Child Poverty and Inequality Mapping in Malta

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1. Introduction

The purpose of the 2006 National Transition Facility Programme for Malta, and specifically its component for statistics, is to improve the provision and quality of official statistics relating to Malta, particularly in the early phase after accession.

Pre-accession funds for Malta have supported the development of statistics since 1999, initially through the transfer of know-how and through the provision of equipment. Since a couple of years, programmes have been broadened to ensure that relevant and timely data is available to support the enlargement process, and to assist Malta in its efforts to comply with the statistical requirements of membership. Malta has benefited from several pre-accession programmes in statistics, which have helped to strengthen its statistical system by developing standard skills, methodologies, European statistical standards and its infrastructure in accordance with defined priorities stemming from the accession process.

During this period, Malta has made significant progress in developing its capacity to meet the statistical needs of the market economy in accordance with EU standards. Pre-accession programmes have supported the improvement of the foundation for the production of statistical data by providing computing infrastructure, thus enabling the introduction of European classification systems and introducing appropriate survey methods for data collection including sampling. In areas already dealt with in sectoral projects of previous programmes, Eurostat units have assumed a routing data collection from all the New Member States, including Malta, in parallel with Member States.

The overall objective of this paper is to show how researchers can benefit from this improvement of the provision and quality of official statistics related to Malta, particularly in the early phase after accession. Among the actions of the Transition Facility Programme for NSO Malta, one aims at: "The identification of all statistical issues related to children that require statistical research at national level and to determine which information already exists or needs to be collected in the future." In fact, the need of socio-economic statistics is increasing in the world and in the European Union.

Statistics on children are therefore extremely important for policy makers, in order to propose *ad hoc* policies, to combat and eradicate problems such as famine, poverty, exclusion form education, social life, etc., and in order to monitor the effectiveness of already undertaken policies. Statistics on children are very important also in developed countries and particularly in the European Union. Information about the economic status where children live, their health status, their involvement in labour activities, their possible social exclusion, the general condition of immigrated children or children born in a EU country from immigrated parents are extremely useful information. In the former EU-15 countries the quality of such data has reached a very high standard and the Commission has the goal to standardise and harmonise this quality level among the EU-27, including Malta.

Some of the information required to construct useful statistics on children are collected through the most important surveys launched at EU level, such as Survey on Income and Living Conditions (EU-SILC), Labour Force Survey (LFS), through the most important registers such as Social Security Database, Registers at the Department of Inland Revenue, Registers maintained by the Department of Education, Statistics on Education maintained by NSO, and from information available from the Population and Housing Census, Statistics held at the Department of Health Information, and Crime statistics held at the Police department. Nevertheless, such information may not be enough when the aim of a Government is to study specific problems such as child labour, participation of children to the social life, general health status, and so on.

This paper shows how to use information already collected from NSO and aims to perform a poverty and inequality mapping analysis. This exercise is being carried out based on the methodology fully described in Elbers, Lanjouw and Lanjouw (2003). This methodology combines census and survey information to produce finely disaggregated maps which describe the spatial distribution of poverty and inequality in the country.

In fact, in order to produce poverty and inequality maps, large data sets are required which include reasonable measures of income or consumption expenditure and which are representative or of sufficient size at low levels of aggregation to yield statistically reliable estimates.

Surveys on Income and Living Conditions, Household Budgetary surveys or Living Standard Measurement surveys covering income and consumption usually used to calculate distributional measures are rarely of such a sufficient size.

Whereas census or other large sample surveys sufficiently large enough to allow disaggregation have little or no information regarding monetary variables.

The basic idea is to estimate a linear regression model with local variance components using the information from the smaller and richer data sample, in the Maltese SILC (Survey on Income and

Living Conditions) conducted in 2005, including some aggregate information from the Population and Housing Census or other sources available for all the statistical units in the sample. The vector of covariates utilised in the regression model should be restricted to those variables that can also be linked to households in the census.

The estimated distribution of the dependent variable in the regression model (monetary variable) can therefore be used to generate the distribution for any sub-population in the census conditional to the sub-population's observed characteristics. From the estimated distribution of the monetary variable in the census data set or in any of its sub-populations, an estimate is to be made of a set of poverty measures based on the Foster-Green-Thorbecke indexes (for α=0,1,2), the Sen index and an absolute poverty line calculated using the information contained in the rich sample survey, as well as a set of inequality measures based on the Gini coefficient, the Gini coefficient of the poor and two general entropy (GE) measures, with parameter c=0,1. Moreover, bootstrapping standard errors of the welfare estimates will be computed so as to assess the precision of the estimates.

This report is made up of five sections and three annexes. After this introduction, section two is devoted to the comparison and the harmonisation of the data sources, giving special attention to the Census and SILC data sets. In section three the estimated linear regression models with variance components are reported and there is a full description of how the Montecarlo simulation has been considered in order to prepare the statistical information for calculating bootstrapping standard errors of poverty and inequality measures. Section four reports the above described indices calculated for the whole of Malta and disaggregated at district and locality levels. Finally, section five reports measures calculated for three age-groups of children: 0-5, 6-13 and 14-17 years.

Tables of measures at Locality level are reported in Annex 1. Annex two fully describes the comparison made between the various data sources and the list of common variables, while annex three, consisting of the attached Excel file, reports the distributions of the whole set of variables used in this work.

2. The sources

Malta is geographically divided into two Regions, Malta and Gozo-Comino. These are divided into 6 Districts which, in turn, are divided into 68 Localities.

The two main sources of statistical information available in Malta are:

The Population and Housing Census (PHC) – 2005.

The Survey on Income and Living Conditions (SILC) – 2005.

2.1 The Population and Housing Census - 2005[1]

The 2005 Population and Housing Census was undertaken between 21st November 2005 and 11th December 2005, with midnight of 17th November, 2005 as reference time of the census. This was the sixteenth census being carried out since the first one which was undertaken in 1842, and was carried out in terms of the Malta Census Act of 1948. The Director General of the National Statistics Office was appointed by the Prime Minister of Malta to act as Census Officer for this project.

The target population of the Population and Housing Census included all persons (nationals and non-nationals) as well as all households that were residing in Malta and Gozo as on the census night. Moreover, detailed information was collected on main and secondary dwellings, as well as on vacant ones.

The total enumerated population stood at 404,962 persons. Less than 2 per cent of the total population, 6,347 persons, lived in institutional households, which makes them ineligible for EU-SILC. The total count of private households stood at 139,583. Nearly 19 per cent of these households were single member households, while two- and three-person households amounted to 26 and 22 per cent of the total number of private households respectively. The average household size stood at 2.9.

The region of Gozo and Comino (NUTS 3 classification divides Malta into two regions namely, Malta and Gozo and Comino) turned out to be the smallest amongst the six districts in Malta (according to NUTS 4 classification). In fact, this region comprised only 10,744 or 8 per cent of the total household population. On the other hand, the Northern Harbour district stood out as the largest district in Malta with a total of 42,731 private households (31 per cent), while the Southern Harbour region came next with 28,192 households living in this district.

The census questionnaire contained many questions that have been collected in EU-SILC since the first data collection, in 2005. Information common to these two surveys includes household size, household type, number of rooms in main dwelling, tenure status, availability of various household amenities, labour status and occupation of head of household person. These data were collected in the census according to UNECE recommendations and were also in line with EU-SILC definitions and methodological recommendations, which was the key for the success of the poverty mapping project.

[1] NSO (2007), Census of Population and Housing 2005, July 2007.

2.2 The Survey on Income and Living Conditions (SILC) – 2005[2].

The Survey on Income and Living Conditions (EU-SILC) is an annual survey carried out simultaneously by all EU member states. It is a rich source of statistics on income distribution and aims to provide a complete set of indicators on poverty, social exclusion, pensions and material deprivation. This project is coordinated by Eurostat to ensure harmonised definitions and methodologies, and consequently comparability across all EU member state countries. In Malta, EU-SILC was conducted by the National Statistics Office (NSO), for the first time in 2005. The fact that this is an annual survey makes it possible to not only depict the situation on poverty and social exclusion in Malta at a specific point in time, but also to monitor changes in living conditions over the years.

The method used for EU-SILC data collection involves personal interviews. The target population consists of all persons residing in private households in Malta at the time of data collection. In EU-SILC 2005, a sample of 5,104 households was selected through simple random sampling of dwellings from the Water Services database, which served as the sampling frame for the survey. This sample yielded a total of 4,709 eligible households that were approached for interview. Of these, 3,459 households responded to the survey such that information on a personal level was collected for a total of 10,282 persons (of whom 8,246 were aged 16 and over).

The main indicators that are derived from EU-SILC are based on household income which is collected, component by component, at individual level. When averaged over all household members through the use of an appropriate equivalence scale, the household income provides a reliable indication of the monetary well-being of the households. This is also the basis for the calculation of the at-risk-of-poverty rate, which is one of the most important EU-SILC indicators. Various disaggregations of these indicators make it possible to shed light on which population categories are most prone to poverty. Simultaneously, EU-SILC collects other information related to topics such as health and disability, employment, education and material deprivation.

2.3 Stage Zero: are the Census and the SILC comparable?

The two sources of data have been fully analysed in order to identify the common concept and to construct the common variable to be compared. The original Census and SILC variables have been transformed in order to get comparable variables.

Table A2.1 in Annex 2 reports the list of those common variables divided into three categories:

[2] NSO (2006), EU-SILC 2005 Final Quality Report, December 2006.

a) Household dwelling conditions and presence of durable goods.
b) Household head characteristics.
c) Household socio-demographic characteristics.

Each one of the 31 variable distributions from the Census were compared with the corresponding weighted distribution from the SILC. A chi-square test was used for the comparisons, whose p-value is reported in the last column of Table A2.1.

3. Stage One: the estimation of stratum-specific linear regression models with variance components for imputing income

The basic idea can be explained in a simple way. Having data from a smaller and a richer data-sample such as a sample survey and a census, a regression model of the target household-level variable, given a set of covariates based on the smaller sample can be estimated. Restricting the set of covariates to those that can also be linked to households in the larger sample, the estimated distribution can be used to generate the distribution of the equivalised income (y_h) for the population or sub-population in the larger sample given the observed characteristics. Therefore the conditional distribution of a set of welfare measures can now be generated and the relative point estimates and standard errors can be calculated.

Practically the methodology follows two steps:

a) the survey data are used to estimate a prediction model for the income
b) simulation of the income for each household of the census and poverty/inequality measures are derived with their relative prediction error.

In the context of this work the smaller sample survey is the SILC survey and the larger one is the Census. The key assumption is that the model estimated from the survey data apply to census observations.

3.1 A prediction model for equivalised income

This step (Stage one) consists in developing an accurate empirical model of a logarithmic transformation of the total household equivalised income, measured in Maltese Lira during the reference year 2004. Geographical differences in the level of prices are taken into account (SILC variable *eq_inc_lm*). In the model the covariates are variables defined in exactly the same way as in the smaller sample data (SILC) and in the census. Denoting by $\ln y_{ch}$ the logarithm equivalised

income of household *h* in cluster *c*, a linear approximation to the conditional distribution of $\ln y_{ch}$ is considered:

$$\ln y_{ch} = E\left[\ln y_{ch} \mid x_{ch}^{T}\right] + u_{ch} = x_{ch}^{T}\beta + u_{ch} \quad [1]$$

Previous experience with survey analysis[3] suggests that the proper model to be specified has a complex error structure, in order to allow for a within-cluster correlation in the disturbances as well as heteroschedasticity. To allow for a within cluster correlation in disturbances, the error component is specified as follows:

$$u_{ch} = \eta_c + \varepsilon_{ch} \quad [2]$$

where η and ε are independent of each other and not correlated to the matrix of explanatory variables. Since residual location effects can highly reduce the precision of welfare measure estimates, it is important to introduce some explanatory variables in the set of covariates which explain the variation in income due to location. For this reason introducing the means of each covariate into the model covariates is proposed. This is calculated over all the census households in the 68 Localities.

Some preliminary analyses on the Maltese SILC suggest that the equivalised income is locally different so, in order to avoid forcing the parameter estimates to be the same for the whole country it has been decided to estimate separate regression models for the following areas:

- Southern Harbour and South Eastern (Districts 1 and 3)
- Northern Harbour (District 2)
- Western and Northern (Districts 4 and 5)
- Gozo and Comino (District 6)

The final results of this first stage are the GLS estimates of the selected model estimated on the SILC data. In order to reach these final results many preliminary steps have to be performed.

The initial estimate of β in equation [1] is obtained from OLS. With consistent estimate of β, the residual from the regression are used as estimates of the overall disturbances $\hat{u}_{ch}$. This residual is decomposed into uncorrelated household and location components as follows: $\hat{u}_{ch} = \hat{\eta}_c + e_{ch}$

The estimated location components ($\hat{\eta}_c$) are the within cluster means of the overall residual. The household component estimates (e_{ch}) are the overall residual net of location components, these values are used to estimate the variance of ε_{ch}.

[3] Elbers, Lanjouw and Lanjouw (2003), Neri, Ballini and Betti (2005).

Table 1. – *Regression results by District: GLS estimates for fixed effects and standard error (in parentheses)*

	Districts 1&3	District 2	Districts 4&5	District 6 (Gozo)
Number_rooms	0.035*** (0.010)	0.032*** (0.010)	0.027** (0.011)	
Television			-0.256* (0.151)	
Washing_machine		0.311*** (0.068)	0.190* (0.106)	
H_type_5	0.223*** (0.041)	0.188*** (0.043)	0.288*** (0.056)	0.240*** (0.074)
H_type_7	0.416*** (0.039)	0.278*** (0.045)	0.464*** (0.050)	0.274*** (0.068)
H_type_9			0.110** (0.055)	
Ref_person_economic_activity_1			0.391*** (0.052)	
Ref_person_marital_status_2			-0.148*** (0.043)	
Ref_person_health_problem	-0.078** (0.033)	-0.101*** (0.036)		
Ref_person_education_3	0.130*** (0.048)	0.082* (0.047)	0.223*** (0.046)	
Ref_person_education_4	0.331*** (0.089)	0.192*** (0.068)	0.490*** (0.054)	
Ref_person_age		-0.014** (0.007)	0.005*** (0.002)	
Ref_person_age2		0.000** (0.000)		
Ref_person_ISCO_1	0.335*** (0.087)	0.333*** (0.056)		0.348*** (0.114)
Ref_person_ISCO_2	0.161 (0.100)	0.252*** (0.083)		0.460*** (0.123)
Ref_person_ISCO_3	0.256*** (0.057)	0.247*** (0.064)		0.309*** (0.109)
RATE_UNEMP_LT_0_25	0.319*** (0.053)	0.352*** (0.057)	0.372*** (0.087)	0.394*** (0.108)
RATE_INACT_LT_0_25		0.276*** (0.034)		0.402*** (0.052)
RATE_RET_LT_0_5	0.146*** (0.037)	0.227*** (0.048)	0.125** (0.054)	0.385*** (0.055)
Males_50_59		0.155*** (0.042)		
Females_30_39			-0.106** (0.046)	
Females_50_59			-0.071 (0.044)	
m_DWELLING_TYPE_1_2	-0.326** (0.145)			
Random effect	**			

*denotes significance at the 10% level, **at the 5% level, and ***at the 1% level.

To allow for heteroschedasticity in the household component, a model is chosen which explains its variation best. The covariates of this model can be the usual regressors as well as their squares or interactions between variables, the chosen set is labelled with z. A logistic model of the variance

ε_{ch} conditional on z is estimated (bounding the prediction between zero and a maximum A equal to *(1.05)**max(e_{ch})):

$$\ln\left[\frac{e_{ch}^2}{A-e_{ch}^2}\right] = z'_{ch}\,\alpha + r_{ch}$$

Let $\exp(z'_{ch}\,\alpha) = B$ and using the delta method the household specific variance is estimated as:

$$\hat{\sigma}_{ch}^2 = \left[\frac{AB}{1+B}\right] + \frac{1}{2}\mathrm{var}(r)\left[\frac{AB(1-B)}{(1+B)^3}\right]$$

The variance of σ_η^2 is estimated non-parametrically, allowing for heteroschedasticity in ε_{ch} (see Appendix 2 of Elbers, Lanjouw and Lanjouw, 2002). The two variance components are combined in order to calculate the estimated variance covariance matrix ($\hat{\Sigma}$) of the overall residual of the original model. Once $\hat{\Sigma}$ is calculated the original model can be estimated by GLS, the results are in Table 1.

3.2 Simulation on income, poverty/inequality indicators and relative standard error

The parameter estimates obtained from the previous step are applied to the census data so as to simulate the income for each household in the census. A set of 100 simulations has been conducted. For each simulation a set of the first stage parameters has been drawn from their corresponding distribution simulated at the first stage: the beta coefficients $\tilde{\beta}$, are drawn from a multivariate normal distribution with mean $\hat{\beta}$ (the coefficients of the GLS estimation) and variance covariance matrix equal to the one associated to $\hat{\beta}$. Relating the simulation of the residual terms $\hat{\eta}_c$ and e_{ch} any specific distributional form assumption has been avoided by drawing directly from the estimated residuals: for each cluster the residual drawn is $\tilde{\eta}_c$ and for each household $\tilde{\varepsilon}_{ch}$.

The simulated values are based on both the predicted logarithm of income $x'_{ch}\,\tilde{\beta}$, and on the disturbance terms $\tilde{\eta}_c$ and $\tilde{\varepsilon}_{ch}$ using bootstrapped methods:

$$\ln \hat{y}_{ch} = \exp\left(x_{ch}^T\tilde{\beta} + \tilde{\eta}_c + \tilde{\varepsilon}_{ch}\right) \quad [3]$$

The full set of simulated $\hat{y}_{ch}$ is used to calculate the expected value of each of the poverty measures considered.

For each of the simulated equivalised income distributions a set of poverty and inequality measures has been calculated as has their mean and standard deviation over all the 100 simulations.

4. Poverty and Inequality measures for the overall population

The procedure for estimating the poverty and inequality measures has been applied for the whole of Malta and disaggregated at District and Locality levels:

For any given location, the means constitute the point estimates, while the standard deviations are the bootstrapping standard errors of these estimates.

Table 2 reports poverty and inequality measures for the whole of Malta, and disaggregated at District level. The disaggregation into six Districts is very useful for comparing these results to those obtained by SILC and reported in Table 3 (Source: NSO, 2006). The census-based predictions are very consistent with those from SILC: with the only exception the Western district, in none of the six strata we are able to reject the null hypothesis that the estimate based on census is equal to the SILC survey mean, at 95% confidence level.

Table 2. - *Poverty and inequality indices (%)*

	Head count	FGT(1)	FGT(2)	Gini	Gini-poor	Sen	GE(0)	GE(1)	Eq_inc_lm*
MALTA	15.33	3.84	1.66	28.63	15.04	2.81	14.47	13.75	3,751
Southern Harbour	16.20	3.83	1.58	27.55	13.90	2.80	13.35	12.62	3,591
Northern Harbour	13.02	3.34	1.48	28.77	15.69	2.41	14.59	13.97	3,953
South Eastern	16.35	3.87	1.60	27.50	13.95	2.84	13.32	12.58	3,579
Western	15.63	4.09	1.80	29.36	15.67	3.00	15.25	14.37	3,842
Northern district	16.27	4.26	1.87	29.15	15.62	3.14	15.07	14.17	3,768
Gozo and Comino	17.73	4.54	2.01	28.62	15.55	3.44	14.74	14.02	3,525

*Eq_inc_lm stands for equivalised income (Maltese lira)

The two highest average equivalised incomes were registered within the Northern Harbour district at Lm 3,953, and the Western district at Lm 3,842. The lowest equivalised disposable income fell within Gozo and Comino at Lm3,525. Such a low average is mainly linked to a low level of employment within this district, and possibly, a higher level of under-reporting of income which might have added to this discrepancy. The head-count at-risk-of-poverty rates have followed an opposite trend with the lowest poverty rate being registered within the Northern Harbour district and the highest being registered within the Gozo and Comino.

It may also be noted from Table 2 that the at-risk-of-poverty rate within the Western district exceeded that of the Northern Harbour district by more than 3 percentage points, even though their average equivalised incomes were nearly equal. This may be justified due to a high variability of

income, which was demonstrated by a highest cenus-based Gini-coefficient of 29 per cent within this district.

Table 3. *Head Count Ratio and Equivalent income: comparison between SILC and Census*

	Head count SILC	Head count Census	Equivalised income SILC	Equivalised income Census
MALTA	13.84	15.33	3,797	3,751
Southern Harbour	15.85	16.20	3,813	3,591
Northern Harbour	12.81	13.02	3,984	3,953
South Eastern	11.85	16.35	3,753	3,579
Western	12.35	15.63	3,958	3,842
Northern	14.92	16.27	3,953	3,768
Gozo	17.45	17.73	3,404	3,525

Income figures from the SILC and the census have followed the same rankings by district despite certain discrepancies between the different sources. In fact, the highest average income fell within the Northern Harbour district from both sources, while that estimated within the Western came second despite a discrepancy of nearly Lm150. Average income in Gozo and Comino came last from both the SILC and the model, even though the model estimated Lm100 more than the SILC.

Table A1.1 in the Annex reports the poverty and inequality measures at Locality level; the Maps corresponding to Equivalent income mean and the Head Count Ratio are reported, respectively, in Figure 1 and Figure 2 below.

Figures of average equivalised incomes by locality reflect averages in Table 3. In fact, the majority of localities within the Northern Harbour district had an average income exceeding €8,900. Most of the localities within the Western district had an average equivalised income between €8,400 and €8,900. On the other hand the majority of the localities in Gozo and Comino and the Southern Harbour District had an average equivalised income below €8,400. The same may be said for the at-risk-of-poverty rates. In fact the lowest at-risk-of-poverty rates were estimated in localities within the Northern Harbour district, while those in Gozo and Comino had an at-risk-of-poverty rate exceeding 17 per cent.

Figure 1. *Equivalent income by Localities.*

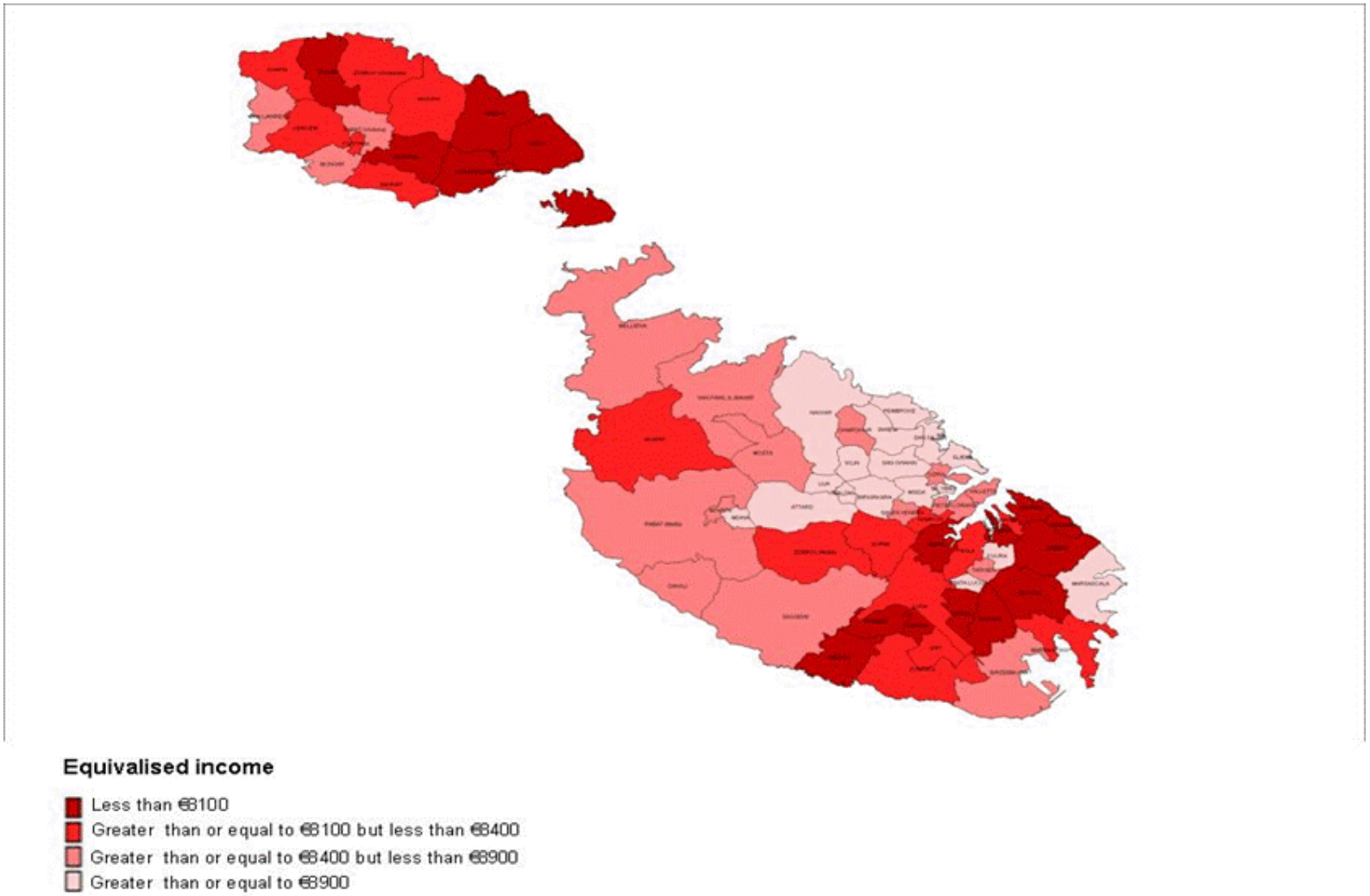
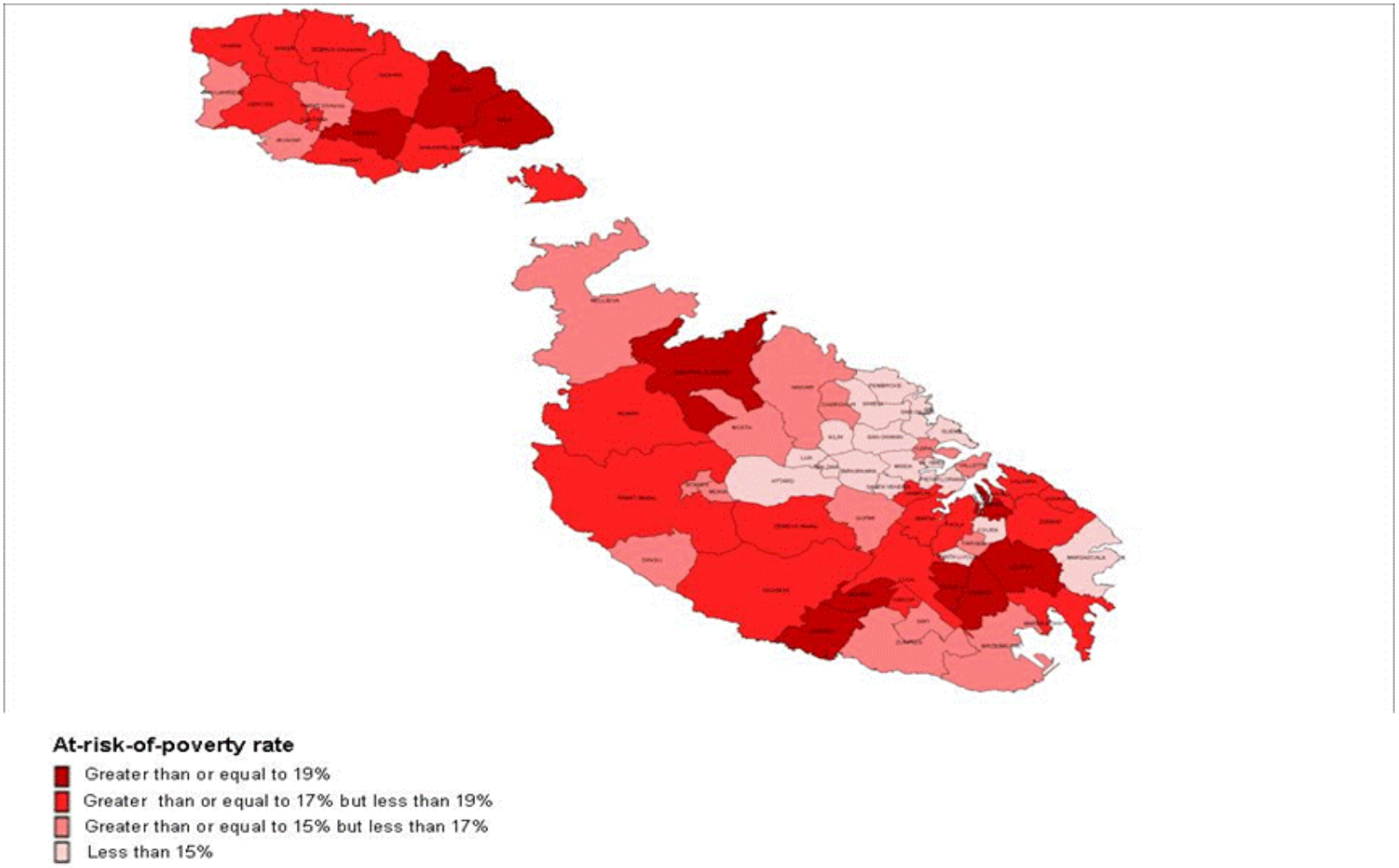


Figure 2. *Head Count Ratio by Localities.*



5. Poverty and Inequality measures for children

Table 4 reports poverty and inequality measures calculated for the six Districts for children aged 0-5, 6-13 and 14-17 years. Figures 3, 4 and 5 report the percentage of poor children aged 0-5, 6-13 and 14-17 years among the 68 municipalities. The at-risk-of-poverty rates amongst children increased with increasing age. As an example, the at-risk-of-poverty rate among children within Gozo and Comino increased from 15.9 per cent among children aged under 6 to nearly 20 per cent within the 14-17 year old age group. This may be explained due to fact that many households with children aged over 5 tend to have more than one child and less work intensity. Consequently the equivalised income for these households tends to be lower than the other households with a resulting increase in the at-risk-of-poverty rate.

Table 4. - *Poverty and inequality indices (%) for children*

Age group	District	Head count	FGT(1)	FGT(2)	Gini	Gini-poor	Sen	GE(0)	GE(1)	Eq_inc_lm*
	Malta	16.31	4.09	1.76	27.80	15.02	3.02	13.72	12.92	3,588
	District_1	18.06	4.20	1.70	25.97	13.57	3.12	11.96	11.22	3,313
	District_2	14.10	3.62	1.60	28.23	15.69	2.64	14.10	13.39	3,788
0-5	**District_3**	16.68	3.88	1.59	26.67	13.74	2.87	12.55	11.81	3,469
	District_4	16.79	4.52	2.02	28.24	16.11	3.36	14.30	13.22	3,647
	District_5	17.25	4.54	2.00	27.95	15.65	3.38	13.98	12.95	3,586
	District_6	15.91	4.10	1.85	29.07	15.91	3.08	15.19	14.30	3,728
	Malta	17.30	4.31	1.84	27.55	14.88	3.21	13.50	12.73	3,485
	District_1	18.34	4.27	1.73	26.01	13.60	3.19	12.02	11.26	3,301
	District_2	14.87	3.77	1.65	28.03	15.41	2.77	13.90	13.26	3,685
6-13	**District_3**	17.70	4.13	1.68	26.35	13.68	3.07	12.30	11.54	3,372
	District_4	17.94	4.73	2.08	27.91	15.70	3.55	13.95	12.96	3,505
	District_5	18.92	4.99	2.18	27.60	15.62	3.77	13.69	12.67	3,424
	District_6	17.79	4.47	1.97	28.75	15.31	3.41	14.80	14.10	3,538
	Malta	17.15	4.29	1.84	27.52	14.92	3.19	13.49	12.69	3,495
	District_1	18.31	4.31	1.75	26.46	13.71	3.20	12.42	11.66	3,342
	District_2	15.03	3.80	1.65	27.48	15.32	2.79	13.41	12.75	3,626
14-17	**District_3**	18.42	4.34	1.77	26.80	13.72	3.24	12.70	11.95	3,369
	District_4	17.20	4.56	2.01	28.29	15.78	3.39	14.31	13.31	3,605
	District_5	16.98	4.50	2.01	27.75	15.92	3.37	13.86	12.82	3,563
	District_6	19.83	5.01	2.20	27.59	15.39	3.90	13.87	13.10	3,293

*Eq_inc_lm stands for equivalised income (Maltese liras)

Figure 3. *HCR children aged 0-5 by Localities.*

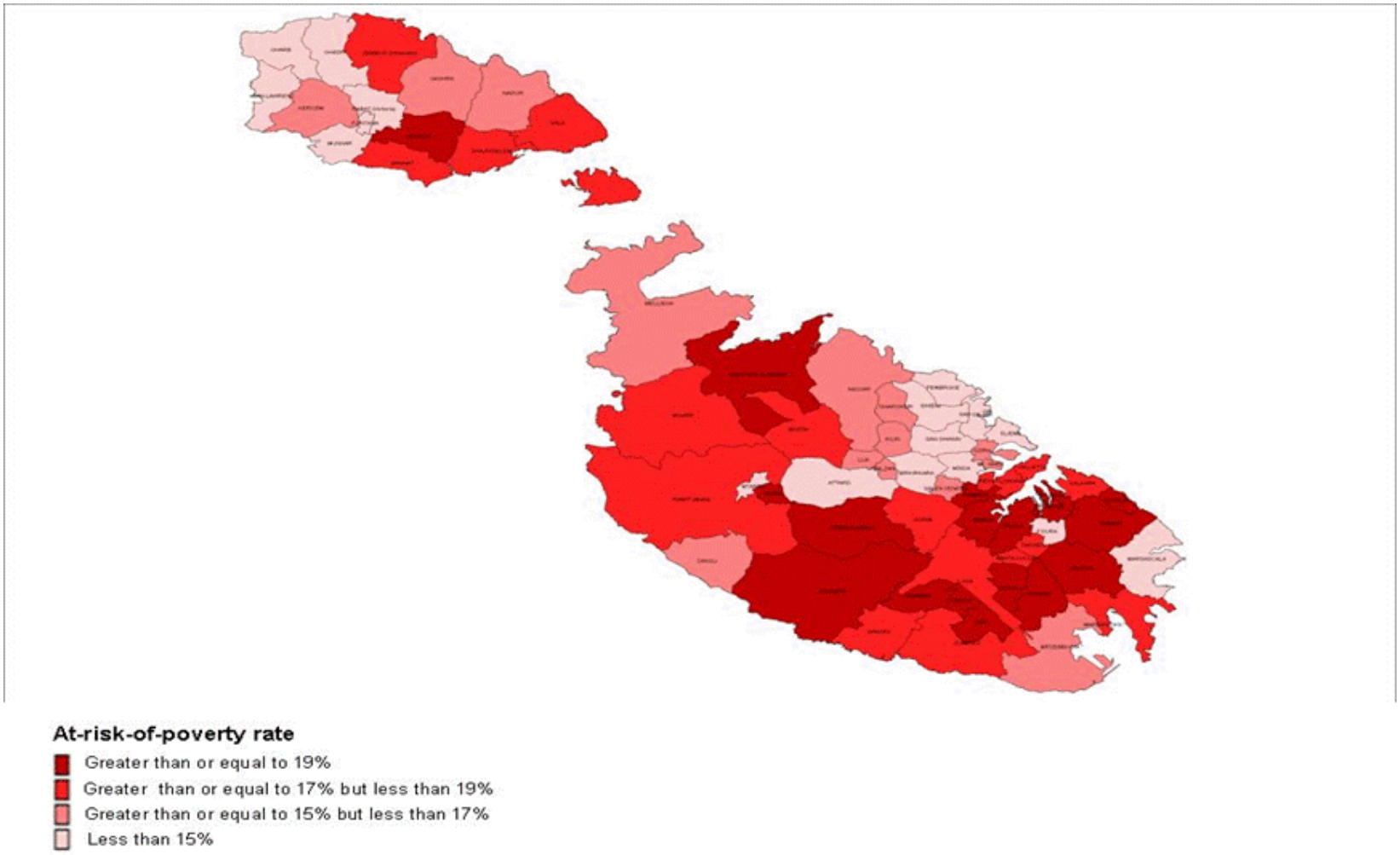


Figure 4. *HCR children aged 6-13 by Localities.*

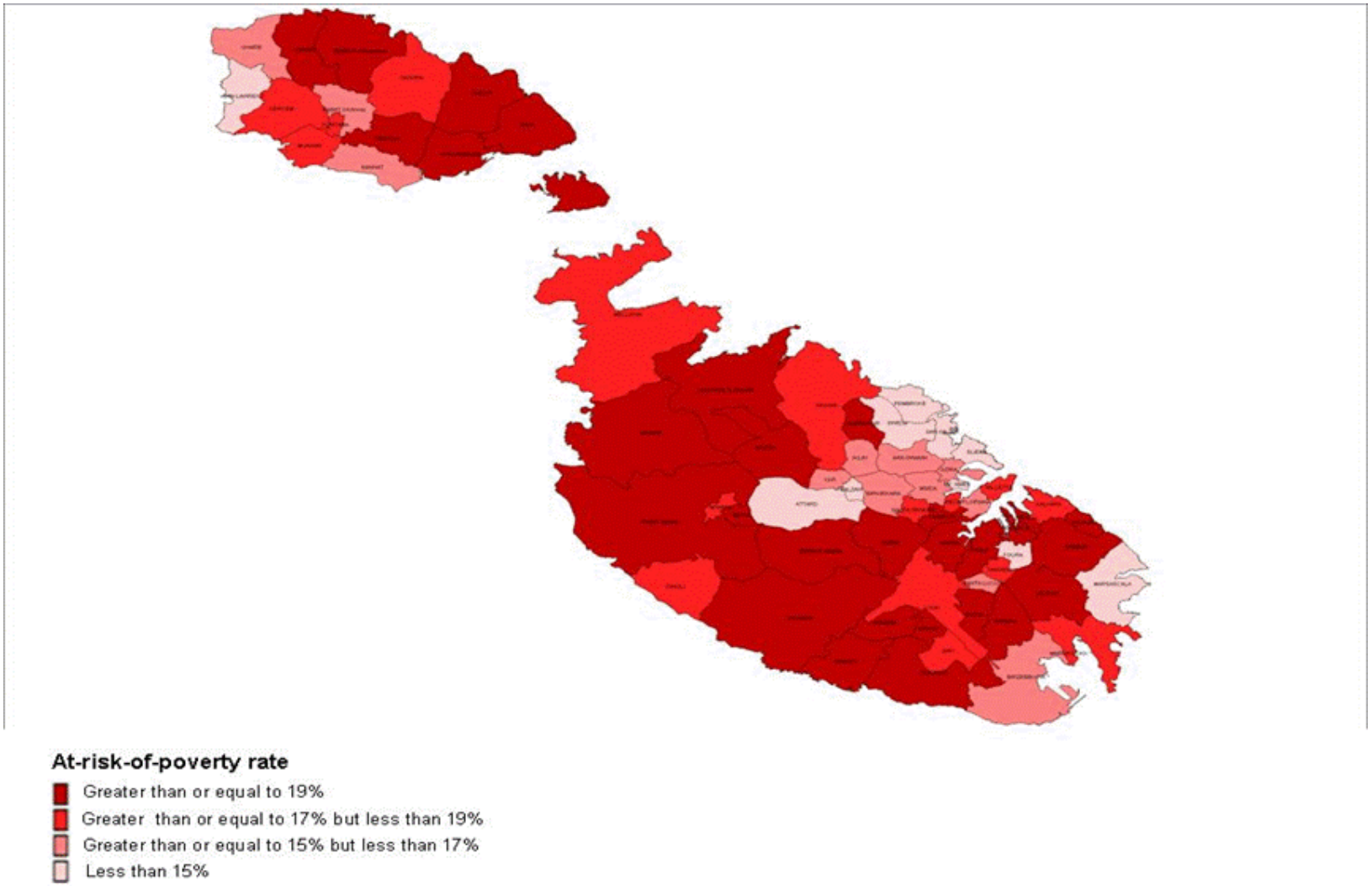
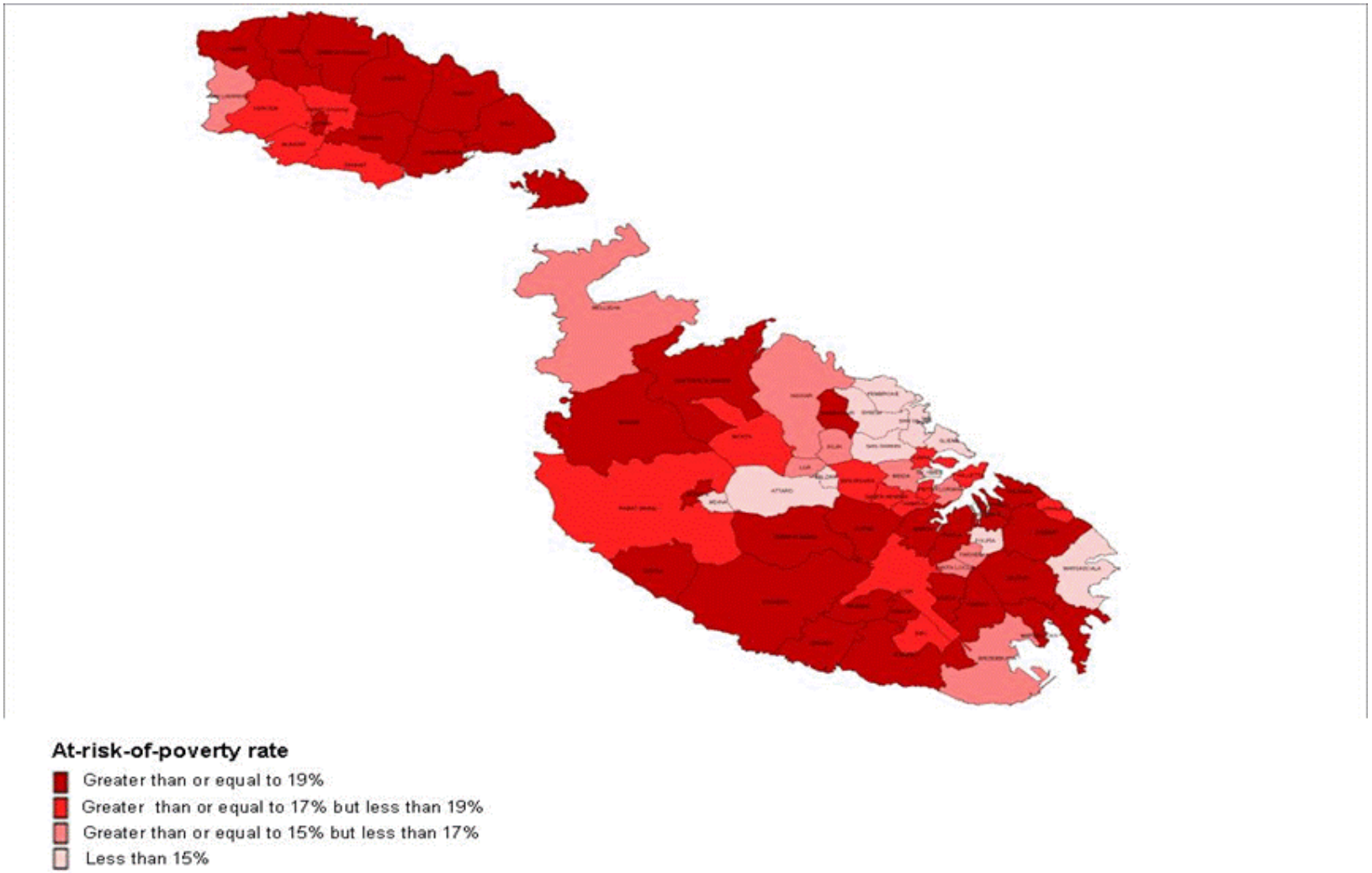


Figure 5. *HCR children aged 14-17 by Localities.*



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Annex 1: Poverty and inequality measures at Locality level

Table A1.1. - *Poverty and inequality indices by Locality (%)*

MGC	Head count	FGT(1)	FGT(2)	Gini	Gini-poor	Sen	GE(0)	GE(1)	Eq_inc_lm*
101	15.05	3.57	1.48	26.90	14.09	2.77	12.65	12.08	3,726
103	18.19	4.33	1.75	26.83	13.51	3.37	12.61	11.92	3,505
104	19.25	4.55	1.83	26.20	13.40	3.59	12.08	11.41	3,353
105	19.01	4.51	1.83	25.95	13.50	3.55	11.91	11.18	3,348
108	17.74	4.20	1.72	26.43	13.75	3.23	12.33	11.60	3,449
117	11.69	2.75	1.18	26.66	14.71	2.03	12.49	11.83	3,925
118	14.45	3.48	1.48	26.65	14.62	2.75	12.50	11.82	3,805
129	17.61	4.18	1.71	26.18	13.80	3.25	12.08	11.39	3,455
133	16.63	3.89	1.60	26.28	13.79	2.97	12.21	11.47	3,517
134	17.61	4.14	1.68	26.09	13.50	3.18	12.01	11.25	3,442
145	17.70	4.20	1.72	26.90	13.73	3.24	12.72	12.01	3,502
157	13.36	3.21	1.37	27.50	14.51	2.39	13.28	12.59	3,895
162	14.94	3.51	1.46	26.95	14.09	2.66	12.77	12.07	3,702
165	17.33	4.13	1.70	26.08	13.87	3.25	12.03	11.34	3,462
206	15.55	3.93	1.70	27.25	15.23	2.89	13.21	12.62	3,571
214	13.67	3.52	1.55	28.41	15.70	2.55	14.28	13.64	3,858
221	14.72	3.74	1.62	28.25	15.35	2.73	14.13	13.47	3,758
227	16.70	4.22	1.81	27.76	15.17	3.14	13.68	13.11	3,538
241	13.42	3.42	1.50	28.03	15.52	2.48	13.88	13.26	3,839
246	10.77	2.82	1.27	28.34	16.08	1.99	14.19	13.46	4,199
247	14.41	3.70	1.63	28.43	15.66	2.71	14.35	13.70	3,794
252	10.89	2.85	1.29	28.86	16.36	2.04	14.70	14.00	4,243
253	11.67	3.02	1.36	28.89	16.03	2.17	14.73	14.08	4,124
258	13.90	3.55	1.56	28.39	15.63	2.59	14.28	13.67	3,814
259	11.14	2.90	1.30	28.93	16.09	2.06	14.75	14.06	4,219
260	7.28	1.98	0.95	28.32	17.52	1.39	14.22	13.42	4,797
261	10.83	2.81	1.25	27.64	15.92	1.97	13.50	12.79	4,101
310	18.64	4.40	1.78	26.58	13.64	3.39	12.47	11.76	3,405
315	14.73	3.43	1.42	26.36	13.96	2.58	12.23	11.56	3,648
320	18.87	4.51	1.84	26.28	13.60	3.55	12.21	11.44	3,397
326	18.98	4.55	1.85	25.91	13.65	3.61	11.86	11.12	3,373
331	18.48	4.45	1.83	26.62	13.83	3.45	12.54	11.78	3,426
335	10.77	2.60	1.15	26.82	15.60	1.94	12.66	11.91	4,094
336	17.53	4.14	1.68	26.61	13.56	3.25	12.38	11.92	3,485
340	18.54	4.42	1.81	26.18	13.69	3.54	12.12	11.42	3,401
349	18.53	4.48	1.84	26.67	13.78	3.51	12.56	11.88	3,452
351	16.29	3.79	1.58	26.34	13.96	2.89	12.35	11.56	3,509
367	16.46	3.87	1.59	26.48	13.81	2.95	12.39	11.66	3,541

MGC	Head count	FGT(1)	FGT(2)	Gini	Gini-poor	Sen	GE(0)	GE(1)	Eq_inc_lm*
402	14.72	3.98	1.79	30.43	17.06	3.01	16.54	15.35	4,211
407	18.08	4.72	2.04	28.19	15.31	3.59	14.08	13.26	3,585
409	17.95	4.74	2.08	28.54	15.70	3.62	14.50	13.63	3,625
412	11.67	3.11	1.44	28.93	16.71	2.27	14.89	13.91	4,287
413	13.65	3.60	1.61	29.80	16.12	2.64	15.72	14.70	4,201
416	15.69	4.03	1.78	27.97	15.65	3.02	13.95	13.03	3,727
428	14.35	3.75	1.69	28.34	16.03	2.81	14.30	13.44	3,902
432	14.04	3.66	1.63	29.48	15.78	2.70	15.36	14.50	4,083
450	16.60	4.27	1.85	28.61	15.39	3.20	14.48	13.64	3,719
468	15.00	3.89	1.72	27.22	15.70	2.91	13.21	12.34	3,714
524	15.91	4.18	1.83	28.68	15.65	3.10	14.60	13.70	3,808
537	15.36	3.96	1.74	27.99	15.67	2.98	13.95	13.04	3,778
538	17.32	4.48	1.94	27.75	15.36	3.39	13.70	12.87	3,583
539	15.87	4.16	1.84	28.62	15.80	3.14	14.54	13.68	3,797
544	14.72	3.85	1.72	28.78	15.94	2.87	14.72	13.78	3,916
555	18.57	4.89	2.12	29.07	15.42	3.71	14.95	14.10	3,624
611	16.47	4.24	1.89	28.70	15.87	3.24	14.74	14.03	3,686
619	17.92	4.70	2.09	28.88	15.83	3.60	14.94	14.28	3,589
622	18.39	4.66	2.06	27.01	15.66	3.66	13.29	12.54	3,383
623	16.55	4.16	1.84	28.11	15.46	3.19	14.22	13.69	3,599
625	18.00	4.52	1.96	27.19	15.06	3.48	13.40	12.70	3,427
630	17.06	4.37	1.95	28.43	15.64	3.35	14.58	13.84	3,585
642	15.74	4.02	1.80	28.56	15.74	3.07	14.58	13.99	3,712
643	18.89	4.84	2.13	27.97	15.52	3.77	14.16	13.42	3,436
648	18.65	4.68	2.03	28.24	15.09	3.62	14.29	13.73	3,466
654	15.80	4.18	1.91	28.46	16.27	3.17	14.73	13.89	3,696
656	16.60	4.23	1.89	27.44	15.81	3.25	13.71	12.94	3,535
663	17.90	4.59	2.04	28.02	15.64	3.55	14.19	13.44	3,498
664	19.45	4.92	2.18	26.99	15.57	3.89	13.36	12.56	3,305
666	18.40	4.84	2.15	29.06	15.81	3.72	15.22	14.37	3,597

*Eq_inc_lm stands for equivalised income (Maltese liras)

Table A1.2. - *Poverty and inequality indices by MGC (%) for children (0-5)*

MGC	Head count	FGT(1)	FGT(2)	Gini	Gini-poor	Sen	GE(0)	GE(1)	Eq_inc_lm*
101	17.20	3.99	1.59	25.16	13.38	3.18	11.09	10.65	3,395
103	22.83	5.24	2.02	24.67	12.59	4.33	10.66	10.16	3,067
104	23.87	5.59	2.19	24.36	12.75	4.67	10.54	9.83	2,983
105	20.57	4.78	1.90	23.19	13.24	3.88	9.73	8.88	3,052
108	18.52	4.33	1.76	25.15	13.62	3.41	11.26	10.54	3,274
117	13.84	3.12	1.28	25.04	13.73	2.34	11.05	10.38	3,589
118	16.85	3.95	1.57	23.99	13.80	3.25	10.20	9.40	3,428
129	18.18	4.29	1.71	25.02	13.42	3.38	11.00	10.24	3,326
133	17.60	3.98	1.62	24.70	13.57	3.12	10.94	10.16	3,294
134	19.93	4.51	1.77	23.67	12.97	3.60	10.04	9.23	3,129
145	19.58	4.66	1.90	25.62	13.73	3.71	11.70	10.95	3,267
157	17.73	4.45	1.89	26.67	15.01	3.45	12.73	11.74	3,458
162	16.61	3.90	1.64	25.64	14.46	3.05	11.73	10.97	3,427
165	18.88	4.46	1.85	24.73	13.98	3.70	10.88	10.15	3,253
206	18.07	4.59	1.97	26.80	15.29	3.47	12.88	12.28	3,343
214	14.21	3.66	1.61	27.66	15.71	2.67	13.60	12.92	3,718
221	15.37	3.89	1.69	27.35	15.27	2.89	13.30	12.56	3,620
227	18.96	4.82	2.09	26.60	15.37	3.70	12.77	12.03	3,281
241	13.93	3.49	1.54	26.78	15.33	2.57	12.77	12.13	3,633
246	12.46	3.41	1.53	29.30	16.41	2.43	15.19	14.05	4,252
247	17.56	4.52	1.96	27.77	15.71	3.42	13.62	12.87	3,493
252	11.48	3.11	1.43	29.14	16.94	2.25	15.13	14.08	4,308
253	13.76	3.50	1.54	28.18	15.54	2.56	14.06	13.33	3,815
258	14.63	3.70	1.65	27.23	15.74	2.77	13.34	12.56	3,606
259	10.10	2.69	1.23	27.74	16.66	1.91	13.66	12.79	4,287
260	6.66	1.77	0.84	26.47	17.26	1.25	12.43	11.62	4,673
261	14.69	3.65	1.57	29.09	15.35	2.74	14.54	13.86	3,833
310	20.05	4.67	1.89	25.79	13.60	3.73	11.83	11.13	3,236
315	15.24	3.48	1.44	25.45	13.84	2.67	11.49	10.73	3,521
320	19.79	4.68	1.89	25.86	13.28	3.76	11.79	11.08	3,302
326	20.48	4.92	1.99	25.21	13.53	3.97	11.25	10.54	3,214
331	19.33	4.72	1.97	26.07	14.32	3.76	12.13	11.34	3,320
335	11.05	2.62	1.16	25.53	15.64	1.99	11.55	10.77	3,904
336	17.98	4.25	1.70	25.54	13.59	3.34	11.37	10.69	3,408
340	19.21	4.36	1.74	25.19	13.01	3.56	11.15	10.59	3,275
349	17.15	3.97	1.59	26.26	13.34	3.12	12.01	11.39	3,493
351	18.85	4.24	1.73	25.29	13.58	3.39	11.40	10.66	3,263
367	17.67	4.02	1.59	25.47	13.04	3.08	11.39	10.78	3,364

MGC	Head count	FGT(1)	FGT(2)	Gini	Gini-poor	Sen	GE(0)	GE(1)	Eq_inc_lm*
402	24.80	7.21	3.19	31.51	14.37	9.19	14.69	12.77	3,326
407	20.19	5.49	2.41	27.53	15.83	4.27	13.56	12.63	3,370
409	20.34	5.66	2.53	28.06	16.53	4.42	14.16	13.00	3,447
412	11.79	3.19	1.49	27.01	16.87	2.34	13.23	12.04	4,074
413	16.19	4.44	1.98	28.96	16.27	3.30	14.96	13.66	3,893
416	14.72	3.78	1.68	26.61	16.07	2.87	12.67	11.65	3,704
428	16.36	4.31	1.94	27.33	16.01	3.32	13.48	12.30	3,651
432	14.68	3.87	1.74	27.80	16.29	2.91	13.82	12.73	3,858
450	18.38	4.89	2.16	27.54	15.99	3.75	13.64	12.65	3,479
468	12.40	3.14	1.40	26.20	15.99	2.34	12.20	11.36	3,846
524	15.77	4.17	1.87	27.49	16.29	3.18	13.59	12.45	3,711
537	16.20	4.25	1.87	26.97	15.82	3.22	13.07	12.04	3,626
538	18.30	4.62	1.98	26.89	15.21	3.58	12.85	11.96	3,446
539	17.66	4.67	2.05	27.38	15.65	3.58	13.45	12.42	3,562
544	15.02	4.07	1.86	27.67	16.85	3.06	13.86	12.67	3,800
555	19.32	5.01	2.14	27.32	15.16	3.82	13.28	12.39	3,415
611	14.08	3.66	1.63	28.83	16.10	2.71	14.76	13.94	3,949
619	13.19	3.40	1.59	28.77	17.20	2.74	14.82	14.05	3,939
622	17.74	4.47	2.01	27.44	15.94	3.57	13.63	12.75	3,481
623	13.19	3.54	1.66	29.64	17.80	2.76	15.70	14.65	4,078
625	12.28	3.32	1.53	27.98	18.83	3.27	13.96	12.48	4,093
630	14.81	3.73	1.70	27.83	15.86	2.91	13.94	13.05	3,701
642	12.22	3.22	1.55	27.98	19.43	2.63	14.20	13.16	4,018
643	15.85	4.03	1.82	28.94	15.93	3.09	15.06	14.06	3,769
648	17.59	4.51	2.04	29.34	16.07	3.55	15.46	14.46	3,700
654	12.77	3.37	1.57	29.03	18.71	2.88	14.83	13.78	4,061
656	16.78	4.21	1.83	26.94	15.51	3.24	13.03	12.14	3,515
663	15.88	4.19	1.94	28.57	16.57	3.22	14.84	13.76	3,717
664	19.84	5.03	2.21	27.34	15.47	3.98	13.61	12.64	3,343
666	18.10	4.80	2.13	28.78	15.90	3.73	14.80	13.92	3,612

*Eq_inc_lm stands for equivalised income (Maltese liras)

Table A1.3. - *Poverty and inequality indices by MGC (%) for children (6-13)*

MGC	Head count	FGT(1)	FGT(2)	Gini	Gini-poor	Sen	GE(0)	GE(1)	Eq_inc_lm*
101	16.74	3.85	1.55	24.20	13.37	3.08	10.39	9.73	3,362
103	23.92	5.64	2.20	25.07	12.81	4.65	11.13	10.46	3,041
104	23.47	5.47	2.13	23.65	12.78	4.51	9.96	9.26	2,956
105	21.77	5.10	2.03	23.84	13.11	4.16	10.26	9.45	3,050
108	19.85	4.60	1.84	25.05	13.33	3.62	11.17	10.46	3,195
117	13.77	3.17	1.33	25.15	14.06	2.39	11.22	10.56	3,571
118	16.11	3.94	1.74	24.42	16.13	3.31	11.02	10.02	3,459
129	17.91	4.19	1.71	24.89	14.03	3.34	11.05	10.24	3,344
133	18.07	4.15	1.70	25.15	13.72	3.27	11.25	10.51	3,301
134	21.83	5.12	2.03	24.15	13.13	4.11	10.46	9.62	3,063
145	19.28	4.55	1.86	25.24	13.75	3.64	11.41	10.58	3,263
157	14.68	3.53	1.49	26.54	14.67	2.69	12.42	11.59	3,674
162	17.02	3.91	1.59	25.65	13.74	3.04	11.61	10.88	3,420
165	18.91	4.49	1.83	24.67	13.75	3.66	10.77	10.00	3,252
206	18.95	4.70	2.00	25.72	14.88	3.60	11.92	11.34	3,199
214	16.20	4.13	1.80	27.40	15.46	3.08	13.41	12.69	3,531
221	15.82	3.95	1.70	27.02	15.05	2.93	12.99	12.38	3,513
227	19.82	4.93	2.09	25.95	14.84	3.79	12.13	11.47	3,178
241	14.91	3.74	1.63	27.10	15.38	2.78	13.06	12.41	3,590
246	10.62	2.72	1.21	27.95	15.66	1.92	13.74	13.00	4,139
247	17.70	4.38	1.84	26.98	14.74	3.30	12.88	12.21	3,425
252	11.27	2.91	1.32	27.79	16.24	2.10	13.64	12.93	4,046
253	14.65	3.74	1.64	28.36	15.50	2.74	14.21	13.53	3,759
258	16.73	4.16	1.80	26.23	15.21	3.13	12.41	11.73	3,374
259	11.39	3.00	1.37	28.04	16.33	2.15	14.05	13.13	4,107
260	7.82	2.12	1.02	27.47	17.52	1.51	13.56	12.59	4,597
261	12.56	3.11	1.35	26.77	15.11	2.27	12.59	12.02	3,786
310	21.61	4.97	1.95	24.84	13.07	3.98	10.97	10.26	3,105
315	15.69	3.60	1.47	25.02	13.61	2.73	11.10	10.37	3,454
320	19.56	4.58	1.86	25.17	13.55	3.68	11.30	10.52	3,254
326	20.40	4.80	1.92	24.46	13.34	3.89	10.65	9.92	3,171
331	20.07	4.76	1.99	25.80	14.15	3.86	11.99	11.15	3,244
335	11.30	2.71	1.19	25.81	15.59	2.04	11.78	11.02	3,899
336	17.44	3.98	1.60	24.57	13.21	3.18	10.61	10.02	3,311
340	21.61	5.02	2.01	24.31	13.18	4.21	10.63	9.90	3,094
349	19.58	4.71	1.95	25.56	13.95	3.83	11.68	10.93	3,275
351	18.35	4.39	1.82	25.02	14.00	3.40	11.32	10.40	3,266
367	18.59	4.31	1.76	25.40	13.50	3.40	11.49	10.73	3,301

MGC	Head count	FGT(1)	FGT(2)	Gini	Gini-poor	Sen	GE(0)	GE(1)	Eq_inc_lm*
402	21.88	6.49	2.91	30.69	19.72	5.72	16.41	14.71	3,624
407	21.86	5.76	2.47	26.73	15.14	4.56	12.82	11.95	3,210
409	21.14	5.65	2.47	27.26	15.71	4.46	13.41	12.39	3,304
412	13.14	3.50	1.61	27.07	16.74	2.61	13.23	12.12	3,896
413	12.91	3.47	1.60	27.67	16.94	2.58	13.79	12.53	4,026
416	18.10	4.68	2.05	26.27	15.72	3.60	12.51	11.55	3,367
428	16.11	4.15	1.84	26.10	15.66	3.19	12.31	11.35	3,515
432	15.66	4.01	1.75	27.65	15.27	3.02	13.57	12.69	3,730
450	19.60	5.17	2.26	27.63	15.66	4.01	13.67	12.78	3,397
468	17.07	4.33	1.87	26.18	15.02	3.32	12.24	11.39	3,444
524	20.81	5.45	2.39	26.87	15.72	4.33	13.11	12.00	3,290
537	17.24	4.49	1.98	26.66	15.78	3.46	12.87	11.87	3,493
538	19.80	4.91	2.07	25.60	14.76	3.83	11.75	10.95	3,238
539	18.81	5.05	2.23	27.44	15.88	3.91	13.54	12.51	3,472
544	16.92	4.30	1.87	26.89	15.34	3.27	12.98	12.01	3,542
555	21.69	5.86	2.56	27.15	15.70	4.58	13.32	12.23	3,254
611	15.74	4.01	1.79	29.05	15.82	3.07	15.04	14.22	3,812
619	17.21	4.38	1.91	27.87	15.82	3.44	13.89	13.21	3,582
622	19.52	4.88	2.13	26.00	15.25	3.89	12.40	11.52	3,264
623	16.48	4.00	1.80	27.53	15.76	3.17	13.68	13.06	3,521
625	18.52	4.65	2.01	26.96	15.72	3.90	12.93	12.16	3,379
630	17.85	4.60	2.03	29.49	15.25	3.53	15.44	14.74	3,634
642	16.74	4.23	1.84	27.76	15.34	3.26	13.70	13.12	3,583
643	18.96	4.75	2.08	28.56	15.42	3.75	14.60	13.98	3,470
648	18.53	4.62	2.00	28.50	14.83	3.62	14.36	13.69	3,505
654	13.69	3.40	1.55	26.86	16.04	2.61	13.18	12.39	3,710
656	14.95	3.83	1.75	27.02	16.26	2.94	13.40	12.49	3,648
663	17.61	4.40	1.94	28.10	15.48	3.41	14.18	13.52	3,518
664	20.55	5.08	2.22	26.60	15.18	4.09	12.99	12.16	3,216
666	20.28	5.14	2.20	30.26	15.06	4.00	16.14	15.51	3,604

*Eq_inc_lm stands for equivalised income (Maltese liras)

Table A1.4. - *Poverty and inequality indices by MGC (%) for children (14-17)*

MGC	Head count	FGT(1)	FGT(2)	Gini	Gini-poor	Sen	GE(0)	GE(1)	Eq_inc_lm*
101	18.14	4.30	1.75	25.96	13.91	3.44	11.94	11.27	3,427
103	21.05	5.10	2.07	25.10	13.53	4.13	11.19	10.43	3,181
104	21.64	5.17	2.03	25.23	12.99	4.08	11.21	10.46	3,148
105	21.50	5.16	2.11	24.57	13.72	4.21	10.93	10.00	3,109
108	20.58	4.84	1.94	25.56	13.48	3.81	11.58	10.86	3,199
117	14.06	3.22	1.34	25.38	14.04	2.43	11.40	10.72	3,582
118	15.75	4.00	1.82	24.22	17.21	3.54	10.87	9.77	3,488
129	20.18	4.81	1.95	25.17	13.86	3.90	11.29	10.58	3,205
133	18.07	4.20	1.72	25.58	13.91	3.28	11.63	10.97	3,333
134	20.25	4.88	2.02	25.10	13.98	3.91	11.40	10.45	3,182
145	19.39	4.51	1.81	25.78	13.38	3.58	11.72	11.07	3,296
157	15.48	3.52	1.41	26.14	13.49	2.72	11.86	11.27	3,571
162	16.28	3.75	1.53	25.90	13.69	2.89	11.81	11.10	3,480
165	17.03	4.16	1.74	26.46	14.26	3.32	12.35	11.42	3,532
206	18.68	4.64	1.96	25.70	14.79	3.52	11.92	11.27	3,222
214	16.51	4.22	1.83	27.07	15.45	3.14	13.09	12.39	3,488
221	17.13	4.24	1.80	26.60	14.95	3.19	12.66	11.94	3,416
227	17.83	4.44	1.91	26.00	15.00	3.37	12.20	11.48	3,299
241	14.94	3.71	1.58	26.39	14.92	2.72	12.39	11.78	3,536
246	13.21	3.49	1.53	28.10	15.89	2.51	13.80	13.10	3,911
247	16.98	4.28	1.85	27.38	15.40	3.23	13.38	12.78	3,451
252	12.61	3.14	1.37	27.30	15.45	2.29	13.07	12.44	3,857
253	13.14	3.34	1.49	27.50	15.80	2.45	13.43	12.73	3,789
258	16.94	4.31	1.86	27.42	15.25	3.21	13.47	12.75	3,495
259	10.86	2.77	1.24	27.30	15.95	1.99	13.16	12.43	4,055
260	8.97	2.39	1.13	27.31	17.23	1.72	13.40	12.46	4,369
261	12.65	3.07	1.27	26.27	14.64	2.21	11.97	11.45	3,731
310	21.74	5.11	2.03	25.13	13.32	4.05	11.25	10.46	3,119
315	16.05	3.76	1.56	25.30	14.02	2.90	11.36	10.62	3,453
320	20.50	4.92	2.00	25.35	13.47	3.96	11.41	10.59	3,209
326	21.14	5.02	2.02	24.64	13.32	4.16	10.85	10.03	3,157
331	20.76	4.94	1.97	26.09	13.64	3.94	11.91	11.35	3,235
335	11.15	2.69	1.18	26.89	15.63	2.02	12.69	11.93	4,053
336	18.67	4.35	1.75	25.36	13.52	3.50	11.30	10.70	3,315
340	21.36	5.12	2.09	24.78	13.75	4.28	11.00	10.19	3,127
349	20.29	4.82	1.91	25.90	13.09	3.84	11.69	11.09	3,278
351	17.52	4.06	1.72	25.45	14.24	3.24	11.76	10.77	3,352
367	18.95	4.39	1.78	25.68	13.60	3.45	11.72	10.95	3,314

MGC	Head count	FGT(1)	FGT(2)	Gini	Gini-poor	Sen	GE(0)	GE(1)	Eq_inc_lm*
402	12.07	3.68	1.89	29.15	12.67	3.47	15.28	13.27	4,447
407	21.00	5.52	2.35	26.96	15.15	4.30	12.98	12.21	3,284
409	20.95	5.61	2.46	27.32	15.72	4.42	13.51	12.43	3,325
412	12.03	3.22	1.49	27.47	16.79	2.37	13.53	12.44	4,049
413	12.80	3.51	1.63	28.24	17.42	2.62	14.37	13.03	4,127
416	18.58	4.87	2.15	26.85	15.74	3.75	13.06	11.98	3,408
428	14.78	3.90	1.77	27.07	16.49	2.96	13.20	12.16	3,729
432	14.52	3.75	1.65	27.13	15.71	2.81	13.05	12.16	3,748
450	17.88	4.71	2.06	27.86	15.67	3.58	13.88	12.87	3,553
468	21.22	5.63	2.43	26.48	15.43	4.46	12.59	11.62	3,248
524	20.78	5.45	2.34	27.46	15.51	4.27	13.44	12.35	3,343
537	14.95	3.94	1.77	26.29	16.46	2.98	12.46	11.49	3,611
538	19.21	5.05	2.20	26.16	15.70	3.93	12.41	11.45	3,321
539	16.68	4.51	2.04	27.52	16.39	3.44	13.72	12.64	3,619
544	15.73	4.15	1.87	27.51	16.14	3.15	13.63	12.53	3,687
555	18.79	4.91	2.14	27.07	15.49	3.78	13.15	12.17	3,418
611	17.08	4.29	1.91	27.78	15.88	3.36	13.88	13.19	3,531
619	21.57	5.69	2.51	28.04	15.32	4.60	14.22	13.23	3,329
622	20.97	5.19	2.22	25.57	15.30	4.21	11.97	11.11	3,139
623	21.05	5.32	2.32	26.78	15.31	4.26	13.00	12.13	3,228
625	22.76	5.70	2.43	24.50	14.80	5.43	10.98	9.84	3,007
630	18.29	4.65	2.06	27.59	15.37	3.67	13.82	12.94	3,417
642	17.82	4.51	2.08	28.36	16.98	3.78	14.65	13.86	3,492
643	21.07	5.23	2.24	25.82	15.10	4.20	12.24	11.48	3,131
648	19.97	4.74	2.03	26.37	15.21	3.90	12.57	12.12	3,223
654	15.06	3.93	1.85	27.48	19.56	3.46	13.92	12.71	3,661
656	18.47	4.63	2.09	24.96	16.45	3.78	11.63	10.71	3,199
663	21.12	5.38	2.37	26.38	15.46	4.34	12.82	11.87	3,181
664	20.89	5.32	2.36	26.94	15.80	4.30	13.40	12.61	3,201
666	25.17	6.93	3.02	31.17	15.52	5.51	17.21	16.26	3,362

*Eq_inc_lm stands for equivalised income (Maltese liras)

Annex 2: Comparison between Census and SILC sources

The main aim of this annex consists in comparing the common information collected by the census and the sample survey. The two sources of data have been fully analysed in order to identify the common concept and to construct the common variable to be compared. The original Census and SILC variables have been transformed in order to get comparable variables. The Table A2.1 in this Annex reports the list of those common variables divided into three categories:

a) Household dwelling conditions and presence of durable goods.
b) Household head characteristics.
c) Household socio-demographic characteristics.

Each one of the 31 variables distributions from the Census were compared with the corresponding weighted distribution from the SILC. A chi-square test was utilised for the comparisons.

Table A2.1. - *Common constructed variables in the Census and the EU-SILC*

	Concept	Variable	Categories	P-value
1	Household size	H_size	1-5; 6=6+	0.0001
2	Dwelling type	Dwelling_type_1_2 Dwelling_type_3 Dwelling_type_4	1=detached house, semi-detached, terraced house; 0=otherwise 1=apartment; flat; 0=otherwise 1=other; 0=otherwise	0.2980
3	Dwelling tenure status	Tenure_1 Tenure_2 Tenure_3	1=owner; 0=otherwise 1=tenant; 0=otherwise 1=free of charge; 0=otherwise	0.0765
4	Toilet in dwelling	Toilet	1=yes, 0=otherwise	0.3213
5	Number of rooms in dwelling	Number_rooms	1-9; 10=10+	0.2480
6	Telephone in dwelling	Telephone	1=yes; 0=otherwise	0.8581
7	Television in dwelling	Television	1=yes; 0=otherwise	0.7501
8	Heater or equivalent in dwelling	Heater	1=yes; 0=otherwise	0.7560
9	Bath or shower in the dwelling	Bath_shower	1=yes; 0=otherwise	0.0617
10	Computer in dwelling	Computer	1=yes; 0=otherwise	0.0160
11	Washing machine	Washing_machine	1=yes; 0=otherwise	0.7122
12	Annual rent quantile	Rent_census_Q1 Rent_census_Q2 Rent_census_Q3 Rent_census_Q4 Rent_census_Q5	1=yes; 0=otherwise 1=yes; 0=otherwise 1=yes; 0=otherwise 1=yes; 0=otherwise 1=yes; 0=otherwise	0.6013

	Concept	Variable	Categories	P-value
13	Household type	H_type_1_4	1=One-person household; 0=otherwise	0.0004
		H_type_5	1=2 adults, no dependent children, both under 65 years; 0=otherwise	
		H_type_6	1=2 adults, no dependent children, at least one adult 65 years; 0=otherwise	
		H_type_7	1=Other households without dependent children; 0=otherwise	
		H_type_8	1=Single parent household, one or more dependent children; 0=otherwise	
		H_type_9	1=2 adults, one dependent child; 0=otherwise	
		H_type_10_11	1=Other households with dependent children; 0=otherwise	
14	Reference person economic activity	Ref_person_economic_activity_1	1=employed; 0=otherwise	0.5854
		Ref_person_economic_activity_2	1=unemployed; 0=otherwise	
		Ref_person_economic_activity_3	1=inactive; 0=otherwise	
15	Reference person marital status	Ref_person_marital_status_1	1=never married (incl. annulled marriage); 0=otherwise	0.0467
		Ref_person_marital_status_2	1=married; 0=otherwise	
		Ref_person_marital_status_3	1=other; 0=otherwise	
16	Reference person highest level of education	Ref_person_education_1	1=pre-primary or primary; 0=otherwise	0.0015
		Ref_person_education_2	1=secondary; 0=otherwise	
		Ref_person_education_3	1=upper/post secondary; 0=otherwise	
		Ref_person_education_4	1=tertiary; 0=otherwise	
17	Reference person sex	Ref_person_sex_1	1=male; 0=otherwise	0.6724
		Ref_person_sex_2	1=female; 0=otherwise	
18	Reference person age	Ref_person_age	2004 - year(DOB)	0.0001
19	Reference person Maltese	Ref_person_maltese	1=whether person has Maltese citizenship; 0=otherwise	0.7289
20	Reference person born in Malta	Ref_person_born_malta	1=whether person was born in Malta; 0=otherwise	0.8142
21	Reference person suffer from a long term illness or health problem	Ref_person_health_problem	1=whether reference person has a health problem; 0=otherwise	0.2105
22	Reference person NACE	Ref_person_NACE_0	1=yes; 0=no; -1=missing	0.1085
		Ref_person_NACE_1	1=yes; 0=no; -1=missing	0.0731
		Ref_person_NACE_2	1=yes; 0=no; -1=missing	0.1381
		Ref_person_NACE_3	1=yes; 0=no; -1=missing	0.1230
		Ref_person_NACE_4	1=yes; 0=no; -1=missing	0.0738
		Ref_person_NACE_5	1=yes; 0=no; -1=missing	0.0384
		Ref_person_NACE_6	1=yes; 0=no; -1=missing	0.3038
		Ref_person_NACE_7	1=yes; 0=no; -1=missing	0.3139
		Ref_person_NACE_8	1=yes; 0=no; -1=missing	0.2131
		Ref_person_NACE_9	1=yes; 0=no; -1=missing	0.2326

	Concept	Variable	Categories	P-value
23	Reference person ISCO	Ref_person_ISCO_0 Ref_person_ISCO_1 Ref_person_ISCO_2 Ref_person_ISCO_3 Ref_person_ISCO_4 Ref_person_ISCO_5 Ref_person_ISCO_6 Ref_person_ISCO_7 Ref_person_ISCO_8 Ref_person_ISCO_9	1=yes; 0=no 1=yes; 0=no 1=yes; 0=no 1=yes; 0=no 1=yes; 0=no 1=yes; 0=no 1=yes; 0=no 1=yes; 0=no 1=yes; 0=no 1=yes; 0=no	0.2665 0.3234 0.0793 0.4333 0.4455 0.1862 0.1739 0.0829 0.3843 0.2589
24	Presence of spouse in household	Ref_person_spouse	1=whether reference person has a spouse; 0=otherwise	0.0967
25	Number of persons by age and sex	Males_0_9 Males_10_19 Males_20_29 Males_30_39 Males_40_49 Males_50_59 Males_60_69 Males_70_Plus Females_0_9 Females_10_19 Females_20_29 Females_30_39 Females_40_49 Females_50_59 Females_60_69 Females_70_Plus	0 - 3; 4 = 4+ 0 - 3; 4 = 4+ 0 - 3; 4 = 4+ 0 - 3; 4 = 4+ 0 - 3; 4 = 4+ 0 - 3; 4 = 4+ 0 - 3; 4 = 4+ 0 - 3; 4 = 4+ 0 - 3; 4 = 4+ 0 - 3; 4 = 4+ 0 - 3; 4 = 4+ 0 - 3; 4 = 4+ 0 - 3; 4 = 4+ 0 - 3; 4 = 4+ 0 - 3; 4 = 4+ 0 - 3; 4 = 4+	some t-tests failed; however. averages tally; all variables kept
26	Rate of household aged 16+ employed	Rate_employed	Total number of persons aged 16+ employed as with respect to the total 16+ population in household (0…1)	0.2993
27	Rate of household aged 16+ unemployed	Rate_unemployed	Total number of persons aged 16+ unemployed as with respect to the total 16+ population in household (0…1)	0.0326
28	Rate of household aged 16+ retired	Rate_retired	Total number of persons aged 16+ retired with respect to the total 16+ population in household (0…1)	0.2663
29	Rate of ind. aged 16+ other inactive	Rate_other_inactive	Total number of persons aged 16+ other inactive with respect to the total 16+ population in household (0…1)	0.9121
30	Number of persons in household who have a health problem	Number_health_problem	0..3; 4 = 4+	0.1347
31	Number of hours worked in main job per week by reference person	Ref_person_hours_main	Total number of hours worked per week	failed. but averages are comparable. but kept as very similar