STUDIA PRAWNO-EKONOMICZNE, T. CVI, 2018
PL ISSN 0081-6841; e-ISSN 2450-8179 s. 295–317
https://doi.org/10.26485/SPE/2018/106/18

Sergiusz PROKURAT*
Jan FABISIAK**

CURRENT DEMOGRAPHIC TRENDS INDUCED BY CHANGING FERTILITY PATTERNS IN EUROPE AND THE UNITED STATES

(Summary)

Nowadays, countries of the European Union are facing a rapid decline in their fertility indicators. This factor, combined with ageing of societies, stimulates a need to redefine the demography, as well as answer key questions regarding the inflow of immigrants. This paper aims to ascertain the influence of various ethnic groups on European demography and the contemporary trends by using a set of economic, social, and financial variables.

Utilizing data from OECD and Eurostat reports, as well as case studies of France and the US, the authors proceed to analyze the current demographic tendencies in order to find out whether immigrants and their offspring in France or the US might tend to be much more fertile than the countries' native citizens. This turns out to be a major ethnic difference, which may have a significant impact on the demography of Europe as a whole.

Keywords: demography; society; immigrants; fertility; migration

Klasyfikacja JEL: J13, R23

1. Introduction

The contemporary debate on public debt and the sustainability of public finance in the developed world has focused the attention of economists on the implications of demographic changes for long-term development. The currently predominant social models and welfare-state arrangements take for granted an endless expansion of a given country's population, which seemed to be a fair

* PhD, INE PAN; e-mail: sergiusz.prokurat@gmail.com
** MA, Universidad Tecnologica Americana; e-mail: jan.fabisiak@gmail.com

assumption to make at the time these systems were devised and implemented. Yet nowadays, facing the prospect of insufficient fertility rates and the rapid ageing of societies, the developed world is forced to re-think its demographic policies. This creates the necessity to have available detailed, deep, and transparent data about immigrants. This paper investigates whether European countries suffer from a self-imposed information asymmetry in demographic data, chiefly owing to the lack of ethnic group distinctions in European census statistics. The impact of this asymmetry on strategic decision-making will also be scrutinized.

2. Demographic trends as an economic variable

The concept that demographics should be considered as a variable in economic studies was first put forward by Malthus[1]. Malthus argued that for the greater part of human history income *per capita* had been stagnant, because increased labour productivity was offset by population growth. Indeed, it was not until the coming of age of the Industrial Revolution, which saw unprecedented productivity growth, that the newly-industrialized countries could break out of the 'Malthusian trap'[2].

The concept of a demographic transition was developed by Warren Thompson, who proposed a four-stage model, which was later expanded into a five-stage theory[3]. The first stage represents pre-industrial conditions, i.e. high birth rates and high death rates. The subsequent transition into stage two, principally because of better food supply and healthcare, brings about a rapid decline in the death rate, with the birth rate largely unchanged. It is this stage of the demographic transition which leads to rapid population growth. Yet, for reasons discussed in the further sections of this paper, stage three witnesses a decline in birth rates, leading to a stagnant population (stage four), followed by an absolute decline in population numbers (stage five). While this model is based on empirical research, the last stage of the demographic transition is a controversial subject, as some argue that there in fact exists a sixth stage, which is characterised by renewed demographic growth.

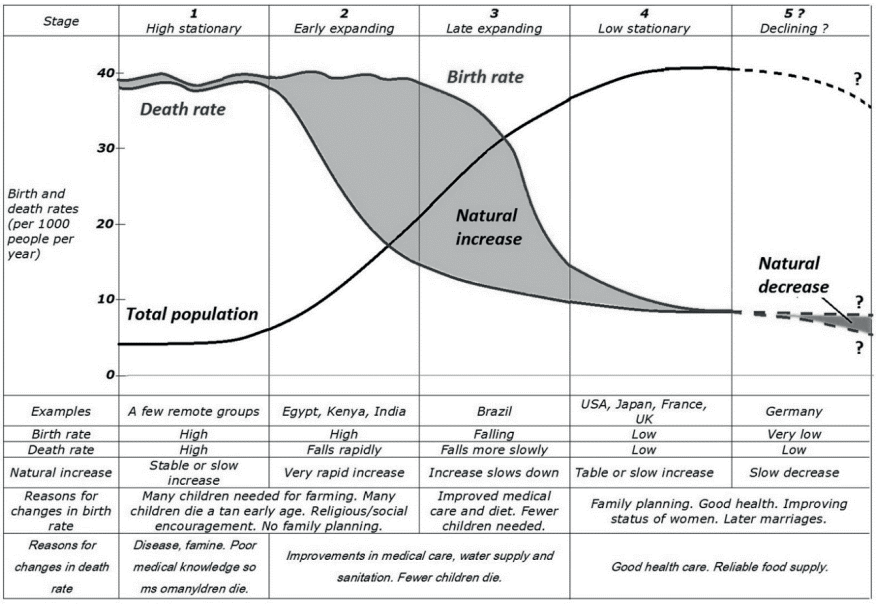
---

1 **T.R. Malthus**, *An Essay on the Principle of Population*, Printed for J. Johnson, in St. Paul's Church-Yard, London 1798.

2 **G. Clark**, *A Farewell to Alms: A Brief Economic History of the World*, Princeton University Press, Princeton 2007.

3 **W.S Thompson**, *Population*, American Journal of Sociology 1929/34, pp. 959–975.

FIGURE 1: *Demographic transition model*



N o t e: examples and reasons are author's elaboration.

S o u r c e: authors' compilation of five stages of demographic transition model based on **W.S. Thompson** *Population*, American Journal of Sociology 1929/34, pp. 959–975.

The model is relevant to this paper for three reasons. Firstly, it demonstrates the population dynamics (and their costs and benefits) that countries may expect as they develop. Secondly, it poses a fundamental question: How does development influence fertility? Therefore, fertility emerges as one of the key variables in economics. Thirdly, the model demonstrates that demography is principally a long-term discipline. It is also evident that capitalism has been, ever since the Industrial Revolution, the reason behind the escape from the Malthusian trap. Notwithstanding the aforementioned long-term perspective required in demographic studies, this paper will nevertheless focus on the last decades of the 20th century and the beginning of the 21st.

In recent research Galor, developing his Unified Growth Theory, included demographic change as a key variable of the model[4]. He suggested that the onset of a demographic transition is one of the preconditions to, and coincides with, a full Rostowian take-off, enabling a country to escape the Malthusian stagnation of growth and achieve modern growth levels. This occurs when labour productivity exceeds fertility.

3. Welfare arrangements, economic growth, and modern financial markets

In the developed world, economic policy after World War II leveraged the nexus between demographics and economic growth. Especially in Europe, the welfare state was built on the assumption that, in the phase of modern economic growth, both labour productivity and populations will grow steadily and indefinitely, allowing welfare benefits (in particular retirement pensions) to be conferred upon contemporary retirement-age cohorts[5]. These benefits, according to the welfare-state paradigm, would be financed by the next generational cohorts, assumed to be more populous and more productive than their parents and grandparents. Yet, welfare state costs are far from the only significant factor which may inflate public debt. In the event of protracted crises, a Keynesian response from the state greatly increases expenditures. If such a stimulus does not work, an economy is left with excessive debt, smaller tax revenue, and no growth to pay off the liabilities incurred. Esping-Andersen identified three main welfare-state regimes: 'liberal', 'corporatist' and 'social democratic'[6]. The 'liberal' regime, primarily found in Anglo-Saxon countries, is characterised by the leading role of the market (and not the state) in income distribution, modest universal transfers and, to a certain extent, by the stigmatisation of entitlements. The 'corporatist' model, adopted by continental European states, supplants private insurance (principally against unemployment or old age) with state alternatives, as market efficiency is not perceived to be as important as in the Anglo-Saxon countries. Yet, income inequality is not smoothed out in a significant way. The third, 'social democratic' model, does just that. It strives to offer a universally high level

[4] **O. Galor**, *From Stagnation to Growth: Unified Growth Theory*, Handbook of Economic Growth 2005/1, s. 171–293.

[5] **M.A. Roberts**, *Pareto-improving pension reform through technological innovation*, University of Nottingham Discussion Papers in Economics 2004/4/12.

[6] **G. Esping-Andersen**, *Three Worlds of Welfare Capitalism*, in: **P. Christopher**, **C.G. Francis**, *The Welfare State Reader*, Polity, London 2007.

of benefits enjoyed by both the working-class and white-collar workers, effectively crowding out the market and de-commodifying labour.

All three models are based on the principle of financing current expenditures with expected future revenue from a larger and more productive base of participants. Admittedly, their costs vary – the 'liberal' regime is the closest to sustainability, while the 'social democratic' welfare state is by far the most costly. However, notwithstanding their price differentials, all three welfare-state arrangements are being currently undermined by the lack of population growth in most of the developed world. The implied consequences of current welfare regimes and stagnant populations for modern financial markets are paramount – current levels of public debt and future states' entitlement obligations seem unsustainable. Labour productivity surely cannot offset the demographic factor. Or can it? This calls for more research on the structure of contemporary fertility and immigration in rich countries, enabling feasibility studies of new welfare regimes.

Historically, the nexus between demography and economics had been studied thoroughly. Only recently have the effects of the new demographic transition on growth and fiscal sustainability been taken up for study. Andersen, in principle, agrees with the notion that the rising dependency ratio poses a major threat to the primary budget balances of developed countries[7]. He argues, however, that a distinction between the two drivers of this phenomenon needs to be made. The declining Total Fertility Rate (TFR) should, according to Andersen, be offset by tax smoothing, meanwhile increased longevity requires the retirement age to be pegged to life expectancy. The findings of Andersen are evidence of a significant paradigm shift in studying the effects of demographic dynamics on growth. From the 1980s until recently, many scholars have held that population growth (or decline) was neutral with respect to economic development[8].

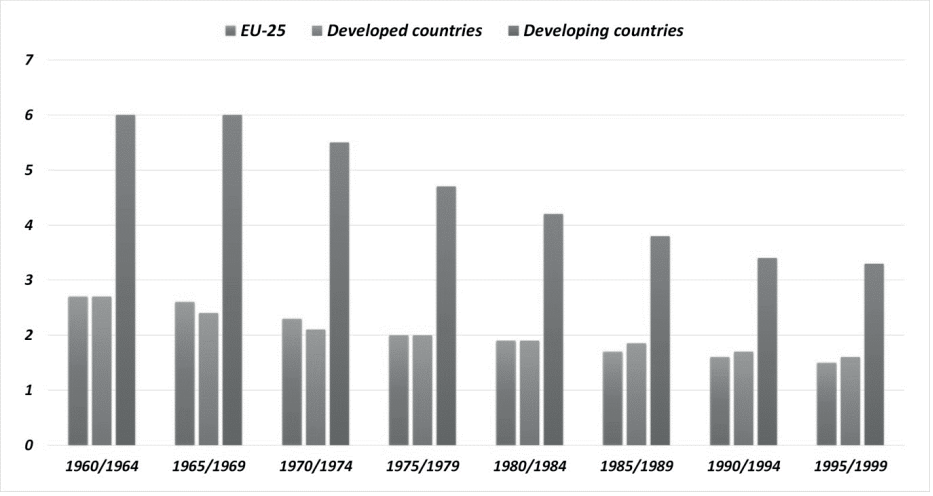
Contrary to the view of these demographic neutralists, the 'demographic dividend' (increase of working-age net savers in the economy) is now widely

[7] **M. Andersen**, *Fiscal Sustainability and Demographics – Should We Save or Work More?*, CEPR Discussion Paper 2008/DP7044.

[8] **K.C. Allen**, *Economic Consequences of Population Change in the Third World*, Journal of Economic Literature 1988/27, pp. 1685–1728; **A.C. Kelley**, **R.M**. **Schmidt**, **M. Robert**, *Economic and Demographic Change: A Synthesis of Models, Findings and Perspectives*, in: **N. Birdsall**, **A.C. Kelley**, **S.W**. **Sindling**, *Population Matters: Demographic Change, Economic Growth, and Poverty in the Developing World*, Oxford University Press, Oxford 2001; **A.D. Ahlburg**, *Does Population Matter?*, Population and Development Review 2002/28; **D.E. Bloom**, **D. Canning**, **J. Sevilla**, *The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change*, Santa Monica 2002.

accepted as a factor relevant to economic growth and, thus, to fiscal revenue streams. Some may argue that the 'demographic dividend' is in fact an illusion – while the old-age dependency ratios have risen, the *total* dependency ratio has, in fact, begun to increase globally. This trend is exacerbated in developed countries, where fertility rates are below the global average. A comparison of the declining fertility (measured in TFR) in Europe, the developing, and developed countries is shown in Figure 2, while the TFR of Europe and the USA is indicated on Figure 3.

FIGURE 2: *Diminishing Total Fertility Rate*



N o t e: comparison of falling fertility (TFR) in EU-25 (left column), developed countries (middle column), and developing countries (right column).

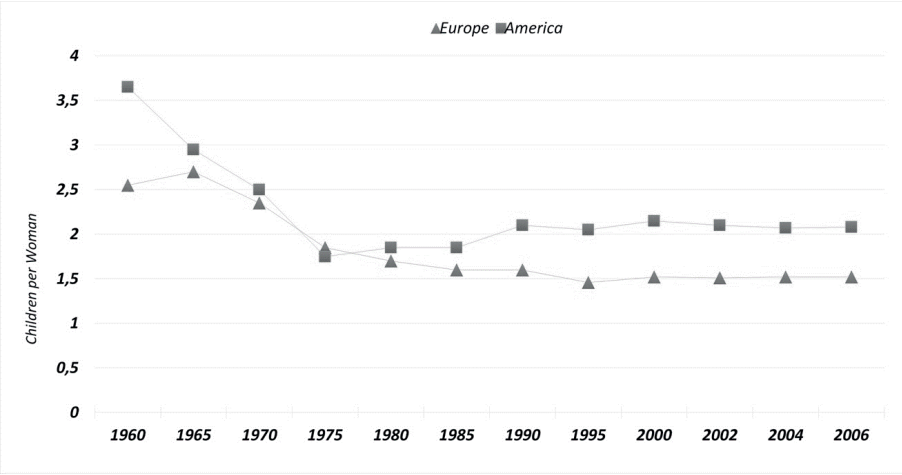
S o u r c e: own elaboration based on: **K. Lorant**, *The demographic challenge in Europe*, European Parliament, Brussels 2005.

The view that demographic variables influence growth has been empirically confirmed by Bloom, Canning and Moore[9]. Firstly, since decisions to participate in the labour market are influenced by age, Bloom and Canning found that 'older' societies had a smaller labour supply and, implicitly, a lesser potential growth. Secondly, they also demonstrated a peak of aggregate savings in cohorts aged 40 to 70. Thus, an older population (above a certain threshold) will

[9] **D.E. Bloom**, **D. Canning**, **M. Moore**, *Health, Longevity, and Optimal Retirement*, NBER Working Paper 2004.

be less inclined to save and more likely to consume. To the above we may add a third factor – 'generational crowding' – which depresses real wages relative to labour productivity in large working-age groups of cohorts[10]. Thus, a smaller working-age population relative to its dependents will result in depressed productivity and inflated labour costs.

FIGURE 3: *TFR comparison between the USA and the EU 1960–2006*



N o t e: Europe and America (US) experienced declining fertility rates (TFR) in the 1960s and 1970s; however from the late 1970s the European fertility is declining further, while TFR trend in the USA has reversed its previous direction.

S o u r c e: authors calulations based on: OECD database, 2009.

It is important to stress that the effect of fertility rates and a declining mortality rate on economic growth is not automatic. Indeed, in order to take advantage of a 'demographic dividend', a country needs to have in place appropriate institutions and carry out a rational policy[11]. Likewise, a 'demographic trough' need

[10] **R.A. Easterlin**, *Birth and Fortune: The Impact of Numbers on Personal Welfare*, Basic Bopoks, New York 1980; **D. Bloom**, **R. Freeman**, **S. Korenman**, *The Labor Market Consequences of Generational Crowding*, European Journal of Population 1987/3/2, pp. 131–176; **S. Korenman**, **D. Neumark**, *Cohort Crowding and Youth Labor Markets: A Cross-National Analysis*, in: **D. Blanchflower**, **R. Freeman**, *Youth Employment and Joblessness in Advanced Countries*, University of Chicago, Chicago 2000.

[11] **D.E. Bloom**, **D. Canning**, **J. Sevilla**, *The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change*, Santa Monica 2002, p. 39.

not, in the short term, automatically translate into economic underperformance, especially if a given country is suffering from excessive labour supply.

Another caveat to the nexus between population growth and economic and financial sustainability is posited by Lee[12]. He observes that, to a certain extent, old-age 'dependency' should be treated as a misnomer – while government redistribution policies transfer revenue streams from working-age populations to retirees, data for the United States suggest that the opposite is true *directly* between households. In other words, elderly households make significant transfers to working-age and pre-working-age generational cohorts, alleviating the effect of government redistribution. This may lead to a smaller (or even non-existent) effect of population ageing on the marginal savings rate. Furthermore, Mathers *et al.* show that life expectancy has risen on par with the general health of populations, which in turn permits a longer working career to offset longevity[13]. Therefore, while life expectancy has increased, the period at the end of life, where individuals only consume and do not generate income, has remained stable.

This may mean that while the fiscal burden will increase with population ageing, the *direct* burden on the private sector may not be as large. Nevertheless, a better understanding of the underlying trends influencing population growth/decline is needed, as declining revenue and fixed expenditure obligations are a significant risk to the developed world's fiscal stability, which, in turn, will hamper private economic activity.

4. Drivers of fertility rates and population change

Demographic trends, as shown above, influence economic development and fiscal stability. But how does economic growth change population dynamics? While there is a widespread consensus concerning the significant causality between affluence and fertility, scholars disagree whether income level is the sole determinant of the TFR, or whether many other factors are involved. Historically, economists held disparate views, i.e. that economic development either

[12] **R.D. Lee**, *Intergenerational Transfers and the Economic Life Cycle: A Cross Cultural Perspective*, in: **M. Andrew**, **G. Tapinos**, *Sharing the Wealth: Demographic Change and Economic Transfers between Generations*, Oxford University Press, Oxford 2000.

[13] **C.D. Mathers**, **R. Sadana**, **J.A. Salomon**, **C.L.J**. **Murray**, **A.D. Lopez**, *Healthy Life Expectancy in 191 Countries*, Lancet 2001/357, pp. 1685–1691.

reduced fertility or boosted it (as Malthus proposed)[14]. Yet, with empirical evidence clearly demonstrating a negative correlation between income levels and the TFR, the debate seems to have been won by the proponents of declining fertility among higher income groups.

Heuveline supports the notion that economic development is the sole discernible reason for fertility rate decline[15]. With rising income levels, say proponents of this theory, the causal relationship between having children and old-age insurance ceases to exist. This is because the state takes on the role of welfare provider, thus removing the economic benefits of 'investing' in children. Furthermore, in order to meet its obligations the welfare state needs to broaden the tax wedge, leaving less disposable income to potential parents. The theory goes even further, saying that any increase in the state's responsibility for child-rearing will be counterproductive. The state, in order to subsidise children, would have to further increase taxes, leaving even less disposable income which could otherwise be 'invested' in offspring, while still no incentive would exist to 'invest' at all, not to mention the costs of bureaucratic inefficiency.

The aforementioned relationship between income levels and fertility can be questioned for several reasons. Firstly, the idea that children continue to be 'investments' in high-income societies may be misleading – they might, in fact, be 'luxury goods'. If this were the case, the relationship between state-ordained old-age insurance and fertility rates would not hold true. The logical conclusion of this thought experiment is, thus, that the higher 'price' of children (mainly the cost of upbringing and educating them) relative to disposable income would actually *decrease* fertility in developed world. Another criticism of the 'investment' theory is trust in financial markets. If fertility depends on individuals' certainty of a state pension upon retirement, why isn't it influenced (as it seems from available data) by protracted recessions and financial crises, which call into question the state's ability to pay retirement pensions?

Owing to the aforementioned conundrums, a new school of thought has emerged, which criticises the 'investment assumption' for its over-simplicity. A host of new hypotheses have been proposed, among them 'socioeconomic', 'demand', and 'adjustment' theories, which focus on incentives for child rearing, and 'diffusionist', 'ideational' and 'innovation' theories, which stress

[14] **D.A. Heer**, *Economic Development and Fertility*, Demography 1966/3, pp. 423–444.

[15] **P. Heuveline**, *Demographic pressure, economic development, and social engineering: An assessment of fertility declines in the second half of the twentieth century*, 2001, Population Research and Policy Review 2001/20, pp. 365–396.

the importance of the new possibilities and ideas on limiting fertility[16]. What all of the new suppositions have in common is the conviction that population dynamics are influenced by many other socioeconomic factors (like culture and religion) besides income *per capita*.

The new theories cluster around a central concept – that besides income, human capital development is the missing determinant of fertility. Thus, declining fertility rates, depressed by rising income, start growing once a certain threshold of human development has been reached[17]. And since the Human Development Index, measured by the United Nations Development Programme (UNDP), is positively correlated with GDP *per capita*, the assumption made is that the richer in income and human capital countries will be, the higher their Total Fertility Rate will become.

The 'human development' theory of demographic change legitimises, to its proponents, claims to increase state subsidies – not only those directly affecting the upbringing of children, but any subsidies aimed at boosting 'human development', as defined by the UNDP. Feng, Kugler and Zak take this view, arguing that demographic policy has a statistically significant influence on birth rates[18]. Their argumentation is based, principally, on the example of states with above-average fertility rates among developed countries: Sweden, France and the United States, to name a few. All three are characterised by high human development and income *per capita* and, as such, are prime destinations for international migrants. Yet, tying fertility to human development has been heavily criticised for a considerable statistical bias in the model[19]. What may be even more important is the factor which most aforementioned theories neglect – immigration. Is it not true that the richest and most human-capital-rich countries attract a relatively high number of immigrants? If yes, than the uptick in their TFR may well be caused by high first- and second-generation immigrants' fertility (and not that of natives).

---

[16] **J. Bryant**, *Theories of Fertility Decline and the Evidence from Development Indicators*, Population and Development Review 2007/33, pp. 101–127.

[17] **M. Myrskylä**, **H.P. Kohler**, **F.C. Billari**, *Advances in development reverse fertility declines*, Nature 2009/460, pp. 741–743.

[18] **Y. Feng**, **J. Kugler**, **P.J. Zak**, *Immigration, Fertility and Growth*, Journal of Economic Dynamics and Control 2002/26, pp. 547–576.

[19] **M. Lauer**, *Fertility Declines Don't Reverse with Development*, 2009, http://www.stubbornmule.net/2009/09/fertility-declines-dont-reverse-with-development/; accessed on 20.09.2016.

5. Migration trends and measurement problems in the European Union

Migration, in the broadest meaning of the term, is defined as a change of position in social structures. Vertical migration is primarily understood as the upward or downward mobility within a society, whereas relocation is termed 'horizontal migration'. The former is a phenomenon of the relative change in one's social status, one's place in 'inter-human relations, distance and hierarchy'[20]. The latter, which is the predominant theme of this paper, is the geographical change of one's residence, a phenomenon which has been observed throughout history. There are many motives for relocation, such as job opportunities, financial incentives, the supply of residential real estate, family matters, education, sickness, and non-voluntary migration because of political oppression or armed conflict. Nevertheless, the most potent reasons are economic[21].

It's a fact that we can observe a trend of rising numbers of migrants and the globalisation of migration[22]. For this reason Thomas Friedman argued that the 'world is flat'. Friedman understands this as a combination of institutional, technological and organisational changes which are 'flattening out' the world and making it more equal[23]. Therefore the contemporary world is more accessible for migrations and permanent residence. Europe now matches North America in its significance as a destination for migrants. Owing to this trend, a large increase in resident immigration numbers has been observed in recent years – in a period of 15 years their number grew from an estimated 23 million in 1985 to more than 56 million, or 7.7 per cent of the total European population, in 2000[24]. There is every indication that Europe's importance as a region of inward migration will increase, as most European countries will have to recruit migrants to fill their skyrocketing labour and skills shortages. On the other hand, European countries do not have a good track record of migrant assimilation. Further complicating the matter of immigration studies is the distinction

---

[20] **S. Ossowski**, *O strukturze społecznej*, PWN, Warszawa 1982, p. 114.

[21] **G.J. Borjas**, **R.B. Freeman**, *Immigration and the work force: economic consequences for the United States*, Chicago 1992, p. 145.

[22] **S. Castles**, **M. Miller**, **H. Hein**, *The Age of Migration. International Population Movements in the Modern World*, London 2003, pp. 10–31.

[23] **T.L. Friedman**, *The World is Flat: A Brief History of the Twenty-First Century*, Picador, New York 2007.

[24] United Nations, *Population Distribution and Migration*, in: *Proceedings of the United Nations Expert Group Meeting on Population Distribution and Migration*, Santa Cruz, Bolivia, 18–22 January 1993, New York 1993, p. 1; IOM, *World migration 2003. Managing migration – challenges and responses for people on the move*, Geneva 2003, p. 29.

between migrant workers (both legal and illegal), refugees, and asylum seekers. Although all of them are migrants, only a few studies have attempted to use border crossing data to analyse the full scale of the flow of illegal migration throughout the modern history of Europe.

For more than 400 years European immigrants flocked to North America, South America and Australia. Their motives were mainly economic, but in some cases they were fleeing political and religious discrimination. This trend was especially apparent in the 19th and first half of the 20th century, which witnessed a mass exodus from poor countries or regions, most of them European, to the countries of 'new possibilities', above all the United States. Today, however, it is the European Union which is attracting a significant number of migrants, owing the appeal of its wealth and generous social benefits[25].

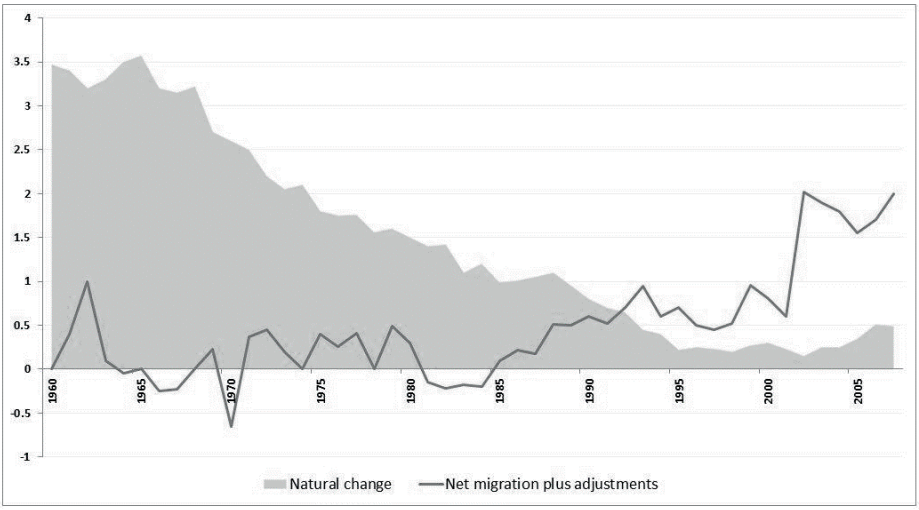
This is a relatively new trend – as late as the 1950s, Western Europe registered a negative migration balance. This changed in the late 1950s and 1960s, when the rapid post-war rebuilding of European economies brought about a demand for labour from neighbouring regions and former colonies. Western European countries began to 'import' guest workers in the early 1960s to fill jobs Europeans would not consider, creating a duality in the social sphere of the European labour market. Piore classified this duality as containing both a privileged segment and an inferior segment[26]. In fact, these two segments were divided by the formation of a 'glass ceiling' which was nearly impossible to penetrate. Immigrants were to fill the shortages in the inferior segment, yet their chances of upward mobility were limited. Guest workers came mainly from the Mediterranean (to France) and from Turkey (to Germany). The French Muslim communities now in existence trace their origins to a wave of significant immigration in the twelve years between 1961 and 1973. After France's withdrawal from Algeria, more than a million French citizens, mainly Christians and Jews, migrated to France. Most European countries closed their doors to labour immigration in the 1970s, following the first Arab oil embargo and the subsequent economic downturn, yet some 500,000 immigrants – primarily family reunification cases – and 400,000 asylum-seekers arrived in western Europe each year. Asylum-seekers came mainly from Sub-Saharan Africa and the Middle East (including North Africa). Over the period 1989–98, four million people applied for asylum in Europe. In the forty years between 1960 and 2000, Western Europe's

[25] **C.U. Schierup**, **P. Hansen**, **S. Castles**, *Migration, citizenship, and the European welfare state: a European dilemma*, Oxford University Press, Oxford 2006.

[26] **J.M. Piore**, *The dual labor market: Theory and implications*, in: **S.H. Beer**, **R.E. Barringer**, *The State and The Poor*, Winthrop Publishers, Cambridge 1970.

population increased by 4.3 per cent through a net inflow of some 16.7 million people[27]. The repercussions of this development are indicated in Figure 4.

FIGURE 4: *Natural changes in population and migration rates in the EU (in mlns)*



N o t e: beginning in the mid-1980s Europe began to experience an inflow of migrants, while its population continued to diminish.

S o u r c e: authors calculations based on Eurostat database and report (2007): http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-08-081/EN/KS-SF-08-081-EN.PDF

After the fall of Communism a new wave of immigrants came to Western Europe – according to estimates in the early 1990s the annual average number of officially recorded net migrations from Central and Eastern Europe to Western Europe was about 850,000,[28] compared to less than half this amount in the three preceding decades[29]. Nevertheless, due to the negative demographic trends in the whole of Europe (especially in the post-communist countries) the most significant long-term source of migrants were non-EU countries. The decrease in the total fertility rate is a global phenomenon, but it is considerably

[27] **K. Lorant**, *The demographic challenge in Europe*, European Parliament, Brussels 2005.

[28] **J.P. Garson**, **D. Redor**, **G. Lemaître**, *Regional Integration and the Outlook for Temporary and Permanent Migration in Central and Eastern Europe*, in: **G. Biffl**, *Migration, Free Trade and Regional Integration in Central and Eastern Europe*, Verlag Österreich, Vienna 1997.

[29] **M. Okólski**, *Regional Dimension of International Migration in Central and Eastern Europe*, GENUS 1998/54, pp. 1–26.

exacerbated in the European Union, which is searching for socio-economic policies and laws to tackle the challenges of mass-migration.

Unfortunately, these efforts are hampered due to the lack of standardised statistics and large discrepancies between EU countries in defining and counting immigration. As a result, there is no simple European pattern or trend for counting immigrants. An even greater problem is posed by the refusal to publish (or indeed collect) statistics on race and ethnicity in most European countries[30]. There has been considerable controversy in the EU about the concepts of race and racism[31]. The notion of race is arbitrary at best, most commonly defined as a group of real or alleged physical characteristics, quite often subjectively selected by insiders or outsiders.[32] Due to these negative connotations, the European debate prefers the term 'ethnic group'. Some researchers prefer a narrow definition of ethnicity, one which is limited to groups distinguished primarily by nationality or geography, whilst others use a broader definition, one that includes cultural factors such as religion and language[33]. Academic research has, however, suggested various distinctions between the two concepts. One of the most common is the association of ethnicity with cultural commonality, i.e. shared beliefs, values, and practices; while race is seen as revolving around physical or biological commonality. Many European scholars and policymakers argue that we are all one species and that the racial or ethnic debate is obsolete. If race were to be scientifically defined, they argue, mankind would have to be divided into thousands of races. Therefore, to some the racial distinction is incorrect both scientifically and, to many, politically. This leaves a lack of racial statistics, which can only be estimated by place of birth of migrants and the place of birth of the parents of second-generation migrants.

Both individual countries and citizens differ in their attitudes towards the European multicultural paradigm. While France and Germany require that immigrants adhere to certain norms and standards (perceived to be fundamentally European), Sweden is a champion of a multicultural society and adjustments made by both insiders and outsiders – the term 'immigrant' is not used

[30] **R. Hsu**, *Ethnic Europe: mobility, identity, and conflict in a globalized world*, Stanford University Press, Stanford 2010.

[31] **J. Fink**, **G. Lewis**, **J. Clarke**, *Rethinking European welfare: transformations of Europe and social policy*, Sage Publications, Thousand Oak, 2001.

[32] **C.B. Feagin**, **J.R. Feagin**, *Racial and ethnic relations*, Prentice Hall, Englewood Cliffs 1993.

[33] *Ibidem*.

in the public discourse, usually being substituted by 'person of immigrant heritage'[34]. Such examples reflect the efforts by the Swedish political elite to create a tolerant and non-exclusive society. The Swedes go even further in offering citizenship (which can be combined with other citizenships) after only five years of residence in the country, providing education in immigrants' mother tongues, and easy access to the right to stand for public office[35]. However Sweden, as France, does not collect statistics on ethnicity.

6. The TFR in France and the USA

One of the highest fertility rates in Europe can be found in France. Its most recent fertility rate (above 1.9) still falls below the replacement rate (2.1), but it is undeniably high by European standards. However, the question of gathering ethnic data is completely taboo[36]. France's success in achieving a relatively high fertility rate may be a direct result of state efforts to reward women for having babies, as suggested by comparative studies. One hundred and sixty three countries around the globe offer at least some subsidy to new mothers. In America, federal law entitles some working mothers to twelve weeks unpaid leave, but the rest get nothing. But French families are entitled to up to three years paid maternity leave, with an explicit guarantee that the mother can return to her former job. There is also subsidised childcare and a host of tax breaks. Furthermore, the third child makes its parents eligible for twice the subsidy paid for the second child[37]. The chart below seems to show an increase in the fertility rate in France over the years. Yet due to the lack of ethnic group statistics, there is no hard evidence to support this thesis, as it does not allow us to disentangle the TFR increase of the native-born French population from a potential increase in overall TFR brought about by mass-immigration of mainly young people from higher-fertility countries of origin. In France, fertility rates have rebounded since the middle of the 1990s and are now close to replacement levels (Figure 5). We may suppose that in France, owing to ethnic differences, immigrants and their offspring

[34] **C. Westin**, *Sweden: Restrictive Immigration Policy and Multiculturalism*, 2010, http://www.migrationinformation.org/USFocus/display.cfm?ID=406#top; accessed on 20.09.2016.

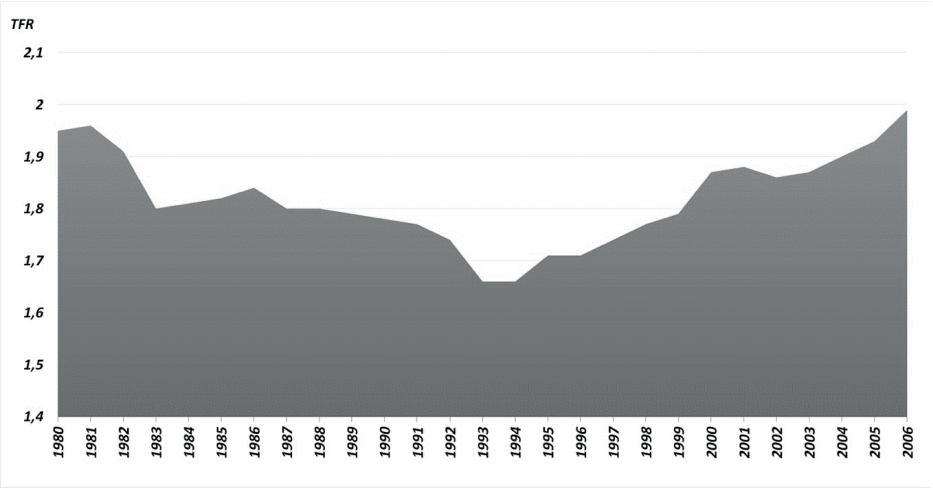
[35] *Ibidem*.

[36] **R. Hsu**, *Ethnic Europe: mobility, identity, and conflict in a globalized world*, Stanford University Press, Stanford 2010.

[37] **S. Conroy**, *Bonuses For Having Babies In France*, 2006, http://www.cbsnews.com/stories/2006/12/10/eveningnews/main2243958.shtml; accessed on 20.09.2016.

reproduce at a higher rate than native-born citizens do. That particular ethnic difference may be important and influence future demographic trends.

FIGURE 5: *Total Fertility Rate (TFR) in France, 1980–2006*

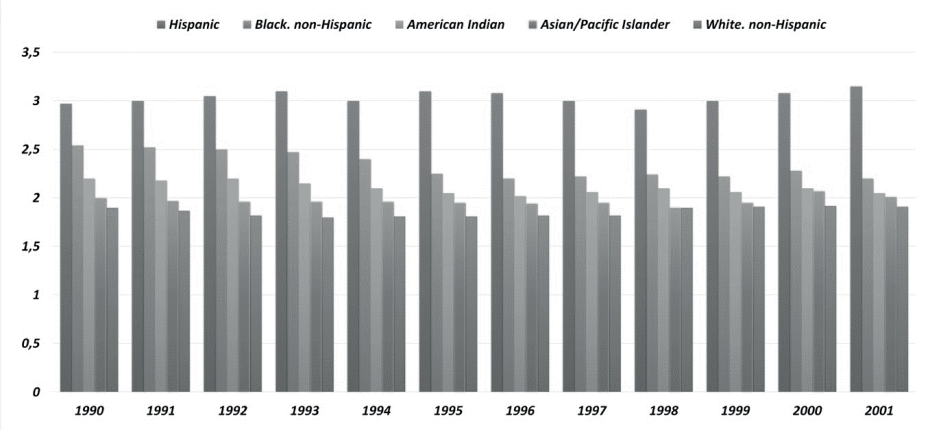


N o t e: a sharp upturn in France's TFR can be seen beginning in the late 1990s, which might be the result of the inflow of migrants in the 1980s.

S o u r c e: author's calculations based on OECD database, 2009 (http://stats.oecd.org/)

There are both similarities and differences in the TFRs of the European Union and the United States. In the United States the total fertility rate decreased in parallel with that of the EU in the 1960s and 1970s, even dropping below EU levels in the mid-1970s. Nevertheless, it later rebounded and remained largely unchanged in the 1990s, oscillating close to 2.0, not far from the replacement level (2.1). However, there are significant differences between ethnicities (Figure 6). People of Hispanic origin have a much a higher birth rate (between 2.5 and 3.0), while the non-Hispanic white population has a total fertility rate of 1.8, which is significantly higher than the EU-25 level, but is still well under the constant-population rate. Thus, it is paramount to analyze fertility rates for various races and ethnic groups in America over the years. From this analysis it becomes clear that, based on the example of Hispanics, above-average poverty rates coincide with above-average fertility rates (Figure 6). Ethnicity also influences poverty rates (Figure 7). Moreover, Figures 8 and 9 clearly indicate a turning point (in the late 1970s) in the changing patterns of the TFR and the Foreign-Born Population in the USA.

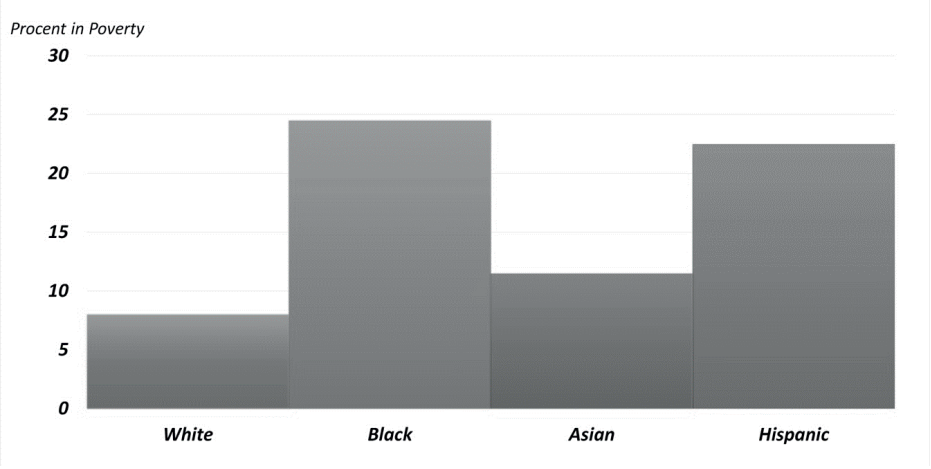
FIGURE 6: *Total Fertility Rates by Race/Ethnicity in the USA 1990–2001*



N o t e: different ethnic backgrounds are clearly associated with different TFRs. This data comes from the USA. Due to European regulations, we are unable to obtain similar data for Europe.

S o u r c e: United States Census, www.census.gov/Press-Release/www/releases/archives/income_wealth/002484.html

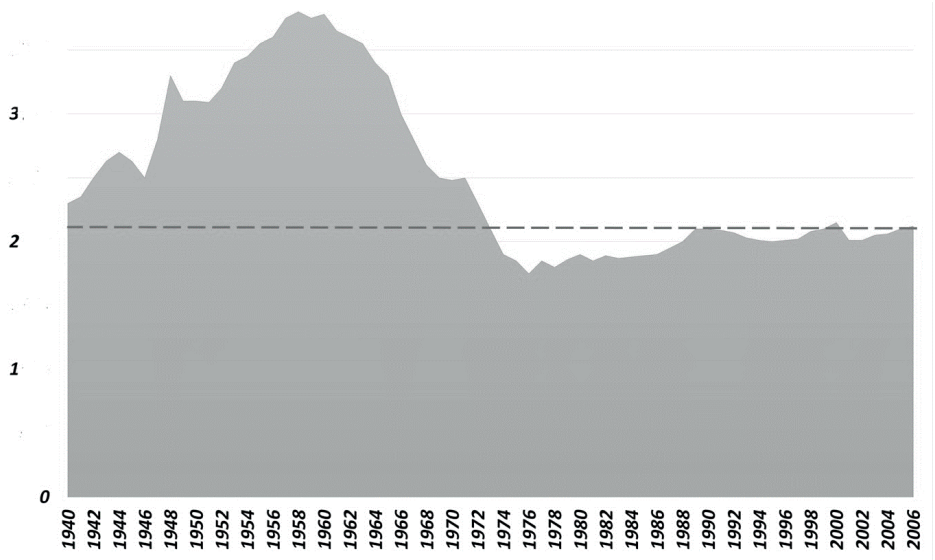
FIGURE 7: *Poverty Rates in the USA in 2003*



N o t e: this data comes from the USA. Due to European regulations, we are unable to obtain similar data for Europe.

S o u r c e: Population Reference Bureau, 2003: www.prb.org/pdf/USFertilityRatesHigherAmongMinorities.pdf

FIGURE 8: *Total Fertility Rate in the USA 1940–2006*



N o t e: The TFR in the USA constantly declined between 1960–1978. However since that time the trend in the USA has reversed its previous direction. This is perhaps due to the immense inflow of new migrants, which affect the overall TFR of all people living in the USA.

S o u r c e: own elaboration based on data from: *Social Trends & Indicators USA*, 2008/3, p. 293.

FIGURE 9: *Foreign-Born Population and Foreign Born as a Percentage of the Total US Population, 1850 to 2009*

S o u r c e: **J. Batalova**, **A.Terrazas**, *Frequently Requested Statistics on Immigrants and Immigration in the United States*, US in Focus, Migration Policy Institute, December 2010.

7. Explaining the demographic trends

For more than a decade, the United States has been oscillating at or above the replacement rate. By contrast, not a single European nation is replacing its population, though some countries, such as France, are close. Even though Europe has especially generous child care benefits, it is not as sustainable demographically as the USA. Therefore, evidence from the United States may imply that Europe's indigenous population is not self-sustaining. European fertility is, in large part, driven by first- and second-generation immigrants. Thus, without the 'import' of children, European welfare states cannot possibly be sustainable, as they rely on the savings generated by contemporary working-age populations. Such a construct raises concerns of both an economic and moral nature. This is because the European states are running the risk of not honouring their obligations toward their own citizens.

Morality, or rather the contemporary mentality, may be relevant to fertility. Some scholars link the sexual revolution and "social modernisation" which brought about the secularisation and the downfall of conservative values and institutions, with declining birth rates. Furthermore, this trend is exacerbated by rising educational attainment. Becker argues that individuals have become more interested in their personal well-being than that of their families[38]. Families, thus, have become groups of individually-pursued strategies of particular actors, who maximise their utility, taking into account the limited resources at their disposal[39]. If so, having a child presents itself as but one of many strategies to pursue, and one whose opportunity costs may involve sacrificing higher education, more free time, *etc*. Since wealthier individuals (and households) have more strategies which they can viably pursue, the alternative costs of having a child rise. Therefore, any given individual whose income increases may be more reluctant to have children, as the resources required to raise a child could be invested in, to take just one example, further education and, consequently, an even larger future income. The process of Malthusian escape started with industrialisation, which rendered children economically redundant. The cost of offspring increased exponentially, while the benefits disappeared. In other words, children went from being an investment to being solely a cost. Blake, in her 1981 study, confirmed that the more children a family had, the worse skill sets these children could offer on the labour market. Women with six siblings had, on average, 10.5 years of education, as opposed to 12.5 years in the case of a female

[38] **G.S. Becker**, *A Treatise on the Family*, Harvard University Press, Cambridge 1991.

[39] **R. Inglehart**, **P. Norris**, *Rising tide: gender equality and cultural change around the world*, Cambridge University Press, Cambridge 2003.

only child. Male children experienced even greater differences – 13.3 years for an only child and 10.5 years for a child with six siblings[40]. Hence, the wealthier a household, the less likely it is to have children, but the more likely it is to value the quality of a child's education.

8. Conclusions

An important conclusion of this paper is that the lack of ethnic demographic data prevents European countries from knowing whether their demographic incentives have accomplished their goal of raising the TFR, or whether any increase is due to the inflow of migrants who, being poorer than the average European, have more children. The paradigm of ethnic 'colourblindness' in Europe renders this task impossible for scholars.

Two countries, the USA and France, serve as examples of countries that have accomplished relatively high fertility rates in a different way. While it is clear why the USA maintains its TFR around replacement levels, the reasons for this process in France remain unknown. Data gathered in the USA confirm the thesis that there are different demographic patterns based on enthicity, meaning that first- and second-generation immigrants and native citizens have different average TFRs. The most important determinant of this phenomenon seems to be their average wealth – the native population is the richest, second-generation immigrants come in second, while new arrivals are the least affluent of the three groups. This relationship has not been found to be affected by government pro-childbirth incentives.

The combination of a decreasing population and a state pension system designed to rely upon a geometrically growing population creates a difficult situation. The problem only partly lies in the system's generosity. Its fatal flaw is its bad design and society's unwillingness to deal with the issue. The reforms of retirement pension schemes is very difficult in Europe, and usually lead to significant social unrest[41]. Alesina and Giavazzi note that either the European Union will muster reform, or it will lose its significance in the world[42]. The key to implementing a successful and sustainable solution to the demographic challenges is accurate information, and this will only be achieved through data unbiased by political correctness or other factors.

---

[40] **J. Blake**, *Family Size and the Quality of Children*, 1981, Demography 1981/18.

[41] **R. Tiersky**, **E. Jones**, *Europe Today*, Rowman & Littlefield, Plymouth 2011.

[42] **A. Alesina**, **F. Giavazzi**, *The future of Europe: reform or decline*, MIT Press, Cambridge 2006.

References

Ahlburg A. Dennis, *Does Population Matter?*, Population and Development Review 2015/28.

Alesina Alberto, **Giavazzi Francesco**, *The future of Europe: reform or decline*, MIT Press, Cambridge 2006.

Andersen Torben M., *Fiscal Sustainability and Demographics – Should We Save or Work More?*, CEPR Discussion Paper 2008/DP7044.

Batalova Jeanne, **Terrazas Aaron**, *Frequently Requested Statistics on Immigrants and Immigration in the United States*, US in Focus, Migration Policy Institute, 2010.

Becker Gary S., *A Treatise on the Family*, Harvard University Press, Cambridge 1991.

Birdsall Nancy, **Kelley Allen C.**, **Sindling Steven W.**, *Population Matters: Demographic Change, Economic Growth, and Poverty in the Developing World*, Oxford University Press, Oxford 2001.

Blake Judith, *Family Size and the Quality of Children*, Demography 1981/18.

Bloom David E., **Canning David**, **Moore Michael**, *Health, Longevity, and Optimal Retirement*, NBER Working Paper 2004.

Bloom David E., **Canning David**, **Sevilla Jaypee**, *The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change*, Santa Monica 2002.

Bloom E. David, **Freeman Richard**, **Korenman Sanders**, *The Labor Market Consequences of Generational Crowding*, European Journal of Population 1987/3/2, pp. 131–176.

Borjas George J., **Freeman Richard B.**, *Immigration and the work force: economic consequences for the United States*, Chicago 1992.

Bryant John, *Theories of Fertility Decline and the Evidence from Development Indicators*, Population and Development Review 2007/33.

Castles Stephen, **Miller Mark J.**, **de Haas Hein**, *The Age of Migration. International Population Movements in the Modern World*, London 2003.

Clark Gregory, *A Farewell to Alms: A Brief Economic History of the World*, Princeton University Press, Princeton 2007.

Easterlin Richard A., *Birth and Fortune: The Impact of Numbers on Personal Welfare*, Basic Bopoks, New York 1980.

Esping-Andersen Gøsta, *Three Worlds of Welfare Capitalism* in: **Pierson Christopher**, **Castles G. Francis**, *The Welfare State Reader*, Polity, London 2007.

Feagin Clairece B., **Feagin Joe R.**, *Racial and ethnic relations*, Prentice Hall, Englewood Cliffs, New Jork 1993.

Fink Jant, **Lewis Gail**, **Clarke John**, *Rethinking European welfare: transformations of Europe and social policy*, Sage Publications, Thousand Oaks 2001.

Friedman Thomas L., *The World is Flat: A Brief History of the Twenty-First Century*, Picador, New York 2007.

Thompson W.S., *Population*, American Journal of Sociology 1929/34.

Garson Jean P., **Redor Dominique**, **Lemaître Georges**, *Regional Integration and the Outlook for Temporary and Permanent Migration in Central and Eastern Europe*, 1997, in: Gudrun Biffl, *Migration, Free Trade and Regional Integration in Central and Eastern Europe*, Verlag Österreich, Vienna 1997.

Heer David M., *Economic Development and Fertility*, Demography 1966/3.

Heuveline Patrick, *Demographic pressure, economic development, and social engineering: An assessment of fertility declines in the second half of the twentieth century, 2001*, Population Research and Policy Review 2001/20.

Hsu Roland, *Ethnic Europe: mobility, identity, and conflict in a globalized world, Stanford University Press*, Stanford 2010.

Inglehart Ronald, **Norris Pippa**, *Rising tide: gender equality and cultural change around the world*, Cambridge University Press, Cambridge 2003.

IOM, *World migration 2003. Managing migration – challenges and responses for people on the move*, Geneva 2003.

Kelley Allen C., *Economic Consequences of Population Change in the Third World*, Journal of Economic Literature 1988/27.

Kelley Allen C., *The Population Debate in Historical Perspective: Revisionism Revised*, in: Nancy Birdsall, Allen C. Kelley, Stephen W. Sindling, *Population Matters: Demographic Change, Economic Growth, and Poverty in the Developing World*, Oxford University Press, Oxford 2001.

Kelley Allen C., **Schmidt Robert M.**, *Economic and Demographic Change: A Synthesis of Models, Findings and Perspectives*, 2001, in: Birdsall Nancy, Kelley C. Allen, Sindling W. Stephen, *Population Matters: Demographic Change, Economic Growth, and Poverty in the Developing World*, Oxford University Press, Oxford 2001.

Korenman Sanders, **Neumark David**, *Cohort Crowding and Youth Labor Markets: A Cross-National Analysis*, in: David Blanchflower, Richard Freeman, *Youth Employment and Joblessness in Advanced Countries*, University of Chicago, Chicago 2000.

Lee Ronald D., *Intergenerational Transfers and the Economic Life Cycle: A Cross Cultural Perspective*, 2000, in: Andrew Mason, George Tapinos, *Sharing the Wealth: Demographic Change and Economic Transfers between Generations*, Oxford University Press, Oxford 2000.

Lorant Karoly, *The demographic challenge in Europe*, European Parliament, Brussels 2005.

Malthus Thomas R., *An Essay on the Principle of Population*, Printed for J. Johnson, in St. Paul's Church-Yard, London 1978.

Mathers Collin D., **Sadana Ritu**, **Salomon Joshua A.**, **Murray Christopher J.L.**, **Lopez Allan D.**, *Healthy Life Expectancy in 191 Countries*, Lancet 2001/357.

Myrskylä Mikko, **Kohler Hans P.**, **Billari Francesco C.**, *Advances in development reverse fertility declines*, Nature 2009/460.

OECD Statistic Database, 2009.

Okólski Marek, *Regional Dimension of International Migration in Central and Eastern Europe*, GENUS 1998/54.

Ossowski Stanisław, *O strukturze społecznej*, PWN, Warszawa 1982.

Piore Michael J., *The dual labor market: Theory and implications*, 1970, cyt. za: Samuel H. Beer, Richard E. Barringer, *The State and The Poor*, Winthrop Publishers, Cambridge 1970.

Recent Demographic Development 2003, Council of Europe.

Roberts Mark A., *Pareto-improving pension reform through technological innovation*, University of Nottingham Discussion Papers in Economics 2004/04/12.

Schierup Carl U., **Hansen Peo**, **Castles Stephen**, *Migration, citizenship, and the European welfare state: a European dilemma*, Oxford University Press, Oxford 2006.

Social Trends & Indicators USA, 2008/3.

Galor Oded, *From Stagnation to Growth: Unified Growth Theory*, Handbook of Economic Growth 2005/1.

Tiersky Ronald, **Jones Erik**, *Europe Today*, Rowman & Littlefield, Plymouth 2011.

United Nations, *Population Distribution and Migration*, in: *Proceedings of the United Nations Expert Group Meeting on Population Distribution and Migration*, Santa Cruz, Bolivia, 18–22 January 1993, New York 1993.

Online reference material

Conroy Scott, *Bonuses For Having Babies In France*, 2006, http://www.cbsnews.com/stories/2006/12/10/eveningnews/main2243958.shtml; accessed on 20.09.2016.

Eurostat, http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-08-081/EN/KS-SF-08-081-EN.PDF; accessed on 20.09.2016.

Batalova Jeanne, **Terrazas Aaron**, *US in Focus: Frequently Requested Statistics on Immigrants and Immigration in the United States*, 2010; http://www.migrationinformation.org/feature/display.cfm?ID=818, accessed on 20.09.2016.

Lauer Mark, *Fertility Declines Don't Reverse with Development*, 2009, http://www.stubbornmule.net/2009/09/fertility-declines-dont-reverse-with-development/; accessed on 20.09.2016.

NSSGEOGRAPHY, http://www.nssgeography.com/worldissues%20web/Unit%20population/What%20is%20the%20Demographic%20Transition%20Model.htm; accessed on 20.09.2016.

Population Reference Bureau, www.prb.org/pdf/USFertilityRatesHigherAmongMinorities.pdf; accessed on 20.09.2016.

United States Census, www.census.gov/Press-Release/www/releases/archives/income_wealth/002484.html; accessed on 20.09.2016.

Westin Charles, *Sweden: Restrictive Immigration Policy and Multiculturalism*, 2010, http://www.migrationinformation.org/USFocus/display.cfm?ID=406#top; accessed on 20.09.2016.

Sergiusz PROKURAT
Jan FABISIAK

AKTUALNE TRENDY DEMOGRAFICZNE WYWOŁANE ZMIANĄ WZORCÓW PŁODNOŚCI W EUROPIE I STANACH ZJEDNOCZONYCH

(Streszczenie)

Współcześnie, mierząc się ze spadkiem współczynników płodności oraz gwałtownym starzeniem się społeczeństw, kraje Unii Europejskiej są zmuszone do tego, by zredefiniować kwestie demograficzne swoich państw i odpowiedzieć na kluczowe pytania dotyczące imigrantów. Artykuł ma na celu zbadanie wpływu różnych grup etnicznych na europejską demografię oraz kształtujące się obecnie trendy w oparciu o zmienne gospodarcze, społeczne, ekonomiczne i finansowe.

Przy użyciu danych z raportów OECD oraz Eurostatu, jak również *case studies* dla Francji i USA autorzy analizują kształtujące się obecnie trendy demograficzne, by przekonać się, że współczynnik płodności imigrantów jest znacznie wyższy niż urodzonych w tym kraju obywateli. To właśnie podstawowa różnica etniczna, która może mieć znaczący wpływ na demografię całej Europy.

Słowa kluczowe: demografia; społeczeństwo; imigranci; płodność; migracje