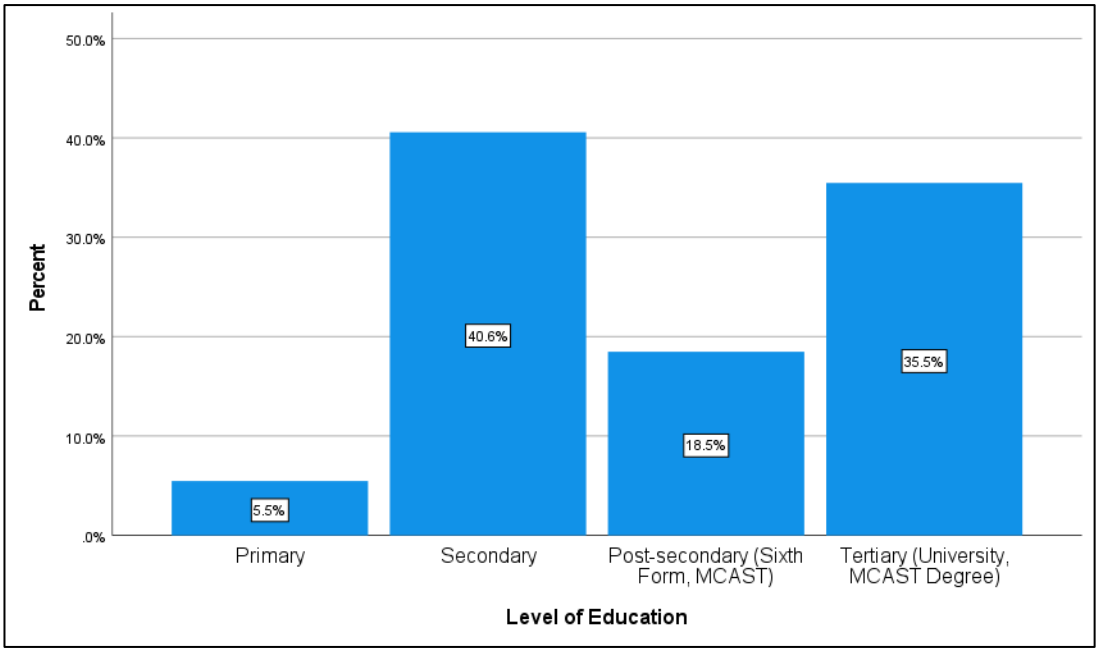

Figure 4.3 – Respondents' level of Education

4.3 Part B: Background for Parenting

- **Do you have children?**

Many respondents (69.6%) had children at the time of the interview, whereas 30.4% did not have children.

- **Gender compared with 'Do you have children?' (Q8)**

Table 4.4 and Figure 4.4 compare the genders, and illustrate whether they have children, with percentages being worked out within the genders. The female respondents (75.8%) were more likely to have children than their male counterparts (62.4%). Conversely, the males (37.6%) were less likely to have children than females (24.2%). The Fisher's Exact test showed a statistically significant relationship between gender and having children or not, $\chi^2(1) = 18.091$, $p < 0.001$, although the magnitude of association is small, with an effect size equal to 0.145. This relationship shows that gender plays an important role in having children.

Gender ↓	Do you have children?		
	Yes	No	Total
Male	62.4%	37.6%	100.0%
Female	75.8%	24.2%	100.0%

$\chi^2(1) = 18.091$, $p < 0.001$

Table 4.4 - Having children or not by gender

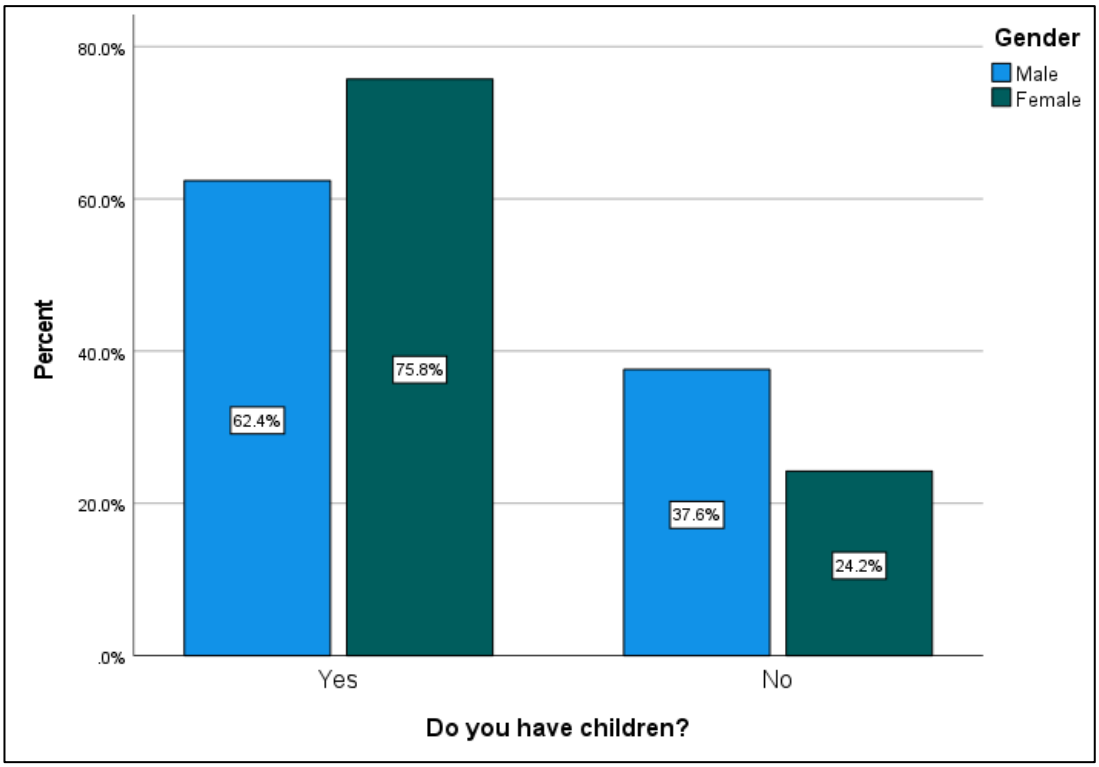

Figure 4.4 - Having children or not by gender

- **Age group compared with 'Do you have children?' (Q8)**

Table 4.5 and Figure 4.5 compare the age groups, and whether or not they have children, with percentages being worked out within the age groups. From the row percentages, it is very evident that there is a gap between respondents younger than 36 years and those over 35 years in having children or not. Those aged over 36 years were more likely to have children than their younger counterparts. Meanwhile, the respondents aged between 16 and 35 were less likely to have children. The Chi-Square test showed a statistically significant strong relationship between age group and having children or not, $\chi^2(1) = 372.394$, $p < 0.001$, with a strong effect size equal to 0.656. This relationship shows that age group is strongly related to the variable having children or not.

Age Bracket ↓	Do you have children?		
	Yes	No	Total
16-25	16.5%	83.5%	100.0%
26-35	25.8%	74.2%	100.0%
36-45	86.9%	13.1%	100.0%
46-55	90.6%	9.4%	100.0%
56-65	87.8%	12.2%	100.0%
66+	89.4%	10.6%	100.0%

$\chi^2(5) = 372.394$, $p < 0.001$

Table 4.5 - Having children or not by age group

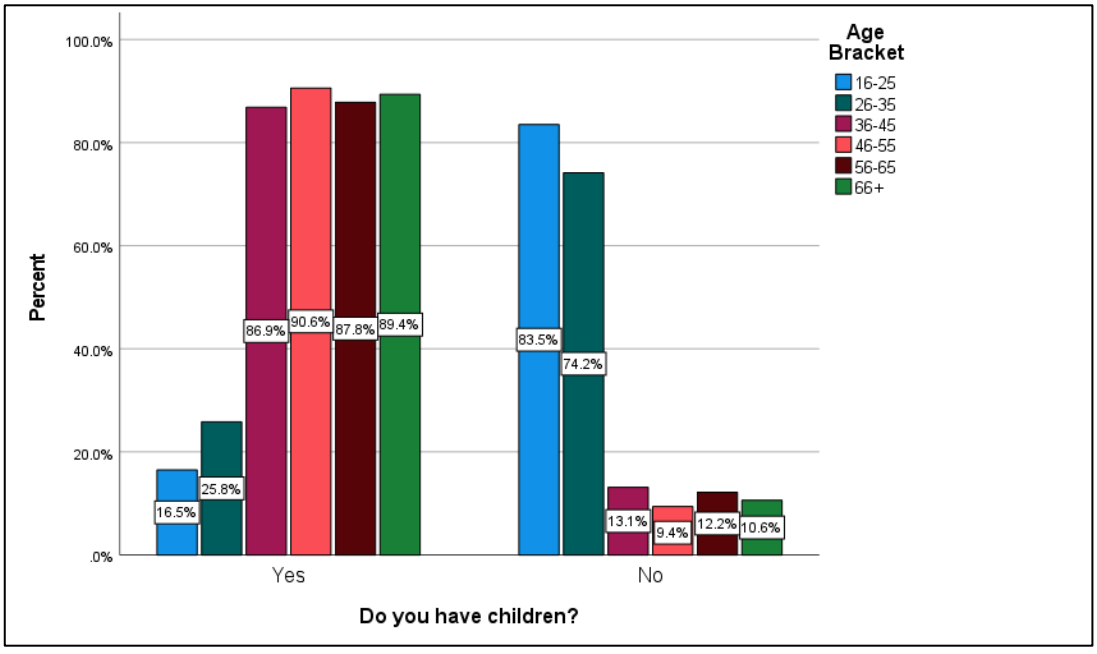

Figure 4.5 - Having children or not by age group

- **District compared with ‘Do you have children?’ (Q8)**

Table 4.6 and Figure 4.6 compare districts, and whether or not they have children, with percentages being computed within the districts. The respondents residing in the Southern Harbour (77.0%) and Northern Harbour (75.2%) districts were more likely to have children than those residing in Gozo and Comino (68.3%), Northern (68.0%), South Eastern (62.9%), and Western (60.7%). Meanwhile, South Eastern and Western registered the lowest shares. The Chi-Square test showed a statistically significant relationship between district and having children or not, $\chi^2(5) = 15.948$, $p = 0.007$, with a small effect size equal to 0.136. This implies that there is a small association between districts and the variable having children or not.

District ↓	Do you have children?		
	Yes	No	Total
Southern Harbour	77.0%	23.0%	100.0%
Northern Harbour	75.2%	24.8%	100.0%
South Eastern	62.9%	37.1%	100.0%
Western	60.7%	39.3%	100.0%
Northern	68.0%	32.0%	100.0%
Gozo and Comino	68.3%	31.7%	100.0%

$\chi^2(5) = 15.948$, $p = 0.007$

Table 4.6 - Having children or not by district

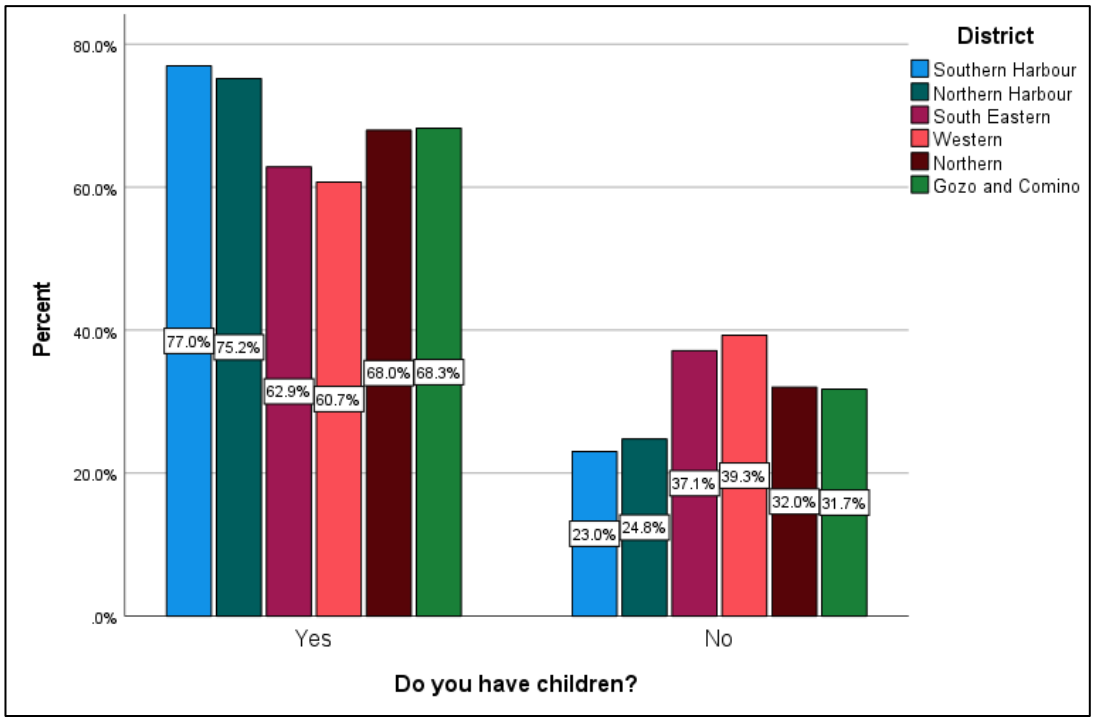

Figure 4.6 -Having children or not by district

- **Labour status compared with 'Do you have children?' (Q8)**

Table 4.7 and Figure 4.7 illustrate a comparison between labour status, and whether or not respondents have children, with percentages being computed within the labour status. The participants who are still studying, do not have any children yet. Meanwhile, those who are unemployed (100.0%), stay-at-home women (93.8%), or retired (88.8%) were more likely to have children than those who are in the labour force (60.1%) or studying. The Chi-Square test showed a statistically significant relationship between labour status and having children or not, $\chi^2(5) = 163.859$, $p < 0.001$, with a medium effect size equal to 0.435. This implies that there is a moderate association between labour status and having children or not. One should however treat this result with great caution due to the low number of counts in the unemployed category.

Labour status ↓	Do you have children?		
	Yes	No	Total
Employee	60.1%	39.9%	100.0%
Student	0.0%	100.0%	100.0%
Stay-at-home woman	93.8%	6.3%	100.0%
Unemployed	100.0%	0.0%	100.0%
Retired	88.8%	11.2%	100.0%

$\chi^2(5) = 163.859$, $p < 0.001$

Table 4.7 - Having children or not by labour status

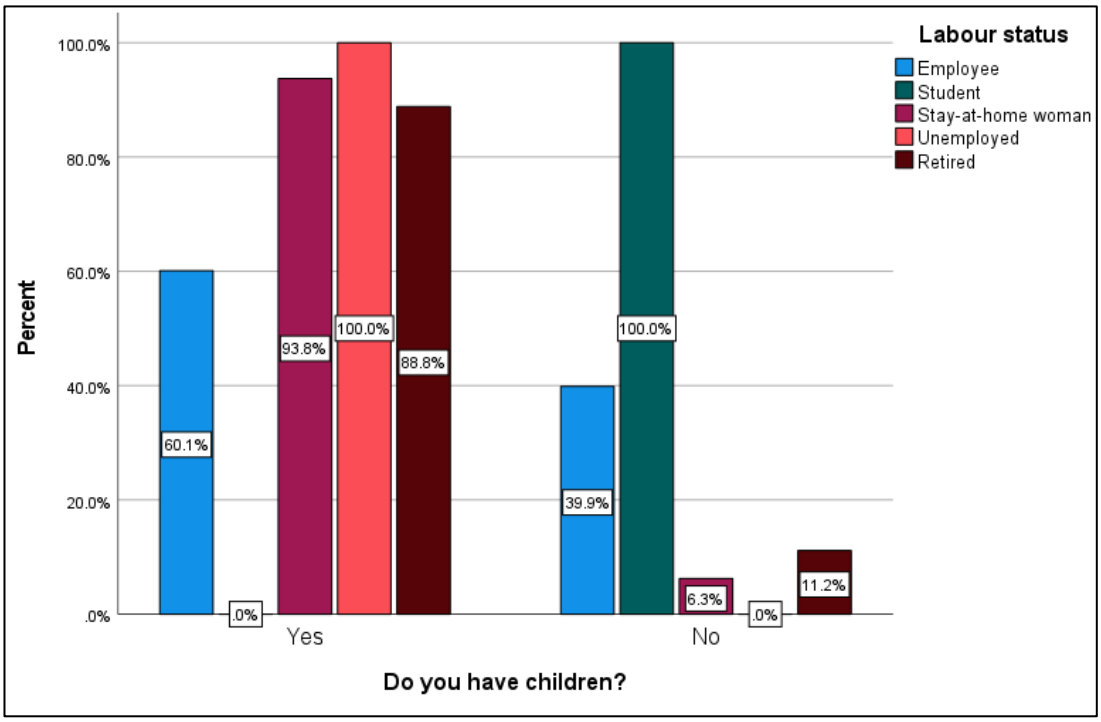

Figure 4.7 - Having children or not by labour status

- **If yes, how many children do you have? (Q9)**

The average number of children per family was 2.06 (SD = 0.893), with 95% CI [1.99, 2.13]. In percentage terms, 44.0% have two children, followed by 28.6% who have only one child, and 21.6% who have three children. Only 5.8% have four or more children.

Note: This question was further analysed in Question 10 (below), and those who had three, four or more children were grouped together as having three or more children in order to have a reliable number of persons in that category.

- **Age group compared with number of children (Q9)**

Table 4.8 reports the median, mean, its 95% Confidence Interval (CI), and their corresponding standard deviation for the number of children the respondents have by age group.

Age group	Median	Mean	Std. Deviation	95% Confidence Interval for Mean	
				Lower Bound	Upper Bound
16-25	1	1.50	0.730	1.11	1.89
26-35	1	1.62	0.747	1.37	1.86
36-45	2	2.01	0.818	1.86	2.16
46-55	2	2.08	0.726	1.94	2.22
56-65	2	1.91	0.809	1.78	2.05
66+	2	2.33	1.034	2.18	2.48

$\chi^2(5) = 32.889$, $p < 0.001$

Table 4.8 - Descriptive measures for the number of children by age group

The median number of children for each age group varied from 1 to 2, with the youngest cohort aged between 16-35 years having a median of 1 child, and their older counterparts having a median of 2 children. The mean ranges between 1.50 and 2.33, with respondents aged between 16-25 and 26-35 having the lowest mean number of children, and those aged over 65 years having the highest mean number of children. A Kruskal-Wallis test was conducted to determine whether there were differences in the number of children between the age groups. The distribution of the number of children was statistically significantly different between the age categories, $\chi^2(5) = 32.889$, $p < 0.001$, with a small effect size of 0.047. This implies that age affects the number of children that one has. The post-hoc analysis revealed statistically significant differences in the number of children between (1) 16-25 years and 66+ years ($p = 0.006$), (2) 26-35 years and 46-55 years ($p = 0.044$), (3) 26-35 years and 66+ years ($p < 0.0005$), and (4) 55-65 years and 66+ years ($p = 0.005$), but not between any other group combination (Figure 4.8).

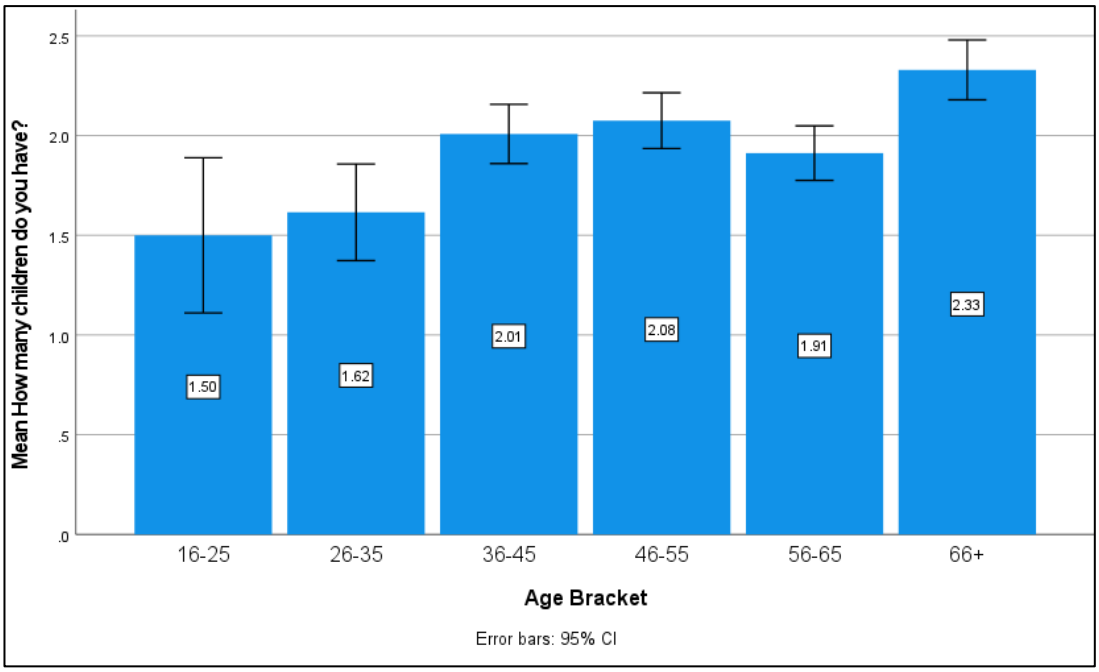

Figure 4.8 – Bar chart showing the mean number of children by age group with 95% CI error bars

- **District compared with number of children (Q9)**

Table 4.9 illustrates the median, mean, its 95% Confidence Interval (CI), and their corresponding standard deviation for the number of children the respondents have by district of residence.

District	Median	Mean	Std. Deviation	95% Confidence Interval for Mean	
				Lower Bound	Upper Bound
Southern Harbour	2	1.94	0.959	1.76	2.12
Northern Harbour	2	2.03	0.783	1.91	2.14
South Eastern	2	2.11	0.903	1.92	2.30
Western	2	2.21	0.818	2.04	2.39
Northern	2	2.13	0.938	1.93	2.33
Gozo and Comino	2	1.95	1.133	1.60	2.30

$\chi^2(5) = 10.836$, $p = 0.055$

Table 4.9 - Descriptive measures for the number of children by district

The median number of children per district is 2. The mean ranges between 1.94 and 2.21, with respondents residing in Southern Harbour and Gozo/Comino having the lowest mean number of children, while respondents residing in the Western part having the highest mean number of children. A Kruskal-Wallis test was conducted to determine whether there were differences in the number of children between districts. The distribution of the number of children was not statistically significantly different between districts, $\chi^2(5) = 10.836$, $p = 0.055$, with a very small effect size of 0.01. This implies that a district is not related to the number of children that one has (Figure 4.9).

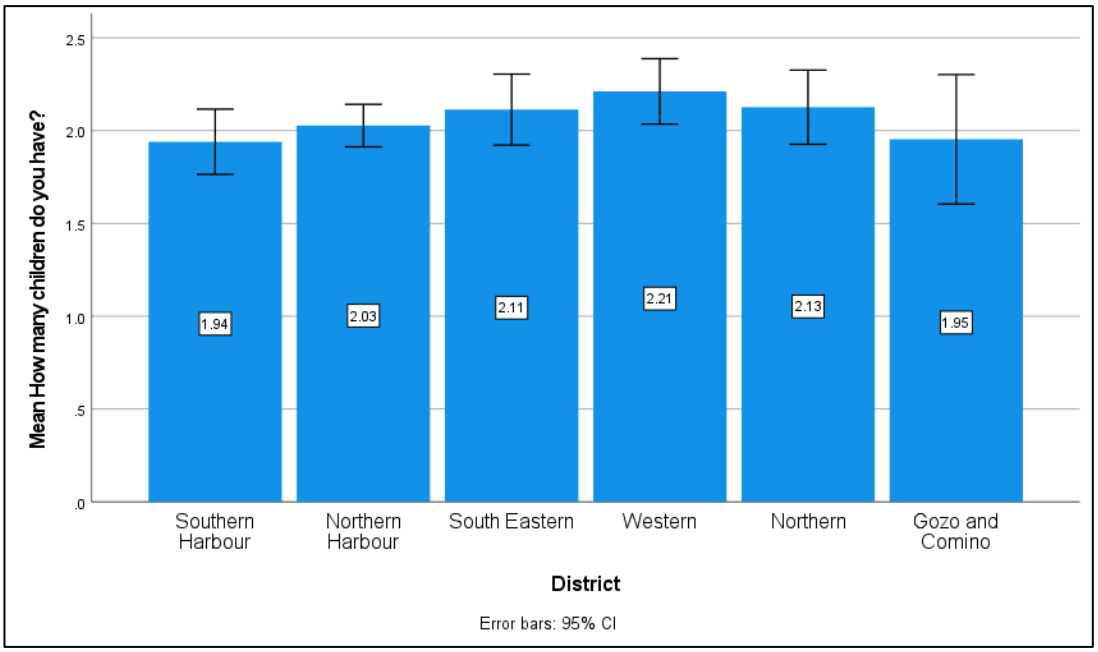

Figure 4.9 - Bar chart showing the mean number of children by labour status with 95% CI error bars

- **Labour status compared with number of children (Q9)**

Table 4.10 demonstrates the median, mean, its 95% Confidence Interval (CI), and their corresponding standard deviation for the number of children the respondents have by labour status.

Labour status	Median	Mean	Std. Deviation	95% Confidence Interval for Mean	
				Lower Bound	Upper Bound
Employee	2	1.88	0.782	1.79	1.97
Stay-at-home woman	2	2.23	1.061	2.01	2.46
Unemployed	2	2.00	0.000	2.00	2.00
Retired	2	2.24	0.928	2.11	2.36

$\chi^2(3) = 19.095$, $p < 0.001$

Table 4.10 - Descriptive measures for the number of children by labour status

The median number of children by labour status is 2. The mean ranges between 1.88 and 2.24, with respondents who are in the labour force having the lowest mean number of children, while respondents who are homemakers or retired having the highest mean number of children. A Kruskal-Wallis test was conducted to determine whether there were differences in the number of children by labour status. The distribution of the number of children was statistically significantly different by labour status, $\chi^2(3) = 19.095$, $p < 0.001$, with a small effect size of 0.027. The post-hoc analysis revealed statistically significant differences in the number of children between (1) employee and stay-at-home woman ($p = 0.009$) and (2) employee and retired ($p < 0.0005$), but not between any other group combination (Figure 4.10). It is however important to treat this result with caution due to the low number of counts in the unemployed category.

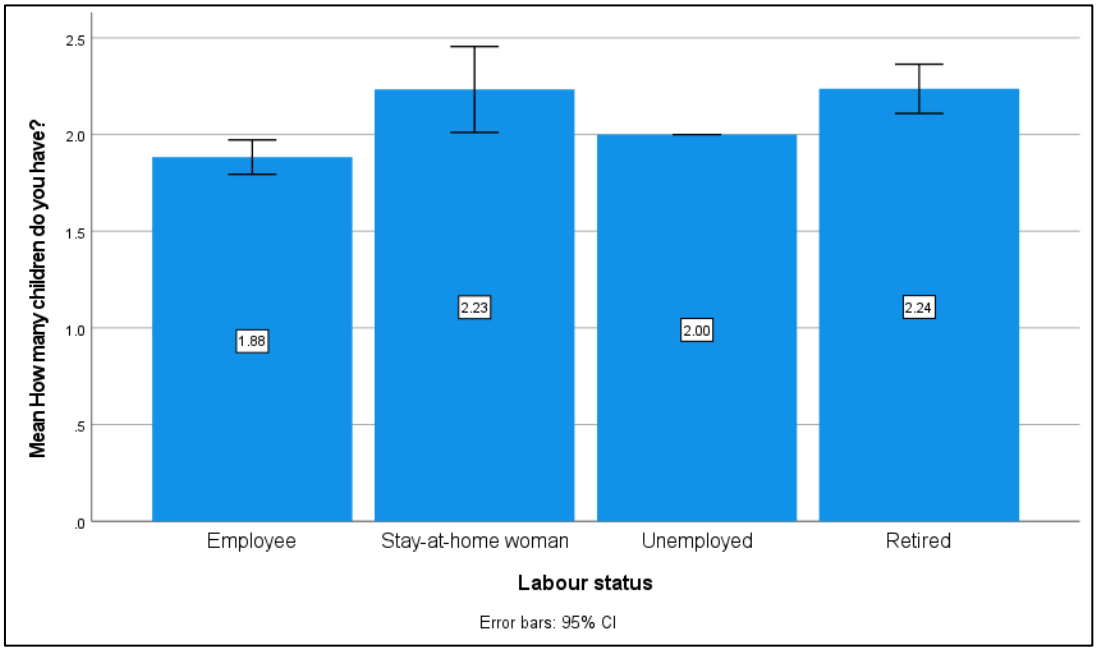

Figure 4.10 - Bar chart showing the mean number of children by labour status with 95% CI error bars

- **Reasons for having one, two, three or more children**

The respondents who have children were then asked why they had one, two, three or more children. Table 4.11 shows that slightly more than half of these respondents stated that it was a personal decision. Another 15.2% claimed that nature allowed that decision, 13.9% for other reasons, and 11.6% for no particular reason.

Note: 5% did not provide an answer to this question.

Reasons	Percent
Personal decision	51.0%
Miscarriage	2.4%
Financial problems	5.9%
Nature allowed that	15.2%
Other	13.9%
No reason at all	11.6%

Table 4.11 - Distribution of respondents by reasons for having one or more children (percentages were computed out of the total valid responses, excluding refusals)

- **Number of children (Q9 – recoded) compared with the reasons for having one, two, three or more children (Q10)**

Table 4.12 and Figure 4.11 compare the number of children and the reasons for having one, two, three or more children, with percentages being computed within the number of children. Personal decision was selected by those who had two children (60.2%), followed by those who had one child (43.0%), and three or more children (44.8%). Miscarriage and financial problems were selected by respondents having one child only. No differences were found in the percentages by the number of children the respondents had. The Chi-Square test showed a statistically significant relationship between the number of children and the reasons for having one, two, three, or more children, $\chi^2(10) = 77.716$, $p < 0.001$, with a small effect size equal to 0.261.

Reasons ↓	How many children do you have?		
	1 child	2 children	3 or more children
Personal decision	43.0%	60.2%	44.8%
Miscarriage	8.9%	0.0%	0.0%
Financial problems	12.0%	5.2%	1.2%
Nature allowed that	14.6%	15.5%	15.3%
Other	10.1%	10.4%	22.7%
No reason at all	11.4%	8.8%	16.0%
Total →	100.0%	100.0%	100.0%

$\chi^2(10) = 77.716, p < 0.001$

Table 4.12 - Number of children and the reasons for having one, two, three or more children

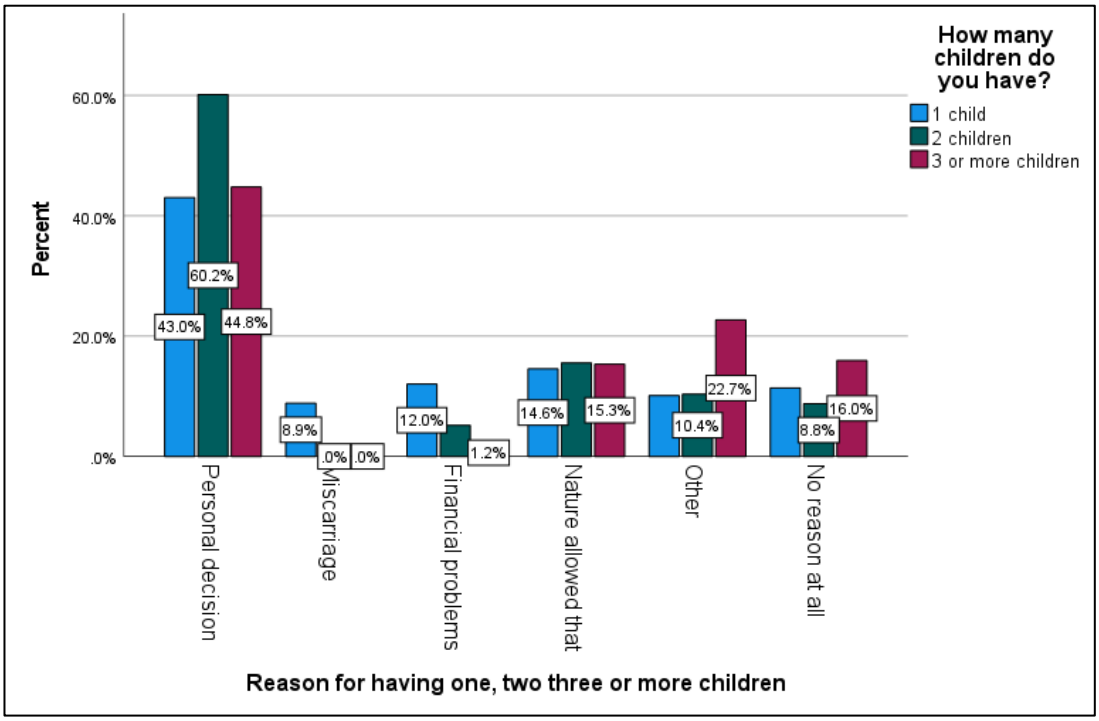

Figure 4.11 - Number of children and the reasons for having one, two or three or more children

- **Reasons for not having children**

It transpired that 44.4% of those who do not have children claimed that they are planning to have children in the future. The percentages are as follows: those aged between 26-35 years (52.3%) and 16-25 years (37.8%); 91.9% are employees, and 63.1% obtained a tertiary level of education (Table 4.13).

Socio-Demographic Characteristics		Percent
Age group →	16-25	37.8%
	26-35	52.3%
	36-45	7.2%
	46-55	2.7%
Labour status →	Employee	91.9%
	Student	8.1%
Level of education →	Secondary	6.3%
	Post-Secondary (Sixth Form, MCAST)	30.6%
	Tertiary (University, MCAST Degree)	63.1%

Table 4.13 - Demographic characteristics of those who are planning to have children in the future

Table 4.14 shows that another small cluster of 6.8% who do not have children claimed that they wished that they had children, but circumstances did not make it possible. A further 18.0% do not have children for personal reasons. Around 31% of the respondents declared for other reasons. Some of the common reasons cited by these respondents were due to civil status, financial problems, education commitments, age, lifestyle, and do not want children.

Note: a further 4.9% of those who do not have children refused to provide a reason.

You do not have children because:	Percent
Do not have any yet, but planning to	44.4%
Wished they had, but circumstances did not make it possible	6.8%
Personal reasons	18.0%
Other reasons	30.8%

Table 4.14 - Reasons for not having children (percentages were computed out of the total valid responses, excluding refusals)

4.4 Conclusion

This data analysis provided an overview of the reasons influencing fertility decisions among the Maltese population, highlighting key demographic trends and public attitudes towards childbearing. As the research transitions from the numerical data to the perspectives gathered from focus group analysis, the study delves deeper into the qualitative aspects of these findings.

5. Qualitative Analysis

5.1 Introduction

A qualitative focus group was conducted, comprising nine participants, whose contribution was not merely in a personal capacity, but as representatives of their respective organisations: Caritas Malta, General Workers' Union (GWU), Housing Authority, Kunsill Nazzjonali taż-Żgħażagħ (KNŻ), Humanists Malta, Malta Employers' Association (MEA), Metropolitan Tribunal of First Instance, Ministry for Social Policy and Children's Rights (MSPC) and Ta' Cana Movement. Five main themes and eight related sub-themes were identified (Table 5.1).

Themes	**Sub-Themes**
1. Decision-Making in Maltese Family Planning	i. Personal and Lifestyle Considerations ii. Economic Impediments and Residential Challenges
2. Transformation in Family Structures and Values	i. Changing Attitudes towards Child-Rearing
3. Perspectives on Existing Policies in Malta	-
4. Economic and Demographic Implications of Persistent Low Fertility Rates	i. Cultural Identity in a Multicultural Context
5. Policy Strategies for Enhancing Fertility Rates	i. Enhancing Male Participation in Family Life ii. Work-Life Balance and Employer iii. Societal Attitudes and Family Values iv. Economic Incentives and Financial Stability

Table 5.1 – Thematic Analysis resulting from focus group

5.2 Theme 1: Decision-Making in Maltese Family Planning

The participants were asked to provide reasons why they think that Maltese families are choosing not to have children. They discussed the evolution of parenthood, mentioning the diversity in parental aspirations and a paradigm shift in societal attitudes towards procreation.

> *“There exists a dichotomy within couples' desires, with some eschewing the notion of parenthood entirely, while others aim for smaller family units, signalling a shift away from erstwhile norms." (Anna Camilleri - Ta’ Cana Movement)*

> *“Historically, Maltese families revered children as divine gifts. Presently, there's a pronounced emphasis on reproductive rights, encompassing the liberty to decide on having children or opting against it." (Josef Pace - Caritas Malta)*

Sub-Theme 1: Personal and Lifestyle Considerations

The participants addressed the perceived burden of parenthood against personal freedom and doubts about parental adequacy. The trade union representative mentioned that workers might see children as a burden which is too hard to handle.

> *“Am I going to be a good parent? Am I going to take care of my children? How willingly am I to give up my life of going abroad, seeing new places? Am I willing to give up all this to have children?” (Josef Bugeja – GWU)*

This argument was enhanced further by the employers’ representative, who delved into existential ruminations and the prevalence of individualism, suggesting that these factors culminate in a diminished inclination towards parenthood.

> *“A certain loss of faith in bringing children to this world. What is the point? So, they would prefer to move to this life without having children.” (Joe Farrugia – MEA)*

Sub-Theme 2: Economic Impediments and Residential Challenges

This was a persistent theme mentioned by various participants, who highlighted the formidable economic barriers and scarcity of accessible housing as major deterrents to family expansion, emphasising the foundational role of a stable home in family formation within society.

> *"People my age mostly talk about the fact that they cannot even afford to buy a house." (Chantelle Busuttil Stevens – KNŻ)*

Conversely, other participants noticed a trend towards solitary property acquisition, illustrating a preference for financial independence and asset diversification over traditional family establishment.

5.3 Theme 2: Transformation in Family Structures and Values

The study explored the societal changes that took place within Maltese society in view of the fact that, in the past, Maltese families were known for having many children. The participants observed the significant societal changes, including the introduction of divorce and increased female participation in the labour force, underscoring a move towards financial independence, and individualisation.

> *"The individualisation of financial security, so women are not anymore dependent on men to provide everything from them." (Dr Maya Miljanic Brinkworth – MSPC)*

> *"The rate of females that are benefitting from […] the first-time buyers' scheme, that is very close to 50%, and this, in itself, is showing that women and men are quite independent nowadays, and can fend for themselves economically." (Bridget Borg – Housing Authority)*

> *"We seem to be creating a generation where people will not have cousins, and will not really have a direct experience of an uncle or an aunt because, if you have one-child families, it is going to be very limiting." (Fr Brendan Gatt – Judicial Vicar)*

In this regard, the interviewees discussed the diminished role of extended families and the impact of women's workforce participation on family size, underlining the growing independence and economic self-sufficiency among women, leading to changes in household characteristics and perceptions of child-rearing.

> *"Since women are working, it is difficult for them to have more and more children because it is a physical burden to have a big family when you're working as well." (Ta' Cana Movement)*

Sub-Theme 1: Changing Attitudes towards Child-Rearing

Several participants reflected on the profound impact of value shifts on efficiency and productivity, viewing children as counterproductive to these societal goals.

> "*As a society, we are so focused on being efficient, being productive, and children are like a waste of time. This is why we import foreign labour. You have someone ready to work as needed, and is easily disposable." (Professor Christian Colombo – Humanists Malta)*

> *"Unfortunately, children have become a burden, and we need to change that." (KNŻ)*

5.4 Theme 3: Perspectives on Existing Policies in Malta

The interviewees were asked to give their opinion about the effectiveness of diverse policies in Malta, such as, universal free childcare services, children's allowance, housing benefits, and their implications for child-rearing. Most participants questioned their long-term impact on decisions to have children.

> *"You can only benefit from free childcare if you are working. So, this service is encouraging people to go out and work, and not actually to have more children." (GWU)*

"It is not as these benefits are encouraging couples to have more children, but they simply act as a respite." (Judicial Vicar)

"We are throwing money to solve issues that money has caused itself." (Humanists Malta)

Conversely, other participants acknowledged the positives of the current policies, albeit still proposing a wider approach to maximise their effectiveness.

"I think that the housing incentives served more to inflate property, rather than to increase the purchasing power of couples. However, children's allowance and free childcare, I think, are being effective." (MEA)

"A national strategic vision of where we are going as a country is needed for social and cultural and economic perspectives." (GWU)

5.5 Theme 4: Economic and Demographic Implications of Low Fertility Rates

Notwithstanding the existing policies to support families, Malta's low fertility rates pose serious economic and demographic implications. During the focus group discussion, the participants explored the socio-economic challenges and cultural implications brought about by Malta's demographic shifts, emphasising low fertility rates, an ageing population, and increased reliance on foreign labour. Both the workers' and employers' representatives advocated for a political direction that the economic route of the country should take to address this ticking time-bomb.

"Either we stop this demand generated by economic growth with its repercussions, or else, we need to increase the population." (GWU)

“Fewer people being born could imply a smaller market, which also means less demand. Therefore, one cannot expect to have growing economies when you have a declining population.” (MEA)

Concerns were raised about Malta's future ability to attract foreign workers due to competing demands from countries with similar demographic profiles.

“There is a risk that the situation becomes like the one in Japan where they cannot find workers in certain sectors like caring for the elderly.” (Humanists Malta)

Sub-Theme 1: Cultural Identity in a Multicultural Context

Discussions also revolved around the evolution of Malta into a multicultural society, delving into the complex association between maintaining Maltese cultural identity and embracing diversity through the integration of foreign workers.

“I can envisage that we are going to be a very multicultural society in the not-too-distant future. Is that good? Is that bad? Well, I do not know, but I think we will be losing our Maltese identity.” (Ta’ Cana Movement)

Another important consideration was the educational disparities between the local and immigrant populations and their impact on labour market integration and social cohesion.

“We need young, educated people. That can be done in two ways: by stimulating fertility or importing the labour force. And if we want to import such a labour force, then, we have to compete well for the best educated quality labour force.” (MSPC)

5.6 Theme 5: Policy Strategies for Enhancing Fertility Rates

Through a collaborative dialogue, the participants shared diverse perspectives on potential policy interventions that could stimulate higher fertility rates thereby contributing to the sustainability of Malta's demographic and economic future.

Sub-Theme 1: Enhancing Male Participation in Family Life

The critical role of gender equality in promoting higher fertility rates was pinpointed during the focus group.

> *"Unless we have men as husbands, partners, bosses, middle-management and so on, we will not reach far." (MSPC)*

Sub-Theme 2: Work-Life Balance and Employer Support

The participants suggested that policies encouraging paternal involvement, such as paternity leave and flexible work arrangements, can positively impact fertility rates.

> *"I hear a lot of women who work and are afraid of having kids because work is not flexible, and we hear of these demands which are being made, but they fall on deaf ears." (KNŻ)*

> *"Focus on high-end value economy, so we can move to 32-hour week or 4-day week; it depends on the nature of work." (GWU)*

Sub-Theme 3: Societal Attitudes and Family Values

The promotion of family values from a young age, as discussed by the stakeholders, is conducive to advocating for early childhood education that incorporates concepts of family and

community. They discussed the importance of instilling family values from a young age, highlighting the disconnection between societal values focused on productivity and the nurturing of pro-family attitudes.

> *"Education about the different roles of a functioning family from a very young age could help better than short-sighted measures that are often associated with far-right parties, like paying couples or giving them a monetary gift for every child they have." (Judicial Vicar)*

> *"Promote and advocate family as the cradle of society. I think this will help us change our focus point more on the person than on profit or other things that we are now envisioning in Malta." (Caritas Malta)*

> *"You cannot force someone to have children." (GWU)*

The participants called for a societal shift that places higher value on parenting and family life as integral to personal and societal well-being.

> *"Before, it used to be what we, as parents, do for the children, but, today, the attitude is what we do with the children." (MEA)*

> *"Not dismissing people from work just because they get pregnant. These things happen, and there should be policies in place specifically against this practice." (KNŻ)*

Sub-Theme 4: Economic Incentives and Financial Stability

The participants also agreed that financial incentives and economic stability in family planning decisions have a role in fertility decision-making. Most participants suggested that economic policies, including wage adjustments and targeted financial incentives, play a crucial role in making family expansion more feasible for couples, especially young ones.

> *"While childcare services and financial allowances are steps in the right direction, we need policies that address broader societal attitudes towards family and work." (KNŻ)*

Others advocated for a shift in perspective that recognises the differing contributions of families to societal prosperity beyond mere economic metrics.

5.7 Conclusion

This chapter dissected the focus group discussion which provided deeper insights into the complexities surrounding fertility choices in Malta. This qualitative analysis complements the quantitative survey by highlighting the importance of a comprehensive policy approach that considers the specific needs and values of Maltese families. The next chapter answers the three research questions through a mix of secondary data and quantitative and qualitative insights within the adopted theoretical framework reinforced by scholarly literature.

6. Discussion

6.1 Introduction

The objective of this chapter is to answer the research questions through a mix of secondary data and quantitative and qualitative insights, placing them within the broader context of existing literature, while elucidating their implications for theory, policy, and practice.

This table succinctly captures the essence of how each research question was addressed within the study, linking the findings to the methods applied, which is crucial for understanding the comprehensive approach taken in the research.

Research Question	Main Findings	Method Used
RQ1: What are the effects of Malta's low fertility rate on its economic performance?	The analysis showed significant economic impacts due to declining fertility rates, including challenges in labour market sustainability and increased strain on social welfare systems.	Data analysis through secondary data sources.
RQ2: What are the factors that influence Maltese people to have children?	Economic factors, work-life balance challenges, and societal pressures were identified as key influences on fertility decisions. Themes of economic burden, societal expectations, and the role of work-life balance emerged as significant.	Mixed methods approach: Quantitative data from surveys provided statistical evidence, while qualitative insights were gathered through thematic analysis of focus group discussions.
RQ3: What are the policy options for addressing Malta's low fertility rate in the long-term?	Recommendations included promoting gender equality, enhancing workplace flexibility, and implementing educational initiatives alongside economic ones. The need for a multifaceted policy approach integrating cultural shifts and supportive measures was emphasised.	Qualitative analysis through focus group discussions, capturing diverse stakeholder perspectives on potential policy interventions.

Table 6.1 – Reasearch Questions, Findings and Methods Used

6.2 Theoretical Implications of the Research Findings

The study findings align with the Political Economy Framework (Figure 1.9) underpinning this research, suggesting that economic and political factors significantly impact fertility decisions. As described in the literature review chapter, the findings are also commensurate with the theoretical foundations of the Second Demographic Transition (SDT), which posits that societal shift towards ageing populations, single-person households, higher individual autonomy and the pursuit of self-fulfilment lead to lower fertility rates (Lesthaeghe and Van de Kaa, 1986).

The first research question was addressed through an extensive analysis of secondary data, involving an examination of existing data from various sources, including national statistics, reports from international organisations and scholarly literature to understand the relationship between Malta's declining fertility rates and its implications for economic growth.

6.3 Demographic Dynamics and Economic Implications

In 2023, 4,204 babies were born and registered in Malta, denoting a rise of 5.7% compared to the preceding year (Identità, 2023). During the same period, there was an increase in the incidence of registered deaths in Malta, with a total of 3,915 recorded deaths (Identità, 2023). Additionally, data presented in Parliament shows that, between 2018 and 2022, a quarter of births registered in Malta were from foreign mothers residing in Malta, a trend which has been on a steady rise from 2011 (Caruana, 2024). These figures are in line with the projections of the United Nations (UN) (Figure 6.1).

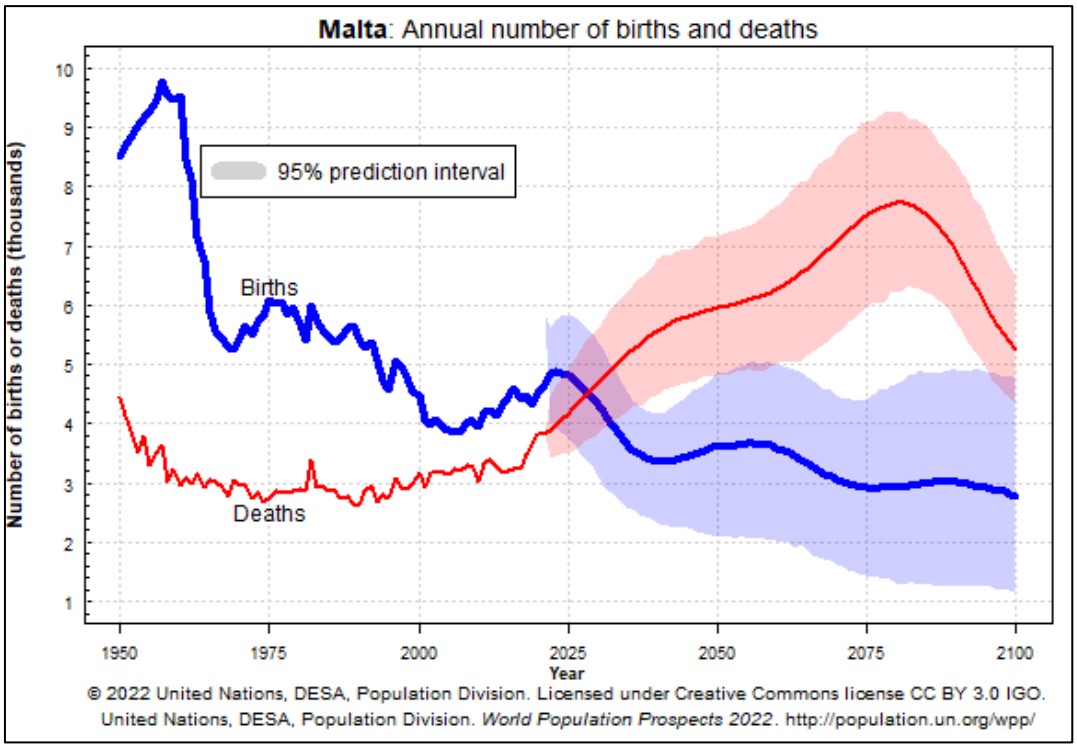

Figure 6.1 – Malta: Annual number of births and deaths (United Nations, 2022)

The latest population figures in Malta (Appendix R) show that births and deaths cancel each other and all population growth has been originating from foreigners coming to live in Malta, particularly Third Country Nationals (TCNs). This is also reflected in the data of the gainfully occupied employees in Malta's economy for 2022 (Appendix S), observing an increase of around 20,000 persons when compared to the previous year, and this is mainly attributed to the increase in foreign workers due to lack of domestic workers. In fact, until July 2023, there were 68,755 TCNs and 37,224 from the EU working in Malta (Caruana, 2024). It transpires that Maltese originals entering the labour market are likely just enough to substitute the retiring Maltese people, while growth to the Maltese economy, which requires more people to sustain it, is being sustained almost exclusively by foreigners migrating to Malta. However, this dynamic brings consequential social, economic, infrastructural, and political challenges. The persistent decline in fertility rates poses significant demographic and economic challenges for Malta, however successive governments have largely ignored the need for strategic long-term demographic planning, despite the availability of demographic projections. As the EU's

smallest member state with limited resources, Malta's reliance on human capital is crucial. This puts Malta in a vulnerable position as current policies favour economic expansion, without adequately considering the impact on demographic stability. This approach reflects a broader issue within democratic governance systems, where short-term policy gains, aimed to secure electoral advantage, overshadow the necessity for long-term strategic planning (Bueno de Mesquita et al., 2003), neglecting long-term economic stability (Alesina and Roubini, 1992).

6.4 Economic Consequences of Malta’s Ageing Population

An ageing population, frequently attributed to sustained low fertility rates, amongst other factors, represents a significant demographic challenge that will confront societies globally in the coming decades. This phenomenon, characterised by a growing number of older individuals within the population, emerges from complex interactions between fertility trends, mortality rates, and migration patterns. By 2050, the number of people aged 65 years and over worldwide is projected to reach approximately 1.5 billion (Figure 6.2).

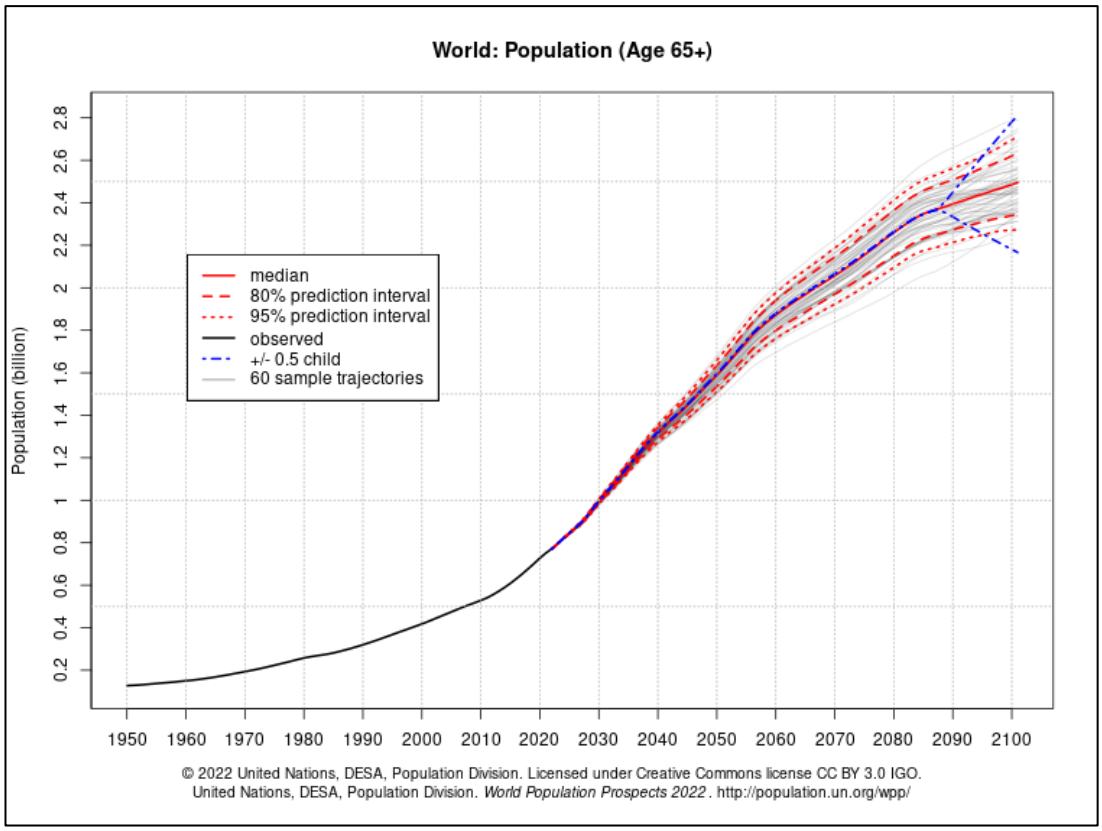

Figure 6.2 – World Population Projection (Age 65+) (United Nations, 2022)

This is no different in Malta. Currently, people aged 65 and over make up 18.6% of Malta's total population, whereas persons under the age of 18 total 15.1% (NSO, 2023). The country's low fertility rate is also mirrored in the old-age dependency in Malta , which stood at 27.6%, hence there are roughly three working-age adults for every elderly person aged 65 or more (NSO, 2023). Although optimistic studies view ageing populations as an economic growth enhancer (Acemoglu and Restrepo, 2017), Sciberras (2019) suggests that, between 1980 and 2016, population ageing diminished economic prosperity in Malta (Figure 6.3).

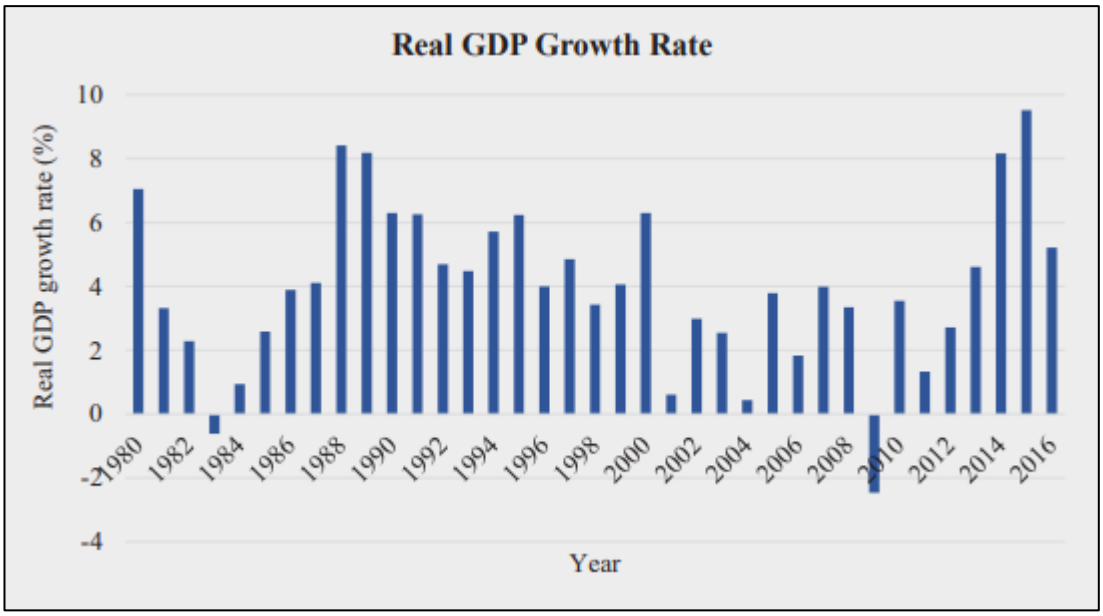

Figure 6.3 – Real GDP Growth Rate between 1980 and 2016 (Sciberras, 2019)

This demographic shift can lead to labour shortages and reduced overall labour force participation rates, resulting in a shrinking workforce (Bloom et al., 2020). In fact, Finance Minister Clyde Caruana identified a diminishing native workforce and low fertility rates as the main struggles of the Maltese economy (Magri, 2023). As the population ages, the number of retirees eligible for pension benefits increases, leading to higher pension expenditures. Bloom, Canning and Sevilla (2003) emphasise that ageing populations require pension systems to adapt to increased longevity as longer lifespans result in longer periods of benefit payments. With a higher ratio of retirees to workers, there are fewer contributions to the pension system from the working-age population. This imbalance can lead to economic shortfalls. Börsch-Supan (2007) discusses the challenge of maintaining a stable worker-to-retiree ratio as a declining workforce contributes less to the pension fund, threatening its sustainability. While employees are being encouraged to enrol in a compulsory occupational pension scheme (Malta Financial Services Advisory Council, 2023), Social Policy Minister Michael Falzon is urging people, especially youths, to invest in private pensions schemes because like much of the Western world, Malta is facing a demographic situation characterised by ageing population and low fertility rates (Ellul, 2024). However, as the proportion of the older population in the

population increases, there is a corresponding rise in demand for healthcare services. Bloom et al. (2015) highlight that ageing populations lead to higher healthcare costs, and therefore, there is a pressing need to invest in preventive healthcare and community-based services to manage the long-term impacts of population ageing effectively (Formosa, 2019). This necessitates strategic responses to maintain healthcare quality, accessibility and financial sustainability.

The dependency ratio, representing the proportion of the non-working population, is also influenced by low fertility rates. Azzopardi Muscat et al. (2017) emphasise that a declining fertility rate can elevate the dependency ratio, placing an increased economic burden on the working-age population to support dependents. While Sciberras (2019) argues that encouraging the elderly to continue working beyond the retirement age might lessen the impact of ageing population on economic growth in Malta, Lee and Mason (2017) suggest that a larger elderly working population might affect productivity growth negatively. The call to address productivity was also echoed by the Malta Chamber of Commerce, calling on for the government to consider productivity and competitiveness as top priorities of the country's economic policy (Tabone, 2023).

Due to the lack of domestic workers, MEA's Wage Inflation Survey found that a quarter of businesses responded that half of their workforce is foreign, while three-quarters of them recruit foreign workers (MEA, 2023) as this approach is considered the only option to deal with labour market shortages. This led Minister Caruana to admit that it is unsustainable to keep importing workers at the current rates as the influx of TCNs is reaching breaking point (Borg, 2023). On the other hand, former Prime Minister Joseph Muscat, who championed an economic model based on the importation of foreign workers, said that economic migrants are essential for the economy because without them, social sectors such as healthcare would collapse (Shankar, 2023). However, ageing populations require adjustments in economic strategies to sustain pension systems and overall economic growth (Grant et al., 2004). Similarly, Minister Caruana admitted that the country needs an overhaul of its economic model, warning that Malta's dependence on foreign workers would lead to a population increase to 800,000 by 2040 (Borg, 2023), with obvious economic repercussions. Even Opposition Leader

Bernard Grech called on the government to lead an economy based on quality rather than quantity (The Malta Independent, 2023). Enhancing competitiveness and productivity amidst these challenges would likely involve policies focused on lifelong learning, workforce skills development, and measures to encourage the participation of older individuals in the labor market. These steps would not only address the direct impacts of demographic changes but also contribute to Malta's long-term economic resilience.

6.5 Managing Social Challenges amidst Low Fertility Rates

Another economic variable affected by the influx of foreign workers due to low fertility rates is the housing sector. In Parliament, Hon. Omar Farrugia cited expensive property and high cost of living as factors contributing to the country's abysmal fertility rate (Magri, 2023), despite the availability of different schemes aimed to help couples become property owners. These challenges are corroborated by McDonald (2006) who argues that the cost of accessing affordable housing deters couples from having children or reduces the number of children they might otherwise have planned. Meanwhile, Gauthier (2007) and Aassve et al. (2007) note that financial stability to afford child-rearing costs is a crucial determinant to having children. Although first-time buyers started getting €1,000 per year for 10 years from the Housing Authority, sociologist Valerie Visanich said that this incentive may not be enough to entice professional women to have more children (Abbas Shalan, 2024). This shows that an economic model, predicated on the influx of foreign workers, is leading "housing, be it rental or purchase, is unlikely to be a realistic prospect for young people in Malta were it not for government intervention or family assistance, unless they marry or cohabit, or relocate to Gozo." (Ministry for Social and Affordable Accommodation, 2022, p. 55, para. 2).

Notwithstanding the surge in property prices, the country's economy continued to flourish, even due to the provision of free universal childcare for parents who are either in employment and/or training. Heralded as one of the most innovative economic measures, Malta is one of the few countries in the world that offers this service free of charge as most EU countries operate such services on a subsidised system (Grima, 2022). This policy contradicts

Schumpeter's (1942) sceptical stance about the innovative nature of government intervention because it has encouraged women to remain or return to the labour force (Rapa, 2019), leading to an increase in female labour participation in Malta, which in 2022, stood at 74% compared to the EU's 69% (JobsPlus, 2023). Regardless, economist Stephanie Fabri believes that this measure has likely prevented Malta's fertility rate from declining even more (Farrugia, 2019). This indicates that this service, although innovative, has been partly successful because, on one hand, it increased female emancipation in the workforce, therefore sustaining the economy, but, on the other, it failed to encourage people to have more children while being in the workforce.

However, Malta's low fertility rate may not be a big issue after all. Economist Marie Briguglio casts doubts on the validity of this reality, and argues that, from this low statistic, the country can have a stronger female workforce as more women continue pursuing their careers (Tihn, 2023). Briguglio's position is reflected in literature because, while children may provide a sense of belonging, Deater-Deckard (1998) and Holly et al. (2019) argue that children also create stress on parents, impacting their overall well-being as they struggle financially, have less time to earn money and endure less sleep and personal time. For Briguglio, "these factors must be considered as we cannot continue to repeat the cliché of 2.4 kids as the endgame for well-being" (Tihn, 2023, para. 6). Conversely, the Archbishop of Malta, Charles J. Scicluna, made an observation fit for an economist. During the 2023 Christmas Message for the nation, Scicluna stated that "l-ulied huma barka u huma wkoll is-saħħa tal-pajjiż u l-futur tiegħu. Aħna, wara kollox, qegħdin niċċelebraw it-twelid ta' tarbija. Nawgura li f'dan l-anniversarju importanti għal Malta tagħna — 60 anniversarju ta' stat sovran u 50 anniversarju mir-Repubblika — aħna jkollna wkoll barka ta' wlied ġodda, ta' ġenerazzjonijiet ġodda, ta' ċittadini Maltin u Għawdxin" [1] (Arċidjoċesi ta' Malta, 2023, para. 9).

[1] "Children are a blessing and they are also the strength of the country and its future. We are, after all, celebrating the birth of a baby. I hope that on this important anniversary for Malta – 60th anniversary of a sovereign state and 50th anniversary as a Republic – we will also have the blessing of new children, new generations, of Maltese and Gozitan citizens" (Arċidjoċesi ta' Malta, 2023, para. 9).

Despite registering record low unemployment levels and a stable labour market (Fitch Ratings, 2023), mainly due to large inflows of foreign workers, Malta still remains the most densely populated country in the EU, with 1,721 residents per square kilometre (NSO, 2021), and to maintain economic growth, the country would still need large inflows of economic immigrants. This, though, could come at a political price for the party in government because most Maltese are not happy with the current population size (Schembri Orland, 2023), and according to the Administrative Secretary of the Archdiocese of Malta, this is reducing people's quality of life (Balzan, 2022). Ignoring the need for sustainable planning beyond electoral cycles indicates a significant oversight in governance, potentially compromising Malta's socio-economic stability and its ability to harness human capital effectively.

6.6 Drivers of Fertility Decisions among Maltese Families

Through a comprehensive analysis of both quantitative and qualitative data, the second research question identified factors influencing Maltese people regarding childbearing (Figure 6.4).

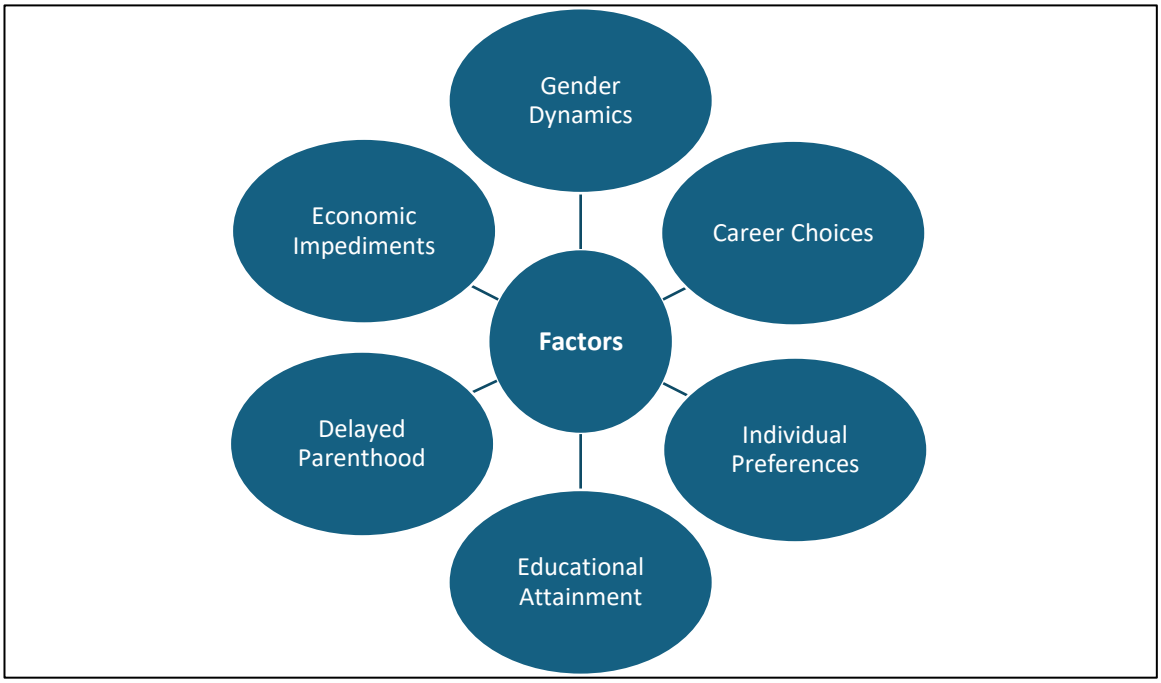

Figure 6.4 – Factors influencing childbearing choices of Maltese families

6.7 Gender Dynamics and Fertility Choices

Both the telephone survey and focus group discussion revealed that gender significantly influences decisions about childbearing, underscoring the complex determinants between gender, societal norms, and fertility choices.

This assertion is reflected in McDonald's (2000) gender equity theory of fertility transition, which posits that disparities in gender equity in family and individual domains can influence fertility rates. McDonald (2000) argues that higher gender equity in individual-oriented institutions (like education and employment) versus family-oriented ones may lead to lower fertility as women manoeuvre the challenges of balancing career aspirations with traditional family roles. The need for supported measures was strongly echoed during the focus group, with participants claiming that women are getting dismissed from work when they become pregnant.

> *"Do not get rid of people because they are pregnant. They are not less productive. Give them more time or flexibility, and you reap rewards by having pregnant mothers at your company." (KNŻ)*

Rindfuss et al. (2007) explored how gendered expectations and roles within societies impact fertility rates. When women have access to equal opportunities and support for both career and family life, work and family balance becomes more manageable, potentially leading to higher fertility rates. This reality is being grasped by employers.

> *"Companies are trying to find ways and means to balance productivity with flexibility." (MEA)*

Oláh and Bernhardt (2008) focus on gender equity in the family and its effects on fertility, arguing that a more equitable distribution of domestic work and childcare responsibilities between partners is associated with higher fertility intentions and behaviours. The lack of family partnership initiatives was also highlighted in the focus group.

> *"I think men should take more responsibility for the raising of children. I think the*

burden still falls more heavily on women." (MEA)

Goldscheider, Bernhardt and Lappegård (2015) believe that, as societies move towards more equal gender relations, fertility rates may stabilise, or even increase, as couples find it easier to balance childbearing with other life goals. The issue of work-life balance was a recurring theme in the focus group.

> *"If we have much more time on our hands, it will help a lot of parents and families not to have more children only, but much more time with them." (Caritas Malta)*

Gauthier (2007) argues that, while financial incentives, such as child allowances and parental leave benefits, can play a role in supporting families, they are often insufficient on their own to significantly influence fertility decisions. This aligns with opinions expressed in the focus group.

> *"The government can finance various measures and social benefits only that much, but if we do not have work-life balance, that is a big problem." (MSPC)*

These contributions underline the complexity of gender as a determinant of fertility decisions, indicating that both societal norms around gender roles and practical considerations of gender equality in the labour market and within households significantly influence childbearing choices.

6.8 Employment and Fertility Decisions: Balancing Work-Life Dynamics

The association between labour status and fertility decisions was highlighted by the quantitative data, where those not in the labour force are more likely to have children than those who are employed or still studying. The study's focus group analysis touched on themes closely related to the findings of Matysiak and Vignoli (2008) on the impact of employment on fertility decisions. The participants highlighted flexible working arrangements and supportive workplace cultures in facilitating family life, underscoring the dual role of employment as both barrier and enabler of family expansion.

"The infrastructure, such as free childcare services, which, I believe, are a big help, especially if parents need to balance work and family life." (MEA)

Access to childcare and the timing of first births were investigated by Rindfuss et al. (2007), underscoring the importance of supportive work-life balance policies in facilitating family expansion among working individuals. Although all focus group participants agreed that the provision of free childcare in Malta helps families with children, some opined that its effectiveness on fertility decisions is minimal.

"I think we should move away from free childcare services, children's allowance, and housing benefits. They help, but do they really help? Not really, in my opinion." (KNŻ)

The participants took it a step further by claiming that employers should not rest on free childcare services, but should be innovative themselves by providing working parents more remote-working and flexible hours thereby potentially encouraging higher fertility rates among working professionals (Chung and Van der Lippe, 2020).

"By adopting this measure, employers are showing parents that they are putting their lives and the lives of their children as priority, instead of work, work, work." (KNŻ)

However, the participants explained that society should move away from an economic model which is pushing people, especially women, not to stay at home, but to be more productive and efficient. This argument aligns with Gornick and Meyers' (2003) conclusions that an economic model that values productivity can make it challenging for individuals to reconcile their professional and family aspirations.

"Before, families were successful if they had ten children. Now, we are successful by how much material things we possess." (GWU)

The situation in Malta exemplifies the delicate balance between leveraging migration to support economic needs and ensuring social cohesion and sustainable demographic policies. Esping-Andersen (2009) emphasises the significance of social investment strategies that focus on enhancing human capital and labour market participation as a means to counteract

the adverse effects of demographic ageing. This approach aligns with the insights gathered from the focus group, where reliance on TCNs emphasises the urgent need for a sustainable labour force strategy.

> *"If you see it from that perspective, it's very inefficient to have children. This is why we import foreign labour. You have someone ready to work as needed and also disposable. We need to think in a sustainable manner." (Humanists Malta)*

These quantitative and qualitative findings align with Neyer and Andersson's (2008) study, suggesting that a wide-ranging policy approach that addresses economic, labour market, and gender equity concerns could help to mitigate the negative fertility trends.

6.9 Individual Preferences Shaping Family Size Decisions

The quantitative findings, that personal decision plays a significant role in family size, especially among those with two children, is supported by literature. The Theory of Planned Behavior (TPB), proposed by Ajzen (1991), suggests that individuals make decisions about the number of children they wish to have, indicating that such decisions are not solely based on external factors, but also on personal preferences.

Lesthaeghe's (2010) work on the SDT theory provides insight into broader societal shifts towards higher individualism and self-actualisation, which have profound implications for fertility choices. The SDT suggests that, as societies become more affluent and individualistic, fertility rates decline and family sizes become smaller in pursuit of personal and professional goals. This also aligns with opinions expressed during the focus group.

"The first-time buyers scheme gives a grant of €1,000 for 10 years so it's €10,000 in total but we're realizing that half of the applicants are single persons." (Housing Authority)

This phenomenon can be attributed to several factors, amongst which are the competing time demands associated with activities that, the younger generations — specifically Generations

Y and Z - who presently bear the reproductive responsibility, aspire to engage in throughout their lives (Testa and Rampazzo, 2018, Testa and Bolano, 2019).

> *"If one is used to travelling more often, going out, socialising, becoming a parent entails added responsibilities, where one would have to give up certain aspects of the previous lifestyle." (MEA)*

From the focus group discussion, it emerged that families, even those coming from a strong socio-economic background, seem to be reluctant to have big families. In fact, Aassve, Billari and Pessin (2016) maintain that the desire for personal freedom, career advancement, and high costs associated with child-rearing in modern societies deter individuals from opting for larger families.

> *"They have high aspirations for their children [...] it seems that they are expecting to provide luxury, rather than a decent lifestyle." (Judicial Vicar)*

Balbo, Billari and Mills (2013) explain that decisions about having children are not made in isolation, but are affected by expectations within one's own social network, including family, friends, and wider societal influences. This reality also emerges from the focus group wherein participants dwelled on the role that the extended family - mostly grandparents - used to have in raising their grandchildren.

> *"The extended family is not such a great support anymore because grandparents work, or they are much older, and cannot look after grandchildren." (Ta' Cana Movement)*

The data gathered aligns with Miller's (2011) research on childbearing motivations that further elaborates on how personal and societal factors relate in the decision-making process for family size.

6.10 Educational Attainment and Its Impact on Fertility Choice

The collected quantitative data finds that education is a significant determinant of fertility decisions, influencing when and how many children individuals decide to have, offering insights on the complex features at play. This is reminiscent of Rindfuss, Morgan and Offutt's (1996) study that concludes that women with higher education levels tend to delay marriage and childbearing. Similarly, individuals with higher education levels may choose to have fewer children or delay childbearing (Arthur and Becker, 1982). This reality was mirrored in the focus group by various participants.

> *"Why should I forfeit my career to focus on children? I studied so much, I invested so much in my skills and abilities." (GWU)*

However, Morgan (2003) challenges the straightforward assumption that higher education always leads to lower fertility. Similarly, McDonald (2006) argues that, while education is a significant factor in fertility decisions, cultural and social norms can exert a stronger influence in certain societies. To this effect, cultural and religious beliefs may have a degree of influence on couples' decisions to have children and the number of children they have as data collected shows that people over 65 had the highest mean number of children, indicating that traditional values and religious doctrines might have affected people when Malta was far less secularised. In fact, Ellison et al. (2000) and McQuillan (2004) show that religious affiliation and religiosity are strongly associated with higher fertility rates. This clearly came out during the focus group session.

> *"I still remember older families, that they would have many children, and, perhaps, they did so because of religion." (Judicial Vicar)*

The impact of educational attainment on fertility choices in Malta is intertwined with a broader spectrum of economic, social, cultural, and existential factors. This highlights the necessity for a holistic approach in policy formulation and societal support mechanisms.

6.11 Exploring the Intentions behind Delayed Parenthood

The decision to delay parenthood is becoming increasingly prevalent among adults in Malta. Figure 6.5 shows that the average age of parents giving birth is increasing while the total fertility rate is decreasing.

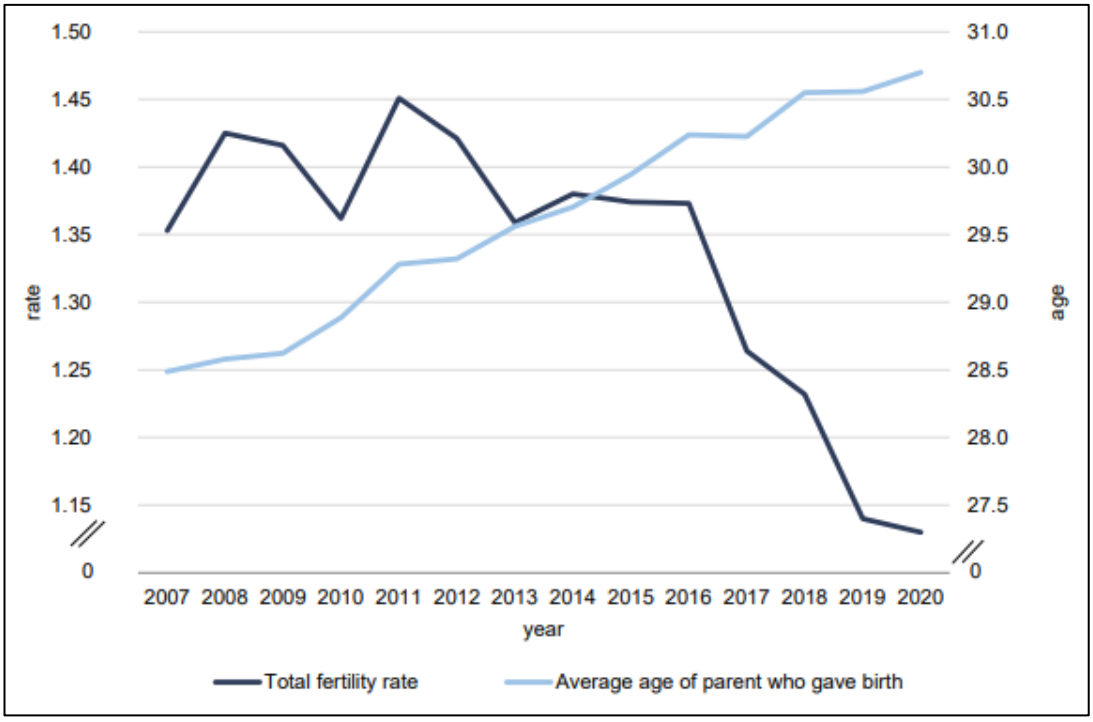

Figure 6.5 – Total Fertility Rate (TFR) and average age of parent who gave birth by year (NSO, 2021)

This is also evident from the quantitative data gathered on participants who do not yet have children, but are planning to do so in the future. The intention to have children in the future, particularly among individuals in their late twenties to early thirties, aligns with findings from researchers like Billari, Philipov and Testa (2009), who note the increasing age at first childbirth across Europe. This trail of thought was also demonstrated during the focus group.

> *"The fact that people are entering the labour force at a later stage is also postponing the date when they can have children." (GWU)*

The delay in having children could be linked to the outcome of the recently published housing affordability report, where Cassar et al. (2023) outline that the average price of housing units in Malta between 2021-2023 increased by 15.4% to an average of €225,000. This means that the sustained increase in housing prices continues to push upwards the income threshold, below which individuals become ineligible for a loan, where by early 2023, individuals with an annual income of less than €25,000 became ineligible for a loan on the average-priced housing unit of €225,000 (Cassar et al., 2023). In essence, the country's economic model based on the increase in population, raised property demands, fuelling property prices, thereby making it more difficult for youngsters to save money and have a level of income to finance their first house through a bank loan. Therefore, this is pushing youngsters to delay having their first child beyond their 30s, a reality that also emerged in the focus group.

> *"The State would need to provide more assistance to help youngsters make ends meet." (Housing Authority)*

Mulder and Billari (2010) suggest that secure and affordable housing is essential for raising a family because owning a home can encourage couples to have more children (Aassve, Meroni and Pronzato, 2012). However, this is not straightforward in Malta.

> *"The reality is that properties are so expensive and youths are finding it hard to get a bank loan." (KNŻ)*

The decision to have children is influenced by a matrix of factors that include, but are not limited to, economic stability, cultural norms, personal aspirations, and societal values. Understanding these factors is crucial for policymakers and society at large to address the challenges of low fertility rates effectively.

6.12 Policy Implications and Future Directions

The third research question was explored through a focus group discussion, which identified viable policy options (Figure 6.6) that could potentially reverse the declining fertility trend and ensure the demographic sustainability.

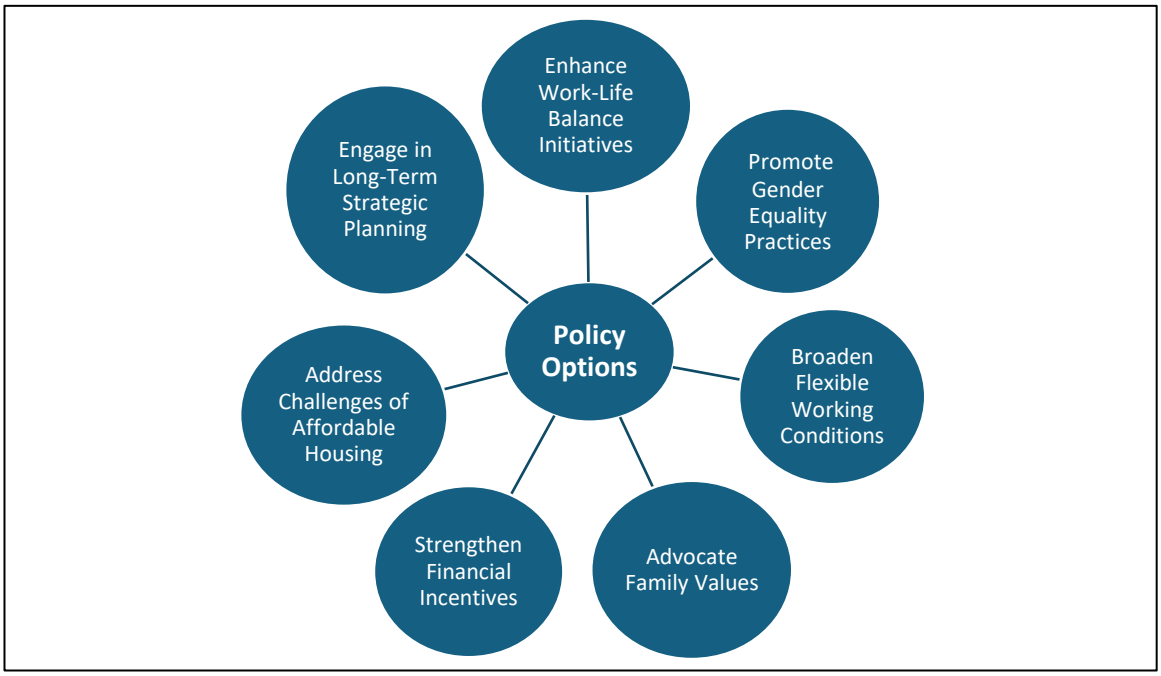

Figure 6.6 - Policy options resulting from the focus group

6.13 Work-Life Balance and Gender Equality

Rindfuss and Brewster (1996) contend that flexible work arrangements can significantly impact individuals' decisions to have children by reducing the work-family conflict. This approach aligns with Esping-Andersen's (2009) advocacy for social investment strategies that support families, while contributing to economic sustainability. This perspective emphasises investment in policies that enhance human capital and support work-family balance as a means of achieving sustainable economic growth and higher fertility rates.

“More flexible hours at work would be helpful, and the most important thing is to include the father, having the mother and father with the same amount of hours, and not the mother having more parental leave.” (KNŻ)

Moreover, emphasis on changing gender roles and enhancing work-life balance is foundational in addressing fertility concerns. McDonald (2000) emphasises the role of gender equality at the workplace and at home in promoting higher fertility rates, suggesting that, when men share more equally in childcare and domestic tasks, couples are more likely to have more children. The participants emphasised the imperative of redefining work-life balance to prioritise individuals' well-being over the prevailing cultural norm of boundless work.

"We need to challenge and change the traditional gender roles, making it equally viable for both men and women to balance work and family life." (MSPC)

This approach aligns with Musick et al. (2016) findings that support the notion that workplace flexibility, including options for telecommuting, flexible work hours and part-time opportunities, can have a positive impact on individuals' decisions to have children because they can reduce work-family conflicts (Mills et al., 2011). This necessity was emphasised by the focus group participants, expressing dissatisfaction with current leave policies in terms of length and compensation. The participants suggested extending maternity and paternity leaves, broadening parental leave, and introducing specific sick child leave for working parents.

“If people have more work flexibility, if they can take time-off if their children are sick, if they have more parental leave to be taken over a period of one or two years, these can have a positive impact on fertility rates.” (Ta’ Cana Movement)

“Four-day work week or remote working, which is very common internationally, but, in Malta, we are still very against it.” (KNŻ)

This policy approach is supported by Rindfuss and Brewster’s (1996) findings, that workplace policies directly impact individuals' ability to balance family and career thereby influencing their fertility decisions. In fact, the success of such policies in Nordic countries, where work-life

balance is highly valued and supported (Ellingsæter and Leira, 2006), suggests a potential pathway for Malta to consider.

6.14 Educational Initiatives and Promotion of Family Values

Implementing educational programmes that promote family values could counteract some of the individualistic trends that discourage family formation. This resonates with Balbo, Billari and Mills's (2013) work that societal norms and values shape the choice to have children. This assertion was echoed by the focus group participants.

> *"A societal shift towards valuing family life starts with education from a young age, integrating family values into the school curriculum." (Judicial Vicar)*

> *"We need to shift our values and that life is not solely work and to have a career. So, if we manage as a society to evolve our values, automatically, children will come." (Humanists Malta)*

On another note, the participants believe that through education, the country must embrace creativity and innovation, aligning with broader trends of economic development and globalisation.

> *"Shifting towards higher value-added capital-intensive sectors, rather than relying on labour intensive areas which makes Malta more prone to importing labour." (MEA)*

This strategic shift towards higher value-added sectors is supported by Schultz (1961) and Becker (1964), who emphasise investing in human capital to enhance productivity and innovation.

6.15 Economic Incentives and Affordable Housing

Economic incentives, such as children's allowances and subsidised childcare, have been analysed extensively in the literature. Gauthier (2007) and Neyer and Andersson (2008) highlight comprehensive family policies that provide financial support, reduce the cost of childbearing and improve the compatibility of work and family life. This was a persistent thought during the focus group discussion.

> *“Increase wages to afford more children.” (GWU)*

> *“Wages need to be re-thought in Malta, especially the minimum wage.” (Caritas Malta)*

> *“Fiscal incentives do work if they are part of an overall strategy. They may not work on their own, but, I think, as a part of a holistic strategy, they can be more effective.” (MEA)*

The call for a re-evaluation of economic and labour market structures to support families aligns with the social investment perspective advocated by Esping-Andersen (2009) and proposals put forward by the research participants in the focus group.

> *“Adjusting our economic model to prioritise work-life balance and family well-being will require innovative policies, including flexible work arrangements and support for parents." (GWU)*

Addressing the challenges of housing affordability is essential for supporting families. Mulder and Billari (2010) emphasise that the high cost of housing is a significant barrier to family formation, particularly for young couples.

> *“More policies that are aligned with the changes that we are going through and will go through. As the Housing Authority, we will remain up to date as well.” (Housing Authority)*

> *“I believe that the first-buyers scheme should help, particularly if it is somehow coupled with better improvement in financial literacy and money-management.” (MSPC)*

The focus group discussions highlighted work-life balance, gender equality, flexible work, educational initiatives for family values, and economic incentives as key to addressing Malta's low fertility rates, suggesting a multifaceted policy approach for effective solutions centred around the betterment of the well-being of families and long-term strategic planning.

6.16 Conclusion

The discussion chapter addressed Malta's low fertility rate's economic impact, combining secondary, quantitative, and qualitative data to explore family planning and demographic transitions. The concluding chapter summarises the key research findings, discussed the research’s limitations, put forward recommendations and suggest ideas for further research.

7. Conclusion

This chapter summarises the conclusions from the analysis of secondary data and the triangulation method, addressing the main research questions and suggesting future research directions. It aims to consolidate the study's findings, discuss their implications, and recommend ways forward for both scholarly investigation and practical application.

7.1 Key Findings

This study conducted a thorough investigation into the economic consequences of declining fertility rates in Malta, synthesised statistical data and thematic analysis to describe the complex factors influencing fertility decisions and proposed potential policy solutions. The research revealed significant economic implications, such as labour market shifts, social security system burdens, and threats to long-term economic viability.

The telephone survey provided empirical evidence of the various influences on Maltese individuals' childbearing decisions, highlighting economic constraints, work-life balance challenges, and societal pressures as key determinants. Themes, such as the economic burden of child-rearing, the challenge of achieving a satisfactory work-life balance, and the role of societal and familial expectations, emerged as significant determinants of fertility decisions.

Comparative analysis, although briefly touched upon, offered valuable insights on how different policy interventions in countries facing similar fertility challenges have yielded varied outcomes. This comparative perspective stresses the importance of tailoring policy interventions to the specific socio-economic and cultural context of Malta.

These findings advocate for a composite policy approach that addresses economic barriers, supports work-life balance, and alters societal norms to encourage higher fertility rates.

7.2 Limitations

The representativeness of the study's sample is crucial for ensuring that the findings are applicable to the broader population. The challenge of achieving a truly representative sample is a common limitation in social science research. Indeed, Groves et al. (2009) discuss the complexities of sampling methods and their impact on the validity of research conclusions.

The study's capacity to delve into the rich experiences of individuals through its qualitative component is limited by methodological constraints. Qualitative research's depth is critical for understanding the meanings and interpretations individuals ascribe to their experiences (Maxwell, 2012). Expanding qualitative methodologies, such as in-depth interviews or ethnographic approaches, could uncover the layers of personal and cultural factors influencing fertility decisions.

An examination of Maltese family support policies within an international context could provide a broader perspective on effective fertility interventions. Thévenon (2011) emphasises the value of comparative policy analysis in identifying best practices and innovative policy solutions across different national settings.

A deeper economic analysis of the implications of demographic shifts is vital for formulating sustainable policy responses. An in-depth examination of the specific economic factors influencing fertility in Malta, such as housing affordability and labour market conditions, could provide valuable policy insights.

7.3 Recommendations

Based on these results, the following recommendations are provided for policymakers to address this challenge:

- ✓ **Enhance Work-Life Balance Initiatives:** Implement and expand policies that support work-life balance, such as, flexible working hours, telecommuting options, and increased paternal leave.
- ✓ **Promote Gender Equality in Parenting:** Encourage equal parenting roles through policies that support shared parental leave and incentivise paternal involvement in child-rearing.
- ✓ **Fertility and Family Planning Education:** Implement educational programmes focused on fertility and family planning, targeting both adults and young people.
- ✓ **Financial Incentives for Families:** Consider revising and, possibly, enhancing financial incentives for families with children.
- ✓ **Address Housing Affordability:** Develop targeted housing policies that increase the accessibility of affordable housing for young couples.
- ✓ **Long-Term Strategic Planning:** Engage in long-term strategic planning that considers demographic trends and their implications for the economy, healthcare, education, and social services.
- ✓ **Research and Monitoring:** Continue to invest in research on fertility trends and the impact of family support policies.

7.4 Ideas for Further Research

As Malta continues to experience significant demographic shifts, largely driven by the inflow of foreign nationals, understanding the traits and impacts of this foreign population is crucial.

A longitudinal study on the impact of work-life balance can be conducted to assess the long-term effects of work-life balance policies on fertility decisions. Additionally, a comparative study between Malta and other countries with similar demographic challenges, but differing policy approaches, can be considered.

An economic analysis of child-rearing costs can be conducted to quantify the direct and indirect costs of raising children in Malta. Similarly, an investigation on the impact of housing and urban development policies on family formation and fertility rates in Malta can be explored.

A study on the role of technology in shaping fertility decisions can be considered, including the use of social media, fertility tracking apps, and online support networks. Lastly, innovative research entails an investigation into the relationship between mental health and decisions about parenthood.

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List of Appendices

Appendix A - Anonymous Questionnaire

1. Gender:
   - Male
   - Female

2. Age:
   - 16-25
   - 26-35
   - 36-45
   - 46-55
   - 56-65
   - 66+

3. Where do you live?

4. You are an/a:
   - Employee
   - Student
   - Stay-at-home woman
   - Unemployed

5. What is your income bracket?

- 0%
- 15%
- 25%
- 35%

6. Married:

- Yes
- No
- Separated/Divorced/Annulled
- Widow/Widower

7. What is your level of education?

- Primary
- Secondary
- Post-secondary (Sixth Form, MCAST)
- Tertiary (University, MCAST Degree)

8. Do you have children?

9. If yes (Q8), how many children do you have?

10. Why did you choose to have a child, two, three or more children? (it is important to indicate the number of children that you have in the previous question)

11. If no (Q8), you do not have children because:

- Do not have any yet but planning to
- Wished that you had but circumstances did not make it possible
- Personal reasons
- Other reason/s (please specify)

12. If it was for ‘personal reasons’ that you did not have children, what was the main reason that led you to decide this way?

Appendix B - Kwestjonarju Anonimu

1. Sess:
   - Raġel
   - Mara

2. Età:
   - 16-25
   - 26-35
   - 36-45
   - 46 – 55
   - 56 – 65
   - 66+

3. F’liem lokalità toqgħod?

4. Inti:
   - Ħaddiem/a
   - Student/a
   - Mara tad-dar
   - Ma taħdimx

- Pensjonant/a

5. X’inhu l-income tax bracket tiegħek?

- 0%
- 15%
- 25%
- 35%

6. Miżżewweġ/ġa:

- Iva
- Le
- Separat/Divorzjat/Annullat/a
- Armel/Armla

7. X’inhu livell ta’ edukazzjoni tiegħek?

- Primarja
- Sekondarja
- Post-sekondarja (Sixth Form, MCAST)
- Terzjarju (Università, Degree mill-MCAST)

8. Għandek tfal?

- Iva
- Le

9. Jekk iva (Q8), kemm għandek tfal?

10. Għaliex għażilt li jkollok wild wieħed, żewġ ulied, tlitt ulied jew iktar? (importanti tniżżel kemm għandek tfal fil-mistoqsija ta' qabel)

11. Jekk le (Q8), m'għandekx tfal għax:

- Għad m'għandekx s'issa, imma tippjana li jkollok
- Xtaqt li jkollok imma ċ-ċirkustanzi ma ppermettewx
- Deċiżjoni personali li ma jkollokx tfal
- Raġunijiet oħra (jekk jogħġbok speċifika)

12. Jekk kienet 'deċiżjoni personali', x'kienet ir-raġuni ewlenija li wasslitek għal din id-deċiżjoni?

Appendix C - Focus Group Questions

1. Why do you think that Maltese families are choosing not to have children?

2. What has changed from past times when Maltese were known to have children?

3. Do you think that measures like free childcare services, children's allowance, housing benefits for first time buyers and others are being effective or their effect on whether the Maltese have children is minimal?

4. What economic and demographic repercussions will Malta face if it continues to register low fertility rates?

5. What additional policies should the country adopt to address the challenge of low fertility rates?

Appendix D – Domandi għall-Focus Group

1. Għaliex taħsbu li l-Maltin mhux jagħżlu li jkollhom tfal?

2. Xi nbidel minn żminijiet oħrajn meta l-Maltin kienu magħrufa li jkollhom ħafna t-tfal?

3. Il-miżuri bħaċ-childcare centre b'xejn, iċ-childrens' allowance, benefiċċji għal min jixtri l-ewwel proprjetà, taħsbu li qed ikunu effettivi jew l-effett tagħhom fuq jekk il-Maltin ikollhomx tfal huwa minimu?

4. X'taħsbu li se jkunu r-riperkussjonijiet ekonomiċi tal-pajjiż u fuq is-sostenibbiltà tal-popolazzjoni Maltin jekk tkompli tippersisti x-xejra ta' rata ta' fertilità baxxa fil-pajjiż?

5. X'miżuri oħra għandhom jiddaħħlu fil-pajjiż biex titjieb din il-qagħda ta' fertilità baxxa f'Malta?

Appendix E - Questionnaire Consent – Anonymous Data Collection

My name is Glen Anthony Falzon and I am currently reading for a Master of Science in Public Policy & Strategic Management at the University of Malta. I am currently conducting research entitled ‘Malta's low fertility rate: The implications for the political economy of the smallest EU member state’. It aims to establish policies aimed at increasing fertility rates in Malta.

The survey that you have been invited to complete forms part of this study. In the survey, participants will be asked questions concerning whether they have or do not have children, and why. Participants can choose anytime to skip any questions they would not like to answer, particularly in view of the questions on ‘personal reasons’ of why they do not or did not have children. The survey will take you approximately 5 minutes to complete. Any data collected from this survey will be used solely for purposes of this study. There are no direct benefits in taking part.

Participation in this study is entirely voluntary; in other words, you are free to accept or refuse to participate, without needing to give a reason. You are also free to withdraw from the study at any time, without needing to provide any explanation and without any negative repercussions for you. Should you choose to withdraw, any data collected from your interview will be erased immediately.

At no point will you be asked to provide your name or any other personal data that may lead to you being identified. All data collected will be erased on completion of the study by not later than June 2025. If you wish to participate in this study, please provide verbal consent or otherwise.

Should you have any questions or concerns, please do not hesitate to contact me by e-mail glen.falzon.11@um.edu.mt, or may also contact my supervisor Dr Mario Thomas Vassallo over the phone: 2340 2728 or via email mario.t.vassallo@um.edu.mt or my co-supervisor Dr Vincent Marmara via email vincent.marmara@um.edu.mt.

Regards,

Glen Anthony Falzon

Appendix F - Kunsens għall-Kwestjonarju – Ġbir ta' Data B'Mod Anonimu

Jien jisimni Glen Anthony Falzon u bħalissa qed nagħmel kors tal-Master's of Science fil-Politika Pubblika u l-Immaniġġjar Strateġiku fl-Università ta' Malta. Bħalissa, qed naħdem fuq riċerka, bit-titlu 'Malta's low fertility rate: The implications for the political economy of the smallest EU member state', maħsuba biex tistabilixxi policies biex tiżdied ir-rata ta' fertilità f'Malta. Is-sondaġġ li ġejt mistieden biex tieħu sehem jifforma parti minn din ir-riċerka.

Is-sondaġġ se joħodlok madwar 5 minuti biex twieġbu. F'dan is-sondaġġ, il-parteċipanti se jiġu mistoqsija jekk għandhom jew m'għandhomx tfal u għaliex. Il-parteċipanti jistgħu, xħin u meta jridu, jagħżlu huma li ma jridux iwieġbu kwalunkwe mistoqsija b'mod partikolari mistoqsijiet dwar ir-raġunijiet personali għad-deċiżjoni tal-parteċipanti dwar l-għażla li ma jkollhomx tfal. Kull data li se tinġabar minn dan l-istħarriġ se tintuża esklussivament għal dan l-istudju. Bħala parteċipant, m'hemm l-ebda benefiċċji marbuta mal-parteċipazzjoni f'dan is-sondaġġ.

Il-parteċipazzjoni f'dan l-istudju li totalment volantarja, fi kliem ieħor inti fil-libertà li taċċetta jew tirrifjuta li tipparteċipa f'dan l-istudju mingħajr ma tagħti raġuni. Inti wkoll fil-libertà li x'ħin u meta trid tieqaf twieġeb il-mistoqsijiet mingħajr m'għandekx bżonn tipprovdi raġuni u mingħajr riperkussjonijiet negattivi fuqek. Jekk għall-ewwel tagħżel li tieħu sehem f'dan l-istudju u jerġa' jibdielek, kwalunkwe informazzjoni li tkun laħqet inġabret titħassar u tinqered b'mod immedjat. F'dan is-sondaġġ, fl-ebda punt jew mument m'inti se tintalab li tagħti ismek, kunjomok jew kwalunkwe data personali li tista' tidentifikak. L-informazzjoni kollha li se tinġabar se titħassar sa mhux iktar tard minn Ġunju 2025. Jekk tixtieq tipparteċipa f'dan l-istudju, jekk jogħġbok agħti l-kunsens verbali tiegħek.

Waqt li nirringrazzjak tal-ħin u l-kunsiderazzjoni tiegħek, infakkrek li jekk għandek xi mistoqsijiet jew tħassib, tiddejjaqx tikkuntattjani fuq l-email glen.falzon.11@um.edu.mt. Tista' tikkuntattja wkoll lis-supervisor tiegħi Dr Mario Thomas Vassallo fuq in-numru 2340 2728 jew fuq l-email mario.t.vassallo@um.edu.mt jew lill-co-supervisor tiegħi Dr Vincent Marmarà fuq l-email vincent.marmara@um.edu.mt.

Grazzi,

Glen Anthony Falzon

Appendix G - Information letter

Dear Sir/Madam,

My name is Glen Anthony Falzon and I am a student at the University of Malta, presently reading for a Master of Science in Public Policy and Strategic Management. I am presently conducting a research study for my dissertation titled ‘Malta's low fertility rate: The implications for the political economy of the smallest EU member state’. This is being supervised by Prof. Mario Thomas Vassallo and Dr Vincent Marmara’. This letter is an invitation to participate in this study. Below you will find information about the study and about what your involvement would entail, should you decide to take part.

The aim of my study is to establish policies aimed at increasing fertility rates in Malta. Your participation in this study would help contribute to a better understanding of the reasons leading to this reality and what can be done to reverse this trend. Any data collected from this research will be used solely for purposes of this study. Should you choose to participate, you will be asked to take part in a focus-group setting to answer a set of open-ended questions about the challenges posed by low fertility rates in Malta and what are the solutions to address this challenge.

Data collected will be treated confidentially and will only be accessible to myself as a researcher solely for research purposes. Your identity will only be disclosed in the research outputs/publications if you consent. Participation in this study is entirely voluntary; in other words, you are free to accept or refuse to participate, without needing to give a reason. You are also free to withdraw from the study at any time, without needing to provide any explanation and without any negative repercussions for you.

Should you choose to withdraw, any data collected from your interview will be erased as long as this is technically possible (for example, before it is anonymised or published), unless erasure of data would render impossible or seriously impair achievement of the research objectives, in which case it shall be retained in an anonymised form. If you choose to

participate, please note that there are no direct benefits to you. Your participation does not entail any known or anticipated risks.

Please also note that, as a participant, you have the right under the General Data Protection Regulation (GDPR) and national legislation to access, rectify and where applicable ask for the data concerning you to be erased. All data collected will be destroyed by not later than June 2025. A copy of this information sheet is being provided for you to keep and for future reference.

Should you have any questions or concerns, please do not hesitate to contact me by e-mail glen.falzon.11@um.edu.mt; you can also contact my supervisor over the phone: 2340 2728 or via email mario.t.vassallo@um.edu.mt.

Sincerely,

Glen Anthony Falzon

Dr Mario Thomas Vassallo

glen.falzon.11@um.edu.mt

mario.t.vassallo@um.edu.mt

Appendix H - Ittra ta’ Tagħrif

Għażiż/a Sinjur/a,

Jiena Glen Anthony Falzon, student fl-Università ta’ Malta, u bħalissa qed insegwi l-kors ta' Master of Science in Public Policy and Strategic Management. It-titlu tar-riċerka hu ‘Malta's low fertility rate: The implications for the political economy of the smallest EU member state’. It-tuturi tiegħi huma Prof. Mario Thomas Vassallo u Dr Vincent Marmara’. B’din l-ittra nixtieq nistiednek tipparteċipa fir-riċerka. Hawn taħt issib aktar informazzjoni fuq l-istudju li qed nagħmel u fuq xi jkun l-involviment tiegħek jekk tiddeċiedi li tieħu sehem.

L-għan tal-istudju hu li jitfasslu policies li kapaċi jżidu r-rata ta' fertilità f'Malta. Sehmek jgħin biex ikun hawn iżjed għarfien dwar ir-raġunijiet għaliex f'Malta hawn rati baxxi ta' fertilità u x'għandhom ikunu s-soluzzjonijiet li jindirizzaw din l-isfida. L-informazzjoni kollha li tinġabar fir-riċerka tintuża biss għall-fini ta’ dan l-istudju. Jekk taqbel li tipparteċipa, tintalab tieħu sehem f'focus group biex twieġeb sensiela ta' mistoqsijiet open-ended dwar l-isfidi li qed iġġib magħha r-rata baxxa ta' fertilità f'Malta u x'għandhom ikunu s-soluzzjonijiet biex jindirizzaw din l-isfida.

L-informazzjoni miġbura se tibqa' kunfidenzjali u se jkolli aċċess għaliha jien biss bħala riċerkaturi għall-finijiet ta' din ir-riċerka. L-identità tiegħek se tkun ippubblikata biss fl-eżitu ta’ din ir-riċerka u/jew pubblikazzjonijiet jekk tagħti l-kunsens tiegħek. Il-parteċipazzjoni tiegħek f’dan l-istudju hi għalkollox volontarja; fi kliem ieħor, inti liberu/a li taċċetta jew tirrifjuta li tieħu sehem, mingħajr ma tagħti raġuni. Inti wkoll liberu/a li twaqqaf il-parteċipazzjoni tiegħek fl-istudju meta tixtieq, mingħajr ma jkollok tagħti spjegazzjoni u mingħajr ebda riperkussjoni. Jekk tagħżel li tirtira mir-riċerka, l-informazzjoni li tkun laħqet ittieħdet fl-intervista miegħek titħassar dment li dan ikun teknikament possibbli (ngħidu aħna, qabel ma tiġi anonimizzata jew ippubblikata), u sakemm l-għanijiet tar-riċerka jkunu jistgħu jintlaħqu u ma jintlaqtux serjament. F'dak il-każ, l-informazzjoni tiegħek tintuża u tinżamm anonima.

Jekk tagħżel li tipparteċipa, jekk jogħġbok innota li m'hemm l-ebda benefiċċju dirett għalik. Il-parteċipazzjoni tiegħek ma fiha l-ebda riskju magħruf jew mistenni. Bħala parteċipant/a, għandek id-dritt, skont ir-Regolament Ġenerali dwar il-Protezzjoni tad-Data (GDPR) u l-leġiżlazzjoni nazzjonali, li taċċessa, tikkoreġi u fejn hu applikabbli, titlob li l-informazzjoni li tikkonċernak titħassar. L-informazzjoni kollha li tinġabar fl-istudju se titħassar sa mhux iktar tard minn Ġunju 2025. Qed ngħaddilek kopja ta' din l-ittra biex iżżommha bħala referenza.

Jekk ikollok xi mistoqsija, tiddejjaqx tikkuntattjani fuq glen.falzon.11@um.edu.mt. Tista' tikkuntattja wkoll lit-tutur tiegħi fuq 2340 2728 jew elettronikament fuq mario.t.vassallo@um.edu.mt.

Tislijiet,

Glen Anthony Falzon

Dr Mario Thomas Vassallo

glen.falzon.11@um.edu.mt

mario.t.vassallo@um.edu.mt

Appendix I – Caritas Malta (Signed Consent Form)

Participant's Consent Form

Malta's low fertility rate: implications on the political economy of the smallest EU member state

I, the undersigned, give my consent to take part in the study conducted by Glen Anthony Falzon. This consent form specifies the terms of my participation in this research study.

1. I have been given written and/or verbal information about the purpose of the study; I have had the opportunity to ask questions and any questions that I had were answered fully and to my satisfaction.
2. I also understand that I am free to accept to participate, or to refuse or stop participation at any time without giving any reason and without any penalty. Should I choose to participate, I may choose to decline to answer any questions asked. In the event that I choose to withdraw from the study, any data collected from me will be erased as long as this is technically possible (for example, before it is anonymised or published), unless erasure of data would render impossible or seriously impair achievement of the research objectives, in which case it shall be retained in an anonymised form.
3. I understand that I have been invited to participate in this focus group in which the researcher will ask open-ended questions to analyse Malta's low fertility rate. I am aware that the focus group will take approximately 1 hour. I understand that the focus group is to be conducted online and not in person.
4. I understand that my participation does not entail any known or anticipated risks.
5. I understand that there are no direct benefits to me from participating in this study. I also understand that this research may benefit others by establishing solutions to increase Malta's low fertility rate.
6. I understand that, under the General Data Protection Regulation (GDPR) and national legislation, I have the right to access, rectify, and where applicable, ask for the data concerning me to be erased.

7. I understand that all data collected will be erased by not later than June 2025.
8. I have been provided with a copy of the information letter and understand that I will also be given a copy of this consent form.
9. I am aware that, by marking the first-tick box below, I am giving my consent for this focus group to be audio and/or video recorded and converted to text as it has been recorded (transcribed).

MARK ONLY IF AND AS APPLICABLE

- ✓ I agree to this focus group being audio and/or video recorded being recorded and converted to text as it has been recorded (transcribed)
- o I do not agree to this focus group being audio and/or video recorded being recorded and converted to text as it has been recorded (transcribed)

10. I am aware that, by marking the first tick-box below, I am asking to review extracts from my interview transcript that the researcher would like to reproduce in research outputs, before these are published. I am also aware that I may ask for changes to be made if I consider these to be necessary.

MARK ONLY IF AND AS APPLICABLE

- ✓ I would like to review extracts of my interview transcript that the researcher would like to reproduce in research outputs before these are published.
- o I would not like to review my interview transcript extracts that the researcher would like to reproduce in research outputs before these are published.

11. I am aware that, by marking the first tick-box below, I am giving my consent for my identity and the identity of the organisation I represent to be revealed in publications, reports or presentations arising from this research, and responses I provide may be quoted directly or indirectly.

MARK ONLY IF AND AS APPLICABLE

- ✓ I agree that my identity and/or the identity of the organisation I represent may be disclosed in research outputs.
- ○ I do not agree that my identity and/or the identity of the organisation I represent may be disclosed in research outputs.

12. I am aware that focus group discussions should be considered confidential and that I should not disclose details of those participating and/or of the nature of discussions to others.

13. I am aware that the focus group will be held online; the researcher will use Zoom and will activate the *Require Encryption for 3rd party endpoints SIP/H-323* function. The researcher will video record and audio record the session.

I have read and understood the above statements and agree to participate in this study.

Name of participant: Josef Pace

Signature: _____

Date: 31/01/2024

Glen Anthony Falzon

glen.falzon.11@um.edu.mt

Dr Mario Thomas Vassallo

mario.t.vassallo@um.edu.mt

Appendix J – General Workers' Union (Signed Consent Form)

Participant's Consent Form

Malta's low fertility rate: implications on the political economy of the smallest EU member state

I, the undersigned, give my consent to take part in the study conducted by Glen Anthony Falzon. This consent form specifies the terms of my participation in this research study.

1. I have been given written and/or verbal information about the purpose of the study; I have had the opportunity to ask questions and any questions that I had were answered fully and to my satisfaction.

2. I also understand that I am free to accept to participate, or to refuse or stop participation at any time without giving any reason and without any penalty. Should I choose to participate, I may choose to decline to answer any questions asked. In the event that I choose to withdraw from the study, any data collected from me will be erased as long as this is technically possible (for example, before it is anonymised or published), unless erasure of data would render impossible or seriously impair achievement of the research objectives, in which case it shall be retained in an anonymised form.

3. I understand that I have been invited to participate in this focus group in which the researcher will ask open-ended questions to analyse Malta's low fertility rate. I am aware that the focus group will take approximately 1 hour. I understand that the focus group is to be conducted online and not in person.

4. I understand that my participation does not entail any known or anticipated risks.

5. I understand that there are no direct benefits to me from participating in this study. I also understand that this research may benefit others by establishing solutions to increase Malta's low fertility rate.

6. I understand that, under the General Data Protection Regulation (GDPR) and national legislation, I have the right to access, rectify, and where applicable, ask for the data concerning me to be erased.
7. I understand that all data collected will be erased by not later than June 2025.

8. I have been provided with a copy of the information letter and understand that I will also be given a copy of this consent form.

9. I am aware that, by marking the first-tick box below, I am giving my consent for this focus group to be audio and/or video recorded and converted to text as it has been recorded (transcribed).

MARK ONLY IF AND AS APPLICABLE

I agree to this focus group being audio and/or video recorded being recorded and converted to text as it has been recorded (transcribed)

- I do not agree to this focus group being audio and/or video recorded being recorded and converted to text as it has been recorded (transcribed)

10. I am aware that, by marking the first tick-box below, I am asking to review extracts from my interview transcript that the researcher would like to reproduce in research outputs, before these are published. I am also aware that I may ask for changes to be made if I consider these to be necessary.

MARK ONLY IF AND AS APPLICABLE

I would like to review extracts of my interview transcript that the researcher Would like to reproduce in research outputs before these are published.

- I would not like to review my interview transcript extracts that the researcher would like to reproduce in research outputs before these are published.

11. I am aware that, by marking the first tick-box below, I am giving my consent for my identity and the identity of the organisation I represent to be revealed in publications, reports or presentations arising from this research, and responses I provide may be quoted directly or indirectly.

MARK ONLY IF AND AS APPLICABLE

I agree that my identity and/or the identity of the organisation I represent may be disclosed in research outputs.

- I do not agree that my identity and/or the identity of the organisation I represent may be disclosed in research outputs.

12. I am aware that focus group discussions should be considered confidential and that I should not disclose details of those participating and/or of the nature of discussions to others.

13. I am aware that the focus group will be held online; the researcher will use Zoom and will activate the *Require Encryption for 3rd party endpoints SIP/H-323* function. The researcher will video record and audio record the session.

I have read and understood the above statements and agree to participate in this study.

Participant's Name: Joseph Bugeja

Signature: 

Date: 27/01/2024

Glen Anthony Falzon

glen.falzon.11@um.edu.mt

Dr Mario Thomas Vassallo

mario.t.vassallo@um.edu.mt

Appendix K – Housing Authority (Signed Consent Form)

Participant's Consent Form

Malta's low fertility rate: implications on the political economy of the smallest EU member state

I, the undersigned, give my consent to take part in the study conducted by Glen Anthony Falzon. This consent form specifies the terms of my participation in this research study.

1. I have been given written and/or verbal information about the purpose of the study; I have had the opportunity to ask questions and any questions that I had were answered fully and to my satisfaction.
2. I also understand that I am free to accept to participate, or to refuse or stop participation at any time without giving any reason and without any penalty. Should I choose to participate, I may choose to decline to answer any questions asked. In the event that I choose to withdraw from the study, any data collected from me will be erased as long as this is technically possible (for example, before it is anonymised or published), unless erasure of data would render impossible or seriously impair achievement of the research objectives, in which case it shall be retained in an anonymised form.
3. I understand that I have been invited to participate in this focus group in which the researcher will ask open-ended questions to analyse Malta's low fertility rate. I am aware that the focus group will take approximately 1 hour. I understand that the focus group is to be conducted online and not in person.
4. I understand that my participation does not entail any known or anticipated risks.
5. I understand that there are no direct benefits to me from participating in this study. I also understand that this research may benefit others by establishing solutions to increase Malta's low fertility rate.
6. I understand that, under the General Data Protection Regulation (GDPR) and national legislation, I have the right to access, rectify, and where applicable, ask for the data concerning me to be erased.

7. I understand that all data collected will be erased by not later than June 2025.
8. I have been provided with a copy of the information letter and understand that I will also be given a copy of this consent form.
9. I am aware that, by marking the first-tick box below, I am giving my consent for this focus group to be audio and/or video recorded and converted to text as it has been recorded (transcribed).

MARK ONLY IF AND AS APPLICABLE

- ✓ I agree to this focus group being audio and/or video recorded being recorded and converted to text as it has been recorded (transcribed)
- o I do not agree to this focus group being audio and/or video recorded being recorded and converted to text as it has been recorded (transcribed)

10. I am aware that, by marking the first tick-box below, I am asking to review extracts from my interview transcript that the researcher would like to reproduce in research outputs, before these are published. I am also aware that I may ask for changes to be made if I consider these to be necessary.

MARK ONLY IF AND AS APPLICABLE

- ✓ I would like to review extracts of my interview transcript that the researcher would like to reproduce in research outputs before these are published.
- o I would not like to review my interview transcript extracts that the researcher would like to reproduce in research outputs before these are published.

11. I am aware that, by marking the first tick-box below, I am giving my consent for my identity and the identity of the organisation I represent to be revealed in publications, reports or presentations arising from this research, and responses I provide may be quoted directly or indirectly.

MARK ONLY IF AND AS APPLICABLE

- ✓ I agree that my identity and/or the identity of the organisation I represent may be disclosed in research outputs.
- o I do not agree that my identity and/or the identity of the organisation I represent may be disclosed in research outputs.

12. I am aware that focus group discussions should be considered confidential and that I should not disclose details of those participating and/or of the nature of discussions to others.

13. I am aware that the focus group will be held online; the researcher will use Zoom and will activate the *Require Encryption for 3rd party endpoints SIP/H-323* function. The researcher will video record and audio record the session.

I have read and understood the above statements and agree to participate in this study.

Name of participant: Bridget Borg

Signature: [signature]

Date: 30th January 2024

Glen Anthony Falzon

glen.falzon.11@um.edu.mt

Dr Mario Thomas Vassallo

mario.t.vassallo@um.edu.mt

Appendix L – Kunsill Nazzjonali taż-Żgħażagħ (Signed Consent Form)

Participant's Consent Form

Malta's low fertility rate: implications on the political economy of the smallest EU member state

I, the undersigned, give my consent to take part in the study conducted by Glen Anthony Falzon. This consent form specifies the terms of my participation in this research study.

1. I have been given written and/or verbal information about the purpose of the study; I have had the opportunity to ask questions and any questions that I had were answered fully and to my satisfaction.

2. I also understand that I am free to accept to participate, or to refuse or stop participation at any time without giving any reason and without any penalty. Should I choose to participate, I may choose to decline to answer any questions asked. In the event that I choose to withdraw from the study, any data collected from me will be erased as long as this is technically possible (for example, before it is anonymised or published), unless erasure of data would render impossible or seriously impair achievement of the research objectives, in which case it shall be retained in an anonymised form.

3. I understand that I have been invited to participate in this focus group in which the researcher will ask open-ended questions to analyse Malta's low fertility rate. I am aware that the focus group will take approximately 1 hour. I understand that the focus group is to be conducted online and not in person.

4. I understand that my participation does not entail any known or anticipated risks.

5. I understand that there are no direct benefits to me from participating in this study. I also understand that this research may benefit others by establishing solutions to increase Malta's low fertility rate.

6. I understand that, under the General Data Protection Regulation (GDPR) and national legislation, I have the right to access, rectify, and where applicable, ask for the data concerning me to be erased.

7. I understand that all data collected will be erased by not later than June 2025.

8. I have been provided with a copy of the information letter and understand that I will also be given a copy of this consent form.

9. I am aware that, by marking the first-tick box below, I am giving my consent for this focus group to be audio and/or video recorded and converted to text as it has been recorded (transcribed).

MARK ONLY IF AND AS APPLICABLE

- ✓ I agree to this focus group being audio and/or video recorded being recorded and converted to text as it has been recorded (transcribed)

- ○ I do not agree to this focus group being audio and/or video recorded being recorded and converted to text as it has been recorded (transcribed)

10. I am aware that, by marking the first tick-box below, I am asking to review extracts from my interview transcript that the researcher would like to reproduce in research outputs, before these are published. I am also aware that I may ask for changes to be made if I consider these to be necessary.

MARK ONLY IF AND AS APPLICABLE

- ✓ I would like to review extracts of my interview transcript that the researcher would like to reproduce in research outputs before these are published.

- o I would not like to review my interview transcript extracts that the researcher would like to reproduce in research outputs before these are published.

11. I am aware that, by marking the first tick-box below, I am giving my consent for my identity and the identity of the organisation I represent to be revealed in publications, reports or presentations arising from this research, and responses I provide may be quoted directly or indirectly.

MARK ONLY IF AND AS APPLICABLE

- ✓ I agree that my identity and/or the identity of the organisation I represent may be disclosed in research outputs.

- o I do not agree that my identity and/or the identity of the organisation I represent may be disclosed in research outputs.

12. I am aware that focus group discussions should be considered confidential and that I should not disclose details of those participating and/or of the nature of discussions to others.

13. I am aware that the focus group will be held online; the researcher will use Zoom and will activate the *Require Encryption for 3rd party endpoints SIP/H-323* function. The researcher will video record and audio record the session.

I have read and understood the above statements and agree to participate in this study.

Name of participant: **Chantelle Busuttil Stevens**

Signature: 

Date:__**29/01/2024**___

Glen Anthony Falzon
glen.falzon.11@um.edu.mt

Dr Mario Thomas Vassallo
mario.t.vassallo@um.edu.mt

Appendix M – Humanists Malta (Signed Consent Form)

Participant's Consent Form

Malta's low fertility rate: implications on the political economy of the smallest EU member state

I, the undersigned, give my consent to take part in the study conducted by Glen Anthony Falzon. This consent form specifies the terms of my participation in this research study.

1. I have been given written and/or verbal information about the purpose of the study; I have had the opportunity to ask questions and any questions that I had were answered fully and to my satisfaction.

2. I also understand that I am free to accept to participate, or to refuse or stop participation at any time without giving any reason and without any penalty. Should I choose to participate, I may choose to decline to answer any questions asked. In the event that I choose to withdraw from the study, any data collected from me will be erased as long as this is technically possible (for example, before it is anonymised or published), unless erasure of data would render impossible or seriously impair achievement of the research objectives, in which case it shall be retained in an anonymised form.

3. I understand that I have been invited to participate in this focus group in which the researcher will ask open-ended questions to analyse Malta's low fertility rate. I am aware that the focus group will take approximately 1 hour. I understand that the focus group is to be conducted online and not in person.

4. I understand that my participation does not entail any known or anticipated risks.

5. I understand that there are no direct benefits to me from participating in this study. I also understand that this research may benefit others by establishing solutions to increase Malta's low fertility rate.

6. I understand that, under the General Data Protection Regulation (GDPR) and national legislation, I have the right to access, rectify, and where applicable, ask for the data concerning me to be erased.

7. I understand that all data collected will be erased by not later than June 2025.

8. I have been provided with a copy of the information letter and understand that I will also be given a copy of this consent form.

9. I am aware that, by marking the first-tick box below, I am giving my consent for this focus group to be audio and/or video recorded and converted to text as it has been recorded (transcribed).

MARK ONLY IF AND AS APPLICABLE

- ✓ I agree to this focus group being audio and/or video recorded being recorded and converted to text as it has been recorded (transcribed)

- o I do not agree to this focus group being audio and/or video recorded being recorded and converted to text as it has been recorded (transcribed)

10. I am aware that, by marking the first tick-box below, I am asking to review extracts from my interview transcript that the researcher would like to reproduce in research outputs, before these are published. I am also aware that I may ask for changes to be made if I consider these to be necessary.

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- o I would not like to review my interview transcript extracts that the researcher would like to reproduce in research outputs before these are published.

11. I am aware that, by marking the first tick-box below, I am giving my consent for my identity and the identity of the organisation I represent to be revealed in publications, reports or presentations arising from this research, and responses I provide may be quoted directly or indirectly.

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- o I do not agree that my identity and/or the identity of the organisation I represent may be disclosed in research outputs.

12. I am aware that focus group discussions should be considered confidential and that I should not disclose details of those participating and/or of the nature of discussions to others.

13. I am aware that the focus group will be held online; the researcher will use Zoom and will activate the *Require Encryption for 3rd party endpoints SIP/H-323* function. The researcher will video record and audio record the session.

I have read and understood the above statements and agree to participate in this study.

Name of participant: Christian Colombo

Signature: 

Date: 29/1/2024

Glen Anthony Falzon

glen.falzon.11@um.edu.mt

Dr Mario Thomas Vassallo

mario.t.vassallo@um.edu.mt

Appendix N – Malta Employers' Association (Signed Consent Form)

Participant's Consent Form

Malta's low fertility rate: implications on the political economy of the smallest EU member state

I, the undersigned, give my consent to take part in the study conducted by Glen Anthony Falzon. This consent form specifies the terms of my participation in this research study.

1. I have been given written and/or verbal information about the purpose of the study; I have had the opportunity to ask questions and any questions that I had were answered fully and to my satisfaction.

2. I also understand that I am free to accept to participate, or to refuse or stop participation at any time without giving any reason and without any penalty. Should I choose to participate, I may choose to decline to answer any questions asked. In the event that I choose to withdraw from the study, any data collected from me will be erased as long as this is technically possible (for example, before it is anonymised or published), unless erasure of data would render impossible or seriously impair achievement of the research objectives, in which case it shall be retained in an anonymised form.

3. I understand that I have been invited to participate in this focus group in which the researcher will ask open-ended questions to analyse Malta's low fertility rate. I am aware that the focus group will take approximately 1 hour. I understand that the focus group is to be conducted online and not in person.

4. I understand that my participation does not entail any known or anticipated risks.

5. I understand that there are no direct benefits to me from participating in this study. I also understand that this research may benefit others by establishing solutions to increase Malta's low fertility rate.

6. I understand that, under the General Data Protection Regulation (GDPR) and national legislation, I have the right to access, rectify, and where applicable, ask for the data concerning me to be erased.
7. I understand that all data collected will be erased by not later than June 2025.

8. I have been provided with a copy of the information letter and understand that I will also be given a copy of this consent form.

9. I am aware that, by marking the first-tick box below, I am giving my consent for this focus group to be audio and/or video recorded and converted to text as it has been recorded (transcribed).

MARK ONLY IF AND AS APPLICABLE

- ✓ I agree to this focus group being audio and/or video recorded being recorded and converted to text as it has been recorded (transcribed)
- o I do not agree to this focus group being audio and/or video recorded being recorded and converted to text as it has been recorded (transcribed)

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- o I do not agree that my identity and/or the identity of the organisation I represent may be disclosed in research outputs.

12. I am aware that focus group discussions should be considered confidential and that I should not disclose details of those participating and/or of the nature of discussions to others.

13. I am aware that the focus group will be held online; the researcher will use Zoom and will activate the *Require Encryption for 3rd party endpoints SIP/H-323* function. The researcher will video record and audio record the session.

I have read and understood the above statements and agree to participate in this study.

Name of participant: __Joseph Farrugia

Signature: 

Date:31st January, 2024

Glen Anthony Falzon

glen.falzon.11@um.edu.mt

Dr Mario Thomas Vassallo

mario.t.vassallo@um.edu.mt

Appendix O – Judicial Vicar (Signed Consent Form)

Participant's Consent Form

Malta's low fertility rate: implications on the political economy of the smallest EU member state

I, the undersigned, give my consent to take part in the study conducted by Glen Anthony Falzon. This consent form specifies the terms of my participation in this research study.

1. I have been given written and/or verbal information about the purpose of the study; I have had the opportunity to ask questions and any questions that I had were answered fully and to my satisfaction.
2. I also understand that I am free to accept to participate, or to refuse or stop participation at any time without giving any reason and without any penalty. Should I choose to participate, I may choose to decline to answer any questions asked. In the event that I choose to withdraw from the study, any data collected from me will be erased as long as this is technically possible (for example, before it is anonymised or published), unless erasure of data would render impossible or seriously impair achievement of the research objectives, in which case it shall be retained in an anonymised form.
3. I understand that I have been invited to participate in this focus group in which the researcher will ask open-ended questions to analyse Malta's low fertility rate. I am aware that the focus group will take approximately 1 hour. I understand that the focus group is to be conducted online and not in person.
4. I understand that my participation does not entail any known or anticipated risks.

5. I understand that there are no direct benefits to me from participating in this study. I also understand that this research may benefit others by establishing solutions to increase Malta's low fertility rate.
6. I understand that, under the General Data Protection Regulation (GDPR) and national legislation, I have the right to access, rectify, and where applicable, ask for the data concerning me to be erased.
7. I understand that all data collected will be erased by not later than June 2025.
8. I have been provided with a copy of the information letter and understand that I will also be given a copy of this consent form.
9. I am aware that, by marking the first-tick box below, I am giving my consent for this focus group to be audio and/or video recorded and converted to text as it has been recorded (transcribed).

MARK ONLY IF AND AS APPLICABLE

- ✓ I agree to this focus group being audio and/or video recorded being recorded and converted to text as it has been recorded (transcribed)
- ○ I do not agree to this focus group being audio and/or video recorded being recorded and converted to text as it has been recorded (transcribed)

10. I am aware that, by marking the first tick-box below, I am asking to review extracts from my interview transcript that the researcher would like to reproduce in research outputs, before these are published. I am also aware that I may ask for changes to be made if I consider these to be necessary.

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- o I would not like to review my interview transcript extracts that the researcher would like to reproduce in research outputs before these are published.

11. I am aware that, by marking the first tick-box below, I am giving my consent for my identity and the identity of the organisation I represent to be revealed in publications, reports or presentations arising from this research, and responses I provide may be quoted directly or indirectly.

MARK ONLY IF AND AS APPLICABLE

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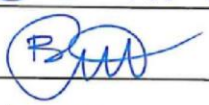
- o I do not agree that my identity and/or the identity of the organisation I represent may be disclosed in research outputs.

12. I am aware that focus group discussions should be considered confidential and that I should not disclose details of those participating and/or of the nature of discussions to others.

13. I am aware that the focus group will be held online; the researcher will use Zoom and will activate the *Require Encryption for 3rd party endpoints SIP/H-323* function. The researcher will video record and audio record the session.

I have read and understood the above statements and agree to participate in this study.

Name of participant: BRENDAN MARK GATT

Signature: 

Date: 29/01/2024

Glen Anthony Falzon

glen.falzon.11@um.edu.mt

Dr Mario Thomas Vassallo

mario.t.vassallo@um.edu.mt

Appendix P – Ministry for Social Policy and Children's Rights (Signed Consent Form)

Participant's Consent Form

Malta's low fertility rate: implications on the political economy of the smallest EU member state

I, the undersigned, give my consent to take part in the study conducted by Glen Anthony Falzon. This consent form specifies the terms of my participation in this research study.

1. I have been given written and/or verbal information about the purpose of the study; I have had the opportunity to ask questions and any questions that I had were answered fully and to my satisfaction.
2. I also understand that I am free to accept to participate, or to refuse or stop participation at any time without giving any reason and without any penalty. Should I choose to participate, I may choose to decline to answer any questions asked. In the event that I choose to withdraw from the study, any data collected from me will be erased as long as this is technically possible (for example, before it is anonymised or published), unless erasure of data would render impossible or seriously impair achievement of the research objectives, in which case it shall be retained in an anonymised form.
3. I understand that I have been invited to participate in this focus group in which the researcher will ask open-ended questions to analyse Malta's low fertility rate. I am aware that the focus group will take approximately 1 hour. I understand that the focus group is to be conducted online and not in person.
4. I understand that my participation does not entail any known or anticipated risks.
5. I understand that there are no direct benefits to me from participating in this study. I also understand that this research may benefit others by establishing solutions to increase Malta's low fertility rate.
6. I understand that, under the General Data Protection Regulation (GDPR) and national legislation, I have the right to access, rectify, and where applicable, ask for the data concerning me to be erased.

7. I understand that all data collected will be erased by not later than June 2025.

8. I have been provided with a copy of the information letter and understand that I will also be given a copy of this consent form.

9. I am aware that, by marking the first-tick box below, I am giving my consent for this focus group to be audio and/or video recorded and converted to text as it has been recorded (transcribed).

MARK ONLY IF AND AS APPLICABLE

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o I do not agree to this focus group being audio and/or video recorded being recorded and converted to text as it has been recorded (transcribed)

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13. I am aware that the focus group will be held online; the researcher will use Zoom and will activate the *Require Encryption for 3rd party endpoints SIP/H-323* function. The researcher will video record and audio record the session.

I have read and understood the above statements and agree to participate in this study.

Name of participant: Dr Maja Miljanic Brinkworth

Signature: _____

Date: 29 January 2024

Glen Anthony Falzon

glen.falzon.11@um.edu.mt

Dr Mario Thomas Vassallo

mario.t.vassallo@um.edu.mt

Appendix Q – Ta' Cana Movement (Signed Consent Form)

Participant's Consent Form

Malta's low fertility rate: implications on the political economy of the smallest EU member state

I, the undersigned, give my consent to take part in the study conducted by Glen Anthony Falzon. This consent form specifies the terms of my participation in this research study.

1. I have been given written and/or verbal information about the purpose of the study; I have had the opportunity to ask questions and any questions that I had were answered fully and to my satisfaction.

2. I also understand that I am free to accept to participate, or to refuse or stop participation at any time without giving any reason and without any penalty. Should I choose to participate, I may choose to decline to answer any questions asked. In the event that I choose to withdraw from the study, any data collected from me will be erased as long as this is technically possible (for example, before it is anonymised or published), unless erasure of data would render impossible or seriously impair achievement of the research objectives, in which case it shall be retained in an anonymised form.

3. I understand that I have been invited to participate in this focus group in which the researcher will ask open-ended questions to analyse Malta's low fertility rate. I am aware that the focus group will take approximately 1 hour. I understand that the focus group is to be conducted online and not in person.

4. I understand that my participation does not entail any known or anticipated risks.

5. I understand that there are no direct benefits to me from participating in this study. I also understand that this research may benefit others by establishing solutions to increase Malta's low fertility rate.

6. I understand that, under the General Data Protection Regulation (GDPR) and national legislation, I have the right to access, rectify, and where applicable, ask for the data concerning me to be erased.

7. I understand that all data collected will be erased by not later than June 2025.

8. I have been provided with a copy of the information letter and understand that I will also be given a copy of this consent form.

9. I am aware that, by marking the first-tick box below, I am giving my consent for this focus group to be audio and/or video recorded and converted to text as it has been recorded (transcribed).

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12. I am aware that focus group discussions should be considered confidential and that I should not disclose details of those participating and/or of the nature of discussions to others.

13. I am aware that the focus group will be held online; the researcher will use Zoom and will activate the *Require Encryption for 3rd party endpoints SIP/H-323* function. The researcher will video record and audio record the session.

I have read and understood the above statements and agree to participate in this study.

Name of participant: Anna Camilleri

Signature: Anna Camilleri

Date: 29th January 2024

Glen Anthony Falzon

glen.falzon.11@um.edu.mt

Dr Mario Thomas Vassallo

mario.t.vassallo@um.edu.mt

Appendix R – The Latest Population Data for 2022

Table 1 - Composition of Population Change:2022

	Males	Females	Total
Population end 2021 (revised)[1]	270,469	249,705	520,174
Natural increase:			
+ Births[2]	2,191	2,118	4,309
- Deaths[3]	2,179	2,051	4,230
Sub-total	**270,481**	**249,772**	**520,253**
Migration flows:			
+ Adoptions (foreign)	24	23	47
+ Immigration of Maltese citizens	909	910	1,819
- Emigration of Maltese citizens	430	350	780
+ Immigration of other EU citizens	4,249	2,861	7,110
- Emigration of other EU citizens	2,564	1,957	4,521
+ Immigration of third-country citizens[4]	17,497	8,491	25,988
- Emigration of third-country citizens[4]	5,345	2,520	7,865
Population end 2022	**284,821**	**257,230**	**542,051**

Notes:

1. Figures have been revised based on updates from the 2021 Census of Population and Housing.
2. 2. Birth figures refer to babies born in Malta whose birth parent(s) was(were) resident in Malta at the time of birth.
3. 3. Death figures refer to registered deaths of persons who were resident in Malta at the time of death.
4. 4. As of reference year 2020, includes citizens of the United Kingdom.

Age group/ Single years	Males	Females	Total	Age group/ Single years	Males	Females	Total
0-9	**23,769**	**22,026**	**45,795**	**50-59**	**31,224**	**28,615**	**59,839**
Less than 1	2,197	2,129	4,326	50	3,543	3,154	6,697
1	2,325	2,199	4,524	51	3,448	3,052	6,500
2	2,346	2,171	4,517	52	3,292	2,923	6,215
3	2,286	2,117	4,403	53	3,103	2,735	5,838
4	2,453	2,291	4,744	54	3,049	2,854	5,903
5	2,341	2,207	4,548	55	2,836	2,720	5,556
6	2,520	2,274	4,794	56	2,899	2,664	5,563
7	2,434	2,312	4,746	57	2,963	2,782	5,745
8	2,463	2,176	4,639	58	3,045	2,843	5,888
9	2,404	2,150	4,554	59	3,046	2,888	5,934
10-19	**23,666**	**21,962**	**45,628**	**60-69**	**30,261**	**30,004**	**60,265**
10	2,423	2,274	4,697	60	3,206	3,034	6,240
11	2,439	2,338	4,777	61	3,180	3,005	6,185
12	2,287	2,208	4,495	62	3,209	3,137	6,346
13	2,373	2,258	4,631	63	3,063	3,142	6,205
14	2,393	2,194	4,587	64	3,067	3,107	6,174
15	2,303	2,040	4,343	65	3,113	3,077	6,190
16	2,270	2,056	4,326	66	3,006	3,048	6,054
17	2,239	2,073	4,312	67	2,975	2,868	5,843
18	2,347	2,134	4,481	68	2,784	2,855	5,639
19	2,592	2,387	4,979	69	2,658	2,731	5,389
20-29	**43,829**	**33,575**	**77,404**	**70-79**	**23,911**	**26,317**	**50,228**
20	2,772	2,284	5,056	70	2,609	2,749	5,358
21	2,982	2,418	5,400	71	2,601	2,755	5,356
22	3,419	2,893	6,312	72	2,706	2,833	5,539
23	3,707	2,920	6,627	73	2,679	2,791	5,470
24	4,149	3,198	7,347	74	2,658	2,881	5,539
25	4,781	3,497	8,278	75	2,547	2,895	5,442
26	5,167	3,775	8,942	76	2,406	2,699	5,105
27	5,506	4,021	9,527	77	2,137	2,499	4,636
28	5,591	4,172	9,763	78	2,184	2,444	4,628
29	5,755	4,397	10,152	79	1,384	1,771	3,155
30-39	**56,263**	**44,582**	**100,845**	**80-89**	**7,268**	**10,744**	**18,012**
30	5,978	4,528	10,506	80	965	1,163	2,128
31	5,886	4,648	10,534	81	900	1,214	2,114
32	5,865	4,725	10,590	82	949	1,287	2,236
33	5,856	4,830	10,686	83	922	1,308	2,230
34	5,868	4,659	10,527	84	807	1,254	2,061
35	5,573	4,432	10,005	85	744	1,154	1,898
36	5,445	4,276	9,721	86	656	1,012	1,668
37	5,330	4,215	9,545	87	562	903	1,465
38	5,284	4,134	9,418	88	413	751	1,164
39	5,178	4,135	9,313	89	350	698	1,048
40-49	**43,650**	**36,990**	**80,640**	**90+**	**980**	**2,415**	**3,395**
40	5,142	4,246	9,388				
41	4,687	3,931	8,618				
42	4,731	3,867	8,598	**Total**	**284,821**	**257,230**	**542,051**
43	4,566	3,889	8,455				
44	4,408	3,716	8,124				
45	4,357	3,636	7,993				
46	4,140	3,642	7,782				
47	4,171	3,481	7,652				
48	3,897	3,330	7,227				
49	3,551	3,252	6,803				

Note: Figures are compiled based on updates from The 2021 Census of Population and Housing

Table 2 – Total population by sex and single years of age as at 31/12/2022

Table 3 – Residents live births by sex and year

Year	Boys	Girls	Total
2008	2,092	1,921	4,013
2009	2,087	1,942	4,029
2010	2,000	1,898	3,898
2011	2,116	2,049	4,165
2012	2,141	1,989	4,130
2013	2,109	1,923	4,032
2014	2,223	1,968	4,191
2015	2,208	2,117	4,325
2016	2,365	2,111	4,476
2017	2,215	2,104	4,319
2018	2,278	2,166	4,444
2019	2,260	2,090	4,350
2020	2,283	2,131	4,414
2021	2,245	2,150	4,395
2022	2,191	2,118	4,309

Table 4 - Resident live births by age group of parents[1] and sex of child: 2022

Age group ↓	Age group of parent who gave birth to child		Age group of other parent	
	Boys	Girls	Boys	Girls
Under 20	57	49	8	5
20-24	182	176	88	83
25-29	485	475	337	283
30-34	865	846	793	753
35-39	487	455	581	556
40-44	105	109	222	247
45-49	7	7	71	83
50-54	3	1	14	14
55-59	-	-	11	8
60+	-	-	5	4
Unspecified	-	-	61	82
All ages	**2,191**	**2,118**	**2,191**	**2,118**

[1]In line with the amendment to the Marriage Act 2017, upon registration, parents are denoted as parent who gave birth to child and other parent. Refer to methodological note 3.

Table 5 – Resident deaths by sex and year

Year	Males	Females	Total
2008	1,668	1,575	3,243
2009	1,672	1,549	3,221
2010	1,489	1,521	3,010
2011	1,664	1,603	3,267
2012	1,746	1,672	3,418
2013	1,636	1,600	3,236
2014	1,655	1,615	3,270
2015	1,732	1,710	3,442
2016	1,644	1,698	3,342
2017	1,815	1,756	3,571
2018	1,876	1,812	3,688
2019	1,869	1,819	3,688
2020[1]	2,122	1,969	4,091
2021	2,086	2,077	4,163
2022	2,179	2,051	4,230

Note: [1] Data for 2020 has been revised, following an update from the source.

Table 6 – Resident deaths by age group at death, sex and year

Year	Age group												
	< 1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75+	Total
Males													
2008	22	5	-	2	3	6	29	36	97	260	336	872	**1,668**
2009	10	2	1	1	6	10	29	27	70	206	351	959	**1,672**
2010	13	2	-	2	5	9	23	37	77	221	328	772	**1,489**
2011	13	-	1	-	9	7	22	29	82	219	371	911	**1,664**
2012	11	1	1	1	1	7	24	37	77	231	364	991	**1,746**
2013	14	1	-	1	3	10	13	29	72	212	375	906	**1,636**
2014	11	1	1	3	4	6	22	35	73	195	395	909	**1,655**
2015	16	3	-	2	4	4	23	26	69	223	374	988	**1,732**
2016	20	1	1	-	4	3	16	37	88	191	394	889	**1,644**
2017	19	3	-	-	2	11	22	34	61	203	448	1,012	**1,815**
2018	16	3	-	-	2	6	23	33	75	209	485	1,024	**1,876**
2019	9	6	2	1	1	2	22	28	60	190	480	1,068	**1,869**
2020[1]	8	1	2	2	2	8	23	42	81	224	509	1,220	**2,122**
2021	6	-	1	3	3	8	15	44	84	225	494	1,203	**2,086**
2022	14	1	2	-	2	13	16	47	85	208	481	1,310	**2,179**
Females													
2008	12	1	1	1	1	3	7	11	50	145	251	1,092	**1,575**
2009	11	2	1	2	1	4	16	9	51	123	216	1,113	**1,549**
2010	9	2	-	3	1	3	4	11	49	131	235	1,073	**1,521**
2011	14	3	1	1	2	1	13	19	46	124	228	1,151	**1,603**
2012	11	2	-	2	2	1	14	18	55	137	233	1,197	**1,672**
2013	13	1	-	-	2	5	4	10	40	110	217	1,198	**1,600**
2014	10	1	-	1	2	1	7	17	27	133	249	1,167	**1,615**
2015	9	1	2	1	2	6	7	13	36	120	261	1,252	**1,710**
2016	13	1	-	1	4	2	6	20	45	118	279	1,209	**1,698**
2017	10	2	-	1	2	1	6	16	50	127	273	1,268	**1,756**
2018	9	1	2	-	-	2	12	27	43	131	279	1,306	**1,812**
2019	20	1	1	3	2	2	12	17	47	104	295	1,315	**1,819**
2020[1]	9	1		1	3	3	7	21	43	124	291	1,466	**1,969**
2021	11	1	1	1	2	1	7	21	43	126	324	1,539	**2,077**
2022	9	1	-	-	1	3	7	15	51	122	299	1,543	**2,051**
Total													
2008	34	6	1	3	4	9	36	47	147	405	587	1,964	**3,243**
2009	21	4	2	3	7	14	45	36	121	329	567	2,072	**3,221**
2010	22	4	-	5	6	12	27	48	126	352	563	1,845	**3,010**
2011	27	3	2	1	11	8	35	48	128	343	599	2,062	**3,267**
2012	22	3	1	3	3	8	38	55	132	368	597	2,188	**3,418**
2013	27	2	-	1	5	15	17	39	112	322	592	2,104	**3,236**
2014	21	2	1	4	6	7	29	52	100	328	644	2,076	**3,270**
2015	25	4	2	3	6	10	30	39	105	343	635	2,240	**3,442**
2016	33	2	1	1	8	5	22	57	133	309	673	2,098	**3,342**
2017	29	5	-	1	4	12	28	50	111	330	721	2,280	**3,571**
2018	25	4	2	-	2	8	35	60	118	340	764	2,330	**3,688**
2019	29	7	3	4	3	4	34	45	107	294	775	2,383	**3,688**
2020[1]	17	2	2	3	5	11	30	63	124	348	800	2,686	**4,091**
2021	17	1	2	4	5	9	22	65	127	351	818	2,742	**4,163**
2022	23	2	2	-	3	16	23	62	136	330	780	2,853	**4,230**

[1]Data for 2020 has been revised, following an update from the source.

Table 7 – Total population by sex and single years of age as at 31 December 2021 (revised)

Age group/Single years	Males	Females	Total	Age group/Single years	Males	Females	Total
0-9	**23,521**	**21,752**	**45,273**	**50-59**	**30,728**	**28,352**	**59,080**
Less than 1	2,263	2,170	4,433	50	3,406	3,021	6,427
1	2,289	2,099	4,388	51	3,231	2,887	6,118
2	2,229	2,059	4,288	52	3,064	2,709	5,773
3	2,404	2,256	4,660	53	3,024	2,844	5,868
4	2,299	2,173	4,472	54	2,836	2,705	5,541
5	2,462	2,235	4,697	55	2,888	2,643	5,531
6	2,392	2,263	4,655	56	2,953	2,785	5,738
7	2,432	2,144	4,576	57	3,064	2,839	5,903
8	2,356	2,115	4,471	58	3,044	2,877	5,921
9	2,395	2,238	4,633	59	3,218	3,042	6,260
10-19	**23,347**	**21,430**	**44,777**	**60-69**	**29,928**	**29,769**	**59,697**
10	2,408	2,299	4,707	60	3,194	3,010	6,204
11	2,250	2,181	4,431	61	3,225	3,146	6,371
12	2,337	2,238	4,575	62	3,086	3,144	6,230
13	2,389	2,190	4,579	63	3,089	3,107	6,196
14	2,266	2,019	4,285	64	3,138	3,074	6,212
15	2,235	2,033	4,268	65	3,035	3,044	6,079
16	2,213	2,050	4,263	66	2,992	2,871	5,863
17	2,276	2,116	4,392	67	2,817	2,870	5,687
18	2,405	2,217	4,622	68	2,693	2,737	5,430
19	2,568	2,087	4,655	69	2,659	2,766	5,425
20-29	**40,197**	**32,237**	**72,434**	**70-79**	**22,885**	**25,080**	**47,965**
20	2,682	2,195	4,877	70	2,638	2,767	5,405
21	3,045	2,641	5,686	71	2,764	2,851	5,615
22	3,094	2,586	5,680	72	2,727	2,808	5,535
23	3,488	2,787	6,275	73	2,707	2,915	5,622
24	3,931	2,998	6,929	74	2,613	2,925	5,538
25	4,285	3,345	7,630	75	2,483	2,760	5,243
26	4,629	3,577	8,206	76	2,204	2,535	4,739
27	4,762	3,771	8,533	77	2,277	2,504	4,781
28	4,999	4,089	9,088	78	1,457	1,813	3,270
29	5,282	4,248	9,530	79	1,015	1,202	2,217
30-39	**50,966**	**42,601**	**93,567**	**80-89**	**7,216**	**10,963**	**18,179**
30	5,287	4,360	9,647	80	949	1,268	2,217
31	5,293	4,487	9,780	81	1,018	1,337	2,355
32	5,295	4,612	9,907	82	986	1,382	2,368
33	5,362	4,492	9,854	83	877	1,325	2,202
34	5,099	4,266	9,365	84	818	1,233	2,051
35	5,023	4,126	9,149	85	737	1,104	1,841
36	4,955	4,071	9,026	86	626	1,009	1,635
37	4,946	4,038	8,984	87	478	832	1,310
38	4,854	4,007	8,861	88	410	790	1,200
39	4,852	4,142	8,994	89	317	683	1,000
40-49	**40,728**	**35,243**	**75,971**	**90+**	**953**	**2,278**	**3,231**
40	4,452	3,822	8,274				
41	4,521	3,766	8,287				
42	4,384	3,784	8,168	**Total**	**270,469**	**249,705**	**520,174**
43	4,260	3,651	7,911				
44	4,218	3,582	7,800				
45	4,054	3,587	7,641				
46	4,061	3,433	7,494	Note: Figures are compiled based on updates from the 2021 Census of Population and Housing.			
47	3,799	3,289	7,088				
48	3,483	3,219	6,702				
49	3,496	3,110	6,606				

Appendix S – The Total of the Gainfully Occupied for 2022

Table 1 – Full Employment Classified by period and economic activity

NACE division	Economic activity	Average 2020	Average 2021 (Revised)	November 2021	November 2022	December 2021 (Revised)	December 2022
01-03	**Agriculture, forestry and fishing**	**2,498**	**2,603**	**2,640**	**2,661**	**2,639**	**2,665**
01	Crop and animal production, hunting and related service activities	1,654	1,724	1,742	1,720	1,740	1,716
02	Forestry and logging	-	-	-	-	-	-
03	Fishing and aquaculture	844	879	898	941	899	949
05-09	**Mining and quarrying**	**373**	**365**	**364**	**368**	**363**	**367**
05	Mining of coal and lignite	-	-	-	-	-	-
06	Extraction of crude petroleum and natural gas	-	-	-	-	-	-
07	Mining of metal ores	-	-	-	-	-	-
08	Other mining and quarrying	208	215	217	220	215	219
09	Mining support service activities	165	150	147	148	148	148
10-33	**Manufacturing**	**22,616**	**22,608**	**22,555**	**23,145**	**22,445**	**23,133**
10	Manufacture of food products	2,623	2,593	2,613	2,698	2,601	2,688
11	Manufacture of beverages	881	882	884	861	879	859
12	Manufacture of tobacco products	15	8	6	4	6	4
13	Manufacture of textiles	345	366	366	375	362	374
14	Manufacture of wearing apparel	150	123	112	118	112	117
15	Manufacture of leather and related products	17	15	14	17	15	18
16	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	396	399	378	383	378	377
17	Manufacture of paper and paper products	272	275	269	286	266	282
18	Printing and reproduction of recorded media	1,646	1,698	1,738	1,718	1,722	1,721
19	Manufacture of coke and refined petroleum products	8	9	8	6	8	6
20	Manufacture of chemicals and chemical products	272	275	273	272	272	279
21	Manufacture of basic pharmaceutical products and pharmaceutical preparations	1,046	1,134	1,163	1,231	1,159	1,229
22	Manufacture of rubber and plastic products	1,670	1,649	1,647	1,687	1,635	1,665
23	Manufacture of other non-metallic mineral products	1,206	1,260	1,267	1,358	1,260	1,349
24	Manufacture of basic metals	229	251	261	285	260	286
25	Manufacture of fabricated metal products, except machinery and equipment	1,232	1,230	1,230	1,198	1,235	1,204
26	Manufacture of computer, electronic and optical products	2,290	2,181	2,128	2,355	2,128	2,372

27	Manufacture of electrical equipment	617	533	526	526	521	524
28	Manufacture of machinery and equipment n.e.c.	541	554	555	581	564	580
29	Manufacture of motor vehicles, trailers and semi-trailers	1,046	1,093	1,082	1,093	1,075	1,102
30	Manufacture of other transport equipment	322	335	325	353	317	354
31	Manufacture of furniture	1,169	1,176	1,169	1,141	1,151	1,119
32	Other manufacturing	2,515	2,513	2,472	2,446	2,457	2,449
33	Repair and installation of machinery and equipment	2,108	2,056	2,069	2,153	2,062	2,175
35	**Electricity, gas, steam and air conditioning supply**	**204**	**233**	**234**	**335**	**233**	**332**
36-39	**Water supply; sewerage, waste management and remediation activities**	**1,777**	**1,800**	**1,800**	**1,898**	**1,784**	**1,917**
36	Water collection, treatment and supply	1,181	1,173	1,159	1,146	1,152	1,145
37	Sewerage	10	11	11	10	11	10
38	Waste collection, treatment and disposal activities; materials recovery	550	569	580	675	571	690
39	Remediation activities and other waste management services	36	47	50	67	50	72
41-43	**Construction**	**15,028**	**15,935**	**16,356**	**18,280**	**16,360**	**18,329**
41	Construction of buildings	5,836	6,070	6,260	7,173	6,290	7,187
42	Civil engineering	1,450	1,842	1,938	2,206	1,939	2,209
43	Specialized construction activities	7,742	8,023	8,158	8,901	8,131	8,933
45-47	**Wholesale and retail trade; repair of motor vehicles and motorcycles**	**28,947**	**29,521**	**29,949**	**31,767**	**29,898**	**31,838**
45	Wholesale and retail trade and repair of motor vehicles and motorcycles	2,822	2,812	2,791	2,825	2,779	2,829
46	Wholesale trade, except of motor vehicles and motorcycles	10,999	11,224	11,331	12,252	11,326	12,292
47	Retail trade, except of motor vehicles and motorcycles	15,126	15,485	15,827	16,690	15,793	16,717
49-53	**Transportation and storage**	**11,977**	**11,828**	**12,102**	**13,559**	**12,155**	**13,401**
49	Land transport and transport via pipelines	4,838	4,814	4,871	5,628	4,903	5,734
50	Water transport	508	567	607	627	619	624
51	Air transport	1,844	1,528	1,381	1,504	1,385	1,170
52	Warehousing and support activities for transportation	3,818	3,803	4,086	4,479	4,090	4,516
53	Postal and courier activities	969	1,116	1,157	1,321	1,158	1,357
55-56	**Accommodation and food service activities**	**15,443**	**15,006**	**15,682**	**18,892**	**15,783**	**19,125**
55	Accommodation	6,038	5,544	5,930	7,190	5,963	7,266
56	Food and beverage service activities	9,405	9,462	9,752	11,702	9,820	11,859
58-63	**Information and communication**	**8,322**	**8,749**	**8,907**	**9,575**	**8,889**	**9,465**
58	Publishing activities	910	993	1,050	1,141	1,052	1,133
59	Motion picture, video and television programme production, sound recording and music publishing activities	425	438	384	469	385	404

60	Programming and broadcasting activities	268	390	662	664	662	663
61	Telecommunications	1,629	1,401	1,115	1,111	1,107	1,105
62	Computer programming, consultancy and related activities	4,058	4,472	4,701	5,125	4,703	5,095
63	Information service activities	1,032	1,055	995	1,065	980	1,065
64-66	**Financial and insurance activities**	**12,176**	**12,490**	**12,598**	**13,620**	**12,555**	**13,601**
64	Financial service activities, except insurance and pension funding	8,738	9,148	9,214	9,995	9,175	9,981
65	Insurance, reinsurance and pension funding, except compulsory social security	1,069	1,066	1,088	1,130	1,082	1,130
66	Activities auxiliary to financial services and insurance activities	2,369	2,276	2,296	2,495	2,298	2,490
68	**Real estate activities**	**2,189**	**2,366**	**2,410**	**2,666**	**2,415**	**2,657**
69-75	**Professional, scientific and technical activities**	**16,602**	**17,259**	**17,468**	**19,085**	**17,469**	**19,166**
69	Legal and accounting activities	4,474	4,548	4,648	4,956	4,682	4,968
70	Activities of head offices; management consultancy activities	5,705	6,102	6,127	6,896	6,128	6,887
71	Architectural and engineering activities; technical testing and analysis	3,111	3,149	3,105	3,365	3,083	3,424
72	Scientific research and development	85	125	150	183	150	175
73	Advertising and market research	2,070	2,084	2,122	2,298	2,105	2,322
74	Other professional, scientific and technical activities	1,006	1,083	1,145	1,219	1,154	1,221
75	Veterinary activities	151	168	171	168	167	169
77-82	**Administrative and support service activities**	**23,818**	**24,405**	**26,356**	**30,780**	**26,369**	**31,120**
77	Rental and leasing activities	1,642	1,692	1,770	1,937	1,758	1,930
78	Employment activities	6,169	7,057	8,917	11,405	8,987	11,705
79	Travel agency, tour operator and other reservation service and related activities	1,409	1,400	1,460	1,674	1,453	1,655
80	Security and investigation activities	2,986	3,367	3,479	3,793	3,488	3,758
81	Services to buildings and landscape activities	6,969	6,530	6,457	7,713	6,445	7,868
82	Office administrative, office support and other business support activities	4,643	4,359	4,273	4,258	4,238	4,204
84	**Public administration and defence; compulsory social security**	**16,291**	**17,002**	**17,220**	**17,135**	**17,127**	**16,994**
85	**Education**	**18,359**	**18,794**	**18,938**	**19,010**	**18,883**	**19,018**
86-88	**Human health and social work activities**	**19,530**	**19,993**	**18,909**	**19,396**	**18,821**	**19,420**
86	Human health activities	10,113	10,515	10,710	10,952	10,678	10,956
87	Residential care activities	6,705	6,602	5,251	5,372	5,201	5,394
88	Social work activities without accommodation	2,712	2,876	2,948	3,072	2,942	3,070
90-93	**Arts, entertainment and recreation**	**10,866**	**11,882**	**12,311**	**13,639**	**12,224**	**13,525**
90	Creative, arts and entertainment activities	962	1,002	1,017	1,052	1,020	1,052

91	Libraries, archives, museums and other cultural activities	552	585	588	596	580	594
92	Gambling and betting activities	8,108	9,005	9,383	10,558	9,319	10,449
93	Sports activities and amusement and recreation activities	1,244	1,290	1,323	1,433	1,305	1,430
94-96	**Other service activities**	**5,062**	**5,268**	**5,399**	**5,857**	**5,402**	**5,853**
94	Activities of membership organisations	928	989	1,009	1,084	1,001	1,071
95	Repair of computers and personal and household goods	401	455	495	533	501	537
96	Other personal service activities	3,733	3,824	3,895	4,240	3,900	4,245
97-98	**Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use**	**371**	**396**	**422**	**478**	**432**	**495**
97	Activities of households as employers of domestic personnel	371	396	422	478	432	495
98	Undifferentiated goods- and services-producing activities of private households for own use	-	-	-	-	-	-
99	**Activities of extraterritorial organisations and bodies**	**230**	**256**	**259**	**260**	**259**	**340**
01-99	**Total Gainfully Occupied (including apprentices)**	**232,679**	**238,759**	**242,879**	**262,406**	**242,505**	**262,761**
	Registered Unemployed	**3,162**	**1,795**	**1,176**	**1,017**	**1,167**	**1,046**
	Part I	2,881	1,601	999	860	1,008	910
	Part II	281	194	177	157	159	136
	Labour Supply (excluding part-time employment)	**235,841**	**240,554**	**244,055**	**263,423**	**243,672**	**263,807**

Table 2 - Full-time employment classified by period, economic activity and category

NACE division	Economic activity	Category	Average 2020	Average 2021 (Revised)	November 2021	November 2022	December 2021 (Revised)	December 2022
01-03	**Agriculture, forestry and fishing**	Private Sector	2,109	2,141	2,147	2,158	2,143	2,159
		Public Sector	389	462	493	503	496	506
		Males	2,187	2,243	2,273	2,271	2,267	2,275
		Females	311	360	367	390	372	390
		Self-employed	1,364	1,380	1,378	1,359	1,375	1,361
		Employees	1,134	1,223	1,262	1,302	1,264	1,304
		Malta	2,007	2,085	2,113	2,149	2,113	2,149
		Gozo	491	518	527	512	526	516
		Total	**2,498**	**2,603**	**2,640**	**2,661**	**2,639**	**2,665**
05-09	**Mining and quarrying**	Private Sector	373	365	364	368	363	367
		Public Sector	-	-	-	-	-	-

		Males	329	322	321	318	320	317
		Females	44	43	43	50	43	50
		Self-employed	89	90	90	90	91	91
		Employees	284	275	274	278	272	276
		Malta	336	326	326	334	325	334
		Gozo	37	39	38	34	38	33
		Total	**373**	**365**	**364**	**368**	**363**	**367**
10-33	**Manufacturing**	Private Sector	22,246	22,196	22,125	22,770	22,017	22,758
		Public Sector	370	412	430	375	428	375
		Males	16,714	16,778	16,710	17,035	16,631	17,022
		Females	5,902	5,830	5,845	6,110	5,814	6,111
		Self-employed	1,805	1,871	1,878	1,900	1,865	1,900
		Employees	20,811	20,737	20,677	21,245	20,580	21,233
		Malta	21,505	21,482	21,408	21,926	21,305	21,922
		Gozo	1,111	1,126	1,147	1,219	1,140	1,211
		Total	**22,616**	**22,608**	**22,555**	**23,145**	**22,445**	**23,133**
35	**Electricity, gas, steam and air conditioning supply**	Private Sector	40	45	46	81	45	78
		Public Sector	164	188	188	254	188	254
		Males	181	208	210	292	209	292
		Females	23	25	24	43	24	40
		Self-employed	-	-	-	-	-	-
		Employees	204	233	234	335	233	332
		Malta	167	219	230	329	229	326
		Gozo	37	14	4	6	4	6
		Total	**204**	**233**	**234**	**335**	**233**	**332**
36-39	**Water supply; sewerage, waste management and remediation activities**	Private Sector	542	580	597	717	589	739
		Public Sector	1,235	1,220	1,203	1,181	1,195	1,178
		Males	1,502	1,512	1,503	1,589	1,487	1,598
		Females	275	288	297	309	297	319
		Self-employed	80	82	85	83	85	84
		Employees	1,697	1,718	1,715	1,815	1,699	1,833
		Malta	1,696	1,708	1,699	1,795	1,683	1,814
		Gozo	81	92	101	103	101	103
		Total	**1,777**	**1,800**	**1,800**	**1,898**	**1,784**	**1,917**
41-43	**Construction**	Private Sector	14,435	15,383	15,794	17,733	15,797	17,779
		Public Sector	593	552	562	547	563	550
		Males	14,156	14,918	15,295	16,984	15,302	17,026
		Females	872	1,017	1,061	1,296	1,058	1,303
		Self-employed	3,789	3,925	3,957	4,004	3,952	4,005
		Employees	11,239	12,010	12,399	14,276	12,408	14,324
		Malta	13,636	14,383	14,733	16,497	14,737	16,536
		Gozo	1,392	1,552	1,623	1,783	1,623	1,793
		Total	**15,028**	**15,935**	**16,356**	**18,280**	**16,360**	**18,329**
45-47	**Wholesale and retail trade; repair of motor vehicles and motorcycles**	Private Sector	28,840	29,369	29,785	31,577	29,728	31,647
		Public Sector	107	152	164	190	170	191
		Males	18,551	18,798	18,984	20,076	18,963	20,121
		Females	10,396	10,723	10,965	11,691	10,935	11,717
		Self-employed	5,686	5,690	5,671	5,611	5,654	5,592
		Employees	23,261	23,831	24,278	26,156	24,244	26,246
		Malta	27,391	27,925	28,324	30,076	28,278	30,138

		Gozo	1,556	1,596	1,625	1,691	1,620	1,700
		Total	**28,947**	**29,521**	**29,949**	**31,767**	**29,898**	**31,838**
49-53	**Transportation and storage**	Private Sector	10,452	10,577	10,853	12,327	10,906	12,503
		Public Sector	1,525	1,251	1,249	1,232	1,249	898
		Males	9,736	9,562	9,758	11,046	9,812	10,949
		Females	2,241	2,266	2,344	2,513	2,343	2,452
		Self-employed	1,976	2,172	2,268	2,488	2,296	2,493
		Employees	10,001	9,656	9,834	11,071	9,859	10,908
		Malta	11,526	11,368	11,624	13,078	11,679	12,914
		Gozo	451	460	478	481	476	487
		Total	**11,977**	**11,828**	**12,102**	**13,559**	**12,155**	**13,401**
55-56	**Accommodation and food service activities**	Private Sector	15,443	15,006	15,682	18,892	15,783	19,125
		Public Sector	-	-	-	-	-	-
		Males	10,046	9,801	10,232	12,587	10,331	12,752
		Females	5,397	5,205	5,450	6,305	5,452	6,373
		Self-employed	1,869	1,968	1,995	2,024	2,004	2,034
		Employees	13,574	13,038	13,687	16,868	13,779	17,091
		Malta	14,193	13,744	14,361	17,471	14,462	17,692
		Gozo	1,250	1,262	1,321	1,421	1,321	1,433
		Total	**15,443**	**15,006**	**15,682**	**18,892**	**15,783**	**19,125**
58-63	**Information and communication**	Private Sector	7,606	8,035	8,189	8,869	8,180	8,762
		Public Sector	716	714	718	706	709	703
		Males	5,987	6,212	6,293	6,727	6,292	6,634
		Females	2,335	2,537	2,614	2,848	2,597	2,831
		Self-employed	670	733	766	807	768	814
		Employees	7,652	8,016	8,141	8,768	8,121	8,651
		Malta	7,954	8,348	8,503	9,130	8,480	9,022
		Gozo	368	401	404	445	409	443
		Total	**8,322**	**8,749**	**8,907**	**9,575**	**8,889**	**9,465**
64-66	**Financial and insurance activities**	Private Sector	11,359	11,634	11,733	12,744	11,694	12,732
		Public Sector	817	856	865	876	861	869
		Males	6,008	6,130	6,117	6,681	6,097	6,674
		Females	6,168	6,360	6,481	6,939	6,458	6,927
		Self-employed	143	160	167	152	166	155
		Employees	12,033	12,330	12,431	13,468	12,389	13,446
		Malta	11,731	12,036	12,137	13,114	12,095	13,099
		Gozo	445	454	461	506	460	502
		Total	**12,176**	**12,490**	**12,598**	**13,620**	**12,555**	**13,601**
68	**Real estate activities**	Private Sector	2,026	2,193	2,234	2,449	2,240	2,442
		Public Sector	163	173	176	217	175	215
		Males	1,383	1,490	1,527	1,663	1,522	1,656
		Females	806	876	883	1,003	893	1,001
		Self-employed	971	1,114	1,163	1,187	1,158	1,187
		Employees	1,218	1,252	1,247	1,479	1,257	1,470
		Malta	2,033	2,208	2,251	2,508	2,259	2,502
		Gozo	156	158	159	158	156	155
		Total	**2,189**	**2,366**	**2,410**	**2,666**	**2,415**	**2,657**
69-75	**Professional, scientific and technical activities**	Private Sector	16,415	17,058	17,253	18,879	17,256	18,959
		Public Sector	187	201	215	206	213	207
		Males	9,417	9,747	9,881	10,812	9,862	10,870

		Females	7,185	7,512	7,587	8,273	7,607	8,296
		Self-employed	2,640	2,870	2,931	3,053	2,940	3,074
		Employees	13,962	14,389	14,537	16,032	14,529	16,092
		Malta	16,032	16,627	16,810	18,379	16,812	18,450
		Gozo	570	632	658	706	657	716
		Total	**16,602**	**17,259**	**17,468**	**19,085**	**17,469**	**19,166**
77-82	**Administrative and support service activities**	Private Sector	20,802	21,401	23,370	27,874	23,385	28,103
		Public Sector	3,016	3,004	2,986	2,906	2,984	3,017
		Males	14,162	14,364	15,099	18,059	15,103	18,279
		Females	9,656	10,041	11,257	12,721	11,266	12,841
		Self-employed	1,340	1,420	1,421	1,469	1,421	1,484
		Employees	22,478	22,985	24,935	29,311	24,948	29,636
		Malta	22,394	22,790	24,668	28,865	24,672	29,200
		Gozo	1,424	1,615	1,688	1,915	1,697	1,920
		Total	**23,818**	**24,405**	**26,356**	**30,780**	**26,369**	**31,120**
84	**Public administration and defence; compulsory social security**	Private Sector	-	-	-	-	-	-
		Public Sector	16,291	17,002	17,220	17,135	17,127	16,994
		Males	10,278	10,632	10,733	10,586	10,666	10,488
		Females	6,013	6,370	6,487	6,549	6,461	6,506
		Self-employed	-	-	-	-	-	-
		Employees	16,291	17,002	17,220	17,135	17,127	16,994
		Malta	15,162	15,809	16,011	15,880	15,918	15,740
		Gozo	1,129	1,193	1,209	1,255	1,209	1,254
		Total	**16,291**	**17,002**	**17,220**	**17,135**	**17,127**	**16,994**
85	**Education**	Private Sector	6,351	6,509	6,571	6,759	6,555	6,776
		Public Sector	12,008	12,285	12,367	12,251	12,328	12,242
		Males	5,262	5,353	5,357	5,282	5,337	5,273
		Females	13,097	13,441	13,581	13,728	13,546	13,745
		Self-employed	486	512	528	516	529	515
		Employees	17,873	18,282	18,410	18,494	18,354	18,503
		Malta	16,959	17,370	17,509	17,612	17,453	17,621
		Gozo	1,400	1,424	1,429	1,398	1,430	1,397
		Total	**18,359**	**18,794**	**18,938**	**19,010**	**18,883**	**19,018**
86-88	**Human health and social work activities**	Private Sector	8,037	8,127	6,867	7,425	6,858	7,492
		Public Sector	11,493	11,866	12,042	11,971	11,963	11,928
		Males	6,711	6,843	6,490	6,575	6,443	6,578
		Females	12,819	13,150	12,419	12,821	12,378	12,842
		Self-employed	567	598	611	636	613	641
		Employees	18,963	19,395	18,298	18,760	18,208	18,779
		Malta	18,237	18,708	17,636	18,097	17,553	18,119
		Gozo	1,293	1,285	1,273	1,299	1,268	1,301
		Total	**19,530**	**19,993**	**18,909**	**19,396**	**18,821**	**19,0**
90-93	**Arts, entertainment and recreation**	Private Sector	10,112	11,074	11,493	12,827	11,409	12,719
		Public Sector	754	808	818	812	815	806
		Males	6,778	7,233	7,454	8,107	7,408	8,047
		Females	4,088	4,649	4,857	5,532	4,816	5,478
		Self-employed	910	972	992	1,014	998	1,019
		Employees	9,956	10,910	11,319	12,625	11,226	12,506
		Malta	10,538	11,525	11,949	13,269	11,863	13,158
		Gozo	328	357	362	370	361	367

		Total	**10,866**	**11,882**	**12,311**	**13,639**	**12,224**	**13,525**
94-96	**Other service activities**	Private Sector	5,040	5,247	5,377	5,834	5,380	5,830
		Public Sector	22	21	22	23	22	23
		Males	2,198	2,300	2,352	2,587	2,348	2,587
		Females	2,864	2,968	3,047	3,270	3,054	3,266
		Self-employed	2,554	2,686	2,712	2,780	2,717	2,777
		Employees	2,508	2,582	2,687	3,077	2,685	3,076
		Malta	4,806	5,000	5,134	5,578	5,140	5,568
		Gozo	256	268	265	279	262	285
		Total	**5,062**	**5,268**	**5,399**	**5,857**	**5,402**	**5,853**
97-98	**Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use**	Private Sector	371	396	422	478	432	495
		Public Sector	-	-	-	-	-	-
		Males	47	45	47	57	48	58
		Females	324	351	375	421	384	437
		Self-employed	6	6	7	9	7	9
		Employees	365	390	415	469	425	486
		Malta	35	370	395	436	406	451
		Gozo	9	26	27	42	26	44
		Total	**371**	**396**	**422**	**478**	**432**	**495**
99	**Activities of extraterritorial organisations and bodies**	Private Sector	230	256	259	260	259	259
		Public Sector	-	-	-	-	-	81
		Males	147	163	167	164	166	216
		Females	83	93	92	96	93	124
		Self-employed	1	1	1	2	1	2
		Employees	229	255	258	258	258	338
		Malta	229	254	257	257	256	337
		Gozo	1	2	2	3	3	3
		Total	**230**	**256**	**259**	**260**	**259**	**340**
01-99	**Total Gainfully Occupied (including apprentices)**	**Private Sector**	**182,829**	**187,592**	**191,161**	**211,021**	**191,019**	**211,724**
		Public Sector	**49,850**	**51,167**	**51,718**	**51,385**	**51,486**	**51,037**[1]
		Males	**141,780**	**144,654**	**146,803**	**159,498**	**146,614**	**159,712**
		Females	**90,899**	**94,105**	**96,076**	**102,908**	**95,891**	**103,049**
		Self-employed	**26,946**	**28,250**	**28,621**	**29,184**	**28,640**	**29,237**
		Employees	**205,733**	**210,509**	**214,258**	**233,222**	**213,865**	**233,524**
		Malta	**218,884**	**224,285**	**228,078**	**246,780**	**227,718**	**247,092**
		Gozo	**13,795**	**14,474**	**14,801**	**15,626**	**14,787**	**15,669**
		Total	**232,679**	**238,759**	**242,879**	**262,406**	**242,505**	**262,761**

[1] Public sector employment for December 2022 stood at 51,037, while the full-time equivalent (FTE) was calculated at 47,759. Refer to methodological note 5.

Table 3 – Part-time employment classified by period and economic activity.

NACE division	Economic activity	Average	Average	November	November	December	December

01-03	**Agriculture, forestry and fishing**	**2,888**	**3,122**	**3,200**	**3,404**	**3,201**	**3,409**
01	Crop and animal production, hunting and related service activities	2,262	2,504	2,581	2,786	2,585	2,797
02	Forestry and logging	-	-	-	-	-	-
03	Fishing and aquaculture	626	618	619	618	616	612
05-09	**Mining and quarrying**	**44**	**44**	**43**	**50**	**45**	**52**
05	Mining of coal and lignite	-	-	-	-	-	-
06	Extraction of crude petroleum and natural gas	-	-	-	-	-	-
07	Mining of metal ores	-	-	-	-	-	-
08	Other mining and quarrying	33	34	33	39	33	39
09	Mining support service activities	11	10	10	11	12	13
10-33	**Manufacturing**	**3,096**	**3,247**	**3,312**	**3,415**	**3,316**	**3,411**
10	Manufacture of food products	717	710	708	674	711	674
11	Manufacture of beverages	79	89	89	74	87	74
12	Manufacture of tobacco products	1	1	1	1	1	1
13	Manufacture of textiles	73	86	92	107	93	111
14	Manufacture of wearing apparel	77	84	82	96	85	100
15	Manufacture of leather and related products	3	6	6	7	6	7
16	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	77	87	90	108	90	108
17	Manufacture of paper and paper products	34	36	36	35	36	35
18	Printing and reproduction of recorded media	200	215	215	246	218	246
19	Manufacture of coke and refined petroleum products	1	4	4	4	4	4
20	Manufacture of chemicals and chemical products	52	56	55	60	56	58
21	Manufacture of basic pharmaceutical products and pharmaceutical preparations	69	75	72	78	72	77
22	Manufacture of rubber and plastic products	92	133	170	178	165	175
23	Manufacture of other non-metallic mineral products	163	160	160	166	159	165
24	Manufacture of basic metals	81	93	89	95	90	94
25	Manufacture of fabricated metal products, except machinery and equipment	225	235	235	242	238	245
26	Manufacture of computer, electronic and optical products	68	59	55	54	55	54
27	Manufacture of electrical equipment	97	88	92	91	90	91
28	Manufacture of machinery and equipment n.e.c.	51	62	61	50	61	55
29	Manufacture of motor vehicles, trailers and semi-trailers	104	85	75	84	76	83
30	Manufacture of other transport equipment	98	80	77	85	76	83
31	Manufacture of furniture	309	302	295	279	294	275
32	Other manufacturing	172	233	274	292	271	287
33	Repair and installation of machinery and equipment	253	268	279	309	282	309
35	**Electricity, gas, steam and air conditioning supply**	**7**	**12**	**4**	**4**	**3**	**4**
36-39	**Water supply; sewerage, waste management and remediation activities**	**149**	**141**	**124**	**123**	**126**	**123**
36	Water collection, treatment and supply	40	37	18	24	18	24
37	Sewerage	3	3	3	4	3	4

38	Waste collection, treatment and disposal activities; materials recovery	100	96	97	88	99	88
39	Remediation activities and other waste management services	6	5	6	7	6	7
1-43	**Construction**	**2,234**	**2,465**	**2,508**	**2,744**	**2,520**	**2,736**
41	Construction of buildings	550	600	603	639	606	634
42	Civil engineering	105	114	115	163	114	161
43	Specialized construction activities	1,579	1,751	1,790	1,942	1,800	1,941
45-47	**Wholesale and retail trade; repair of motor vehicles and motorcycles**	**10,375**	**10,543**	**10,796**	**11,206**	**10,736**	**11,184**
45	Wholesale and retail trade and repair of motor vehicles and motorcycles	742	754	761	822	764	822
46	Wholesale trade, except of motor vehicles and motorcycles	2,518	2,565	2,600	2,791	2,582	2,807
47	Retail trade, except of motor vehicles and motorcycles	7,115	7,224	7,435	7,593	7,390	7,555
49-53	**Transportation and storage**	**3,020**	**3,484**	**3,713**	**4,459**	**3,738**	**4,453**
49	Land transport and transport via pipelines	1,796	1,953	2,095	2,601	2,090	2,618
50	Water transport	159	168	166	172	170	172
51	Air transport	366	243	121	136	123	135
52	Warehousing and support activities for transportation	466	608	710	798	721	790
53	Postal and courier activities	233	512	621	752	634	738
55-56	**Accommodation and food service activities**	**7,172**	**7,061**	**7,415**	**7,564**	**7,398**	**7,531**
55	Accommodation	1,882	1,767	1,888	1,993	1,880	1,994
56	Food and beverage service activities	5,290	5,294	5,527	5,571	5,518	5,537
58-63	**Information and communication**	**1,932**	**2,045**	**2,100**	**2,302**	**2,114**	**2,319**
58	Publishing activities	239	253	257	295	261	297
59	Motion picture, video and television programme production, sound recording and music publishing activities	284	309	314	352	313	353
60	Programming and broadcasting activities	201	179	213	206	216	207
61	Telecommunications	195	164	131	130	134	128
62	Computer programming, consultancy and related activities	875	971	994	1,105	1,001	1,116
63	Information service activities	138	169	191	214	189	218
64-66	**Financial and insurance activities**	**1,250**	**1,274**	**1,233**	**1,308**	**1,231**	**1,309**
64	Financial service activities, except insurance and pension funding	674	707	678	722	674	721
65	Insurance, reinsurance and pension funding, except compulsory social security	225	213	204	199	207	197
66	Activities auxiliary to financial services and insurance activities	351	354	351	387	350	391
68	**Real estate activities**	**1,155**	**1,344**	**1,438**	**1,674**	**1,437**	**1,686**
69-75	**Professional, scientific and technical activities**	**6,069**	**6,459**	**6,612**	**7,489**	**6,605**	**7,487**
69	Legal and accounting activities	1,563	1,640	1,681	1,949	1,681	1,947
70	Activities of head offices; management consultancy activities	1,994	2,033	1,966	2,277	1,953	2,262
71	Architectural and engineering activities; technical testing and analysis	857	942	974	1,077	982	1,090
72	Scientific research and development	59	69	74	75	72	75
73	Advertising and market research	578	639	683	718	673	713
74	Other professional, scientific and technical activities	966	1,073	1,161	1,322	1,169	1,328
75	Veterinary activities	52	63	73	71	75	72
77-82	**Administrative and support service activities**	**5,257**	**5,788**	**6,328**	**6,740**	**6,363**	**6,700**
77	Rental and leasing activities	555	562	586	624	584	619
78	Employment activities	618	793	1,179	1,369	1,166	1,339

79	Travel agency, tour operator and other reservation service and related activities	573	539	561	614	560	614
80	Security and investigation activities	1,229	1,287	1,297	1,396	1,319	1,360
81	Services to buildings and landscape activities	994	1,037	1,058	1,122	1,052	1,135
82	Office administrative, office support and other business support activities	1,288	1,570	1,647	1,615	1,682	1,633
84	**Public administration and defence; compulsory social security**	**3,117**	**3,326**	**3,129**	**3,363**	**3,120**	**3,325**
85	**Education**	**5,514**	**5,756**	**5,790**	**5,831**	**5,760**	**5,824**
86-88	**Human health and social work activities**	**3,578**	**3,454**	**3,244**	**3,351**	**3,294**	**3,362**
86	Human health activities	1,364	1,530	1,554	1,614	1,620	1,627
87	Residential care activities	1,348	1,078	864	858	849	859
88	Social work activities without accommodation	866	846	826	879	825	876
90-93	**Arts, entertainment and recreation**	**3,162**	**3,286**	**3,440**	**3,783**	**3,439**	**3,811**
90	Creative, arts and entertainment activities	1,271	1,382	1,447	1,689	1,463	1,695
91	Libraries, archives, museums and other cultural activities	103	97	96	103	95	103
92	Gambling and betting activities	515	505	507	480	490	485
93	Sports activities and amusement and recreation activities	1,273	1,302	1,390	1,511	1,391	1,528
94-96	**Other service activities**	**2,830**	**3,043**	**3,131**	**3,269**	**3,135**	**3,269**
94	Activities of membership organisations	561	568	580	557	575	560
95	Repair of computers and personal and household goods	205	236	249	287	249	289
96	Other personal service activities	2,064	2,239	2,302	2,425	2,311	2,420
97-98	**Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use**	**40**	**39**	**37**	**41**	**38**	**43**
97	Activities of households as employers of domestic personnel	35	37	37	41	38	43
98	Undifferentiated goods- and services-producing activities of private households for own use	5	2	-	-	-	-
99	**Activities of extraterritorial organisations and bodies**	**14**	**14**	**12**	**12**	**13**	**11**
01-99	**Total**	**62,903**	**65,947**	**67,609**	**72,132**	**67,632**	**72,049**

Table 4 – Part-time employment classified by period, economic activity, part-time job type and category

NACE division	Economic activity	Type of part-time job	Category	Average 2020	Average 2021 (Revised)	November 2021	November 2022	December 2021 (Revised)	December 2022
01-03	**Agriculture, forestry and fishing**	Part-timers holding a full-time job	Males	1,698	1,862	1,909	2,044	1,911	2,044
			Females	152	177	191	228	190	226
			Malta	1,440	1,588	1,631	1,768	1,633	1,767
			Gozo	410	451	469	504	468	503
			Total	**1,850**	**2,039**	**2,100**	**2,272**	**2,101**	**2,270**
		Part-time as a	Males	842	877	893	917	895	921
			Females	196	206	207	215	205	218

		primary job	Malta	859	900	914	934	911	939
			Gozo	179	183	186	198	189	200
			Total	**1,038**	**1,083**	**1,100**	**1,132**	**1,100**	**1,139**
		Total		**2,888**	**3,122**	**3,200**	**3,404**	**3,201**	**3,409**
05-09	**Mining and quarrying**	Part-timers holding a full-time job	Males	19	22	23	29	24	30
			Females	4	4	4	3	5	4
			Malta	13	16	17	20	19	22
			Gozo	10	10	10	12	10	12
			Total	**23**	**26**	**27**	**32**	**29**	**34**
		Part-time as a primary job	Males	16	14	13	15	13	15
			Females	5	4	3	3	3	3
			Malta	17	14	13	14	13	14
			Gozo	4	4	3	4	3	4
			Total	**21**	**18**	**16**	**18**	**16**	**18**
		Total		**44**	**44**	**43**	**50**	**45**	**52**
10-33	**Manufacturing**	Part-timers holding a full-time job	Males	1,166	1,234	1,263	1,315	1,273	1,308
			Females	307	377	393	440	388	451
			Malta	1,303	1,425	1,467	1,562	1,476	1,564
			Gozo	170	186	189	193	185	195
			Total	**1,473**	**1,611**	**1,656**	**1,755**	**1,661**	**1,759**
		Part-time as a primary job	Males	790	791	799	794	791	794
			Females	833	845	857	866	864	858
			Malta	1,497	1,511	1,538	1,537	1,538	1,528
			Gozo	126	125	118	123	117	124
			Total	**1,623**	**1,636**	**1,656**	**1,660**	**1,655**	**1,652**
		Total		**3,096**	**3,247**	**3,312**	**3,415**	**3,316**	**3,411**
35	**Electricity, gas, steam and air conditioning supply**	Part-timers holding a full-time job	Males	2	1	-	-	-	-
			Females	1	1	-	-	-	-
			Malta	3	2	-	-	-	-
			Gozo	-	-	-	-	-	-
			Total	**3**	**2**	**-**	**-**	**-**	**-**
		Part-time as a primary job	Males	2	5	1	2	1	2
			Females	2	5	3	2	2	2
			Malta	3	9	4	3	3	3
			Gozo	1	1	-	1	-	1
			Total	**4**	**10**	**4**	**4**	**3**	**4**
		Total		**7**	**12**	**4**	**4**	**3**	**4**
36-39	**Water supply; sewerage, waste management and remediation activities**	Part-timers holding a full-time job	Males	64	59	59	53	59	55
			Females	9	8	8	10	8	8
			Malta	67	60	60	56	60	56
			Gozo	6	7	7	7	7	7
			Total	**73**	**67**	**67**	**63**	**67**	**63**
		Part-time as a primary job	Males	53	47	36	43	37	41
			Females	23	27	21	17	22	19
			Malta	73	71	54	54	56	55
			Gozo	3	3	3	6	3	5
			Total	**76**	**74**	**57**	**60**	**59**	**60**
		Total		**149**	**141**	**124**	**123**	**126**	**123**
41-43	**Construction**	Part-timers holding a full-time job	Males	1,279	1,442	1,473	1,587	1,472	1,581
			Females	112	123	128	153	134	155
			Malta	1,138	1,281	1,315	1,421	1,316	1,418
			Gozo	253	284	286	319	290	318
			Total	**1,391**	**1,565**	**1,601**	**1,740**	**1,606**	**1,736**
		Part-time as a	Males	681	724	731	819	739	816
			Females	162	176	176	185	175	184
			Malta	751	808	813	920	822	916

		primary job	Gozo	92	92	94	84	92	84
			Total	**843**	**900**	**907**	**1,004**	**914**	**1,000**
		Total		**2,234**	**2,465**	**2,508**	**2,744**	**2,520**	**2,736**
45-47	**Wholesale and retail trade; repair of motor vehicles and motorcycles**	Part-timers holding a full-time job	Males	2,693	2,870	2,902	3,106	2,908	3,091
			Females	1,559	1,718	1,800	2,047	1,793	2,028
			Malta	3,832	4,142	4,248	4,657	4,250	4,619
			Gozo	420	446	454	496	451	500
			Total	**4,252**	**4,588**	**4,702**	**5,153**	**4,701**	**5,119**
		Part-time as a primary job	Males	1,987	1,965	1,988	2,028	1,985	2,049
			Females	4,136	3,990	4,106	4,025	4,050	4,016
			Malta	5,722	5,549	5,683	5,664	5,633	5,667
			Gozo	401	406	411	389	402	398
			Total	**6,123**	**5,955**	**6,094**	**6,053**	**6,035**	**6,065**
		Total		**10,375**	**10,543**	**10,796**	**11,206**	**10,736**	**11,184**
49-53	**Transportation and storage**	Part-timers holding a full-time job	Males	1,482	1,892	2,070	2,477	2,061	2,462
			Females	264	333	327	422	333	429
			Malta	1,623	2,048	2,210	2,672	2,207	2,662
			Gozo	123	177	187	227	187	229
			Total	**1,746**	**2,225**	**2,397**	**2,899**	**2,394**	**2,891**
		Part-time as a primary job	Males	891	920	959	1,201	981	1,203
			Females	383	339	357	359	363	359
			Malta	1,200	1,182	1,238	1,467	1,267	1,478
			Gozo	74	77	78	93	77	84
			Total	**1,274**	**1,259**	**1,316**	**1,560**	**1,344**	**1,562**
		Total		**3,020**	**3,484**	**3,713**	**4,459**	**3,738**	**4,453**
55-56	**Accommodation and food service activities**	Part-timers holding a full-time job	Males	2,240	2,361	2,467	2,654	2,474	2,634
			Females	1,023	1,035	1,081	1,215	1,078	1,217
			Malta	2,894	3,028	3,177	3,462	3,182	3,448
			Gozo	369	368	371	407	370	403
			Total	**3,263**	**3,396**	**3,548**	**3,869**	**3,552**	**3,851**
		Part-time as a primary job	Males	1,842	1,741	1,850	1,768	1,843	1,762
			Females	2,067	1,924	2,017	1,927	2,003	1,918
			Malta	3,573	3,349	3,563	3,376	3,541	3,366
			Gozo	336	316	304	319	305	314
			Total	**3,909**	**3,665**	**3,867**	**3,695**	**3,846**	**3,680**
		Total		**7,172**	**7,061**	**7,415**	**7,564**	**7,398**	**7,531**
58-63	**Information and communication**	Part-timers holding a full-time job	Males	834	930	970	1,057	973	1,073
			Females	270	287	300	328	299	323
			Malta	1,036	1,137	1,190	1,289	1,190	1,302
			Gozo	68	80	80	96	82	94
			Total	**1,104**	**1,217**	**1,270**	**1,385**	**1,272**	**1,396**
		Part-time as a primary job	Males	466	470	477	543	481	545
			Females	362	358	353	374	361	378
			Malta	788	783	780	874	790	878
			Gozo	40	45	50	43	52	45
			Total	**828**	**828**	**830**	**917**	**842**	**923**
		Total		**1,932**	**2,045**	**2,100**	**2,302**	**2,114**	**2,319**
64-66	**Financial and insurance activities**	Part-timers holding a full-time job	Males	328	324	313	324	309	322
			Females	169	179	176	193	171	192
			Malta	481	485	472	499	464	496
			Gozo	16	18	17	18	16	18
			Total	**497**	**503**	**489**	**517**	**480**	**514**
		Part-time as a primary job	Males	286	297	290	337	290	341
			Females	467	474	454	454	461	454
			Malta	733	747	722	772	728	775
			Gozo	20	24	22	19	23	20

			Total	**753**	**771**	**744**	**791**	**751**	**795**
		Total		**1,250**	**1,274**	**1,233**	**1,308**	**1,231**	**1,309**
68	**Real estate activities**	Part-timers holding a full-time job	Males	460	557	614	715	614	715
			Females	258	313	342	418	345	417
			Malta	622	764	838	992	838	991
			Gozo	96	106	118	141	121	141
			Total	**718**	**870**	**956**	**1,133**	**959**	**1,132**
		Part-time as a primary job	Males	187	203	209	232	207	240
			Females	250	271	273	309	271	314
			Malta	378	420	429	482	426	493
			Gozo	59	54	53	59	52	61
			Total	**437**	**474**	**482**	**541**	**478**	**554**
		Total		**1,155**	**1,344**	**1,438**	**1,674**	**1,437**	**1,686**
69-75	**Professional, scientific and technical activities**	Part-timers holding a full-time job	Males	2,116	2,317	2,393	2,669	2,393	2,677
			Females	1,265	1,430	1,531	1,801	1,520	1,794
			Malta	3,166	3,511	3,674	4,202	3,662	4,203
			Gozo	215	236	250	268	251	268
			Total	**3,381**	**3,747**	**3,924**	**4,470**	**3,913**	**4,471**
		Part-time as a primary job	Males	1,222	1,230	1,217	1,391	1,226	1,393
			Females	1,466	1,482	1,471	1,628	1,466	1,623
			Malta	2,543	2,569	2,538	2,856	2,540	2,851
			Gozo	145	143	150	163	152	165
			Total	**2,688**	**2,712**	**2,688**	**3,019**	**2,692**	**3,016**
		Total		**6,069**	**6,459**	**6,612**	**7,489**	**6,605**	**7,487**
77-82	**Administrative and support service activities**	Part-timers holding a full-time job	Males	1,700	1,817	1,954	2,140	1,942	2,120
			Females	871	974	1,050	1,235	1,075	1,225
			Malta	2,394	2,586	2,780	3,120	2,790	3,092
			Gozo	177	205	224	255	227	253
			Total	**2,571**	**2,791**	**3,004**	**3,375**	**3,017**	**3,345**
		Part-time as a primary job	Males	1,070	1,163	1,204	1,223	1,215	1,241
			Females	1,616	1,834	2,120	2,142	2,131	2,114
			Malta	2,477	2,747	3,021	3,044	3,047	3,039
			Gozo	209	250	303	321	299	316
			Total	**2,686**	**2,997**	**3,324**	**3,365**	**3,346**	**3,355**
		Total		**5,257**	**5,788**	**6,328**	**6,740**	**6,363**	**6,700**
84	**Public administration and defence; compulsory social security**	Part-timers holding a full-time job	Males	438	457	462	508	464	497
			Females	598	667	669	767	672	752
			Malta	942	1,019	1,025	1,172	1,032	1,146
			Gozo	94	105	106	103	104	103
			Total	**1,036**	**1,124**	**1,131**	**1,275**	**1,136**	**1,249**
		Part-time as a primary job	Males	691	777	739	770	728	768
			Females	1,390	1,425	1,259	1,318	1,256	1,308
			Malta	1,929	2,051	1,865	1,947	1,851	1,936
			Gozo	152	151	133	141	133	140
			Total	**2,081**	**2,202**	**1,998**	**2,088**	**1,984**	**2,076**
		Total		**3,117**	**3,326**	**3,129**	**3,363**	**3,120**	**3,325**
85	**Education**	Part-timers holding a full-time job	Males	1,684	1,795	1,834	1,780	1,826	1,770
			Females	1,551	1,713	1,765	1,776	1,760	1,783
			Malta	3,042	3,275	3,346	3,311	3,334	3,308
			Gozo	193	233	253	245	252	245
			Total	**3,235**	**3,508**	**3,599**	**3,556**	**3,586**	**3,553**
		Part-time as a primary job	Males	888	879	853	870	854	870
			Females	1,391	1,369	1,338	1,405	1,320	1,401
			Malta	2,149	2,123	2,067	2,136	2,050	2,132
			Gozo	130	125	124	139	124	139
			Total	**2,279**	**2,248**	**2,191**	**2,275**	**2,174**	**2,271**
		Total		**5,514**	**5,756**	**5,790**	**5,831**	**5,760**	**5,824**
86-88		Part-timers	Males	527	529	529	540	534	542
			Females	893	901	909	966	916	980

	Human health and social work activities	holding a full-time job	Malta	1,311	1,317	1,325	1,392	1,339	1,405
			Gozo	109	113	113	114	111	117
			Total	**1,420**	**1,430**	**1,438**	**1,506**	**1,450**	**1,522**
		Part-time as a primary job	Males	365	377	360	388	379	391
			Females	1,793	1,647	1,446	1,457	1,465	1,449
			Malta	1,972	1,839	1,692	1,748	1,728	1,743
			Gozo	186	185	114	97	116	97
			Total	**2,158**	**2,024**	**1,806**	**1,845**	**1,844**	**1,840**
		Total		**3,578**	**3,454**	**3,244**	**3,351**	**3,294**	**3,362**
90-93	**Arts, entertainment and recreation**	Part-timers holding a full-time job	Males	1,134	1,202	1,271	1,411	1,271	1,425
			Females	587	648	705	825	698	816
			Malta	1,605	1,723	1,835	2,079	1,829	2,081
			Gozo	116	127	141	157	140	160
			Total	**1,721**	**1,850**	**1,976**	**2,236**	**1,969**	**2,241**
		Part-time as a primary job	Males	654	658	663	719	672	736
			Females	787	778	801	828	798	834
			Malta	1,349	1,344	1,367	1,449	1,373	1,470
			Gozo	92	92	97	98	97	100
			Total	**1,441**	**1,436**	**1,464**	**1,547**	**1,470**	**1,570**
		Total		**3,162**	**3,286**	**3,440**	**3,783**	**3,439**	**3,811**
94-96	**Other service activities**	Part-timers holding a full-time job	Males	596	692	727	764	724	758
			Females	574	673	718	772	721	777
			Malta	1,099	1,286	1,364	1,447	1,366	1,443
			Gozo	71	79	81	89	79	92
			Total	**1,170**	**1,365**	**1,445**	**1,536**	**1,445**	**1,535**
		Part-time as a primary job	Males	510	550	545	568	547	579
			Females	1,150	1,128	1,141	1,165	1,143	1,155
			Malta	1,552	1,561	1,568	1,611	1,570	1,615
			Gozo	108	117	118	122	120	119
			Total	**1,660**	**1,678**	**1,686**	**1,733**	**1,690**	**1,734**
		Total		**2,830**	**3,043**	**3,131**	**3,269**	**3,135**	**3,269**
97-98	**Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use**	Part-timers holding a full-time job	Males	9	10	10	9	10	9
			Females	10	9	9	9	8	9
			Malta	16	17	17	15	16	15
			Gozo	3	2	2	3	2	3
			Total	**19**	**19**	**19**	**18**	**18**	**18**
		Part-time as a primary job	Males	3	2	2	2	2	3
			Females	18	18	16	21	18	22
			Malta	17	17	16	21	18	23
			Gozo	4	3	2	2	2	2
			Total	**21**	**20**	**18**	**23**	**20**	**25**
		Total		**40**	**39**	**37**	**41**	**38**	**43**
99	**Activities of extraterritorial organisations and bodies**	Part-timers holding a full-time job	Males	1	-	-	-	-	-
			Females	1	2	1	1	1	1
			Malta	2	2	1	1	1	1
			Gozo	-	-	-	-	-	-
			Total	**2**	**2**	**1**	**1**	**1**	**1**
		Part-time as a primary job	Males	3	3	2	2	2	1
			Females	9	9	9	9	10	9
			Malta	12	12	11	11	12	10
			Gozo	-	-	-	-	-	-
			Total	**12**	**12**	**11**	**11**	**12**	**10**
		Total		**14**	**14**	**12**	**12**	**13**	**11**
01-99	**Total**	**Part-timers holding a full-time job**	**Males**	**20,470**	**22,373**	**23,243**	**25,182**	**23,242**	**25,113**
			Females	**10,478**	**11,572**	**12,107**	**13,609**	**12,115**	**13,587**
			Malta	**28,029**	**30,712**	**31,992**	**35,137**	**32,004**	**35,039**
			Gozo	**2,919**	**3,233**	**3,358**	**3,654**	**3,353**	**3,661**
			Total	**30,948**	**33,945**	**35,350**	**38,791**	**35,357**	**38,700**
		Part-time as a primary job	**Males**	**13,449**	**13,693**	**13,831**	**14,632**	**13,888**	**14,711**
			Females	**18,506**	**18,309**	**18,428**	**18,709**	**18,387**	**18,638**
			Malta	**29,594**	**29,606**	**29,896**	**30,920**	**29,917**	**30,931**
			Gozo	**2,361**	**2,396**	**2,363**	**2,421**	**2,358**	**2,418**
			Total	**31,955**	**32,002**	**32,259**	**33,341**	**32,275**	**33,349**
		Total part-timers		**62,903**	**65,947**	**67,609**	**72,132**	**67,632**	**72,049**

Appendix T - Assessing The Normality Distribution

An assessment of the normality of data is a prerequisite for various statistical tests because normal data is an underlying assumption in parametric testing. Normality can be assessed by the Shapiro-Wilk test. The null (H_0) and alternative (H_1) hypothesis are as follows:

H_0: Variable is normally distributed

H_1: Variable is not normally distributed

When analysing differences between groups using parametric tests, a common assumption in all these tests is that the dependent variable is approximately normally distributed for each group of the independent variable. In this study, the dependent variable is the number of children and the independent variables are: (1) Age groups, (2) District and (3) Labour Status. In this case, one needs to show whether the total number of children are normally distributed for each group of the independent variable.

If the assumption of normality will be violated, the p-value will be less than 0.05. If the assumption of normality has not been violated, the p-value will be greater than 0.05. This is because the Shapiro-Wilk test is evaluating the null hypothesis that the distribution of the data is equal to a normal distribution. Rejecting the null hypothesis means that the distribution of the data is not equal to a normal distribution.

The resulting output below are the normality tests performed for each scale:

	Age Bracket	Statistic	P-value
How many children do you have?	16-25	0.697	<0.0005
	26-35	0.740	<0.0005
	36-45	0.794	<0.0005
	46-55	0.747	<0.0005
	56-65	0.832	<0.0005
	66+	0.873	<0.0005

Table T.1 - Test of normality for the number of children by age group

All p-values for all age categories were all less than 0.05 level of significance implying that the normality assumption was not satisfied (Table T.1).

	District	Statistic	P-value
How many children do you have?	Southern Harbour	0.829	<0.0005
	Northern Harbour	0.819	<0.0005
	South Eastern	0.849	<0.0005
	Western	0.838	<0.0005
	Northern	0.860	<0.0005
	Gozo and Comino	0.708	<0.0005

Table T.2- Test of normality for the number of children by district

All p-values for all districts were all less than 0.05 level of significance implying that the normality assumption was not satisfied (Table T.2).

	Labour status	Statistic	P-value
How many children do you have?	Employee	0.224	<0.001
	Stay-at-home woman	0.276	<0.001
	Unemployed	-	-
	Retired	0.258	<0.001

Table T.3 - Test of Normality for the number of children by labour status

All p-values for all labour status categories were all less than 0.05 level of significance implying that the normality assumption was not satisfied (Table T.3). The result for the unemployed category was not issued due to the very small sample size.

In view of the above normality test result, one should analyse the data with the following *non-parametric test* for this research study:

Kruskal-Wallis test – compare the number of children between: (1) Age groups, (2) District and (3) Labour Status.

All hypothesis tests ultimately use a ***p*-value** to weigh the strength of the evidence. The p-value is a number between 0 and 1 and is interpreted in the following way (using **95% confidence interval**):

- A small ***p*-value (≤ 0.05)** shows robust evidence against the null hypothesis, so you **reject the null hypothesis**.
- A large *p*-value (> 0.05) shows weak evidence against the null hypothesis, so you accept the null hypothesis.