

# Refugees and Rural Population Growth in Italy

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**Published:** 30 August 2020

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**Abstract**

This paper investigates the relationship between refugee numbers and rural population growth in Italy from 1990 to 2018. The obtained and analyzed data are from the world bank 2018 database. The study applied a linear regression for one independent variable (refugee numbers in Italy) and one dependent variable (rural population growth) over a period of 29 years. However, the refugees have helped to repopulate many rural areas in the South of Italy that are less-populated and full of elderly people. But overall, the study reveals that there is no statistical positive relationship between the high numbers of refugees Italy receives every year and the rural population growth in the country. Instead, there is an inverse relationship between the two indicators, and the correlation coefficient value is  $(-0.80)$ . Even though Italy has received 715,635 refugees in the years (2014-2018), there is a significant decline in rural population growth (on average  $= -0.898$ ) in the country for the same period. It is suggested that the Italian government and policymakers should plan strategies and initiatives to move the refugees to the less-developed and less-populated areas in the south of Italy. Rather than leaving the matter unplanned and based on free choices of the refugees and host communities. This can invert the refugees in Italy from being a challenge to an opportunity to foster sustainable development in these rural areas.

**Keywords:** Refugees and Asylum Seekers, Italy, Rural Population Growth, Challenge, and Opportunity

**1. Introduction**

Since the end of the Second World War (1945), Italy has been receiving a lot of refugees every year. Their numbers have increased significantly in the last recent years, particularly after the crises in the Middle East (the so-called Arab Spring<sup>1</sup>). In Italy, the refugees have been a controversial issue due to many reasons. On one hand, they can be a potential opportunity for future development in the less-populated and less-developed rural areas. Many Italian rural areas have become ghost towns, as many young Italians left them to look for better economic opportunities in the North or abroad. Plus, there is a big drop in birth rates in Italy, particularly in the last decade. However, the refugees have registered many successful stories of fostering development in many less-populated areas in the South. But on the other hand, the majority of the Italian population perceives the refugees as a big challenge and considers them as the main reason behind many economic and social problems. Furthermore, they view them as a threat to the social fabric, local opportunities, culture, and national identity.

Anyway, the main aim of this study is to find out if there is a positive relationship between the increase in refugee numbers and rural population growth in Italy from 1990 to 2018. The study obtained and analyzed its data from the world bank 2018 database. More specifically, a linear regression was carried out for one independent variable (refugee numbers in Italy) and one dependent variable (rural population growth) over a period of 29 years. The findings reveal that there is no statistical evidence on the positive relationship between the high numbers of refugees Italy receives every year and the rural population growth in the country. Instead, there is an inverse relationship between the two indicators, with a correlation coefficient value of  $-0.80$ . For example,

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<sup>1</sup> The Arab Spring was a series of anti-government protests, uprisings, and armed rebellions that spread across much of the Arab world in the early 2010s.

even though Italy has received 715,635 refugees in the years (2014-2018), there is a significant decline in rural population growth in the country for the same period.

Actually, the Italian government and policymakers should refine their policies and strategies to deal with refugees and asylum seekers to make them an opportunity instead of a challenge. They should plan new initiatives to selectively move them to the less-developed and less-populated areas in the south of Italy. Moreover, they should update their refugee-hosting approaches to be more selective based on the country's needs and refugees' qualifications and competencies; like in Germany and Canada for example.

This paper is structured as follows: section 2 has a literature review discusses whether the refugees are a challenge in Italy or an opportunity. Section 3 describes the situation of refugees and the population growth in Italy. Section 4 talks about the data and methodologies. Section 5 discusses the results of the linear regression between the two indicators (the study findings), and section 6 has a conclusion and some recommendations.

## **2. Literature Review**

Refugees hosting have been a controversial issue for a long time. They can be an opportunity like in Canada and Germany, but also they can be a big challenge like in Jordan and Lebanon. However, refugees in Italy can be both (a challenge and an opportunity), based on the way policymakers and population perceive them. Many small towns across Southern Italy experience economic and social revitalization after embracing and expanding refugee resettlement programs. Sutera, a town located in the heart of Sicily, its 1970 population of 5,000 reduced to 1,500 in less than 50 years (70% drop). A welcoming initiative that began with the local mayor of Sutera started providing immigrants with free housing in abandoned apartments and matched them with local families to assist with community integration and asylum applications (Travers, 2018). Another example, in the case of Satriano town, mayor Michele Drosi says, "The presence of refugees can be an opportunity to repopulate the town and create a virtuous cycle" (D'Antonio, 2015).

Naro village in Sicily has also a significant population drop in the last decades. In a mission to repopulate the village, UNICEF and its partner JA Italia have developed a structured program (UPSHIFT) to help young refugees and migrants integrate with the local community (Trigger, 2019). Riace, the 'ghost town' is another successful example of using refugees as an opportunity. The town is mainly inhabited by elderly people and has a high unemployment rate and a lack of social service. In 1998, 300 Kurdish refugees arrived at the town coast, and they received support from local inhabitants. Afterward, the local community developed an innovative approach to the reception and integration of refugees in Riace (Driel and Verkuyten, 2019). Also, Camini (a village in the south of Italy), its young people left to find work in the north of Italy or elsewhere in Europe. In 2011 the town started welcoming asylum seekers under the Protection System for Asylum Seekers and Refugees (SPAR) in order to revive the town (Bandelier, 2019). Globally, there are many studies<sup>2</sup> in France, Austria, Denmark, and Australia show that refugees can be an opportunity for growth and repopulation, particularly in rural and less-populated areas.

On the other hand, many studies revealed that refugees in Italy are making pressure on financial resources and increasing competition over local opportunities. Plus, they threaten national identity, culture, and social integration. One study indicated that immigrants and refugees arriving in the

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<sup>2</sup> (Tardis, 2019), France; (Galera et al., 2018), Austria; (Romme, 2011), Denmark; (McDonald-Wilmsen et al., 2009), Australia; and (DIAC, 2007), Australia.

country are the main cause of spreading human papillomavirus (HPV) infection in Italy. In fact, southern Italy and the remote areas where most refugees work are the most affected areas by this disease (Napolitano et al., 2018). About 100,500 asylum seekers arrived in Italy before the end of the third quarter of 2017 (UNHCR 2017). This high number of asylum seekers made them a future challenge to the local identity of hospitality that relates to available financial resources and competition over local opportunities. Also, due to their different cultural and religious backgrounds (mostly Islamic), it is argued that the continued arrival of these refugees would threaten the national identity and undermine local communities. Accordingly, it has led to negative public attitudes towards refugees in Italy and protests against their reception (Driel and Verkuyten, 2019). The refugee camp of CARA DI MINEO (has 4,000 asylum seekers) in Sicily is a big example of refugee negative effects on the Italian community. It has become a lawless place that promotes corruption<sup>3</sup>, crimes, violence, human and sexual trafficking (Tory-Murphy, 2018).

Nevertheless, many refugees in Italy are living in inhumane conditions because of inadequate reception policies. They have no shelter, enough food, or access to a doctor. Furthermore, policies designed to foster the social inclusion of refugees at the national, regional and local levels are inadequately implemented (Medecins Sans Frontieres, 2018). Actually, there is a policy-conflict of dealing with refugees in government camps in rural areas that arose at the time of Operation Mare Nostrum; where strict discipline, inattention, uncertainty, and confusion are intertwined (Pinelli, 2017). Not only in Italy, but in many places of the World, refugees are perceived as a challenge even in rural areas, and they have a lot of negative effects on their host countries' resources and people. See those studies<sup>4</sup> about the negative aspects of hosting the refugees in Jordan, Georgia, Lebanon, South Africa, and Tanzania.

### **3. Population in Italy and the Refugees**

Although Italy lost about 800.000 people in 1917 and 1918, the population started to grow by the beginning of 1920. The greatest increase in population in Italy happened during the fascist regime, as Benito Mussolini promoted population growth, and from 1922 to 1946 the population increased by 7.8 million people. During the 1980s, the Italian population started to decrease dramatically. However, there was a moderate increase in the birth rate from the mid-nineties to 2010, but it's strengthened by the high fertility rate of immigrant women. In 2012, Italy had witnessed the lowest fertility rate in its history; and the Italian population continued to decrease since 2015, with less than 500.000 children born every year (Riccardi, 2017). Overall, the Italian rural population has been decreasing slightly from the 1960s to 2000, afterward, it started to decrease significantly, particularly in the period 2014-2018 (De Panizza, 2019).

Recently, Italy is the least procreative country in the EU and has an elderly population due to the drop in fertility rates and higher life expectancy. The Italian government has encouraged families to have more children through financial incentives such as the "Legge di Stabilit " launched in 2015 (BBC News, 2020). The Italian Minister of Families plans to encourage increasing the birth rate in 2020. Parents will receive up to three times more money for each child under the age of three to cover nursery or babysitting costs (from € 1,000 to € 3,000 per year). The Italian

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<sup>3</sup> A one-year parliamentary investigation that revealed fraud, misuse of public funds, employment offers and service contracts in exchange for political favors and votes.

<sup>4</sup> (Bataineh and Montalbano, 2019), Jordan; (Gilhooly and Lee, 2017), Georgia; (Cherri et al., 2016), Lebanon; (Kurt Sartorius et al., 2013), South Africa; (Schatz, 2009), South Africa; and (Whitaker, 2002), Tanzania.

Democratic Party has also proposed that parents receive a "children cheque" of € 240 per month for each of children under the age of 18 and € 80 for children of young adults (under 26 years old)(The Local, 2019).

The United Nations established UNHCR in 1950 and for the first time in modern history, the universality of rights was recognized, not only to Western countries but extended to the world population. Refugee Protection System was also regulated by the Geneva Convention (28 July 1951) which took effect on 22 April 1954. This Convention remained the pillar of UNHCR legislations to assist and protect refugees. It also defines the term "refugee" and states that these people are not forced to return to a country where their life or their freedom would be threatened (Sarti, 2010).

The documented history of refugees in Italy appeared by the end of the Second World War (1945). The first period in which Italy welcomed refugees (about 120,000) was between 1945 and 1952, most of them were Jews from Poland, Russia, and other Eastern European countries and were heading to North America or Israel. There were also some Spanish people who opposed Franco's regime and other people fleeing after the Second World War. In the 1970s, other flows of non-European asylum seekers arrived in Italy, from South America, Vietnam, African countries (Somalia and Sudan), and Middle East countries (Afghanistan and Iraq). Since the 1980s, Italy has become a country of destination to welcome more and more refugees and migrants from many places and different continents (Fonzo, 2017).

Every year, Italy receives many refugees and asylum seekers and they represent a big challenge for the country. Plus, the country receives high numbers of illegal immigrants who come to Italy to use as a transit-base to escape to another country in Europe. The problem is that most of the reception centers have crumbling infrastructure and offer a bad quality of care services, few quantities of food, and a limited amount of hot water ...etc. Most of the refugees who come to Italy are vulnerable people (women and children), who experience sexual violence, abuse, and exploitation, which creates a great negative impact on them and the Italian community. Moreover, refugees and asylum seekers make pressure on the Italian services sectors such as health and education, as well as on the economy and labor market. As a consequence, the "refugee crisis" determined an increase of xenophobia, discrimination and populist reactions among many Italians blaming asylum seekers for the social, economic and political problems that the country has been tackling (Castelli, 2017).

However, after completing the first reception phase (medical examination and identification), the refugees become members of the Italian society and the government works to promote their social and economic integration in their host community. Those refugees can be a development opportunity for many less-developed and low-populated areas of Italy, particularly in the south. Many high-skilled young Italians left these places for the sake of economic opportunities in the North, or in other countries over the Globe. Refugees can be a solution to revive these areas, as well as to substitute those young Italians, particularly that the majority of Italians who remained in these areas are very old. Furthermore, the refugees and asylum seekers created many job opportunities in the reception centers (like doctors, nurses, cultural mediators, and psychologists), as well as outside these centers in language centers and projects of social integration ...etc.

#### **4. Data and Methodologies**

However, refugees have registered many successful stories in increasing rural population and fostering development in the South of Italy, but the overall situation still needs further

investigation. This study should investigate whether the increase in refugee numbers in Italy has a positive impact on rural population growth, or not. Hence, the study investigates the impact of the overall increase in refugee numbers in Italy (independent variable) from 1990 to 2018 on the rural population growth in Italy (dependent variable) for the same period.

The data used in this study is obtained from the World Bank Database 2018<sup>5</sup>. The study uses the linear regression methodology to analyze the data. It is a statistical predictive analysis tool that tells whether one independent variable does a good job in predicting an outcome (dependent variable), and to what extent this independent variable can predict the outcome. The regular regression equation with one dependent variable and one independent variable is defined by the formula  $Y = a + bX + e$ ; where  $Y$  is an observed score on the dependent variable,  $a$  is the intercept,  $b$  is the slope,  $X$  is the observed score on the independent variable, and  $e$  is an error or residual.

More specifically, the study carried out a linear regression for one dependent variable (rural population growth (% annual)) and one independent variable (refugee population by country or territory of asylum) over a period of 29 years. See Table 1A in the appendix to see how the data has been arranged to carry out the regression.

Anyway, more information about the indicators that are used in this study is below:

- *The Dependent Variable – Rural population growth (% annual)*: The rural population refers to people living in rural areas as defined by national statistical offices. It is calculated as the difference between total population and urban population.
- *The Independent Variable – Refugee population by country or territory of asylum*: Refugees are people who are recognized as refugees under the 1951 Convention Relating to the Status of Refugees or people recognized as refugees in accordance with the UNHCR statute. Country of asylum is the country where an asylum claim was filed and granted.

## 5. Results and Discussions

This study aims to find out whether the increase in refugee numbers in Italy has a positive impact on the Italian rural population growth, or not. After carrying out a linear regression for one independent variable (refugee population by country or territory of asylum) and one dependent variable (rural population growth (% annual)) over a period of 29 years, the study finds out the following. Overall, there is no statistical evidence that the increase in refugee numbers in Italy has a positive impact on the Italian rural population growth, instead, there is an inverse statistical relationship. Refugees numbers in Italy have been increasing steadily over time from 1990 to 2018 with a correlation coefficient of 0.67; meanwhile, the rural population growth has been declining for the same period with a correlation coefficient of  $-0.52$ . But, the correlation coefficient value of the strength of the relationship between the relative movements of the two variables (refugee population by country or territory of asylum & rural population growth) is  $-0.80$ . This means that there is an inverse relationship between the two variables, see Table 2 for more details.

More specifically, even though Italy has received 715,635 refugees in the last five years (2014-2018)<sup>6</sup>, there is a significant decline in rural population growth in the country for the same period.

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<sup>5</sup>The World Bank 2018 database is available on the following link: <http://datatopics.worldbank.org/world-development-indicators/>

<sup>6</sup>The study uses the World Bank Database of 2018, so the last year of data availability is 2018.

See Table 1A in the appendix and Figures 1 and 2 for more details. The (value of  $R^2$ )<sup>7</sup> in the regression statistics shows that the amount of variation in the dependent variable (rural population growth (% annual)) value explained by the independent variable (refugee population by country or territory of asylum) is almost 64 percent. See Table 3 for more details about the statistical results of the linear regression. Accordingly, there is an obvious contradiction of this study results, with the logic that says that the increase in refugee numbers in Italy should be reflected positively on the rural population growth in the country. The refugees are more likely to stay in rural areas to have much cheaper accommodation, food, and services! Furthermore, the Italian government and policymakers have directed many initiatives and provided a lot of help to relocate the refugees to the less-populated rural areas, and they have registered many successful stories in the South!

The ANOVA test results also confirm the above-mentioned results, as the Significance F. value (P-value) is 0.000, which is less than (0.05), see Table 3. So, the study can reject the null hypothesis, and prove that the independent variable (refugee population by country or territory of asylum) can affect the outcome (rural population growth (% annual)), but unfortunately, this impact is negative! In conclusion, the study wants to prove here that there is no statistical positive relationship between refugee numbers in Italy and the Italian rural population growth; and if there is a relationship between them, then it is an inverse relationship. This should urge the Italian policymakers to change their policies and strategies of dealing with refugees matter to invert it from a challenge in the crowded urban centers to an opportunity in the less-populated rural areas.

Anyway, the main findings of the study are mentioned below:

- Overall, there is no statistical evidence that the increase in refugee numbers in Italy has a positive impact on the Italian rural population growth, instead, there is an inverse statistical relationship.
- However, there is a significant increase in refugee numbers in Italy (715,635 refugees) in the last five years (2014-2018). But, there is a significant decline in rural population growth in the country for the same period (Average = - 0.898).
- Overall and for the period from 1990 to 2018, the increase of refugee numbers in Italy over a specific year, determined a decrease in the percentage of rural population growth for the same year!
- Italy received in the last six years (2013-2018) more refugees than in the years between (1990-2012)<sup>8</sup>. This definitely should be an alarm to the Italian government to plan carefully for its strategies with the refugee crises.

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<sup>7</sup>R-squared ( $R^2$ ) is a statistical measure that represents the proportion of the variance for a dependent variable that's explained by the an independent variable.

<sup>8</sup>Italy received 791252 refugees between 1990 and 2012 (23 years); meanwhile, it received 791899 refugees between 2013 and 2018 (World Bank Database, 2018).

**Table 2.** The correlation coefficients for the independent and dependent variables with time, and between each other from 1990 to 2018

	Year	Refugee numbers	Rural population growth
Year	1		
Refugee numbers	0.670992979	1	
Rural population growth	-0.522722529	-0.800408732	1

Source: own design, from the World Bank 2018 Database.

**Table 3.** The simple linear regression results including the Regression Statistics, ANOVA and the Intercept.

Regression Statistics	
Multiple R	0.800408732
R Square	0.640654139
Adjusted R Square	0.627345033
Standard Error	0.252883128
Observations	29

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	3.078324951	3.07832495	48.136527	0.000
Residual	27	1.726646662	0.06394988		
Total	28	4.804971614			

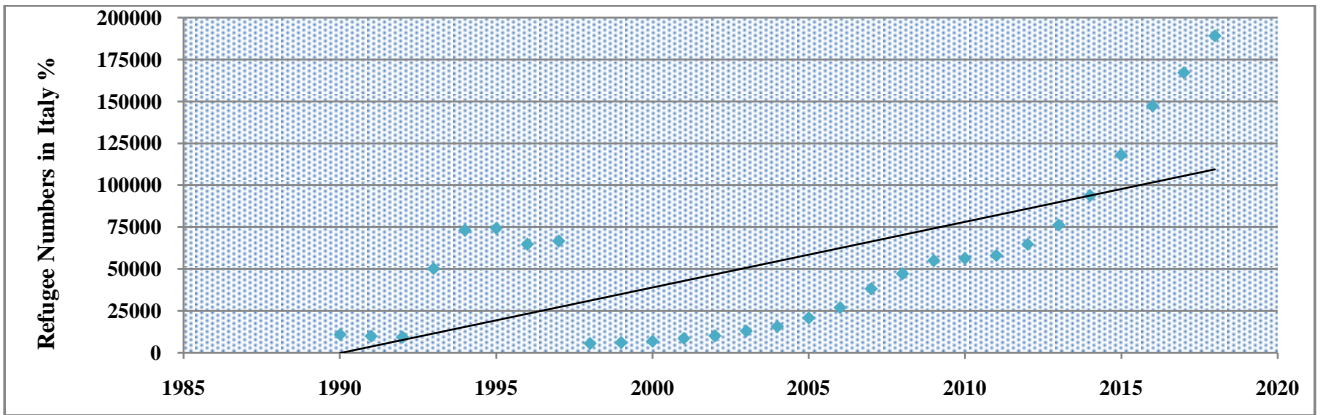
  

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.179762275	0.070420316	2.55270473	0.01665724	0.035271721	0.324252829	0.035271721	0.324252829
Refugee Numbers in Italy	-6.66935E-06	9.61271E-07	-6.9380492	0.000	-8.64171E-06	-4.69698E-06	-8.64171E-06	-4.69698E-06

Source: own design, from the World Bank 2018 Database.

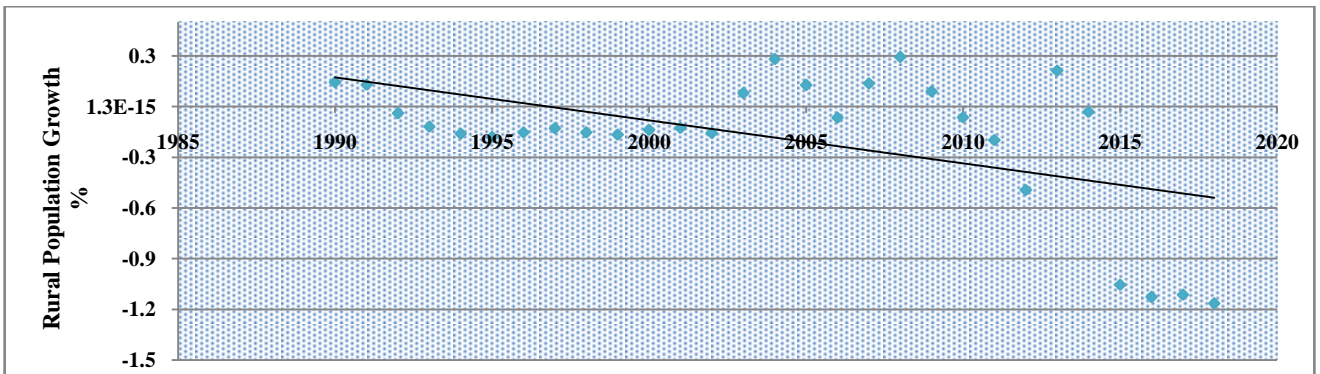


**Figure 1.** The refugee numbers in Italy over time from 1990 to 2018



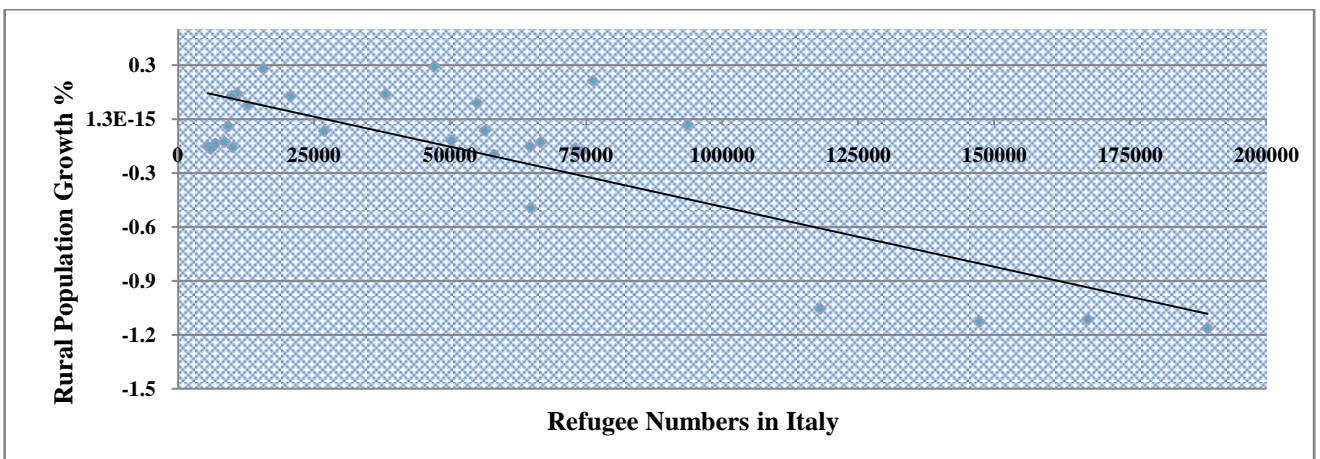
Source: own design, from the World Bank 2018 Database.

**Figure 2.** The rural population growth in Italy over time from 1990 to 2018



Source: own design, from the World Bank 2018 Database.

**Figure 3.** The relationship between refugee numbers in Italy and rural population growth from 1990 to 2018



Source: own design, from the World Bank 2018 Database.

**6. Conclusion**

The refugee issue has become very important in the Eurozone, coastal countries like Italy. The country receives too many refugees and asylum seekers every year and they impose pressure on its resources and labor market. The Italian public opinion also views them as a threat to the Italian

values, culture and national identity. However, the refugees have helped to revive many dying rural areas in Italy, particularly in the south. But, the majority of population still displeased with their presence in the country and they blame them for the social, economic and political problems that are rising in the country. Anyway, the refugees in Italy can be inverted to an opportunity in the less-populated areas, especially that birth rates in Italy have been dropping significantly.

This study aims to find out if the increase in refugee numbers in Italy from 1990 to 2018 has a positive impact on rural population growth. The study applied a linear regression for one independent variable (refugee numbers in Italy) and one dependent variable (rural population growth) over a period of 29 years. The findings indicate that there is no statistical evidence on the positive relationship between the high numbers of refugees Italy receives every year and the rural population growth in the country. Conversely, there is an inverse relationship between the two indicators, with a correlation coefficient value of  $-0.80$ . Although Italy has received 715,635 refugees in the years (2014-2018), there is a significant decline in rural population growth in the country for the same period (on average  $= -0.898$ ).

Italy receives too many refugees every year, and the country should use them as an opportunity in the less-populated and less-developed areas, instead of leaving them as a big challenge in the crowded urban centers. The government should establish a savvy and selective approach of refugee hosting in the country, rather than leaving the situation random and uncontrolled. For example in Germany, the process is more selective based on the country's needs and refugees' qualifications and competencies. Furthermore, the government should establish initiatives to direct the already existing refugees to work in Agriculture and construction, particularly those who have limited economic opportunities. This can involve the refugees in the development process, as well as reduce the social tension between them and the Italian in the host communities.

## References

- [1] Bandelier Pauline, 2019. "Italy: Calabrian towns reopen public places as locals and migrants work together", RFI, October 2019.
- [2] Bataineh, A. & Montalbano, P. (2019). The Syrian Crisis Impact on Quality of Education in Jordan: A Quantitative and Qualitative Assessment. *International Journal of Liberal Arts and Social Science*, 7(6), 1-13.
- [3] BBC News, "How do countries fight falling birth rates?", January 2020. [Available at] <https://www.bbc.com/news/world-europe-51118616>.
- [4] Brook McDonald-Wilmsen, Sandra M. Giffor, Kim Webster, John Wiseman, Sue Casey, "Resettling Refugees in Rural and Regional Australia: Learning from Recent Policy and Program Initiatives", *AJPA Journal*, 2009.
- [5] Castelli Gattinara Pietro, "The 'refugee crisis' in Italy as a crisis of legitimacy", *Contemporary Italian Politics*, 2017.

- [6] Cherri Zeinab, Arco Gonzàles Pedro, Castro Delgado Rafael, “The Lebanese–Syrian crisis: impact of influx of Syrian refugees to an already weak state”, DovePress, Volume 2016, July 2016.
- [7] D'Antonio Simone, “In Italy, a Struggling Town Looks to Refugees for Revival”, 2015, [Available at] <https://www.citylab.com/equity/2015/11/in-italy-a-struggling-town-looks-to-refugees-for-revival/414648/>
- [8] De Panizza Andrea (ISTAT), “L'evoluzionedemografica in Italia dall'unità a oggi”, 2019.
- [9] DIAC. [Department of Immigration and Citizen-ship], Australia. 2007.Regional Settlement Digest – 30 July2007. Canberra: DIAC.
- [10] Driel Ester and VerkuytenMaykel, “Local identity and the reception of refugees: the example of Riace”, *Identities Journal*, 2019.
- [11] FonzoErminio, “Refugees in Italy during the Cold war: an unknown history”, Conference: Cultures, Hopes and Conflicts. The Mediterranean between Land and Sea, September 2017. [Available at] [https://www.researchgate.net/publication/320107471\\_Refugees\\_in\\_Italy\\_during\\_the\\_Cold\\_war\\_an\\_unknown\\_history](https://www.researchgate.net/publication/320107471_Refugees_in_Italy_during_the_Cold_war_an_unknown_history).
- [12] Galera, G., et al. (2018), "Integration of Migrants, Refugees and Asylum Seekers in Remote Areas with Declining Populations", *OECD Local Economic and Employment Development (LEED) Papers*, No. 2018/03, OECD Publishing, Paris.
- [13] Lee Eunbae, Gilhooly Daniel, “Rethinking Urban Refugee Resettlement: A Case Study of One Karen Community in Rural Georgia, USA”, May 2017.
- [14] Medecins sans Frontiers, 2018. “Migrants and refugees on the margins of society”, 8 February 2018 [Available at] <https://www.msf.org/italy-migrants-and-refugees-margins-society>
- [15] Napolitano Francesco, Gualdieri Luciano, Santagati Gabriella, Angelillo F. Italo. “Knowledge and attitudes toward HPV infection and vaccination among immigrants and refugees in Italy”, Elsevier Ltd., Volume 36, 2018.
- [16] Pinelli Barbara, “Control and Abandonment: The Power of Surveillance on Refugees in Italy, During and After the Mare Nostrum Operation”, November 2017, [Available at] <https://onlinelibrary.wiley.com/doi/pdf/10.1111/anti.12374>.
- [17] Riccardi Francesco, “Demografia. Così i figli di stranieri (14%) sostengono le nascite”, *Avvenire Journal*, 2017.
- [18] Romme Larsen Birgitte, “Drawing back the curtains: the role of domestic space in the social inclusion and exclusion of refugees in rural Denmark”, *Berghahn Journals*, 2011.

- [19] Sarti Sandra, “L’Italiadeirifugiati”, ANCI, MaggioliEditore, September 2010.
- [20] Schatz Enid J. “Reframing Vulnerability: Mozambican Refugees’ Access to State-Funded Pensions in Rural South Africa”, *Journal of Cross-Cultural Gerontology*, Volume 24, January 2009.
- [21] TardisMatthieu, “Another story from the refugee crisis. Resettlement in small towns and rural areas in France”. *Études de l’Ifri, Ifri*, 2019.
- [22] The Local, “How ageing Italy plans to bump up its birth rate in 2020”, October 2019.  
[Available at] <https://www.thelocal.it/20191030/how-ageing-italy-plans-to-bump-up-its-birth-rate-in-2020>.
- [23] Tory-Murphy Leanne, “Living on Mafia Leftovers: Life in Italy’s biggest refugee camp”, 2018  
[Available at] <https://www.newsdeeply.com/refugees/articles/2018/02/19/living-on-mafia-leftovers-life-in-italys-biggestrefugee-camp>
- [24] Travers Tori, “Migrants Revive Dying Italian Towns, 2018, [Available at] <https://www.southeusummit.com/europe/italy/migrants-revive-dying-italian-towns/>
- [25] Trigger Codi, (UNICEF), “In this sleepy Italian village, young migrants are starting to integrate”, 2019, [Available at] <https://www.unicef.org/eca/stories/sleepy-italian-village-young-migrants-are-starting-integrate>
- [26] UNHCR, 2017. “Data Mediterranean Situation”, September 12, [Available at] [data2.unhcr.org/en/situations/mediterranean#\\_ga=2.18488377.1877951050.15052088941209757074.1505208894](https://data2.unhcr.org/en/situations/mediterranean#_ga=2.18488377.1877951050.15052088941209757074.1505208894)
- [27] Whitaker Beth Elise, “Refugees in Western Tanzania: The Distribution of Burdens and Benefits Among Local Hosts”, *Journal of Refugee Studies*, Volume 15, December 2002.

## Appendix

**Table 1A.** The values of refugee numbers in Italy and rural population growth (%) from 1990 to 2018

Year	Refugee population by country or territory of asylum, Independent Variable (X)	Rural population growth (annual %), Dependent Variable (Y)
1990	10840	0.143834357
1991	9813	0.129319782
1992	9258	-0.040262784
1993	50276	-0.119433428
1994	73060	-0.160524994
1995	74302	-0.179634729
1996	64711	-0.153449924
1997	66620	-0.128978609
1998	5473	-0.153440908
1999	6024	-0.165730443
2000	6849	-0.137578558
2001	8571	-0.127049091
2002	10060	-0.157193041
2003	12841	0.079011276
2004	15674	0.280345353
2005	20675	0.126300744
2006	26875	-0.065864506
2007	38068	0.137157224
2008	47061	0.293337281
2009	54965	0.088259482
2010	56397	-0.064272503
2011	58060	-0.198103561
2012	64779	-0.493917569
2013	76264	0.21277441
2014	93715	-0.031505875
2015	118047	-1.054477376
2016	147370	-1.127306555
2017	167260	-1.113183465
2018	189243	-1.163911413

**Source:** own design, from the World Bank 2018 Database.