



# The social and economic preferences of a tech-savvy generation

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### Abstract

In this paper, we try to explain what shapes the economic and social preferences of Millennials – the youngest and most tech-savvy generation today. In particular, we explore whether there is a (causal) link running from the existing economic context, to Millennials' stated preferences with respect to welfare policies. In doing so, we present a first econometric analysis of a series of surveys run under the Millennial Dialogue project, an initiative designed to reveal the preferences and opinions of the Millennial generation. For this study, we use data collected between December 2014 and June 2016 from nine EU member states. Our main findings indicate that there appear to be two different tendencies when it comes to explaining Millennials' preferences. The first tendency seems highly dependent on the (local) economic context, and calls for more redistributive policies and a more supportive role of the state. The second tendency, which is probably a much more fundamental one, drives their positive attitude towards the future and calls for policies that relate more to the idea of better risk-sharing within the society.

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**Keywords:** Millennials, redistribution, risk-sharing

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## 1. Introduction

According to popular media sources, those born between 1980 and 2000 are identified simply as Millennials or Generation Y – the youngest, bravest, most open-minded, tech-savvy and yet, to some extent, misunderstood generation. According to various commentators, Millennials are disengaged from civic participation and policy debates, care a great deal about social media and the opinions of their peers, and are quite individualistic and hard to work with in teams. However, we believe it is a generation that should receive more attention from policy-makers and politicians, potential employers, researchers and even from academics (Skrzypek and Freitas, 2016).

There is plenty of anecdotal evidence, but less empirical evidence on Millennials preferences and attitudes on public policies. Would they prefer governments to invest more in education and healthcare or in poverty alleviation and income support for the unemployed? What about technology and housing provision? In broader terms: What are main determinants that shape Millennial's socioeconomic preferences? Are Millennials leaning more towards policies that allow for better risk-sharing and creation of equal opportunities within the society, or towards redistribution and active government support? What sort of public policies can be envisaged to take into account Millennials' preferences with respect to the welfare state in general?

Our study is relevant as Millennials are posed to be the most powerful generation in the coming decades. Due to sheer size and importance, Millennials are changing the economy by re-shaping businesses and, most importantly, they are forcing contemporary politics to engage them in a different way and, in this respect, alter the design of socioeconomic policies that are enacted.

Millennials are often characterised as tech-savvy, able to connect to an online community worldwide and to access a sea of information with a simple mouse click or swipe on a screen, spending most of their time in the new digital environment. It is also a better educated generation than their parents and, especially in Europe, more open to other cultures due to ease of travel and studying abroad. In light of this, the European Erasmus initiative has been a success, and many say it could help create a future generation of truly European citizens sharing a common set of values. In these settings it is only normal to assume that, at least in Europe, the social and economic preferences of Millennials are shaped by the world they live in, by the cosmopolitan nature of their cities and communities, by their access to knowledge and diverse information sources, easy messaging and communications tools, and even the influence of their peers and friends.

Despite their impressive education, linguistic and digital skills, the Millennial generation made its debut in the labour market at the worst possible time; except for the few that got a job in the early and mid-2000s, most young people today need to deal with the legacies of an economic crisis complicating the normal transition into the labour market. The situation is even more difficult



for young people living in those countries, especially those lying at the Europe's periphery, where the economic context might expose them to all sort of radical political messages.

We draw policy insights from a unique dataset collected under the *Millennial Dialogue project* run by the Foundation for European Progressive Studies (FEPS) in collaboration with various national partners. In particular, we examine nine European countries, namely Germany, Italy, Poland, Austria, Ireland, Hungary, Belgium, France and the U.K. Such a rich data source provides detailed information on Millennials' preferences, attitudes, and opinions on a wide range of topics ranging from economic, social and political developments, to religion, politics and technology. Preliminary statistical analysis reveals, perhaps, not a very surprising picture. Millennials' attitudes are generally optimistic about their future, but their interests in social and economic aspects (and public policy-making) is more pronounced given the current challenges in finding a good job, and with this comes the rest, such as buying a house, a car, starting a family etc. No doubt, there are some big discrepancies between what they want and what they can get today across much of Europe, especially since youth unemployment rates near 50% in some countries.

Some Millennials might believe luck plays a big role in having a successful life and career, while others believe in individual effort. Millennials' attitudes towards risk are also a part of the question on whether they prefer a bigger role for the government in correcting different market failures or not. And here lies an important question with massive implications for (fiscal) policy-making and political-economy debates: Would Millennials prefer more redistribution or rather more risk-sharing? The division line between the two is not always clear. An important determinant in this discussion refers to their expectations with respect to social mobility: the higher the chances that today's poor will be tomorrow's rich, the lower the support for redistribution, and vice-versa (Alesina and La Ferrara, 2005; Bossi and Gumus, 2013). Redistributive preferences usually refer to fiscal policy instruments such as social transfers and benefits, which in our analysis translate into poverty and income support, housing and job creation for example. Instead, policies that enable a better risk-sharing in a society and create a safety net for all its citizens will fall under the risk-sharing (or social insurance) category. Health insurance is perhaps the best example to illustrate this case, but we extend the list to include education, technology and business support because such policies tend to increase youth employment opportunities with no regard to socioeconomic status.

This paper makes at least two important contributions to the literature and the policy debates that take place around Millennials. Our first contribution is to provide an extensive econometric analysis of this new survey data, including a novel empirical strategy that allows us to identify the causality running from the existing economic context towards Millennials' economic and social preferences. Given the existing challenges related to moving from school-to-work, it is



important to look at a full range of support policies that a welfare state provides to young people (see Chevalier 2016) along their path of becoming *social citizens*.

Our second contribution is to present new implications for social and economic policy-making. When it comes to explaining Millennials' preferences, our findings indicate two different tendencies: the first one seems highly dependent on the (local) economic context, calling for more redistributive policies and a more supportive role of the state; the second tendency is a much more fundamental one, driving their positive attitude towards the future and calling for policies that relate more to the idea of better risk-sharing within the society.

Analysing social and economic preferences from cross-sectional data surveys is not an easy task, however. On the one hand, individuals simultaneously evaluate their chances for upward social mobility and their need for a safety net, while taking as given the economic context, together with government policies and regulations. On the other hand, policy-makers take actions based not only on the socioeconomic context but also on voters' (including Millennials') preferences, therefore making policy choices essentially endogenous in this process (see among many others Alesina et al., 1997; Persson and Tabellini, 2002; Drazen, 2000). Most importantly, preferences' determination is *simultaneous* to the existing economic context, raising (technical) challenges in identifying causality links and providing relevant insights to policy-makers on these topics.

To overcome the simultaneity problem, we employ an econometric technique specifically designed to tackle such challenges. Our results are obtained in a *two-stage regression analysis* where the economic context (mainly unemployment proxies) is instrumented using data on households' Internet access and broadband coverage. Such indicators reflect digital infrastructure and therefore affect economic competitiveness, which obviously relates to the economic context in general. However, we claim that Internet speed and broadband access, as measured by such indicators, are unrelated to Millennials' preferences; the main intuition is that Millennials will already have access to the highest Internet speed and best connections available (including broadband), making any such statistical measures irrelevant for their decision-making processes, and accordingly, for their preferences with respect to the welfare state.

The paper is organised as follows: Section 2 describes the Millennial Dialogue project, section 3 includes an extensive empirical analysis of the survey data and finally section 4 concludes.

## 2. Millennial Dialogue Survey

The Millennial Dialogue Project was launched in December 2014 as a transatlantic initiative between FEPS and the Center for American Progress (CAP).<sup>1</sup> It was intended to better understand the values,

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<sup>1</sup> See more information about the project at <https://www.millennialdialogue.com>.



aspirations and preferences of the Millennial generation, what shapes them and how these preferences affect their interaction with politics, and especially their expectations towards policy-makers and government policies.

In the beginning, the efforts focused on designing a survey questionnaire alongside with the appropriate data collection methods. The initiators followed a '3P' methodology that became a principal logic of the project. It referred to "participatory, positive and progressive" discussion with Millennials. Participatory – it was about giving the floor to the Millennials themselves. Positive – it was about jointly finding a solution to their disenchantment with contemporary politics and political systems. Finally, Progressive – the new agenda was aimed at benefitting progressive politicians across the globe. The survey was conducted online with the assistance of AudienceNet, a London-based research agency that sent out the FEPS Millennial Dialogue questionnaire in three phases.

At first, in each of the countries, AudienceNet administered the questionnaire to a nationally representative sample of around 1000 Millennials. Quotas based on census data for each country and region were set to ensure that respondents were demographically and statistically representative of all 15-35 year olds in terms of age, geographical spread, household income and educational attainment levels. In addition to this, in order to maximise data quality and the Millennials' engagement, the survey was administered online via a multi-media platform.

The Millennial Dialogue, being mainly a survey on the political attitudes of Millennials, was framed as a general exploration of their interest and worldview so as not to skew the results, especially with regards to young people who already claimed to have a strong interest in politics.

In the third phase, in each of the countries surveyed, an online community was created to get deeper insights into the respondents from the second phase of the questionnaire. Each online community (comprised of about 40 Millennials) held several discussions using state of the art online technologies. The respondents of the Millennial Dialogue survey took part via a combination of connected devices such as smart phones, tables, laptops, PCs, etc. Discussions in online communities essentially provide a more longitudinal dimension to the traditional qualitative research (Janssen and Kies, 2005). When one of the respondents commented on another's participant contribution, the originator received a notification to their devices with the possibility to immediately join the conversation and engage in a discussion. Participants were also given time and encouraged to engage with each other in the online forum. The easy interactivity of these connected methods, accompanied by 24/7 moderation enabled not only an extremely rich engagement but also a rich qualitative information set. This study draws on these insights, but relies mostly on quantitative methods to derive its main findings.

As of today, the Millennial Dialogue project has been conducted in more than 23 countries on 5 continents using state of the art data collection and statistical methods. The Millennial Dialogue



has been, simply put, the most comprehensive and far-reaching international survey of Millennials ever completed. It is on this rich dataset that this paper will base its reasoning in order to understand what shapes the economic and social preferences of Millennials.

### 3. Empirical Analysis

#### 3.1 The Data Set

The Millennial Dialogue surveys are a rich cross-sectional data source. In general, for each respondent and in each country we study here (i.e. Germany, Italy, Poland, Austria, Ireland, Hungary, Belgium, France and the U.K.), the following information is available: age, gender, education attainment, family composition, EU region of residence (mostly available at NUTS2 level according to European classification standards), household income levels (three thresholds/four clusters based on income distribution), voting behaviour (in past recent or forthcoming elections), expectations with respect to economic, social and political developments, attitudes towards technology, religion and politics, opinions on different local and national political representatives and public authorities etc.

Before conducting the empirical analysis, we need to set up our dataset, which we construct in three steps. In a first step, we retain all relevant variables at the individual level pertaining to personal characteristics such as age, gender, family composition, household income and residence. Our main interest refers to questions detailing respondents' preferences with respect to the provision of public services that fall under the responsibility of the national governments and typically characterise a welfare state. More exactly, respondents were asked to rank (on a scale from 1 to 5) how high a priority they would place on the following items: *education*, *healthcare*, *business support*, *science & technology*, *income support*, *job creation*, *poverty alleviation* and *housing provision*. In addition, we include their attitude towards the future, meaning whether they are optimists and positive about their future to capture the expectation component. For young individuals, impatience - a standard measure of time discounting preferences -, is strongly and negatively correlated with lifelong earnings and other measures of human capital (see among many other the recent studies of Cadena and Keys, 2015; Golsteyn et al., 2015).

In a second step, we include some relevant regional (at either NUTS2 or NUTS1 levels, depending on the country) macroeconomic indicators describing the general economic context, and more specifically labour market outcomes. Central to many studies on welfare is the assumption, formalised in Meltzer and Richard (1981), that individuals' preferences regarding redistribution derive from the economic utility they expect to obtain from such policies (see also Jacoby, 1994). From an economic standpoint, Millennials are mostly concerned with their economic wellbeing, and from this perspective, they care most about labour market opportunities available to them. Several



studies show that such opportunities are essential for young people's decision-making when it comes to education (Grubb and Lazerson, 1982; Petrongolo and Segundo, 2002; Dragomirescu-Gaina and Weber, 2013; Dragomirescu-Gaina et al., 2015), fertility and family choices (Galor and Weil, 1993; Jensen, 2012) and even residence choices (Galster and Killen, 1995). Most Millennials are in their early career stages, though some might be in schools, and few others might be well-established professionals; accordingly, there should be little doubt that unemployment (and its proxies) is the most noticeable and pertinent indicator to consider when investigating the determinants of Millennials' socioeconomic preferences. Other (recent) studies explain individual political choices, voting behaviour (e.g. Brexit) and electoral outcomes using regional economic proxies; for example, in Colantone and Stanig (2016) the focus is on globalization and trade shocks, while Autor et al. (2016) concentrate on shifts in the regional industrial structure of employment as the main driver of electoral outcomes. A thorough review of the relevant literature on how economic conditions affect electoral outcomes (i.e. economic voting) is provided in Anderson (2007).

Following the discussion above, we decided to use the following indicators in our empirical analysis: (i) unemployment rates in %, for the adult population age 15 and over, (ii) employment rates in % for the population group aged 15-64 and (iii) NEET rates (abbreviated from *not in employment, education or training*) for the population group aged 15-24, a highly policy relevant indicator that gives a broader perspective on youth. For comparability purposes, we also included 4-year average growth rates in regional GDP per capita (in PPS terms), which is the broadest macroeconomic indicator available.

We need to specify here that, since the nine surveys were not collected at exactly the same time, there is a need for adjustment in the macroeconomic indicators. Regional data are only available at an annual frequency; accordingly, we have interpolated annual figures in order to roughly obtain a measure that refers to the last previous 12 months in relation to when the survey was conducted. For example, if a survey was conducted in June 2015, we would use both values for 2014 and 2015 and assign a 0.5 weight to each of them in order to compute the relevant macroeconomic indicator. While using previous values is always a good strategy to make sure that the explanatory variables are *pre-determined* (or exogenous), there is still a large source of simultaneity (or endogeneity) which we tackle by appropriate econometric methods in our empirical exercise.

In a third and final step, we add regional indicators that pertain to households' Internet access frequency (weekly or daily), availability and broadband coverage.<sup>2</sup> These indicators are essential for our analysis because they represent the instrument used to control for labour market

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<sup>2</sup> All data used in the second and third steps is available from Eurostat, and was downloaded between August and September 2016.



opportunities (or economic context in general) in our two-stage econometric estimation. This same procedure was followed when the survey was conducted during the year. A summary of the data is provided in Table 1 below.

**Table 1:** Summary statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
priority_education	9407	4.4183	0.8398	1	5
priority_healthcare	9407	4.4660	0.8071	1	5
priority_business	9407	3.8283	0.9477	1	5
priority_technology	9407	3.9018	0.9545	1	5
priority_income	9407	3.9575	0.9826	1	5
priority_jobs	9407	4.4170	0.8521	1	5
priority_poverty	9407	4.2013	0.9231	1	5
priority_housing	9407	4.0149	0,9378	1	5
age (rescaled)	9407	11.5801	5.2703	1	21
gender (male)	9407	0.3973	0.4894	0	1
siblings (yes/no)	9407	0.8459	0.3611	0	1
Children (yes/no)	9407	0.2397	0.4269	0	1
both_parents (yes/no)	9407	0.8304	0.3753	0	1
household_income	8386	1.3849	0.8309	0	3
attitude_future	9407	3.8741	0.8724	1	5
unemployment	72	8.6611	3.9090	2.9	21.2
employment	72	64.6358	7.5523	41.4	77.7
NEET	72	12.5145	5.1955	3.9	32
GDP growth (PPS)	72	9.7542	5.5543	-0.68	21.50
Internet_weekly	9407	76.0742	10.1491	50	94
Internet_daily	9407	66.4695	9.8984	45	88
broadband	9407	78.3833	6.9901	65	92

Note: Macro variables at regional level were taken from Eurostat (See Annex 2 for a full list of regions). Individual *household\_income* variable (available for all countries, except U.K.) denotes the quartile of the income distribution. Source: Millennial Dialogue Survey, Eurostat and authors' calculations.

## 3.2 Econometric Specification and Results

The dependant variable in our model specification reflects the score assigned by each respondent to the following question: *Imagine you were in government. How much priority would you place on each*



of the following areas? Select from: education, healthcare, business support, science & technology, income support, job creation, poverty alleviation and housing provision. Each respondent can indicate a score between 1 and 5, with 5 (1) corresponding to the highest (lowest) priority assignment.

As independent variables, we use some of the standard controls pertaining to individual characteristics such as: age (including squared age), gender, family composition (number of siblings, number of living parents, and if they have children). Since our focus is on explaining the impact of the economic context and labour market opportunities, the main explanatory variable in the model will be one of the unemployment proxies described above in section 3.1. The available information on the residence of the respondent is used to match his answers with the regional macroeconomic data (at NUTS1 or NUTS2 disaggregation level, depending on the availability of the information provided in the survey). The main model specification can be formalized as:

$$priorityX_i = a_c + b * Y_i + c * E_r + \epsilon_i$$

where  $priorityX_i$  denotes the score (from 1 to 5) assigned to one of the 8 policy areas outlined above by an individual  $i$ ,  $a_c$  is a country-specific dummy<sup>3</sup>,  $Y_i$  is a set of individual controls,  $E_r$  is regional unemployment (or its proxy) matched based on the stated residence of individual  $i$  and  $\epsilon_i$  is an error term.

As stated in the introduction, the main challenge in our empirical exercise is the inherent simultaneity that arises between Millennials' preferences and the labour market opportunities available to them (proxied here by regional unemployment rates and other similar measures). This problem biases the empirical results and might lead to wrong or puzzling policy. On the one hand, higher regional unemployment (or bad regional economic context in general) will obviously affect Millennials' preferences, since they are in their early career stage and unfavourable economic circumstances have long-term (mostly permanent) consequences on young people's incomes (see Kahn, 2010). On the other hand, based on a standard political-economy argument, we can say that economic outcomes (including labour market outcomes like unemployment and its proxies) are also affected by people's (including Millennials') policy preferences. To a significant extent this causal influence works through the endogenous policy responses of public authorities and politicians to voters' demands and requests. There is a long and very rich political-economy literature on electoral and economic cycles exposing the direct link running from voters' preferences for political choices and economic factors (see among many others Persson and Tabellini, 2002; Colantone and Stanig, 2016; Autor et al. 2016; De Haas et al. 2016; and the literature reviews in Drazen 2000; Franzese, 2002; Anderson, 2007).

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<sup>3</sup> We include country dummies (or country fixed effects) to control for common effects arising due to same institutional arrangements in all regions belonging to a single country.



To solve this simultaneity (endogeneity) problem, we use regional indicators on households' Internet access frequency and broadband availability as instruments in a two-stage regression analysis. Based on the first stage regression *F statistics* (F-stat), we find that broadband connection is a much better instrument than the frequency of Internet access (most probably because it reflects the quality of the digital infrastructure available at regional level, rather than the demand side - which is better proxied by Internet access).<sup>4</sup> The intuition for using such an instrument was provided in the introduction and relies on the idea that Millennials are inherently a tech-savvy generation, for which neither the quality of digital infrastructure, nor the frequency of accessing Internet (captured at household level) represent an obstacle in the decision-making process.

The main results are displayed in Table 2 below for the specification using unemployment as the main determinant<sup>5</sup> (results using employment or NEET rates are similar and are provided in Appendix 1 in Tables 5 and 6). In general, we find that unemployment (or its proxies) significantly affect preferences with respect to policies related to *income support, job creation, housing provision and poverty alleviation*. This first group of preferences usually call for policies belonging to the *redistribution* category. Such results are in line with findings in other academic studies, where declines in economic opportunity leads individuals to shift their (political) preferences towards more redistribution (see Alesina and La Ferrara, 2005; Bruner et al. 2011; Giuliano and Spilimbergo, 2014). Table 2 also shows that there is no statistical significant impact from unemployment on preferences with respect to *education, healthcare, business support, and science & technology* – preferences that call for policies belonging most likely to the risk-sharing (or reinsurance) category. This is a robust finding not affected by our choice of instrument or labour market conditions proxy.<sup>6</sup>

**Table 2:** Instrumental variable estimation (two-stage least squares)

Dependant (columns) and explanatory (rows) variables	Priority assigned to:							
	Education	Healthcare	Business	Technology	Income	Jobs	Poverty	Housing
unemployment	0.0018	0.0044	0.0082	-0.0005	0.0140**	0.0157**	0.0125**	0.0120**

<sup>4</sup> The value of the F-stat in the first stage regression lies conveniently above 10 as suggested by Staiger and Stock (1997) in all the estimations using broadband as an instrument.

<sup>5</sup> Using GDP growth per capita provides less convincing results; the only significant estimates of the specification displayed in Table 2 are obtained in the case of preferences for policies targeting income support and jobs provision.

<sup>6</sup> We re-estimated the specification illustrated in Table 2 including regional dummies, but excluding regional unemployment from the regression model (also excluding country-specific dummies, which become redundant in this case). Unsurprisingly, we find strong (pair-wise) correlations between the estimated regional dummies and our three labour market indicators (i.e. unemployment, employment and NEET rates), much stronger than the correlation with the 4-year average GDP growth which is the broadest regional economic indicator available (selected for comparability). Such results demonstrate that labour market indicators are more in tune with any (fixed) regional factors that could explain Millennials' preferences.



	(0.0059)	(0.0047)	(0.0055)	(0.0061)	(0.0065)	(0.0064)	(0.0055)	(0.0056)
gender	-0.1484*** (0.0221)	-0.2007*** (0.0191)	0.1264*** (0.0163)	0.2263*** (0.0257)	-0.2110*** (0.0234)	-0.1475*** (0.0211)	-0.2341*** (0.0195)	-0.1477*** (0.0206)
age	-0.0313*** (0.0057)	-0.0224*** (0.0071)	-0.0041 (0.0096)	-0.0190* (0.0098)	-0.0305*** (0.0072)	-0.0169*** (0.0062)	-0.0354*** (0.0089)	-0.0231*** (0.0076)
age squared	0.1019*** (0.0250)	0.0932*** (0.0297)	0.0111 (0.0404)	0.0525 (0.0377)	0.0867*** (0.0314)	0.0791*** (0.0282)	0.1196*** (0.0388)	0.0684** (0.0338)
siblings	0.0534** (0.0273)	0.0227 (0.0240)	0.0384 (0.0272)	0.0088 (0.0286)	0.0833*** (0.0323)	0.0232 (0.0251)	0.1348*** (0.0300)	0.0796*** (0.0302)
children	-0.0171 (0.0282)	-0.0411 (0.0270)	-0.0404 (0.0275)	-0.0631** (0.0309)	0.1211*** (0.0317)	-0.0571* (0.0293)	0.0264 (0.0268)	0.0560** (0.0258)
both_parents	0.0453* (0.0244)	0.0097 (0.0233)	0.0126 (0.0249)	0.0565** (0.0266)	-0.1165*** (0.0303)	0.0109 (0.0245)	-0.0814*** (0.0259)	-0.0521** (0.0265)
constant	4.7214*** (0.0630)	4.6402*** (0.0606)	3.6777*** (0.0777)	4.0043*** (0.0798)	4.4152*** (0.0967)	4.4335*** (0.0853)	4.3781*** (0.0799)	3.9658*** (0.0692)
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9407	9407	9407	9407	9407	9407	9407	9407
R-squared	0.0391	0.0486	0.0571	0.0608	0.0453	0.0569	0.0376	0.0487
First stage regression, F-stat	F(1,71) 18.1331	F(1,71) 18.1331	F(1,71) 18.1331	F(1,71) 18.1331	F(1,71) 18.1331	F(1,71) 18.1331	F(1,71) 18.1331	F(1,71) 18.1331
Instrument:	Broadband (percentage of households with Internet connection type broadband)							

Note: Robust standard errors are provided in parenthesis and adjusted for 72 regional clusters (see Appendix 2 for all regions). By \*\*\*, \*\* and \* we denote statistical significance at 1%, 5% and 10% levels. Using *Internet access - weekly (daily) frequency* as instrument provides very similar results (available upon request from the authors); in this case the F-stat in the first-stage estimation becomes 9.1307 (7.7703).

There are two major controls not included in this first model specification that need a more detailed discussion: *household income* and *individual educational attainment*. On the one hand, *income* is only available in our dataset at household level (except for U.K. where it is not available at all) and so it would not exactly capture *Millennials' individual income* (the most relevant factor in a regression analysis), because some of them still live with their parents. According to Eurostat EU-SILC data for 2015, referring to 18-34 year olds, the share of young individuals living with their parents ranges from 67% in Italy to 34% in U.K. We decided to include household income in the regression but only as a robustness check, keeping in mind the obvious caveats that: (i) this indicator (as measured in the Millennial Dialogue survey) is not a perfect proxy for individual income, and (ii) the need to drop U.K. from the sample because of data availability issues. On the other hand, *education attainment* is not included because most of Millennials are still enrolled in the education system, meaning that education – as measured here in this survey – will not be capturing their innate

abilities, skills and preferences and will therefore introduce a severe bias in the estimated coefficients. Accordingly, Table 3 below includes household income, but not individual education attainment. The results confirm the previous findings, this time with the additional evidence that income is positively affecting policies targeting *technology* and *business support* but negatively affecting policies targeting *income support*.

**Table 3:** Instrumental variable estimation (two-stage least squares)

Dependant (columns) and explanatory (rows) variables	Priority assigned to:							
	Education	Healthcare	Business	Technology	Income	Jobs	Poverty	Housing
unemployment	-0.0005 0.0057	0.0037 0.0046	0.0080 0.0053	0.0024 0.0057	0.0148** 0.0064	0.0132** 0.0061	0.0107** 0.0054	0.0124** 0.0055
household_income	0.0003 0.0088	0.0014 0.0090	0.0235** 0.0117	0.0290*** 0.0108	-0.0390*** 0.0146	0.0005 0.0094	-0.0079 0.0118	-0.0018 0.0126
gender	-0.1445*** 0.0246	-0.2054*** 0.0209	0.1186*** 0.0175	0.2081*** 0.0281	-0.2168*** 0.0255	-0.1675*** 0.0225	-0.2433*** 0.0207	-0.1570*** 0.0214
age	-0.0267*** 0.0053	-0.0210*** 0.0070	-0.0048 0.0104	-0.0172 0.0106	-0.0319*** 0.0071	-0.0174*** 0.0069	-0.0337*** 0.0096	-0.0285*** 0.0080
age squared	0.0938*** 0.0234	0.0963*** 0.0292	0.0229 0.0432	0.0508 0.0410	0.0989*** 0.0309	0.0945*** 0.0308	0.1200*** 0.0415	0.0966*** 0.0346
siblings	0.0431 0.0275	0.0159 0.0243	0.0300 0.0293	-0.0044 0.0305	0.0879*** 0.0340	0.0210 0.0264	0.1229*** 0.0307	0.0810** 0.0328
children	-0.0388 0.0291	-0.0469 0.0293	-0.0740*** 0.0282	-0.0958*** 0.0283	0.1093*** 0.0327	-0.0871*** 0.0299	0.0160 0.0288	0.0414 0.0278
both_parents	0.0523** 0.0262	0.0211 0.0252	0.0294 0.0262	0.0782*** 0.0278	-0.0892*** 0.0314	0.0288 0.0257	-0.0628** 0.0267	-0.0479* 0.0285
constant	4.7005*** 0.0584	4.6204*** 0.0625	3.6411*** 0.0793	3.9401*** 0.0848	4.4307*** 0.1082	4.4313*** 0.0863	4.3781*** 0.0864	3.9846*** 0.0742
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8386	8386	8386	8386	8386	8386	8386	8386
R-squared	0.0301	0.0526	0.0608	0.0548	0.0416	0.0588	0.0361	0.0534
First stage regression, F-stat	F(1,71) 17.6125	F(1,71) 17.6125	F(1,71) 17.6125	F(1,71) 17.6125	F(1,71) 17.6125	F(1,71) 17.6125	F(1,71) 17.6125	F(1,71) 17.6125
Instrument:	Broadband (percentage of households with Internet connection type broadband)							

Note: Robust standard errors are provided in parenthesis and adjusted for 61 regional clusters (all regions listed in Appendix 2 except for the U.K.). By \*\*\*, \*\* and \* we denote statistical significance at 1%, 5% and 10%

levels. Using *Internet access - weekly (daily) frequency* as instrument provides very similar results (available upon request from the authors); in this case the F-stat in the first-stage estimation becomes 9.2464 (7.4977).

As a second robustness check, we re-specify the main dependant variable (i.e. the priority assigned to each of the 8 policy areas) as a dummy variable with a value of 1 if the responses indicated a high priority of either 4 or 5 (on a scale from 1 to 5), and 0 otherwise. The results (available upon request from the authors) are even more statistically significant (at 1% rather than at 5% level as in Table 2 above, with the exception of *housing*), with regional unemployment again being a significant factor affecting Millennials' preferences for policies targeting *income support, jobs, poverty, and housing*. This reinforces the conclusions reached above.

Much more interesting results appear when an additional explanatory variable is included in the model specification displayed in Table 2: Millennials' *attitude towards the future* – an exogenous factor that is orthogonal to their expectations with respect to policy choices of governments (the main source of endogeneity in the model). The most striking result this time is that Millennials' attitude towards the future is more relevant (i.e. statistically significant) and much more positively related with Millennials' preferences for the second group: *education, healthcare, business support and technology*. The statistical significance of the unemployment proxy remains unaltered and the relevance of the instruments is again confirmed by the high *F-stat* displayed in Table 4.

**Table 4:** Instrumental variable estimation (two-stage least squares)

Dependant (columns) and explanatory (rows) variables	Priority assigned to:							
	Education	Healthcare	Business	Technology	Income	Jobs	Poverty	Housing
unemployment	0.0021 (0.0058)	0.0046 (0.0046)	0.0088 (0.0054)	0.0000 (0.0060)	0.0140** (0.0065)	0.0159** (0.0064)	0.0126** (0.0055)	0.0121** (0.0056)
attitude_future	0.0679*** (0.0105)	0.0259*** (0.0094)	0.1140*** (0.0112)	0.1043*** (0.0103)	0.0076 (0.0119)	0.0332*** (0.0101)	0.0091 (0.0123)	0.0265** (0.0108)
gender	-0.1506*** (0.0221)	-0.2015*** (0.0191)	0.1226*** (0.0165)	0.2228*** (0.0257)	-0.2113*** (0.0234)	-0.1486*** (0.0210)	-0.2344*** (0.0195)	-0.1486*** (0.0207)
age	-0.0306*** (0.0056)	-0.0222*** (0.0071)	-0.0031 (0.0095)	-0.0180* (0.0095)	-0.0304*** (0.0072)	-0.0165*** (0.0062)	-0.0354*** (0.0089)	-0.0228*** (0.0076)
age squared	0.1041*** (0.0243)	0.0940*** (0.0295)	0.0148 (0.0398)	0.0559 (0.0366)	0.0869*** (0.0313)	0.0801*** (0.0281)	0.1199*** (0.0388)	0.0693** (0.0336)
siblings	0.0518* (0.0273)	0.0221 (0.0238)	0.0357 (0.0266)	0.0064 (0.0288)	0.0832*** (0.0322)	0.0224 (0.0250)	0.1346*** (0.0300)	0.0790*** (0.0301)



children	-0.0283 (0.0281)	-0.0454* (0.0275)	-0.0593** (0.0266)	-0.0804*** (0.0295)	0.1198*** (0.0316)	-0.0626** (0.0289)	0.0249 (0.0268)	0.0516** (0.0258)
both_parents	0.0451* (0.0245)	0.0096 (0.0234)	0.0122 (0.0252)	0.0562** (0.0266)	-0.1166*** (0.0303)	0.0108 (0.0247)	-0.0814*** (0.0260)	-0.0521** (0.0266)
constant	4.5110*** (0.0733)	4.5600*** (0.0632)	3.3243*** (0.0827)	3.6809*** (0.0814)	4.3917*** (0.0995)	4.3305*** (0.0875)	4.3500*** (0.0869)	3.8837*** (0.0691)
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9407	9407	9407	9407	9407	9407	9407	9407
R-squared	0.0439	0.0494	0.0677	0.0697	0.0454	0.0579	0.0377	0.0493
First stage regression, F-stat	F(1,71) 18.1269	F(1,71) 18.1269	F(1,71) 18.1269	F(1,71) 18.1269	F(1,71) 18.1269	F(1,71) 18.1269	F(1,71) 18.1269	F(1,71) 18.1269
Instrument:	Broadband (percentage of households with Internet connection type broadband)							

Note: Robust standard errors are provided in parenthesis and adjusted for 72 regional clusters (see Appendix 2 for all regions). By \*\*\*, \*\* and \* we denote statistical significance at 1%, 5% and 10% levels. Using *Internet access - weekly (daily) frequency* as instrument provides very similar results (available upon request from the authors); in this case the F-stat in the first-stage estimation becomes 9.1263 (7.7679).

All our findings above clearly illustrate that a negative economic context, characterised by high regional unemployment levels (including lack of labour market opportunities, low attachment to school and education etc.), will lead to much stronger preferences towards redistributive and more active policies like the ones addressing *housing, job creation, income support, and poverty reduction*.

Another interesting empirical finding is that having or living with both parents significantly reduces Millennials' preferences for redistributive policies (first group), but has no effect on risk-sharing policies. It highlights therefore a sort of *imperfect* substitution between state- and family-support, especially with respect to income and housing – the obvious choices (we only say *imperfect* because family support cannot be easily substituted by the state and public policies).

In conclusion, our results point towards some relevant insights that can be used to shape policy actions. We find that there are two different tendencies when it comes to explaining Millennials' social and economic preferences. The first tendency is highly dependent on the economic context, calling for more redistributive policies and a more supportive role of the state in terms of welfare provision. The second and rather opposite trend is a much more fundamental one that drives their positive attitude towards the future and calls for public policies that are more in tune with the idea of better risk-sharing and social insurance within the society.

#### 4. Concluding Remarks

This paper attempts to explain the social and economic preferences of one of the youngest, most open-minded, tech-savvy and (largely) misunderstood generation: Millennials – those born between





1980 and 2000, but who are going to be the major driving socioeconomic force over the next decades. We present an insightful empirical analysis of nine surveys conducted under the Millennial Dialogue project in several EU member states from 2014 to 2016. These surveys provide a rich source of data on Millennials preferences, attitudes and opinions on a wide range of topics ranging from economic, social and political developments, to religion, politics and technology.

There is wide agreement in both economic literature and policy circles that there is a sort of urgency in addressing the current high levels of youth unemployment, including the administrative hurdles in school-to-job transition, the lack of or inefficient labour market institutions and other problems existing in many European countries today. Answers are required before designing new policies, and this is what we are trying to do in this paper. Using *Internet access* and *broadband availability* as instruments in a two-stage regression analysis, we uncover a causal link running from existing labour market opportunities (unemployment and its proxies) to Millennials' stated preferences with respect to the welfare state. We find that the economic context clearly dominates their socioeconomic preferences when it comes to public policies that regard *income support*, *job creation*, *housing provision* and *poverty alleviation*. However, Millennials' optimism and positive attitudes towards the future dominate their preferences for policies targeting *education*, *healthcare*, *science & technology* and *business support*. Such a split in two broad categories highlights a possible division line between policies falling under the redistribution category (the former group) and policies falling under the reinsurance or risk-sharing category (the latter group). Moreover, this shift towards redistributive policies due to unfavorable economic conditions is in line with similar findings in the relevant academic literature (see Alesina and La Ferrara, 2005; Brunner et al., 2011; Giuliano and Spilimbergo, 2014; De Haas et al. 2016).

Governments need more active policies to counteract the negative labour market developments, which have harmful long-term consequences on young people attitudes *and policy preferences*. Unfortunately, European policy making during the past decade has been quite an unfortunate one, with many governments struggling to alleviate the symptoms rather than dealing with the causes. The main risk is that this creates a vicious circle between what voters' demand and what policy-makers deliver in terms of policies. Some redistributive policies targeting areas such as income support, affordable housing and poverty alleviation don't necessarily fix the roots of the problem as long as unemployment rates (especially for youth) remain high. It would be better to have an active labour market policy, coupled with job creation initiatives and employment incentives that provide real job opportunities for young people. In this context, the *EU Youth Guarantee* was the right step to take, but it came a bit late into the crisis, at a point when many young people already felt disengaged. Moreover, its implementation is currently lagging in many





problematic countries, to a large extent due to lack of institutional capacity and budget constraints.<sup>7</sup> Firstly, as long as the European Union works for all by offering free templates (or blueprints) for what kind of policies work, where and why, there is still hope that problems related to institutional constraints will be solved. Secondly, in terms of easing financial constraints, Europe should play a much bigger role by providing additional financial support to the hardest-hit countries and regions, so that all Millennials can get access to similar public services and job opportunities.

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<sup>7</sup> Unfortunately, and especially when budget constraints are binding, EU members have not always been able to provide good quality public services in line with their prior commitments. The root problem is that the costs of public services have been rising much faster compared to other consumption goods. See Hartwig (2011) for healthcare costs and Dragomirescu-Gaina (2015) for education costs.



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## Appendix 1

The following tables report the estimation results when using employment and NEET rates as the main explanatory variables. The tables display the full specification, which includes the Millennials' attitude towards future as an explanatory variable.

**Table 5:** Instrumental variable estimation (two-stage least squares)

Dependant (columns) and explanatory (rows) variables	Priority assigned to:							
	Education	Healthcare	Business	Technology	Income	Jobs	Poverty	Housing
employment	-0.0012 (0.0033)	-0.0026 (0.0027)	-0.0050* (0.0031)	-0.0001 (0.0034)	-0.0080** (0.0036)	-0.0090*** (0.0035)	-0.0071** (0.0031)	-0.0069** (0.0032)
attitude_future	0.0680*** (0.0106)	0.0260*** (0.0094)	0.1143*** (0.0112)	0.1043*** (0.0103)	0.0080 (0.0119)	0.0337*** (0.0101)	0.0095 (0.0124)	0.0269** (0.0108)
gender	-0.1507*** (0.0220)	-0.2017*** (0.0191)	0.1223*** (0.0164)	0.2228*** (0.0257)	-0.2117*** (0.0234)	-0.1491*** (0.0209)	-0.2348*** (0.0195)	-0.1490*** (0.0205)
age	-0.0306*** (0.0056)	-0.0222*** (0.0071)	-0.0030 (0.0096)	-0.0180* (0.0095)	-0.0303*** (0.0072)	-0.0165*** (0.0063)	-0.0353*** (0.0089)	-0.0228*** (0.0076)
age squared	0.1041*** (0.0243)	0.0940*** (0.0296)	0.0147 (0.0401)	0.0559 (0.0366)	0.0868*** (0.0316)	0.0800*** (0.0285)	0.1198*** (0.0390)	0.0692** (0.0335)
siblings	0.0519* (0.0273)	0.0222 (0.0238)	0.0359 (0.0266)	0.0064 (0.0287)	0.0834*** (0.0322)	0.0228 (0.0249)	0.1348*** (0.0300)	0.0793*** (0.0301)
children	-0.0284 (0.0281)	-0.0454* (0.0275)	-0.0594** (0.0266)	-0.0804*** (0.0295)	0.1196*** (0.0316)	-0.0628** (0.0290)	0.0247 (0.0269)	0.0514** (0.0258)
both_parents	0.0452* (0.0245)	0.0097 (0.0234)	0.0125 (0.0253)	0.0562** (0.0266)	-0.1162*** (0.0302)	0.0111 (0.0244)	-0.0811*** (0.0259)	-0.0518** (0.0265)
constant	4.6072*** (0.2283)	4.7698*** (0.1997)	3.7286*** (0.2305)	3.6817*** (0.2694)	5.0390*** (0.2563)	5.0613*** (0.2517)	4.9286*** (0.2266)	4.4429*** (0.2475)
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9407	9407	9407	9407	9407	9407	9407	9407
R-squared	0.0438	0.0491	0.0679	0.0697	0.0457	0.0582	0.0379	0.0494



First stage regression, F-stat	F(1,71) 21.7159	F(1,71) 21.7159	F(1,71) 21.7159	F(1,71) 21.7159	F(1,71) 21.7159	F(1,71) 21.7159	F(1,71) 21.7159	F(1,71) 21.7159
Instrument:	Broadband (percentage of households with Internet connection type broadband)							

Note: Robust standard errors are provided in parenthesis and adjusted for 72 regional clusters (see Appendix 2 for all regions). By <sup>\*\*\*</sup>, <sup>\*\*</sup> and <sup>\*</sup> we denote statistical significance at 1%, 5% and 10% levels. Using *Internet access - weekly (daily) frequency* as instrument provides very similar results (available upon request from the authors); in this case the F-stat becomes 12.6595 (9.8237).

**Table 6:** Instrumental variable estimation (two-stage least squares)

Dependant (columns) and explanatory (rows) variables	Priority assigned to:							
	Education	Healthcare	Business	Technology	Income	Jobs	Poverty	Housing
NEET	0.0017 (0.0048)	0.0038 (0.0039)	0.0073 (0.0043)	0.0001 (0.0050)	0.0118 <sup>**</sup> (0.0051)	0.0133 <sup>***</sup> (0.0050)	0.0105 <sup>**</sup> (0.0043)	0.0102 <sup>**</sup> (0.0047)
attitude_future	0.0679 <sup>***</sup> (0.0105)	0.0259 <sup>***</sup> (0.0094)	0.1141 <sup>***</sup> (0.0112)	0.1043 <sup>***</sup> (0.0103)	0.0077 (0.0120)	0.0334 <sup>***</sup> (0.0101)	0.0092 (0.0124)	0.0266 <sup>**</sup> (0.0108)
gender	-0.1506 <sup>***</sup> (0.0221)	-0.2015 <sup>***</sup> (0.0191)	0.1226 <sup>***</sup> (0.0165)	0.2228 <sup>***</sup> (0.0257)	-0.2113 <sup>***</sup> (0.0234)	-0.1487 <sup>***</sup> (0.0210)	-0.2344 <sup>***</sup> (0.0195)	-0.1486 <sup>***</sup> (0.0206)
age	-0.0306 <sup>***</sup> (0.0056)	-0.0221 <sup>***</sup> (0.0071)	-0.0029 (0.0096)	-0.0180 <sup>*</sup> (0.0095)	-0.0301 <sup>***</sup> (0.0073)	-0.0163 <sup>***</sup> (0.0063)	-0.0351 <sup>***</sup> (0.0090)	-0.0226 <sup>***</sup> (0.0076)
age squared	0.1040 <sup>***</sup> (0.0244)	0.0938 <sup>***</sup> (0.0296)	0.0143 (0.0400)	0.0559 (0.0366)	0.0861 <sup>***</sup> (0.0319)	0.0792 <sup>***</sup> (0.0288)	0.1191 <sup>***</sup> (0.0391)	0.0686 <sup>**</sup> (0.0336)
siblings	0.0519 <sup>*</sup> (0.0273)	0.0224 (0.0238)	0.0362 (0.0264)	0.0064 (0.0287)	0.0839 <sup>***</sup> (0.0322)	0.0233 (0.0248)	0.1353 <sup>***</sup> (0.0300)	0.0797 <sup>***</sup> (0.0300)
children	-0.0283 (0.0281)	-0.0454 <sup>*</sup> (0.0275)	-0.0594 <sup>**</sup> (0.0267)	-0.0804 <sup>***</sup> (0.0295)	0.1196 <sup>***</sup> (0.0317)	-0.0628 <sup>**</sup> (0.0291)	0.0248 (0.0269)	0.0514 <sup>**</sup> (0.0258)
both_parents	0.0451 <sup>*</sup> (0.0245)	0.0096 (0.0234)	0.0123 (0.0253)	0.0562 <sup>**</sup> (0.0266)	-0.1165 <sup>***</sup> (0.0301)	0.0109 (0.0245)	-0.0813 <sup>***</sup> (0.0258)	-0.0520 <sup>**</sup> (0.0264)
constant	4.5098 <sup>***</sup> (0.0748)	4.5575 <sup>***</sup> (0.0636)	3.3194 <sup>***</sup> (0.0799)	3.6809 <sup>***</sup> (0.0822)	4.3839 <sup>***</sup> (0.0956)	4.3218 <sup>***</sup> (0.0820)	4.3431 <sup>***</sup> (0.0831)	4.8771 <sup>***</sup> (0.0697)
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9407	9407	9407	9407	9407	9407	9407	9407
R-squared	0.0438	0.0492	0.0679	0.0697	0.0454	0.0581	0.0379	0.0494
First stage regression, F-stat	F(1,71) 28.4495	F(1,71) 28.4495	F(1,71) 28.4495	F(1,71) 28.4495	F(1,71) 28.4495	F(1,71) 28.4495	F(1,71) 28.4495	F(1,71) 28.4495
Instrument:	Broadband (percentage of households with Internet connection type broadband)							

Note: Robust standard errors are provided in parenthesis and adjusted for 72 regional clusters (see Appendix 2 for all regions). By <sup>\*\*\*</sup>, <sup>\*\*</sup> and <sup>\*</sup> we denote statistical significance at 1%, 5% and 10% levels. Using *Internet access*



- *weekly (daily) frequency* as instrument provides very similar results (available upon request from the authors); in this case the F-stat becomes 14.9419 (13.6017).

## Appendix 2

This Appendix provides the complete list of NUTS1 or NUTS2 regions used as clusters in the econometric analysis, available by country (based on the European standard denomination). Regions with less than 10 observations were excluded; number of observations provided in paranthesis.

**Belgium:** BE10 - Région de Bruxelles-Capitale (194); BE21 - Prov. Antwerpen (155); BE22 - Prov. Limburg BE (71); BE23 - Prov. Oost-Vlaanderen (81); BE24 - Prov. Vlaams-Brabant (114); BE25 - Prov. West-Vlaanderen (87); BE31 - Prov. Brabant Wallon (103); BE32 - Prov. Hainaut (25); BE33 - Prov. Liège (43); BE34 - Prov. Luxembourg BE (24); BE35 - Prov. Namur (111).

**Germany:** DE1 - Baden-Württemberg (135); DE2 - Bayern (155); DE3 - Berlin (41); (DE4 - Brandenburg was excluded due to small sample size); DE5 - Bremen (35); DE6 - Hamburg (20); DE7 - Hessen (61); DE8 - Mecklenburg-Vorpommern (25); DE9 - Niedersachsen (119); DEA - Nordrhein-Westfalen (253); DEB - Rheinland-Pfalz (60); DEC - Saarland (16); DED - Sachsen (65); DEE - Sachsen-Anhalt (29); DEF - Schleswig-Holstein (38); DEG - Thüringen (37).

**Ireland:** IE01 - Border, Midland and Western (458); IE02 - Southern and Eastern (481).

**France:** FR1 - Île de France (190); FR3 - Nord - Pas-de-Calais (279); FR4 - Est (237); FR5 - Ouest (126); FR6 - Sud-Ouest (243).

**Italy:** ITC - Nord-Ovest (297); ITH - Nord-Est (191); ITI - Centro (195); ITF - Sud (265); ITG - Isole (138).

**Hungary:** HU10 - Közép-Magyarország (119); HU21 - Közép-Dunántúl (107); HU22 - Nyugat-Dunántúl (275); HU23 - Dél-Dunántúl (208); HU31 - Észak-Magyarország together with HU32- Észak-Alföld (148); HU33 - Dél-Alföld (170).

**Austria:** AT11 - Burgenland (30); AT12 - Niederösterreich (62); AT13 - Wien (223); AT21 - Kärnten (163); AT22 - Steiermark (62); AT31 - Oberösterreich (161); AT32 - Salzburg (66); AT33 - Tirol (38); AT34 - Vorarlberg (300).

**Poland:** PL1 - Region Centralny (227); PL2 - Region Poludniowy (237); PL3 - Region Wschodni (169); PL4 - Region Północno-Zachodni (158); PL5 - Region Poludniowo-Zachodni (114); PL6 - Region Północny (152).

**United Kingdom:** UKC - North East (57); UKD - North West (120); UKE - Yorkshire and The Humber (85); UKF - East Midlands (77); UKG - West Midlands (91); UKH - East of England (59); UKI - London (173); UKJ - South East (145); UKK - South West (78); UKL - Wales (58); UKM - Scotland (78).