

Description of scientific achievement

dr Iga Magda

1. Information on education and employment

Education:

- 2004 – Master's degree in Quantitative Methods and Information Systems, Warsaw School of Economics
- 2004 - 2008 – PhD studies at Collegium of Economic Analysis in Warsaw School of Economics
- 2010 r. – PhD in Economics awarded at Collegium of Economic Analysis in Warsaw School of Economics. Title of dissertation: „Wage mobility among low wage workers”, supervised by prof. dr hab. Marek Góra

Employment:

- 2003-2006 – research assistant in CASE (Center for Social and Economic Research), scientific secretary of a research project financed within the 6th EU Framework Programme
- 2005 - 2009 – Ministry of Labour and Social Policy (researcher in the Department of Economic Analysis and Forecasts, head of Labour Market Analysis Unit since 2006)
- 2006/2007 – research stay at ISER, University of Essex
- 2009 – research stay at University College London
- 2009 –now – Institute for Structural Research (IBS); (researcher, since 2012 vice president)
- 2010 - now – Warsaw School of Economics (assistant professor in Department of Economics I, Collegium of Economic Analysis)

A summary of educational and professional career

I studied at the Warsaw School of Economics (1999-2004), in the field of quantitative methods and information systems. During that period I spent also one semester as Erasmus student at Université de Poitiers in France. I completed my studies in 2004 with a very good note and defended a master thesis on the Philips curve in the Polish economy (under the supervision of prof. dr hab. Marek Rocki). Next I started my PhD studies, which I combined with gaining work experience in the field of economy, labour market and social policy as well as in project management.

During the 2003 – 2006 period I worked for the Center for Social and Economic Research (CASE), participating in a 6th EU Framework Project „Changes in Industrial Competitiveness as

a Factor of Integration: Identifying Challenges of the Enlarged Single European Market Competitiveness”, as a researcher and scientific secretary of the project.

Between 2005 and mid 2009 I worked for the Polish Ministry of Labour and Social Policy, in the Department for Economic Analyses and Forecasts, heading the Labour Market Analyses unit since 2006. During this period I twice took a leave and left for research stays abroad: in 2007 I was awarded a research grant at the European Center for Analysis in the Social Sciences, Institute for Social and Economic Research, University of Essex in the UK, and in 2009 I was granted a Marie Skłodowska – Curie scholarship at the University College London.

In 2007 I started my dissertation procedure at the Collegium of Economic Analysis in Warsaw School of Economics, under the supervision of prof. dr hab. Marek Góra. In May 2010 I defended my PhD thesis entitled „Wage mobility among low wage workers”.

Since 2010 I work as an assistant professor at the Department of Economics I in the Collegium of Economic Analysis of Warsaw School of Economics, where I teach labour economics, health economics and macroeconomics. I also work part time in the Institute for Structural Research (IBS), where I do research, manage research projects and serve as vice president of the management board since 2012.

2. A summary of research interest and research conducted prior to and after PhD defence.

My main research interests cover labour economics, in particular the heterogeneity of labour market outcomes among different socio-demographic groups of workers. These outcomes of interest include wages, incomes – and their distributions, macroeconomic (participation, employment and unemployment rates) and microeconomic measures of labour market performance (e.g. unemployment hazards and job accession rates). I study the determinants of labour market inequalities focusing on supply side factors (age, sex, education, family situation or health status), demand side factors (workplace and employers characteristics, such as type of employment contract or firm level collective agreements) and their interactions (e.g. reflected in skill mismatches). In geographical terms I am interested mainly in the developments observed in Central and Eastern Europe, with a particular interest in Poland. Each one of these perspectives matters for the research problems undertaken in my studies. Changing labour market structures and growing labour market inequalities were strongly heterogeneous across workers, and the improving or worsening (in relative terms) labour market position was strongly associated both with personal and workplace characteristics. The results of my studies are important from two points of view. First, the knowledge about the determinants of changes in labour market inequalities allows policymakers to better design the socio-economic policies aimed at alleviating workforce shortages. Second, my research results allow to identify the unequal costs and benefits of globalization and technological change in the population, making it easier to design policies helping those who need support in adapting to the ongoing structural changes.

My research is based on national and international data, mostly individual level survey data supplied by the Polish Central Statistical Office and the Eurostat, but also administrative data



coming e.g. from the Polish Social Insurance Institution. I also use data from special surveys, which were designed and carried out in some of the projects I participated in.

2004–2010 (prior to receiving the PhD degree)

Initially my research interests concentrated on macroeconomics and the economic situation in Central and Eastern Europe. I participated in a research project „*Changes in Industrial Competitiveness as a Factor of Integration: Identifying Challenges of the Enlarged Single European Market Competitiveness*” (financed by the 6th EU Framework Programme), cooperating with prof. Anna Wziątek-Kubiak (INE PAN, Polish Academy of Science) and Krzysztof Szczygielski (then a PhD student at the Warsaw University). As a result of this cooperation the following papers were published:

- Anna Wziątek-Kubiak, Iga Magda, *How Do the New Member States Cope with Competition in the EU Market*, in: *Industrial Competitiveness and restructuring in enlarged Europe: How Accession Countries Catch Up and Integrate in the European Union*, ed. Iraj Hashi, Paul J. Welfens, Anna Wziątek-Kubiak, Palgrave Macmillan, (2007)
- Anna Wziątek-Kubiak, Iga Magda, *Changes in the competitive position of the Czech Republic, Hungary and Poland in the EU market*, *Studies and Analyses* no 317, CASE, Warsaw, (2006)
- Iga Magda, Krzysztof Szczygielski, *Identifying vertical product differentiation in three Polish manufacturing industries: an enterprise survey*, *Studies and Analyses* no 320, CASE, Warsaw (2006)
- Anna Wziątek-Kubiak, Iga Magda, *Shift in quality versus changes in competitiveness. The case of Polish manufacturing*, *New World Order: Economic, Social, and Political Tendencies at the Beginning of Third Millennium*, Łódź University Press, vol 1, s. 209-230, Łódź, (2005)
- Anna Wziątek-Kubiak, Iga Magda, *Polski przemysł przetwórczy w walce konkurencyjnej na rynku unijnym: czynniki i efekty*, *Studia Ekonomiczne INE PAN*, 3 (XLVI), Warsaw, (2005)
- Anna Wziątek-Kubiak, Iga Magda, *Differentiation of changes in competitiveness among Polish manufacturing industries*, *Studies and Analyses* no 314, CASE, Warsaw, (2005)

The above articles looked at the changes in the level of competitiveness of Polish and European industries (of the tradable goods) before and after the EU Accession, among eight CEE countries. My contribution to these papers included the construction and analysis of industry-specific indexes measuring the quality of imports and exports among new and old EU member states. These analyses were based on the Comext database, provided by the Eurostat.

As of 2005, my research interests have slowly towards labour economics. This was associated with me starting to work at the Polish Ministry of Labour, where I was responsible for labour market research. This experience allowed me to gain valuable insight into the institutional setting of the Polish and European labour market and analyse them from both micro and macro perspective. On behalf of the Ministry I participated in several research projects, such as “Analysing the labour markets in regions with a high share of workers previously employed in state-owned farms” or “Labour market withdrawals”. I also participated as a researcher

(and later on a coordinator) in a project aimed at publishing a series of in-depth reports on the Polish labour markets, entitled "Employment in Poland". My work at the Ministry of Labour (and later Ministry of Labour and Social Policy) also involved being a member of the European Commission's Employment Committee, the OECD's Working Party on Employment and the OECD Employment, Labour and Social Assistance Committee. This was also a valuable experience which allowed me to learn a lot about labour market institutions and labour market policies.

In parallel to working at the Ministry I continued to follow the PhD track and prepare my dissertation on wage disparities and wage mobility among low paid workers. In 2006 I was granted a 3-month research scholarship at the ISER (Institute for Social and Economic Research) at the University of Essex in the UK. In 2009 I obtained a Marie Skłodowska – Curie scholarship and worked on my thesis at the University College London, participating at the same time in a research project on migrations from Poland to the UK.

The results of my research from that period were presented in the following papers and articles:

- *Wage Mobility In Times Of Higher Earnings Disparities: Is It Easier To Climb The Ladder?*, ISER working papers No 2008-10, Institute for Social and Economic Research, UK, 2008
- *Zatrudnienie w Polsce 2007: Bezpieczeństwo na elastycznym rynku pracy (Employment in Poland 2007: Security on flexible labour market)*, joint work with Baranowska A., Bieliński J., Bober, M., Bukowski M., Lewandowski P., Sarzalska M., Szydłowski A., and Zawistowski J, Centrum Rozwoju Zasobów Ludzkich, Warsaw and MPRA Paper 14284, University Library of Munich, Germany, 2008.
- *Zatrudnienie w Polsce 2006: Produktywność dla pracy (Employment in Poland 2006: Productivity for work)*, ed. Maciej Bukowski, Ministerstwo Pracy i Polityki Społecznej, MPRA Paper 5524, University Library of Munich, joint work with Baranowska A., Bieliński J., Bober, M., Lewandowski P., Sarzalska M., Szydłowski A., and Zawistowski J., Warsaw, 2007.
- *Zatrudnienie w Polsce 2005 (Employment in Poland 2005)*, ed. Maciej Bukowski, joint work with A. Baranowska, P. Lewandowski, M. Sarzalska, J. Zawistowski, Labor and Demography 0512003, EconWPA, Ministerstwo Gospodarki i Pracy, Warsaw, 2005.

2010–2017 (After the PhD defence)

After defending my PhD (May 2010) I started to work as an assistant professor at the Department of Economics I in the Warsaw School of Economics (as of October 2010). I also continued to work at the Institute for Structural Research (as a researcher, and as of end 2012 as a member of the management board). I participated in several research projects over that time, at the beginning mostly as a researcher, later on often as a principal investigator or project manager.

I continued my interest in labour market inequalities and further worked on the heterogeneity of labour market outcomes of different groups of workers, depending on their individual

characteristics and the workplaces they are attached to. I studied both workers' incomes and their labour market position.

With respect to the supply side determinants of labour market inequalities I was particularly interested in worker's age and **the age patterns of labour market outcomes**. This was the topic of, among other, the studies conducted in the framework of the statutory research at the Warsaw School of Economics, but also of two research projects carried out with dr Anna Baranowska – Rataj and financed by the CERGE EI (*What drives youth unemployment? The role of job creation, job destruction and labour market institutions*) and ERSTE Foundation (*What makes young people the marginalized labour market group? Evidence from Poland*). We have shown how the job accession and separation rates differ among young, prime aged and older workers. Our research has also demonstrated that young people have a higher risk of job loss following increases in the minimum wage. Our analyses were published in papers [4.6][4.8][4.15] (Table 2 below). I studied the age patterns of labour market developments also in early 2010., with dr Anna Ruzik- Sierdzińska. The results were published in [1.4] (Table 1 below). In this article we show how different are the determinants of employment rates among prime age and older workers. My research interest in the labour market position of older workers translated also into policy-oriented activities: in the years 2012 and 2013 I was a member of the Consultation Council for the Implementation of the Government Programme "Solidarity among generations: activities to increase labour market participation of workers aged 50+" commissioned by the Ministry of Labour and Social Policy. I also manage (since 2015) a policy-oriented research project (commissioned by the Ministry of Development), which aims at analysing the efficiency of youth-targeted labour market policies (with the framework of the Youth Guarantee Programme).

Since 2013 I have also worked on **the gender dimension of labour market inequalities**. I participated in the NEUJOBS project (European Commission's 7th Framework Programme), where I led the Work Package 16 on women on the European labour markets. Together with the research team we have shown how the female position on the labour market evolved in the past decades and how different the changes were among the Western and the Central and Eastern European countries. I also took up the issue of gender pay gaps, the results of these analyses were published in articles [3.4] [4.9][4.13][4.14](Tables 1 and 2 below). Since 2015 I am the leader and principal investigator in a research project financed by the Polish National Science Center ("Sonata- bis" programme). The project is entitled „Gender pay gaps and their cohort perspective”. So far the project resulted in three papers, two of which are under review in international, peer-reviewed journals (one is on the role of female managers in shaping the gender wage gap, the second on the gender pay gaps in a workplace), the third one is a work in progress on gender pay gaps differentials between the domestic and foreign owned sectors). These articles were also presented at several workshops and conferences (WIEM conference in Warsaw, GESIS conference in Mannheim, Germany, EALE conference in Ghent, Belgium).

After my PhD defence I also started working on **collective bargaining** and its role in shaping wage differentials. I studied the impact of collective wage agreements on wages in Central

and Eastern Europe. These studies and analyses resulted in papers ([1.1][1.3][2.1], Table 1 below).

Between 2011 and 2014 I was a co-editor of a series of reports on the Polish labour market (jointly with either dr M. Bukowski or P. Lewandowski). The resulting publications [4.10][4.11][4.12] (Table 2 below) were financed by a research project carried out by the Institute for Structural Research for the Center of Human Resources Development, at that time a unit of Ministry of Labour and Social Policy. In particular, the 2011 edition of the „Employment in Poland” series was devoted to the issue of **wage and income inequalities**. This was also the topic of research conducted jointly with dr hab. Michał Brzeziński from the Warsaw University, financed by an IBS project „Jobs and Development”. We analysed inequalities of opportunity (i.e. how childhood circumstances shape adult life income inequalities), the publication [4.5] (Table 2 below) is currently under review. Apart from that, in the framework of the same project I worked also on gender inequalities in the labour market, jointly with J. Baran, R. Keister and P. Lewandowski (publication [3.3], Table1 below).

In the past years my research interests have also included the interactions of labour and **health economics, education economics and family policy**. In the period 2010 -2011 I co-led a research project financed by the EY “Better Government Programme”. Together with dr Krzysztof Szczygielski we analysed the possibilities to improve the health care system in Poland, focussing on the costs and benefits of introducing co-payments and private health insurance to the system. These studies resulted in publications [4.17][4.18] and [4.19] (Table 2 below). Furthermore, the knowledge gained in this programme allowed to me to lecture health economics in classes. I also looked at the interactions between health and labour economics in a project conducted for the Chancellery of the Prime Minister by IBS (which I coordinated). The project entitled “Innovative system of support for impact assessment and decision taking” included developing tools that estimate the costs and benefits associated with implementation of health programmes and investments in health (including labour market benefits).

I am also interested in economics of education, in particular its intersections with labour economics and labour market inequalities. In the period 2012 -2015 I participated in research project “Determinants of educational decision”, conducted by the Warsaw School of Economics (commissioned by the Institute for Educational Research). The project included a design of a research framework for analysing within household human capital formation, carrying out a household panel survey and analysis of its results. So far I have published two publications drawing on this project ([2.2] and [4.7], Tables 1 and 2 below).

My research interests include also the impact of family policy setting on micro and macroeconomic labour market outcomes. In the period 2013 – 2015 I co-authored three expertise studies on maternity leaves, the system of institutional care arrangements for children aged less than 3 and female labour market position. These expertise studies were prepared for the Chancellery of President . I worked further in this area in paper [4.2], in 2017 I also worked on evaluating the impact of the Family 500+ Programme on female labour market participation. The results of this study were presented at a seminar in October 2017, with publication forthcoming in early 2018.

3. Scientific achievement presented for evaluation as discussed in Art. 16, Item 2 of the Act of 14 March 2003 (Journal of Laws [Dz. U.] No 65, position 595 with later changes)

As a scientific achievement, I submit for evaluation a series of thematically connected publications, which I entitled „Labour market inequalities and their determinants: macroeconomic and microeconomic perspective”. The series includes 8 research articles and 4 book chapters. Nine out of these publications have been written in English, five of them were published in journals indexed in the JCR list (the IF presented in Table 1 below refer to the year of publication).

Table 1: List of publications contributing to the scientific achievement „Labour market inequalities and their determinants: macroeconomic and microeconomic perspective”.

No	Publication	My share	IF according to Web of Science	MNiSW Points
1. ARTICLES PUBLISHED IN THE JCR LISTED JOURNALS (A LIST)				
1.1	Magda I., Marsden D., Moriconi S., 2016, Lower coverage but stronger unions? Institutional changes and union wage premia in central Europe , Journal of Comparative Economics, Elsevier, vol. 44(3), pages 638-656.	33%	1,17	30
1.2	Chłoń- Domińczak A., Magda I. and Ł. Sienkiewicz, 2016, Skills mismatch in the New and Old Member States – are generations affected differently? Philosophy.Sociology, Issue 4	33%	0,902	15
1.3	Magda I., Marsden D., Moriconi S., 2012, Collective Agreements, Wages and Firms' Cohorts: Evidence from Central Europe , Industrial and Labour Relations Review, vol. 65, No 3.	33%	1,525	35
1.4	Magda I., Ruzik-Sierdzińska A., 2012, Sytuacja osób starszych na rynku pracy w Polsce (Older workers on the labour market) , Ekonomista, no 5	50%	0,141	15
1.5	Magda I., Rycx F., Tojerow I., Valsamis D., 2011, Wage differentials across sectors in Europe: an east-west comparison , Economics of Transition, Volume 19, Issue 4, pages 749-769, October	25%	0,679	27

2. ARTICLES PUBLISHED IN OTHER JOURNALS				
2.1	Magda I., 2017, Trade unions in CEE: continuing to make a difference? , IZA World of Labor:360			
2.2	Magda I., 2016, Wykształcenie zawodowe, elastyczne zatrudnienie a podnoszenie swoich kwalifikacji (Vocational education, flexible employment and skills' upgrading) , Edukacja 1/2016			12
2.3	Lis M., Magda I., 2014, Dynamika płac w cyklu życia a indywidualny stan zdrowia (Life cycle wage dynamics and individual health), Gospodarka Narodowa, 4(272)			8
3. CHAPTERS IN PEER REVIEWED BOOKS				
3.1	Lewandowski P., Magda I. (2017), Temporary employment, unemployment and employment protection legislation in Poland, in: Myant and Piasna (ed.): Myths of employment deregulation: how it neither creates jobs nor reduces labour market segmentation , ETUI, Brussels.	50%		
3.2	Lewandowski P., Magda I. (2016), <i>Long-Term Unemployment in Poland</i> , in: Bentolila and Jansen (ed): Long-Term Unemployment after the Great Recession: Causes and Remedies , VoxEU eBook	50%		
3.3	Baran J., Keister R., Lewandowski P., Magda I. (2016), <i>Gender inequalities in the Polish labour market in:</i> Razu (ed.): "Gender Inequality in the Eastern European Labour Market" , Routledge, UK.	25%		
3.4	Magda I., Kamińska A., (2015), Women as workers – in the middle of a marathon , in: Beblavy M., Maselli I., Veselkova M., Green, Pink & Silver? The Future Of Labour In Europe, Vol. 2, CEPS, Brussels,	75%		

Motivation for the research

The above publications aimed at analysing the changing labour market inequalities in a multidimensional framework. My motivation to undertake this research came from the need to understand the effects of the ongoing structural changes in the labour market and their growing heterogeneity among various groups of workers. I was particularly interested in the developments in Central and Eastern Europe, less researched so far. These developments concerned both rising wage and income inequalities, but also population ageing, rising employment shares of older workers, of women who also became better and better educated.



On the demand side, these developments included declining unionization, rising incidence of atypical employment or job polarization trends. From a macroeconomic perspective these changes were driven primarily by technological change, globalization and demographic change (Autor et al. 2003, Bekman et al., 1998; Standing 1997, Goos et al. 2014).

The research on wage inequalities has exploded in the 1980s and 1990s, following changes in the wage structures observed in most of OECD countries and responding to the increasing availability of micro data, both from administrative sources and from special surveys of the working population. They allowed, among other, to identify a process of a widening wage distribution and an increasing wage premium for skilled workers, which in turn has provoked much debate on its causes. Many studies focussed on changes in the wage structures in OECD countries, with the analysis dating back to the last 30 years of the previous century (Katz and Murphy (1992), Acemoglu and Shimer (2000), Autor, Katz and Kearney (2008), Blau and Kahn (1996), Card, Lemieux and Riddell (2004); Machin (2008) summarizes most of the previous studies). Wage inequalities increased both 'between' and 'within groups' (by education, age, experience). In most of the OECD countries rising wage inequalities in the 1980s were associated with changes at the top of the distributions.

Most studies describing the changing patterns of wage inequalities focussed on Western Europe and Anglo Saxon countries, with little coverage of Central and Eastern Europe. Here, in the course of transition to market economies deep changes in the wage structures took place, namely a substantial fall in real wages (particularly among the low paid employees) and a significant (though not exorbitant) widening of the earnings distributions (Rutkowski, 1996, 2001). These changes have been associated mostly with increasing returns to education (Strawiński 2006, Gajderowicz et al. 2012). It seems changes in the wage setting institutions played a major role, rather than the speed of privatization (Rutkowski, 2001). As a result, at the beginning of the 21st century the average level of earnings disparities in the New Member States (then Accession Countries the European Union) was higher than in most of the Western European states. The observed changes were driven by technological change, globalization (Autor et al. 2003, Bekman et al. 1998, Goos et al. 2014) and changes in the institutional setting, mainly the decreasing minimum wage and unionization (e.g. Dustmann et al. 2009, Antonczyk et al. 2010, Card et al. 2013, van Reenen 2011, Machin 2008). **Much less is known about the drivers of wage dispersion in CEE countries, in particular with respect to the changing institutional setting. This is one of the fields where I contributed to with my studies on unionization, collective agreements and wages.**

In light of the demographic change and population ageing there has been a growing literature on workforce ageing and its labour market consequences, with several studies tackling the policies supporting older people in their workplaces and longer working lives in general (Börsch-Supan 2003, Bertola et al. 2007, van Dalen et al. 2010, Michaelis, & Debus 2011). Moreover, these studies have been coupled with research on youth labour market position and policies towards young people's employment (Greg & Tominey 2005, Blanchflower 2007), in particular after the 2008-2009 Great Recession (Scarpetta et al. 2010, Bell and Blanchflower 2011, Eichhorst et al. 2013). However, there have been relatively **few studies analysing the changing age patterns of the Polish labour markets or its consequences, both among its young and older participants** (exceptions include, among other, Arak 2013, Baranowska et al.

2011, Kiersztyn 2013, Kryńska 2006, Puhani 2012, Pastore 2005). **Again, this is a field I aimed at contributing to.**

Gender is another important dimension of labour market inequalities and the literature has been growing in this respect as well. Despite large improvements in the recent decades women remain underrepresented on the labour market, face many (and new) obstacles to labour market activity and are penalized in terms of wages (Blau & Kahn 2016, Rosenberg and Kallenberg 1991, Fortin 2005, Mandel & Semyonov 2005, Cuberes & Teignier 2014, Juhn et al. 2013). **Fewer studies tackled the changing patterns of gender inequality in Central and Eastern Europe, and most of the existing studies focussed on early transition period, with a knowledge gap on more recent developments** (Brainerd 2000, Fleisher et al. 2005, Heyns 2005, Christofides 2013, Perugini & Selezneva 2015, Razzu 2016, Gorau & Tyrowicz 2014, Cukrowska & Lovasz 2014).

Also **skills have become a matter of general interest among economists** and sociologists in the recent decades, as another source of rising labour market heterogeneity in terms of individual outcomes and prospects. Authors have researched the extent of skill mismatches, their links to wages (Bárcena-Martín et al. 2012, Badillo-Amador, L., & Vila, 2013, Rubb 2006), unemployment (Allen & Van der Velden 2001), job satisfaction (Veira 2005) , see Quintini (2011) for a literature review. Again, most studies concerned Western European and AngloSaxon countries, also because of data availability (Kiersztyn 2013 and Kucel & Vilalta-Bufí 2012 are exceptions, though they are more group – specific or lack a cross country comparable perspective), hence my interest in contributing to this area.

The scientific achievement I submit for evaluation is a results of my participation in several national and international research projects, in which I took part in the early period mostly as a researcher, and later on more and more often as principal investigator or project coordinator. Together with my co-authors I aimed at contributing to the knowledge on structural and institutional changes in the Polish and European labour markets, taking the perspective of various groups of works but also of various workplaces and employers. The objective was to identify the supply side and demand side determinants of labour market inequalities and their changes, as well as their institutional background.

In particular, to date I have made contribution to research and knowledge in the following areas:

- (1) Understanding the role of the **supply side of the labour market** in the changing labour market inequalities – with a focus on workers' age, sex, educational attainment, health status and family situation
- (2) Understanding the role of the **demand side of the labour market** (workplace and employer's characteristics) for labour market inequalities and their changes
- (3) Deepening the knowledge on labour market disparities in **skills and their mismatches**



Below I briefly present my achievement in the three areas presented above.

(1) Understanding the role of the supply side of the labour market for the changing labour market inequalities – with a focus on workers' age, sex, educational attainment, health status and family situation

Starting in the 1960s., the industrialised countries have experienced substantial changes on the labour market, linked primarily to the changes in the sex composition of the workforce: growing importance of female employment and a decline in male participation rates both at the intensive and extensive margin. In the late XX century it were the changes in the age structure of workers that became the dominant labour market trend, related to extending working lives and population ageing.

Women's participation continuously rose over the last century in many advanced economies. In the US, at the beginning of 20th century, average labour force participation of women was about 20%, and by the end of the century it reached 60% (Costa 2000). Similar developments occurred in European countries, although to various extent. There were several factors behind the growth of female employment rates. Firstly, many authors pointed to changes in social attitudes, such as disappearing of stigmatisation of working married women and change in women's perception of professional careers (Pissarides 2005, Fernandez et al. 2004, Goldin 2006). Secondly, rising female educational levels contributed considerably to their higher participation rates (Euwals et al. 2011). Also changes in household appliances technology, which allowed women to decrease the amount of time spent on housework, increased their engagement in the labour market (Greenwood et al. 2016, Cavalcanti and Tavares 2008). Finally, also availability of easy contraceptive played a positive role in increasing women's employment in highly professional jobs (Goldin and Katz 2002, Bailey 2006), as well as changes in world views associated with *silent revolution* (Inglehart 1974). There were also demand side factors driving female participation on the labour market, mainly the increasing share of service sector jobs and female-friendly occupations, as well as part-time jobs (Galor and Weil 1996, Jaumotte 2003, Pissarides 2006). Changes in tax-benefit systems encouraging female employment also played a role (Selin 2014), se did the (male) labour shortages due to war losses.

A systematic increase in the female labour market participation rates coincided with the secular trend of fertility decline. Since the mid-1960s, fertility in a growing number of European countries does not guarantee a simple replacement of generations, and in some countries it has dropped to a low level, where it has remained for decades. As a result, the number of children and young people is decreasing, and Europe as the only continent will experience a reduction in the number of people of working age. Post-war numerous birth cohorts benefit from improved mortality, which leads to a growing number of retirees who receive pensions for longer periods of time (Johnson and Zimmerman, 2008, D'Addio et al., 2010). The scale and dynamics of these changes were very different in particular EU and OECD countries - while population ageing is a universal process, but its advancement is strongest in the developed countries, which, however, also differ among themselves with respect to changes in age structures. In this respect, Poland is in a special situation - although it is currently a relatively young country, a high dynamics of changes in the age structure in the coming decades is foreseen, to which the institutional environment of the labor market is not prepared.

Publications [3.3], [3.4], [1.4] and [3.2] shed further light on these demographic developments, as they focus on the changes in the age structure of the labour market and their consequences for inequalities in employment outcomes among various socio-economic groups of workers.

In particular, in publication [3.4, 2015], prepared jointly with Agnieszka Kamińska, I analyse the changing position of women in the European labour markets in the years 1990s and 2000s and draw conclusions on the challenges of further increasing women's labour market participation and the necessary policy mix allowing to achieve this. The book chapter covers all EU countries, distinguishing between Western and Central and Eastern European countries, where the trends of female employment were different in nature. The starting point of the chapter is the analysis of the male and female activity, employment and unemployment rates, showing their divergence not only in the subperiods studies but also among the geographical lines. The improvement of women's labour market outcomes came mainly from higher participation rates among older female workers, with a decline among the younger groups. Altogether, our decomposition revealed that the improvement in labour market situation of women was driven primarily by institutional changes, with educational shifts playing a smaller role (although it was quite important in CEE countries). Despite improvements and increasing educational attainments (which are greater than men's in many of EU countries) women remain severely underrepresented in EU labour markets. There are several obstacles to using this potential, linked primarily to the labour markets institutional setting. Firstly, school to work transitions are more difficult for women, in particular in those countries where students are less likely to combine education and work, as women are much more likely to participate longer in education. Secondly, this problem is later aggravated by the difficulties in reconciling work and family lives (in particular insufficient supply of institutional care arrangements and unequal division of unpaid work in the household), which translates into lower labour market participation rates and higher risk of unemployment among women. The third identified obstacle to higher female activity rates is linked to the design of the pension systems and lower pension age for women (although this gap is being narrowed down in most EU countries, which translates into rising female employment rates). The fourth obstacle comes from lower life long learning participation rates among women, both in formal, non formal and informal way. These lower investments into adult education derive from the above mentioned factors- both the limited time budget of women related to caring duties, and the lower retirement age which weakens the educational investments incentives. This publication [3.4] summarizes research conducted in Work Package 16 of the NEUJOBS project. My contribution to this book chapter included designing its concept and writing the paper, based on data and graphs prepared by my co-author under my supervision.

The issue of gender aspects of the labour market is investigated in detail for Poland in publication [3.3, 2016], where together with my co-authors (Jan Baran, Roma Keister and Piotr Lewandowski) we add to the literature with a detailed analysis of the patterns of gender labour market inequalities and their sources. Using individual Labour Force Survey (1992 – 2014) and Household Budget Survey data (1986 – 2014) we tackle the patterns of multidimensional gender gaps in the Polish labour market between the 1980s and the middle 2010s. The multidimension approach is necessary, since many of the observed changes were happening in opposite direction, and were complex in nature. We show that the industries

most severely affected by the transition exhibited a male-dominated employment structure, therefore the employment rate of women declined less than that of men. Moreover, the medium-term trend of increasing employment in services has benefitted women. At the same time, participation rates of both genders kept decreasing until the mid-2000s, and although they later improved, in 2014, the participation rates of both women and men aged 15–64 were lower than in 1992. The largest changes in participation and employment occurred at the opposite margins of the age distribution. Young workers were increasingly likely to attend tertiary education, which translated into an increasing average labour market entry age, and declining participation and employment rates of young people. Older workers could use several social benefit options available at the age lower than the statutory retirement age. This translated into declining average exit ages and participation of people aged over 50 years. Both these developments involved women to a larger extent than men. In consequence, in 2014, the age-specific gender employment rate gap in Poland was highest among people aged 55–64. We further investigate gender educational gaps, describing how on the one hand in the course of the educational boom in Poland, women’s educational attainment improved on average more than that of men. On the other hand, gender segmentation in terms of fields of study and wage premiums attached, as well as in the occupational structure, has increased. This leads us to show the results of the gender wage gap analysis: while the average pay differential remains relatively low in Poland, once we adjust it for individual and workplace level characteristics, the pay gap increases substantially, especially in the upper part of the wage distribution. We link these developments to three issues (i) a decreased supply of childcare services, which has increased polarisation of choices between work and family life (ii) the continued unequal burden of women who do most of the unpaid work (ii) increasing incidence of unstable, temporary jobs, which are more likely to be held by women. My contribution to this study included co-work on the concept on the chapter (with P. Lewandowski), in particular in the part referring to gender pay gaps and unequal share of unpaid work; and preparation of selected sections: („Gender pay gaps before and during transition to a market economy”; “Are women discriminated against?”; “Sticky floors, glass ceilings?”, “Unequal division in household and care duties” and “Conclusions”) as well as commenting other co-authors work and supervision of junior researchers Jan Baran and Roma Keister.

The interest in the issue of gender pay gaps analysed in [3.3] and [3.4] evolved into a separate project financed from the “Sonata-bis” grant of the Polish Science Center (started in 2015), in which together with my co-authors (dr Ewa Cukrowska Torzewska, mgr Katarzyna Sałach) I analyse the link between workplace characteristics and gender pay gaps in Poland. The work done has been presented at several conferences (WIEM 2016, EALE 2016, WIEM 2017, GESIS 2017, see section 5 for details) and two papers are under review in high quality international journals (“Women in managerial positions and the gender pay gaps: does public sector differ from the private one?”) and “Gender pay gap in the workplace: does the age of the firm matter?”).

Age disparities in labour market outcomes are the topic of paper [1.4, 2012], which is a joint work with dr Anna Ruzik – Sierdzińska. In this paper we analyse how age determined labour market transitions during the labour market downturn of 2008- 2009. In particular we seek to answer the following questions: (i) what was the role of the institutional setting and labour market policy for the observed changes in employment and activity rates of workers aged 55

years and more? (ii) were the observed changes similar for men and women? and (iii) did the labour market mobility of older workers change, and how? We used panel data from the Polish Labour Force Survey for years 2008 – 2011 and we have shown that older workers had a much higher probability of remaining in the same job than prime aged workers, and a lower risk of job loss. At the same time, the unemployed older workers had a much lower probability of finding a new job, compared to younger colleagues. These relations were stronger among men. We suggest the observed age-specific changes in job loss and accession rates have been driven by institutional changes, in particular a substantial decrease in the early retirement opportunities as of 2009, while the role of the labour market policies was more limited. My contribution to this article included co-work on its concept, preparation of a part of the literature review (on institutional changes in the Polish labour market), preparation of the LFS databases and flow analysis. I authored the section on the way age impacts the labour market, and co-authored the sections describing the results of the analyses and policy conclusions.

My interest in the labour market outcomes by age continued. In 2016 I published a working paper [4.4] (Table 2) which is currently under review in an international journal. In this paper, together with my co-authors (mgr Wojciech Hardy, Aneta Kiełczewska, mgr Piotr Lewandowski) we study the probabilities of remaining in one's workplace among older people in four Central European countries, analysing the common and different determinants of this job retention in an cross-country perspective.

Gender aspect of labour market inequalities was investigated also in the publication [3.2, 2016], which discusses the patterns and determinants of long term unemployment in Poland. Using micro data from the Polish Labour Force Survey 2007 – 2016 in a joint work with Piotr Lewandowski we stated that the incidence of long term unemployment varies considerably, depending on the age and education of workers. Its gender dimension is particularly interesting, as the Great Recession brought a convergence of gender-specific rates and incidences of long term unemployment. Thus, women, who constituted a majority of the long-term unemployed in 2008, had become a minority by 2015. Changes in the level and structure of long term unemployment in Poland appear to have been largely driven by business cycle fluctuations, although a flow analysis suggested that also the structural mismatch between jobs and jobseekers played a role, in particular from an age and gender perspective. The concept of the paper was prepared jointly with mgr Piotr Lewandowski. I further prepared the "Introduction" , „*Incidence of long-term unemployment in Poland*” and “*Policies to fight long-term unemployment*” sections, as well as commented on the co-author's work.

My research interests include also health economics, in particular its relation to labour economics. In publication [2.3, 2014] written jointly with mgr Maciej Lis (at that time a PhD student in Warsaw School of Economics, currently an economist at the OECD) , we linked the health and labour market inequalities. Using a life course perspective and 2005-2009 EU SILC data for Poland we analysed (with non-parametric regressions) the relationship between health, employment and wage growth within a person's life cycle. We have found that health and labour market inequalities reinforce one another: poorer health is associated with lower earnings and lower employment rates. However, we found that lower wages for persons with poorer health are mainly due to their lower education and shorter work experience as well as their concentration in low-paid sectors and occupations. The isolated impact of health on wage dynamics within a person's life cycle is very small. My contribution to this article included

the co-authoring of its concept, empirical strategy and the paper's structure. I also authored the paper's *Introduction* and *Conclusions* sections, and part of the literature review and description of results.

(2) Understanding the role of the demand side of the labour market (workplace and employer's characteristics) for labour market inequalities and their changes.

Another field of my research on labour market inequalities focused on wage differentials between different types of workers. In the article **[1.5, 2011]**, which is a joint work with prof. François Rycx (Free University Brussels, ULB), Ilan Tojerow and Daphné Valsamis (then both PhD students at the ULB) we study the determinants of wage differentials between workers in four Central and Eastern European countries. We use a large linked employee-employer dataset (Structure of Earnings Survey 2002) which allows us to separate personal and firm level characteristics and their impact on wages. In particular, we are investigating wage premia associated with sectoral affiliation. We find that there are substantial differences in earnings across sectors in all countries, even when controlling for a wide range of employee, job and employer characteristics. The hierarchy of sectors in terms of wages appears to be quite similar in Eastern and Western European countries, although the former tend to have higher levels of dispersion of inter-industry wage differentials. My contribution to this paper included writing part of the literature review (with a special focus on wage differentials in Central and Eastern European countries), and the econometric analyses of the inter industry wage differentials in Poland (which required several data cleaning work in the first step). I also participated in the discussion of the results and their interpretation and commented on other co-authors' work.

The next papers I worked on aimed at providing more in depth explanations of the potential sources of wage differentials among workers (adjusted for their personal characteristics), in particular their work place characteristics. Among these explanations, collective bargaining coverage drew my attention. In articles **[1.1]**, **[1.3]** and **[2.1]** I investigate the evolving industrial relations in Poland and other Central and Eastern European countries.

In the **[1.3, 2012]** paper, written together with David Marsden (professor at the London School of Economics) and Simone Moriconi (then a PhD visiting student at the LSE) we study the impact of collective bargaining coverage on wages in Poland, Hungary and Czech Republic (CE3). Unions wage premia have been well recognized in the literature, but only for the US and Western European countries (Freeman and Medoff 1984; Blanchflower and Bryson 2004), while the impact of the development of modern systems of collective bargaining on the structure of wages in the post-socialist economies of Central Europe remained largely unexplored. Our findings contrast with the common view that unions are weak in the CE3 countries as they show the existence of a wage premium for collective agreements. We also discovered that the union wage premium varies according to cohort (when the firm was set up), and that cross country differences are substantial. In particular, the union wage premia depend on the type of coverage: industry agreements increase wages for low-skilled workers whereas company agreements increase wages for medium- and high-skilled workers. Based on the econometric results and institutional evidence provided we explain how the unions in the CE3 countries experienced different paths of development in the transition process. My

contribution to this article included the literature review on the changes in institutional setting in Poland, contribution to the development of the empirical strategy of the article, data cleaning for and running estimates for Poland, discussing and interpreting the findings together with the co-authors, discussing ways of presenting data, description of the results as well as contributing to each of the sections of the article and commenting on the work of other co-authors.

The role of collective bargaining for wage inequalities was further studied in paper [1.1, 2016], also co authored with David Marsden and Simone Moriconi (then assistant professor at the Catholic University of Milan). We analysed the evolution of the wage premium of firm- and industry-level agreements in the Czech Republic, Hungary, and Poland (the CE3) around the time of their accession to the EU. We found that despite a generalized reduction in union coverage in these countries, the union wage premium after accession to the EU became bigger and statistically more significant for Poland and Hungary, particularly for industry-level agreements. We provided an institutional explanation for these developments, pointing to the role of adjustments accompanying the EU accession, which strengthened the union's bargaining power. My contribution to this article included the literature review on the changes in institutional setting in Poland in different transition periods, contributing to the development of the empirical strategy of the article, data cleaning and running estimates for Poland, discussing and interpreting the findings together with the co-authors, discussing ways of presenting data, description of the results, contributing to each of the sections of the article and commenting on the work of other co-authors.

The topic of wage bargaining and trade union's ability to impact wages and wage distribution was also discussed in publication [2.1, 2017], where I presented the existing evidence suggesting there may be union's revival in Central and Eastern Europe. Trade unions weakened substantially in CEE countries during the 1990s. Though unionization and collective bargaining coverage remain low, the wage premiums associated with collective bargaining have increased, and the surviving unions successfully protected their members during the 2008–2009 economic crisis. Thus, collective bargaining coverage remains another important factor associated with wage premia and impacting the changes in wage distribution.

Book chapter [3.1, 2017] to which I contributed jointly with mgr Piotr Lewandowski, discussed the growing inequalities in the Polish market from a job insecurity perspective. Using Labour Force Survey microdata, flows analysis and literature review we document the temporary employment boom on the Polish labour market. Our analysis shows that women became disproportionately more likely to be employed under temporary agency work contracts (which offer a superior degree of employment protection compared to fixed term labour contracts and obviously to permanent job contracts). Age dimensions mattered as well: temporary employment has become widespread among all age and educational groups, yet the most intensive growth in temporary employment indicators has occurred among individuals aged 20-29. The increasing incidence of temporary employment has affected not just people in the early years of their career, but older adults as well. In 2014, for example, nearly one in three temporary workers (32 per cent of male and 30 per cent of female temporary workers) was aged 40-64. Thirdly, educational attainments differentiated the growing contractual

inequality: temporary workers tend to be less educated than permanent employees. We discuss also the potential sources of growing disparities with respect to job security, claiming that the boom in temporary contracts was fuelled both by the cost competitiveness strategies used by employers to minimise labour costs and the increasing weakness of the state. My contribution to this paper included its concept, work with the LFS data, writing the *Introduction Temporary work agencies; The evolution of the regulatory environment; Flows between permanent, temporary employment and unemployment and State role in undermining employment standards* sections as well as discussing and editing the *Conclusions*.

(3) Deepening the knowledge on labour market disparities in skills and their mismatches

In article [1.2, 2016] together with dr Agnieszka Chłoń-Domińczak and dr Łukasz Sienkiewicz (both assistant professors at the Warsaw School of Economics) we investigate another dimension of inequalities in labour market outcomes: inequalities which arise due to individuals' skills and their mismatches. To this end, we look at the influence of their different socio-economic characteristics, in particular age and educational attainment, on the level of skills mismatch and link these to the patterns of economic development. Our study used a novel and rich dataset on skills and labour market outcomes, collected in a harmonized way for 28 European countries by the CEDEFOP (European Skills and Jobs Survey). We find that regional differences stand out: workers in the Central and Eastern European countries have a higher risk of underskilling and a lower risk of overskilling. This concerns all age groups, but is particularly relevant for the youngest and the oldest workers. Moreover, we also found the evidence of job segmentation related to fixed term employment between the old and new member states, combined with different patterns of skills mismatch in the two groups of countries. Temporary workers report a higher risk of mismatch – both in the case of underskilling and overskilling. My contribution to this article included both the conceptual framework, data handling and analysing, as well as results' description and drawing policy conclusions. I also contributed to text editing and revising the article along the reviewers' comments.

I further studied the link between education and labour market inequalities in article [2.2, 2016]. Using data from a large panel household survey "Educational decisions determinants" ("Uwarunkowania decyzji edukacyjnych") I investigated how various types of employment (in particular non standard employment) impact the probability of participation in life long learning. To overcome the problem of selection of workers into education, I focussed on workers with vocational education (who are less likely to continue adult education, compared to those with higher educational attainments). I have shown that the type of contract held does impact the risk of educational inactivity, though the relations are complex and interact also with the age and gender of workers. Flexible employment, with less rigid firing and hiring rules, increases the probability of life long learning mainly among men and younger workers, further contributing to the educational inequalities.

Summary of the achieved research results, their contribution to the literature on labour market inequalities and development of science as well as practical application.

Summing up, the results of the presented studies contribute to the existing literature by helping to better understand changing labour market inequalities from three main dimensions (i) supply side of the labour market – individual's age, gender, education, health and family situation (ii) workplace characteristics such as workplace unionization and contractual arrangements (iii) demand side inequality determinants associated with demand for skills. I studied labour market outcomes both in terms of employment, and wages, from a macroeconomic and microeconomic perspective. The dynamic dimension and flow analysis integrated into several of my publications adds also a life-course perspective to studying inequalities. My contribution was marked also in extending the knowledge about changes in the labour markets of Central and Eastern European countries.

The results of my research also have a practical application. The knowledge about the way age or sex of workers impact their labour market situation and their changes allows to better design and implement labour market policies targeting these groups. In particular, my studies encompassed an identification of the obstacles to further increases in female labour market participation, pointing to those areas and challenges where public policy should take a more active role. The results on the determinants of the adjusted pay gaps between men and women may improve equal pay policies. The evidence on the job retention rates among older workers and their contribution to increases in employment rates clearly suggest that the effective labour market policies targeting groups of workers close to the retirement age should aim at improving their chances to remain in the jobs they hold, while support to job finding will likely be less successful. Thus, ALMPs should focus more on e.g. health interventions and improvement of training opportunities among older workers. The results of my studies on skills mismatches are concluded with policy implications regarding life long learning initiatives and in particular the role of National Framework of Qualifications. The publications on trade unions and collective bargaining coverage included policy conclusions on the benefits from supporting good quality social dialogue and the role of trade unions in alleviating the consequences of changing dimensions of labour market inequalities. Finally, my studies on various types of contracts on the Polish labour market were concluded with the suggestions of better enforcement of the rule of law with respect to labour contracts as well as with suggestions of changes in tax benefit policies.

My contribution to the literature includes also methodological aspects. The studies presented above have been conducted using various methodological approaches, which share a common line of (i) trying to use the best identification strategy possible (ii) using large sets of micro data for Poland and EU countries. The analyses were conducted using parametric and non parametric regressions and decompositions. For instance, publications [1.1] and [1.3] use OLS regressions, Oaxaca – Blinder decomposition (Oaxaca 1976, Blinder 1976) and a re-weighting technique implemented by Di Nardo et al. (1996). Publications [1.2] and [1.4] are based on a multinomial regression framework, [2.2] uses the probit model. In publication [1.5] we use OLS framework, but with a inter industry standard errors correction as suggested by Haisken-DeNew and Schmidt (1997). Non parametric estimates are useful for separating the impact of



age, education, health and wages, as in publication [2.3]. Finally, while the book chapter contributions ([3.1] – [3.4]) are based mostly on descriptive statistics and correlations, they also include flow analyses and various types of decompositions, allowing to better understand the contribution of various factors to changing labour market outcomes.

Another methodological contribution comes from my use of newly released, large datasets, such as Polish Labour Force Survey, Polish Structure of Wages and Occupations Survey, Polish Household Budget Survey (delivered by the Polish Central Statistical office) and European Labour Force Survey, European Structure of Earnings Survey and EU Survey of Income and Living Conditions, all delivered by the Eurostat. All of them allow to investigate in detail many of the individual and labour market characteristics (without worrying about too small, non representative samples, as they count more than 100 thousand observations for each wave for Poland, and altogether several million individuals surveyed at the EU level). Moreover, the EU surveys are harmonized, which allowed me to study EU (and in particular Central and Eastern European countries) in a comparative perspective – which was an important advantage allowing to better understand the patterns of labour market inequalities and their country specific developments.

Most of the articles which are part of the scientific achievement “Labour market inequalities and their determinants: macroeconomic and microeconomic perspective” were prepared in cooperation with other authors. The articles I worked on in the first years after my PhD defence ([1.3], [1.5]) were written with senior, more experienced researchers. The next papers were more often prepared with either junior researchers (e.g. my master students, or PhD students) or researchers with similar research experience as mine.

4. Discussion of other publications

Apart from the publications, which I presented as part of my scientific achievement, after I was awarded my PhD I also published other studies (articles, working papers, book chapters) in the field of labour economics and health economics, presented in Table 2.

Table 2: Other publications.

No	Publication
4.1	Magda I. (2017), <i>Praca a zdrowie i umiejętności poznawcze pokolenia 50+</i> (Work, health and cognitive skills in generation 50+), in: Myck M. and Oczkowska M. (ed) „ Pokolenie 50+ w Polsce na tle Europy: aktywność, zdrowie i jakość życia (Generation 50+ in Poland compared to Europe: activity, health and quality of life) ”, Ministry of Family, Labour and Social Policy
4.2	Kotowska I., Magda I. (2017), Family policy and labour supply in Poland , in: Lewandowski P., Rutkowski J. (ed.) Population ageing, labour market and public finance in Poland, European Commission Representation in Poland
4.3	Broughton, A.; Green, M.; Rickard, C.; Swift, S.; Eichhorst, W.; Tobsch, V.; Magda, I.; Lewandowski, P.; Keister, R.; Jonaviciene, D.; Ramos Martín, N.E.; Valsamis, D.; Tros, F., (2016). Precarious Employment in Europe , <i>Employment and Social Affairs</i> , European Parliament

4.4	Hardy W., Kiełczewska A., Lewandowski P., Magda, I., 2016, Job retention among older workers in Central and Eastern Europe , Institute for Structural Research, IBS Working Paper 11/2016
4.5	Brzeziński M., Magda I., 2016, Inequality of opportunity in Central and Eastern Europe: accounting for changes over time , IBS Working Paper 5/2016
4.6	Baranowska-Rataj A., Magda I., 2015, The impact of the minimum wage on job separations and working hours among young people in Poland , Working Papers 75, Institute of Statistics and Demography, Warsaw School of Economics
4.7	Magda I., Perek-Biały J., Ruzik – Sierdzińska A. (2015), „Kształcenie i doksztalcanie się z perspektywy aktywności zawodowej” („Life long learning from a labour market perspective”), in: Chłoń- Domińczak A., Kotowska I. (red.) Uwarunkowania Decyzji Edukacyjnych (Determinants of educational decisions), Institute for Educational Research, Warsaw
4.8	Baranowska-Rataj A., Magda I., 2014, Inequality in the risk of job loss between young and prime-age workers: Can it be explained by human capital or structural factors? , Working Papers 73, Institute of Statistics and Demography, Warsaw School of Economics
4.9	Magda I., Potoczna M., 2014, Does flexible employment pay? European evidence on the wage perspectives of female workers , IBS Working Papers 3/2014, Institute for Structural Research.
4.10	„Employment in Poland 2013: labour market under structural change” (ed. P. Lewandowski and I. Magda), CRZL, 2014
4.11	„Employment in Poland 2012: Labour market recovering from the crisis” (ed. P. Lewandowski and I. Magda) CRZL, 2013
4.12	„Employment in Poland 2011: Poverty and jobs” (ed. M. Bukowski and I. Magda), CRZL, 2013.
4.13	Chłoń-Domińczak A., Kamińska A., Magda I. (2013), Women as a potential of the European labour force, NEUJOBS working paper No 16
4.14	Lewandowski P., Magda I., Baran J., Fedjuk O., Bartha A., 2013, Gender Dimensions of the Labour Markets over the Past Two Decades , IBS Working Papers 1/2013, Institute for Structural Research.
4.15	Baranowska-Rataj A., Magda I., 2013, Decomposition of trends in youth unemployment – the role of job accessions and separations in countries with different employment protection regimes , Working Papers 53, Institute of Statistics and Demography, Warsaw School of Economics.
4.16	Magda I. „Warunki i czas pracy w relacjach nauczycieli” („Teachers’ working conditions and working time”), Institute for Educational Research, 2013
4.17	Magda I., Szczygielski K., „Współpłacenie za usługi medyczne w Polsce: możliwości wprowadzenia i potencjalne skutki” („Medical co-payments in Poland: costs and benefits of implementation”), in: Nojszewska E. (red.) Racjonalizacja kosztów w ochronie zdrowia (Rationalizing costs in the health sector), Wolters Kluwer, 2012, s. 109-120.
4.18	Magda I., Szczygielski K., "Możliwości zmian w polskim systemie zdrowia" („Potential changes in the Polish health care system”), <i>Prawo Europejskie w praktyce</i> , nr 1(90) styczeń 2012

4.19	Magda I., Szczygielski K., <i>An assessment of possible improvements to the functioning of the Polish healthcare system</i> , Ernst & Young Better Government Programme, 2011
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Most of the above publications concerned the analysis of structural changes on the Polish and European labour markets, both in micro and macro perspective. These publications involve both book chapters, working papers as well as more policy – oriented publications, directed at policymakers. This was for instance the target group of the series of reports entitled “Employment in Poland”, which I co-edited in years 2011 – 2013. I was responsible for managing the team of researchers working on the report as well as for the edition of all the chapters of the reports. The edition [4.12] discussed the issue of wage and income inequalities, their changes over time in Poland and international comparison, it also covered the analysis on poverty and income mobility. The report [4.11] looked at the labour market impact of the financial crisis of 2007 – 2009 (The Great Recession) and of the crisis in public finance that followed. One of the chapters was devoted to the inequalities among socio economic groups of workers that arised in consequence of the crisis. In the edition [4.10] we studied the structural changes in Poland and EU and OECD countries and their impact on labour markets, looking at how labour supply and demand change overtime responding the economic, demographic and technological changes. The issue of income inequalities and their link to unequal distribution of opportunities in Central and Eastern European countries was analysed in article [4.5]. A newer version of this working paper is under review in a peer reviewed journal.

The expert report [4.3] to which I contributed discusses changes in the structure of employment in the European Union with respect to types of job contracts, showing an increase in atypical forms of employment, often associated with lower degree of social protection.

Labour market inequalities with respect to age are analysed in articles [4.6][4.8][4.15], which focussed in particular on the position of young people on the labour market. These working papers, prepared jointly with dr Anna Baranowska -Rataj looked at the determinants of the gap in the unemployment rate among young and prime age workers, decomposing this gap to the job inflows and outflows components. These analyses were further deepened in publication [4.8], which looked at the factors associated with higher and lower risk of job losses among workers of different age. In the article [4.4] we focus on the analysis of the drivers of higher job retention rates among workers aged 50 years and more, in four countries of the Central and Eastern Europe. This article is currently under review in a journal.

Changing situation of women on the European labour markets was the key phenomenon analysed within Work Package 16 of the 7th EC Framework Programme “NEUJOBS”. We decomposed these developments into three components: work intensity, demographics and education, showing that the increases in employment rates of women were driven primarily by rising work intensity, i.e. within -group employment rates [4.14]. Despite significant improvement, female activity rates are still lower than among men, which is explained mainly by factors associated with family, educational and pension policies [4.13]. Women continue

to be also underpaid compared to men, and the gender pay gaps adjusted for difference in personal characteristics are even higher than the raw ones. Temporary and flexible employment forms contribute to the gender pay gaps – in most European countries fixed term contracts and part time jobs are associated with a wage penalty [4.9].

The above publications include also studies on educational inequalities in the labour market. I have shown that the unemployed and inactive individuals are less likely to participate in the life long learning, despite larger knowledge gaps and need for upskilling. This concerns all types of educational activities, both formal, non formal and informal ones [4.7]. Also the expertise [4.16] concerned education of economics, as it included a review of studies on the methodology surveying and analysing teachers' working time.

After my PhD defence I also worked on health economics and institutional setting of the health care system, aimed at improving the health care sector in Poland. The articles [4.17][4.18][4.19] prepared jointly with Krzysztof Szczygielski diagnose the most important problems of the Polish health care and analyse costs and benefits of introducing selected policies, including supplementary private insurance and co-payments. We also show the groups who could become disadvantaged under the new solutions and suggest supporting measures alleviating the negative consequences of reforms.

Finally, I also worked on family policy issues, in particular the impact of various family policy arrangements on female labour market outcomes. The Polish case is analysed in publication [4.2]. I also studied the impact of the introduction of the "Family 500+:" programme on women's labour market participation. The results were presented at a seminar in October 2017, with the publication forthcoming.

Publishing performance summary

My publishing achievement in the period after I was awarded the PhD includes 9 published peer-reviewed articles (7 of them co-authored, 5 of them in journals indexed in the JCR list, 5 of them in English), 9 book chapters (peer-reviewed), 1 monography (co-authored), 3 research reports which I co-edited, and 8 *working papers* (some of them are under review in peer reviewed journals).

Parametric assessment of my publications (as of December 2017):

- Hirsch index according to Publish or Perish, without self-quotations 5, H – index according to Google Scholar:7, H-index according to Web of Science: 2
- Number of citations in Web of Science: 10, number of citations in Google Scholar: 292
- total impact factor for publications after PhD defence according to JCR (by year of publication): 4,417
- total number of points for scientific articles published according to Ministry of Science list (without correcting for co-authors): 144
- total number of conference presentations: 31, including 27 in English, and 17 at international conferences abroad

5. Other research achievements

Participation in research projects

After the defence of my PhD I participated in the following national and international research projects, as a researcher and/or principal investigator or project manager.

National projects:

- **Statutory research:** Within this framework I carried out the following research projects: (1) *Youth unemployment during crises: the role of job accessions and separations* in the framework of the project entitled „Rola polityki gospodarczej w okresie wychodzenia z kryzysu” (“The role of economic policy in exiting the crisis”) supervised by prof. dr hab. J. Plebaniak (2012); (2) *„Inequality in the risk of job loss - is it explained by human capital or structural factors?”* in the framework of the research project „Analysis of economic factors associated with EU integration” supervised by dr K. Makarski (2013), KAE/S/26/1. The results of these studies were presented at international conferences and published as *Working Papers* of the Institute of Statistics and Demography of the Warsaw School of Economics ([4.6][4.8][4.15]).
- **Young researchers and PhD students research funds.** Within this research framework I was the principal investigator and project manager in the following projects: (1) *„Wzrost nierówności płacowych i konsekwencje dla polityki rynku pracy i społecznej”* („Increase in wage inequalities and its consequences for labour market and social policy”) (2012); (2) *„Luka płacowa kobiet i mężczyzn: czy sektor własności pracodawcy ma znaczenie?”* (“Gender pay gaps: does firm ownership matter?”), (2013), KAE/BMN/16/13. The results of these studies allowed me to prepare a research project which was awarded a grant from the Polish National Science Center.
- **„Co-payments for medical services ”.** A research project financed by an Ernst & Young grant „Good governance” (2010-2011), led and managed jointly with dr Krzysztof Szczygielski. It resulted in publications [4.17][4.18][4.19]
- **„A series of reports „Employment in Poland”.** This project was carried out in years 2011 – 2014 by the Institute for Structural Research, commissioned by the Ministry of Labour and Social Policy (financed by its Center for Human Resources Development). It consisted of preparing a series of reports in labour market and social policy in Poland. I was the project’s manager (on behalf of IBS) and reports’ co-editor ([4.12], [4.11], [4.10]).
- **„Determinants of educational decisions”.** This project was carried out in years 2012 -2015 by the team from Warsaw School of Economics that I was part of, under supervision of prof. Małgorzata Rószkiewicz. The project was carried out for the Institute for Educational Research. It included a design of the research framework, design of a panel survey, fieldwork and the analysis of the collected data. I managed work package 5, which looked at the costs of educational activities – both formal, non formal and informal ones. Within the project we prepared (with the entire team) a research report ([4.7]), I also published a research article ([2.2]).



- **„Gender pay gaps: a cohort perspective”**. This is an ongoing research project financed by the „Sonata-Bis” research grant of the Polish National Science Center (2013/10 / E / HS4 / 00445), carried out between 2014 and 2018. I am the project leader and principal investigator. So far we have prepared three research papers in the project: (1) „Gender pay gaps: do female managers play a role?”, which is a joint work with dr Ewa Cukrowska – Torzewska, presented at WIEM (2016) and EALE (2016) conferences, currently under review in a peer-reviewed journal (2) „Gender pay gaps: the role of the firm’s age”, also a joint work with dr Ewa Cukrowska – Torzewska, presented at GESIS (2017) and WIEM (2017) conferences, also under review in a peer reviewed journal. The third article in a work in progress, it discusses the role of domestic and foreign owned capital in shaping firm-level gender pay gaps.
- **„Support to carrying out the survey of individuals aged 50+ in an international project *Survey of Health, Ageing and Retirement in Europe (SHARE)*”**. This is a research project carried out in 2017, co-financed by the European Social Fund, for the Ministry of Family, Labour and Social Policy. Within the project I prepared a report chapter entitled „Employment, health and cognitive skills in generation 50+” (“Praca a zdrowie i umiejętności poznawcze pokolenia 50+”). [4.1].

International projects:

- **“What drives youth unemployment? The role of job creation, job destruction and labour market institutions”**. This project was led and conducted jointly with dr Anna Baranowską – Rataj (at that time in SGH). It was financed by a CERGE EI grant (RRC 12+71, 2011 – 2012). The results of this project were presented in international conferences and published as working paper in the SGH’s Institute of Statistics and Demography. [4.15].
- **„Working for Equity in Health”**. This was an international research project co-financed by the European Commission within the PROGRESS project. It was carried out between 2011 and 2013 and aimed at analysing the link between inequalities in health and unemployment risk. I participated in this project as a country expert on Poland and contributed to the report “ Working for Equity in Health: The role of work, worklessness and social protection in health inequalities; Context, situation analysis and evidence review”, Scottish Government and Health Action Partnership International (available at: <http://www.hapi.org.uk/EasysiteWeb/getresource.axd?AssetID=14542&type=Full&servicetype=Attachment>).
- **“What makes young people the marginalized labour market group? Evidence from Poland”**. This project was led and conducted jointly with dr Anna Baranowską – Rataj (at that time in SGH). It was financed by an ERSTE Foundation grant in years 2013-2014. The results of this project were presented in international conferences and published as working paper in the SGH’s Institute of Statistics and Demography ([4.8]).
- **“NEUJOBS – multiple transitions on the European labour market”**, an European Commission’s 7th Framework Programme, carried out in years 2011 – 2015 by a consortium of research institutions led by CEPS. Within this project I led Work Package 16.

which covered the issue of employment of women and which was carried out by IBS, CEU CPS from Budapest and CASE (Warsaw). I also participated as a researcher in Work Package 17 which looked at the employment of older workers. Based on the above research the following articles and book chapters were published: [3.4][4.9][4.13][4.14].

- **“Jobs and Development: Creating Multi-Disciplinary Solutions”**. This was a research project carried out by the Institute for Structural Research (IBS) within the *Network for Jobs Development*, financed by a World Bank grant in years 2014 – 2016. I participated in this project as a researcher, with the following articles being the results of my research: [2.1], [4.4] and [4.5]. I also co-organized international research seminars and an international research conference in Warsaw (2014, 2015) and in DC, Washington (2016).
- **„The impact of the Family 500+ Programme on female labour market participation in Poland”** – a research project carried out as a joint work with the OECD, which I led and was the principal investigator. The initial results were presented at an international research seminar in Warsaw in October 2017, with the publication forthcoming.

Prizes, awards, research grants.

I was awarded with the following prizes and grants:

- Ernst & Young research grant within the Framework of the „Better Government” Programme (2010 – 2011), research on health sector in Poland (jointly with dr K. Szczygielski)
- CERGE EI Grant (RRC 12+71, 2011 – 2012), research grant on youth labour market situation, jointly with dr Anna Baranowska – Rataj
- ERSTE Foundation grant (2012-2013), research grant on age gaps in the labour market, joint work with dr Anna Baranowska – Rataj
- Rector’s awards for publications’ record: 2013, 2016
- Sonata- Bis research grant, Polish National Science Center, awarded in 2014, grant nr UMO-2013/10/E/HS4/00445, research project on gender pay gaps

Major presentations in international conferences

2011

- „Wage trends in Europe conference” (Brussels, Belgium), presentation of paper *The growth in wage inequality and consequences for employment and social policy*, September 2011

2012

- “From Education to Employment – Optimising Transition Management” conference (Hamburg, Germany), presentation of paper *Youth unemployment and skilled labour shortages*, May 2012

- „12th GDN Regional Research Competition Workshop”, (Prague, Czechia), presentation of paper *What drives youth unemployment during crises? The role of job creation, job destruction and labour market institutions* prepared jointly with dr Baranowska-Rataj, August 2012

2013

- „ERSTE workshop” (Vienna, Austria), presentation of paper *Inequality in the risk of job loss among young and prime-aged workers – is it explained by human capital or structural factors?* prepared with dr Baranowska-Rataj, April 2013
- „Warsaw International Economic Meeting conference”, (Warsaw, Poland, international conference), presentation of paper *Decomposition of trends in youth unemployment*, prepared with dr Baranowska-Rataj, July 2013

2014

- research seminar “Labour market participation of workers aged 50+ in Europe” organised by CASE and IBS (Warsaw, Poland), presentation *Women on the European Labour market*, January 2014
- IZA conference „Employment 2025: How Will Multiple Transitions Affect the European Labor Market?” (Bonn, Germany), presentation *Employment of women and its prospects*, April 2014
- “Conference on Challenges of Population Aging in Asia” (Hong Kong), presentation *Pension Schemes and Work Incentives - the CEE Experience*, prepared with Piotr Lewandowski, April 2014
- “Population Association of America conference” (Boston, USA), presentation of paper *Inequality in the risk of job loss among young and prime-aged workers – is it explained by human capital or structural factors?*, prepared with dr Baranowska-Rataj, May 2014
- „European Population Conference” (Budapest, Hungary), presentation of paper *Inequality in the risk of job loss among young and prime-aged workers – is it explained by human capital or structural factors?*,. prepared with dr Baranowska-Rataj and poster presentation *Health, productivity and ageing*, prepared with Maciej Lis, June 2015
- „Warsaw International Economic Meeting conference” (Warsaw, Poland, international conference), presentation of paper *Does flexible employment pay? European evidence on the wage perspectives of female workers*, July 2014

2015

- conference “Determinants of educational decisions”, organized by SGH and IBE, (Warsaw, Poland), presentation of paper *Podnoszenie kwalifikacji w dorosłym życiu –*

determinanty, bariery, finansowanie (Skills upgrading – determinants, obstacles, financing), May 2015

- „24. IAFFEE conference” (International Association for Feminist Economics) (Berlin, Germany), presentation of paper *Does flexible employment pay for European women?*, July 2015
- „Family policy in Poland and Europe”, a conference organised by the Institute for Social Policy at the Warsaw University and ICRA, (Warsaw, Poland), presentation of paper *Polityka rodzinna a polityka rynku pracy: najważniejsze wyzwania i dylematy (“Family policy and labour market policy: challenges and dilemmas”)*, September 2015
- „IBS 2015 Jobs conference”, (Warsaw, Poland), presentation of paper *. Inequality of opportunity in Central and Eastern Europe*, prepared with dr Michał Brzeziński, October 2015

2016

- “Population Association of America conference” (DC, USA); presentation of *Inequality of opportunity in Central and Eastern Europe*” prepared with dr Michał Brzeziński, May 2016
- Warsaw School of Economics labour market conference (Warsaw, Poland, international conference); presentation of paper *Inequality of opportunity in Central and Eastern Europe*, prepared with dr Michał Brzeziński, June 2016
- „Warsaw International Economic Meeting conference” (Warsaw, Poland, international conference); presentation of paper *Gender pay gaps: do female managers play a role?*, prepared with dr Ewa Cukrowska - Torzewska, July 2016
- “European Association of Labour Economists conference” (Ghent, Belgium), presentation of paper *Inequality of opportunity in Central and Eastern Europe* prepared with dr Michał Brzeziński and poster (which was joint work with dr Ewa Cukrowska – Torzewska) entitled *Gender pay gaps: do female managers play a role?*, September 2016
- “Counterfactual Methods for Policy Impact Evaluation 2016 conference (Milan, Italy)”, presentation of paper *Challenges and benefits of CIE: youth employment initiative in Poland*, prepared with Jan Baran, September 2016
- “Jobs and Development 2016 conference” (DC, USA), presentation of paper *Wage differentials in Central and Eastern Europe and their determinants*, prepared with dr Simone Moriconi, November 2016

2017

- „GESIS conference” (Mannheim, Germany), presentation of paper *Gender pay gaps and firms’ cohorts: the case of CEE* prepared with dr Ewa Cukrowska - Torzewska, March 2017
- “Population Association of America conference” (Chicago, USA), presentation of paper *. Parental investments into children: does job flexibility play a role?*, prepared with Roma Keister, April 2017

- „Warsaw International Economic Meeting conference” (Warsaw, Poland, international conference); presentation of paper *Within and between firm wage differentials in CEE countries*, prepared with dr Simone Moriconi, July 2017
- „Non-Financial Defined Contribution Schemes (NDC): Facing the Challenges of Marginalization and Polarization in Economy and Society”, (Roma, Italy), presentation of paper: *The impact of life-course developments on pensions in NDC systems in Poland, Italy and Sweden and point system in Germany* prepared with Sonia Buchholtz, dr Agnieszka Chłoń-Domińczak, prof. Marek Góra, prof. Irena Kotowska, dr Anna Ruzik-Sierdzińska and dr Paweł Strzelecki, October 2017
- “Family 500+ and the Polish labour market”, (Warsaw, Poland), international research seminar, presentation of paper *The impact of the “Family 500+” Programme on female labour market participation in Poland*, prepared with Aneta Kiełczewska (IBS) and Nicola Brandt (OECD), October 2017
- “Generation 50+ in Poland compared to Europe” (Warsaw, Poland), presentation of paper “Work, health and cognitive skills of generation 50+” („Praca a zdrowie i umiejętności poznawcze pokolenia 50+”), October 2017
- “2017 IBS Jobs Conference” (Warsaw, Poland, international conference), presentation of paper „Gender wage gap in the workplace: does the age of the firm matter”, prepared with dr Ewa Cukrowska – Torzewska, December 2017
- VII Polish research conference „Family policy and pension systems” (*Ogólnopolska konferencja naukowa pt. „Polityka Rodzinna a systemy emerytalne”*) (Warsaw, Poland), presentation of paper „Gender pay gaps as a determinant of pension gaps” („Luka płacowa wg płci jako determinanta luki emerytalnej”), December 2017
- “Family 500+ and the Polish labour market”, Paris, France, research seminar, presentation of paper „*The impact of the “Family 500+” programme on female labour market participation in Poland*”, prepared with mgr Anetą Kiełczewską (IBS) and Nicola Brandt (OECD), December 2017

Organization of conferences and research seminars.

In the framework of my services towards the research community I co-organized a few research conferences and research seminars, as well as more policy oriented events aimed at presenting policy oriented research results. In 2013, jointly with a team of SGH and IBS researchers I organized an international research seminar „Multisectoral approach to employment protection legislation”, held in Warsaw, with the participation of prof. Tito Boeri. In 2014, jointly with the Polish Pension Group at SGH, Institute for Structural Research I co-organized a research seminar „Ageing and labour markets”. This was an international event, with around 15 participants from all around the world. In 2016 jointly with dr Joanna Tyrowicz and the team of GRAPE I co-organized an international conference on gender inequalities in the labour market („Gender gaps conference”). The conference has attracted several

international researchers (with over 60 applications from all over the world from which we selected 30 presentations). The Scientific Committee included several high profile researchers (dr Roberta Gatti, prof. Marike Knoef, prof. Irena Kotowska, dr Michał Myck, prof. Nina Rodriguez-Planas, prof. Jill Rubery, dr Klara Sabirianova-Peter, prof. Claudia Senik, prof. Irene van Staveren, dr Anzelika Zaiceva) and the key note lectures were held by professors Jill Rubery and Nuria Rodriguez – Planas.. In October 2017 I coordinated the organization of two international research seminars in Warsaw, on wage and income inequalities and on the impact of the Family 500+ Programme on the Polish labour market. (the seminars were organized by the Institute for Structural Research and financed by the Ministry of Science and Higher Education within a programme aimed at disseminating research results).

Services for the academic community

My professional activity after the PhD defence includes also various services for the academic community. Since 2009 I have been a member of EALE (European Association of Labour Economists) and I participated in some of the annual meetings. Since 2013 I have also been a member of PAA (Population Association of America) and participated actively in its annual meetings, presenting papers and posters.

I am also involved in the reviewing activities, for journals from Poland and abroad. In particular, I reviewed papers for the following journals: *International Labour Relations Review*, *European Sociological Review*, *British Journal of Industrial Relations*, *International Journal of Management and Economics*, *Studia Demograficzne PAN*, *Kobieta i Biznes*, *Studia ekonomiczne*, *Wiadomości statystyczne*. I also reviewed project applications for the National Science Centre (as an external expert).

In 2011 I was a member of the team (together with other workers from the Department of Economics I, supervised by prof. Marek Góra) which translated into Polish a labour economics handbook written by Tito Boeri and Jan van Ours (*Economics of imperfect labour markets*, Princeton University Press, 2008). The Polish edition was published in 2011 (*Ekonomia niedoskonałych rynków pracy*, Wolters Kluwer, 2011, Warsaw).

Expert activities and dissemination of research results

In the framework of my professional activity after the PhD defence, I was also involved in several expert activities and research dissemination activities among a wider, non-research community. I participated several times in panel discussions (as one of panel members) organized by public authorities as an expert on labour market and social policy as well as on EU funds and Cohesion Policy. Examples include (i) a conference organized by the Ministry of Economic Development on the territorial dimension of the ESF, Warsaw, 2011 (ii) Citizens' Congress, discussion on flexible employment and decent work; Warsaw, 2013 (iii) an expert discussion on the future of ESF, organized by the European Commission, Brussels, 2017.

Moreover, in year 2011 – 2013 I worked as an expert for the Polish Presidency of the European Union, and co-authored a report commissioned by the Ministry of Regional Development “Evidence based Cohesion Policy and its role in achieving the goals of Europe 2020 strategy” (joint work with R. Dyjak, P. Rosik, J. Zawistowski, T. Gapski and S. Bienias). Furthermore, between 2010 and 2013 I managed a project entitled Innovative system of support to impact assessment investment decisions, conducted by the Institute for Structural Research for the Chancellery of the Prime Minister. Within this project we prepared and implemented four tools supporting analyses and evidence based policy making in the fields of old-age pensions system, health care system, infrastructural and environmental policies. The framework of the project foresaw a lot of attention paid to stakeholders consultations and the dissemination of projects’ results. In 2013, the team of IBS led by me prepared a tool supporting the analysis of local labour offices efficiency, together with a report describing the methodological approaches (I. Magda, P. Lewandowski, J. Baran, K. Wierus „ Tanking of local labour offices efficiency” (*Ranking efektywności powiatowych urzędów pracy*), a report for the Ministry of Labour and Social Policy, IBS, 2013). In 2016 I was the coordinator of a project conducted by the Institute for Structural Research for the Ministry of Sport and Tourism, within which we created a tool allowing the assessment of micro and macroeconomic benefits of investments into sport, together with an expert study on the economic and health returns on sport investments (J. Baran, M. Lis, I. Magda, „ The assessment of social returns on investments into sport” (*Ocena korzyści społecznych inwestycji w sport*), IBS, 2016).

Several of my expert activities aimed at popularization of science and evidence based policy making focussed on the topic of evaluation of labour market policies efficiency. I coordinated a project conducted by the Institute for Structural Research for the Ministry of Regional Development (2009-2010) which aimed at the assessment of the efficiency of activities carried out in the framework of the ESF programme in Poland in the 2004 – 2006 financial perspective. I was the editor of the report that accompanied the study (I. Magda (ed.), H. Dębowski, J. Gąska, M. Lis, K. Pogorzelski, I. Sobiech, “Assessing the impact of ESF funded interventions on the human capital” (*Ocena wpływu realizacji interwencji współfinansowanych z EFS na podniesienie jakości zasobów ludzkich*), IBS, 2010). Finally, I have been the leader of a project carried out by the Institute for Structural Research for the Ministry of Economic Development (2015-2020), which evaluates the efficiency of youth labour market measures implemented under the Operational Programme Knowledge Education Development. So far there was one report published (I. Magda (ed.), Evaluation of support provided for young people under the Operational Programme Knowledge Education Development; *Badanie efektów wsparcia zrealizowanego na rzecz osób młodych w ramach Programu Operacyjnego Wiedza Edukacja Rozwój*, I also presented the results of the study at an international research conference COMPIE (Milan, Italy, September 2017).

In the years 2011 -2015 I participated actively in the works conducted by the Chancellery of the President of Poland aimed at formulation of the “Programme of Family Policy”. I presented the results of my research during seminars and also prepared three expertise

studies: (1) Chłoń-Domińczak A., Magda I. (2013), *Childcare arrangements for children aged less than 3: diagnosis and recommendations – an expertise study for the Advisory Group on Family Policy Programme at the Chancellery of the President* (Opieka nad dziećmi do lat 3 – diagnoza i rekomendacje, ekspertyza dla Grupy doradczej ds. Programu Polityki Rodzinnej przy Kancelarii Prezydenta RP); (2) Magda I., Kamińska A., Potoczna M. (2014) *Indicators for monitoring the Programme of Family Policy of the President of Poland* (Wskaźniki monitorowania Programu Polityki Rodzinnej Prezydenta RP); (3) Magda I., Kamińska A., Keister R. (2014), *Maternity, paternity and parental leaves in Poland* (Urlopy macierzyńskie, tacierzyńskie i wychowawcze w Polsce).

In the years 2012 and 2013 I was a member of the Consultation Council for the Implementation of the Government Programme “Solidarity among generations: activities to increase labour market participation of workers aged 50+” commissioned by the Ministry of Labour and Social Policy. The Council revised and updated the Programme. I was responsible for the field of Labour supply of workers aged 50 years and more. In February 2017 I participated in an expert discussion on the future of the European Social Fund, upon the organizer’s invitation (European Commission). In November 2017 I presented – upon the invitation by the European Parliament – the situation on the Polish labour market and its segmentation with respect to the different types of contracts.

My interest in the issue of gender market inequalities, in particular gender pay gaps, was also reflected in my expert and dissemination activities. I participated in public debates covering this issue (e.g. in the Chancellery of the Prime Minister in 2013, or the Congress of Women in 2016). In 2014, jointly with the team of FAME Foundation I carried out (on behalf of IBS) a project for the Ministry of Labour and Social Affairs, within which we provided the Ministry with an application allowing an easy and user friendly estimate of adjusted gender pay gaps within firms/ establishments and public sector units. The application was accompanied by a report on „Wage inequalities between men and women: measuring, trends, explanations”.

Since 2013 I have been a member of the *Polish Pension Group*, an SGH-based network of researchers working on the issues of pension systems and old-age social protection.

Finally, my expert and research dissemination activities involved an active and extensive mass media coverage and mass media participation. I participated in several TV discussions and interviews (e.g. TVN, TVN BiŚ, Polsat), several radio interviews (PR1, PR24, Tok FM, RDC), and press interviews and comments (Gazeta Wyborcza, Dziennik Gazeta Prawna, Obserwator Finansowy, Rzeczpospolita, local newspapers).

Teaching

Within my teaching activity in the Warsaw School of Economics I taught courses both at the undergraduate, graduate and PhD levels, both during weekdays and weekend courses, in Polish and English. Most of the courses I taught were based on my own materials and lecture scenarios, which were made available to students as notes and presentations.

I have been teaching the following courses:

- Macroeconomics I (in Polish and English, lecture and exercises, since 2013 r.)
- Macroeconomics II (in Polish and English, lecture and exercises, since 2010 r.)
- Labour economics (exercises in Polish for undergraduate students in years 2010 – 2011, lecture in Polish and English for graduate students since 2010)
- Health economics (joint course of Department of Economics I at the Warsaw School of Economics, lectures in Polish for undergraduate students, since 2011)
- Social and Economic Policy (joint course of Department of Economics I at the Warsaw School of Economics, lectures in Polish for undergraduate students, 2011- 2012)
- Pension economics (in Polish and English, joint course with Department of Economics I and Institute for Statistics and Demography at the Warsaw School of Economics (2014 – 2015)
- Economics (a lecture for PhD students, joint course with Department of Economics I and Department of Quantitative Economics at the WSE, since 2014)

I also offer graduate and undergraduate seminars. So far I have supervised three undergraduate (BA) thesis and eight graduate (MA) thesis. I also support the work on the PhD thesis of two PhD students at the Warsaw School of Economics: Marta Palczyńska and Roma Keister. Both of them plan to open their PhD procedures in early 2018 and I will act as their auxiliary advisor.



6. Bibliography

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