

WOMEN'S ACTIVITY STATUS AND FERTILITY IN POLAND

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Abstract. The intention of the analysis is to indicate socioeconomic determinants of fertility for Poland. The analysis is made with respect to the labour market structures, living conditions, gender norms and appreciated values. Logistic regression models of first and second birth order were used, based on the 2006–2010 Polish Labour Force Survey data. Despite registered rebound in TFRs, there is no evidence to prove the Hypothesis of Fertility Positive Turn holds for Poland. Incompatibility of paid-work and childcare points the premises of the positive turn have not been fulfilled yet. Instead, the stability hypothesis seems to have some evidence as models show significant relation of marital status, household status and the labour market situation of the partner to fertility.

Keywords: female employment, birth determinants, TFR

INTRODUCTION

Research interest in the reconciliation between women's activity on the labour market and childbearing has tremendously risen over few decades, especially in European countries with declining and very low fertility rates. Among them, Poland belongs to the countries with the "lowest low" fertility levels. Interestingly, Poland registered a slight rebound in the first decade of the XXI century, though not significant enough to recuperate the former drop in fertility. This phenomenon has been explained for many European countries by disappearance of period tempo effects and a cohort-driven recuperation at older ages of births postponed at younger ages [Bongaarts and Sobotka 2012]. The question arises what the determinants of the tempo effects are. It seems there is no answer for the latter question that would be universal for every country.

The following paper presents the overview of hypotheses concerning determinants of fertility and assesses them with analysis based on logistic regression models. The manuscript starts with a brief review of most popular theories and hypotheses. Part 3 shows the design and Part 4 the results from logistic regression models on the transition to the first and second child that test selected hypotheses. Part 5 concludes.

INSTITUTIONAL CONTEXT OF THE MOTHERHOOD

Decision on the intended transition to parenthood is taken on the basis of many factors. The institutional context of fertility, following Matysiak [2009], can be divided into four dimensions: institutional settings (policies), labour market structures, gender norms and living standards. The relations between dimensions and fertility are often ambiguous and a multitude of hypotheses are put to find fertility determinants. Many of them were presented, for example, in work [Ibáñez 2010]. The neoclassical economic model of fertility [Becker 1960], in which “demand” for children is treated analogously to the demand for “durable goods”, was a first attempt here. Following Becker, transition to parenthood is driven by the calculation on expected net pecuniary returns or direct utility from children. In the demographic field, the Second Demographic Transition theory [Van de Kaa 1987, 2001] explains drop in fertility by weakening the family ties and growing competition of the alternative life styles that do not emphasize having and growing up children. However, the theory fails to explain why countries like Poland have lower fertility rate than France, Denmark, Sweden or other countries, where the change of values was stronger and took place earlier. The reason for that is the aforementioned approaches merely neglected the role of the other institutional factors, including national cultures and a policy-mix. The latter were emphasized by specification of numerous patterns by which the Western countries are clustered and compared. The patterns concern state approach to gender division of labour [Lewis 1992], gender roles [Hirdman 1991, Duncan 1995] and female employment paths [Rubery, Fagan, Smith 1995]. These patterns are related to other, more general patterns concerning e.g. welfare regime [Esping-Andersen 1990, Castles and Mitchell 1993, Deacon 2000] and welfare-mix [Vogel 2003]. However, the work-family reconciliation patterns [Pfau-Effinger 2004] seem to be most useful for the analysis. Following that classification one can distinguish: the family economic gender model, male breadwinner/female home carer model, male breadwinner/female part-time carer model, dual breadwinner/state carer model and dual breadwinner/dual carer model. Preceding studies suggest there is a paid-work and childcare incompatibility [Glass and Camarigg 1992] i.e. a trade-off between working full-time and raising children. Following study of Pfau-Effinger [2004], there are two paths of development for traditional families in European countries that do not pose fertility at risk: (1) modernization of the male breadwinner family model, as has occurred in Great Britain, Norway, Netherlands and Western Germany, through the popularization of part-time work for women and greater involvement of fathers in childcare, and (2) the model of dual breadwinner and external childcare developed in France, Denmark, Sweden and Finland. Both models assume women have

the right and the need to be employed and put the emphasis on providing childcare (via parents or state). This goes in line with the Hypothesis of Fertility Positive Turn (named also the “positive turn” or “change of trend” hypothesis) that explains the recovery of fertility rates emerged in some Western countries that rooted social institutions allowing women to combine family responsibilities with employment [Hobson and Oláh 2006]. Conversely, countries with lower fertility rates are those in which women still have to endure severe work-childcare conflict. The supporters of the “positive turn” hypothesis say since the childcare is provided, female paid work is an advantage for having children as it provides income, which increases financial security. This goes hand in hand with the Theory of Security (stability hypothesis) [Hobcraft and Kiernan 1995] that says the decision to have children in modern societies, with a broad middle and low middle class, is associated with the sense of financial security and stability in general. The aforementioned hypotheses are somehow weakened by the Hakim’s preferences theory that woman’s preferences are the primary determinant of fertility and employment decisions. Hakim [2003] claims these preferences are heterogeneous and therefore the availability and flexibility of full-time paid jobs could raise fertility only if a woman has just a preference to combine both professional career and motherhood at expense of spare time – in case of other women the solutions facilitating part-time jobs or even the single-breadwinner model can be more suitable and effective. Following this hypothesis, career-oriented females are influenced by employment policies while home-oriented females are more responding to family policies, while adaptive females respond both types of policies. The validity of this theory for Poland has been tested and proved in the work [Frątczak and Ptak-Chmielewska 2013]. Gender equity theory [McDonald 2000a, 2000b] explains that the rise in education level and professional competences of women may lead to low fertility if it is not accompanied by the rise in gender equality in fulfilling household duties. See also the work of Frątczak and Ptak-Chmielewska [2013] that tested gender equity theory for Poland. Social capital theory [Coleman 1988, 1990, Bühler and Philipov 2005] relates fertility with social networks that can provide them with the support. Test of this theory for Poland was presented by Bühler and Frątczak [2007] as well as Frątczak and Ptak-Chmielewska [2013]. Among other hypotheses, Lutz, Skirbekk, and Testa [2006] claim that declining fertility process can be explained by the three self-enforcing mechanisms (The Low-Fertility Trap Hypothesis): demographic (fewer potential mothers in the future will result in fewer births), sociological (intended number of children is not larger than the number in the previous generation) and economic (fertility declines as a result of rising aspirations and declining relative expected income [Easterlin 1980]). Finally, place of residence (rural or urban) may have impact on the fertility behaviour, according to the modernization hypothesis [Nag 1980]. The urban areas are often associated with lower fertility levels and later transition to parenthood than in the rural areas, due to the differences in lifestyle, variety of challenges and opportunities, also connected with the economic activity. It is expected that the urban areas produce certain constraints relating to fertility, for example, in terms of available space at home (the desire of parents that their children have single room, or the problem when children cannot share a room because they are of different sexes), or time that mothers spend in child care.

MATERIAL AND METHODS

On the basis of the literature review presented in the previous chapter a decision was made to assess the validity of hypotheses on fertility determinants in Poland by measuring the impact of female employment status on fertility, controlling other personal characteristics as age, age of first child, marital status, labour market status of a husband/partner, education level, place of residence, household status and professional experience. To do this, Labour Force Survey for period 2006–2010 has been used. The survey provides a sample that is large enough to infer on the determinants of fertility. Response variable and covariates are taken from the observation year. Such selection has been made to avoid significant reduction in the sample size, due to limiting to the panel part of the LFS sample. However, labour market status of females is taken from a year before the observed year, using question about the perceived labour market status a year ago. Such choice reduces the threat of reversing the causality i.e. explaining rise in fertility by labour market status that in fact changed in reaction to a transition to the motherhood.

Concerning the research method, logistic regression models were built with having birth as a response variable. The following models were produced: first model investigated a transition to the first birth. Another one puts a transition to the second birth into investigation. The event of giving the first and the second birth is analysed in the group of women that are between 16 and 49 years old at the time of the interview. Transition to the motherhood is modelled on the dataset containing women that were childless until the event of giving the first birth or the last observed year. Transition to the second child is based only on women with exactly one child within the observation window until giving the second birth or censoring. The LFS sample includes 121,211 person-quarters for transition to the motherhood and 68,876 person-quarters for transition to the second birth. LFS data contains panel part and therefore some observations concern the same persons, registered in different quarters. LFS datasets were independently pooled and models do not include individual effects. Giving birth is taken as an event only once and then the observation is erased from the risk set. There is a slight difference in the covariates for both models. While the model of first birth includes age and age squared, the model for second births uses an age of first child (and squared age of first child) as a covariate instead.

RESULTS

Parameter estimates and their standard errors in the analysis of the first and the second birth determinants for Polish women aged 16–49, based on Labour Force Survey data, has been produced. Both models are presented in Table 1. See the Appendix for descriptive statistics corresponding to each model.

Table 1. Transition to first child and transition to second child in Poland – logistic regression models with covariates and interactions based on LFS

Explanatory variable	Category	Model 1	Model 2
		Transition to first child	Transition to second child
1	2	3	4
Intercept	–	–5.478*** (0.496)	–3.821*** (0.127)
Age at birth	–	0.253*** (0.034)	–
Age at birth ²	–	–0.007*** (0.001)	–
Age of first child	–	–	0.355*** (0.019)
Age of first child ²	–	–	–0.025*** (0.001)
Marital status (ref = Single)	Married, husband labour active	2.980*** (0.081)	0.655*** (0.11)
	Married, husband labour inactive	3.424*** (0.203)	0.730** (0.272)
	Informal, partner labour active	1.617*** (0.141)	0.667*** (0.198)
	Informal, partner labour inactive	1.068* (0.469)	1.141* (0.491)
	Widow, divorced or in separation	1.728*** (0.197)	–0.310 (0.199)
Marital status × Household status interaction (ref = Other)	Married, husband labour active × living not in parents' /parents-in-law' house	–0.231 (0.120)	0.087 (0.171)
	Married, husband labour inactive × living not in parents' /parents-in-law' house	–1.250*** (0.309)	0.361 (0.335)
Educational attainment (ref = Tertiary)	Primary and low-secondary	0.138* (0.065)	–0.030 (0.062)
	High-secondary and post-secondary	0.014 (0.050)	–0.234*** (0.055)
Degree of urbanisation (ref = Urban population above 5 ths.)	Population below 5 ths.	0.246*** (0.043)	0.266*** (0.048)
Household status (ref = Living in parents' /parents-in-law' house)	Living not in parents' /parents-in-law' house	0.299** (0.113)	–0.136 (0.164)

Table 1 – cont.

Explanatory variable	Category	Model 1	Model 2
		Transition to first child	Transition to second child
1	2	3	4
Economic status (ref = Inactive)	Employed	-1.603*** (0.113)	-1.185*** (0.155)
	Self-employed	-2.055*** (0.269)	-0.889** (0.304)
	Unemployed	-1.434*** (0.088)	-1.100*** (0.106)
	In education	-2.025*** (0.087)	-0.465*** (0.137)
Economic status × spouse/ /partner economic status interaction (ref = Other)	Employed × labour active spouse/ /partner	0.282** (0.102)	0.823*** (0.154)
	Self-employed × labour active spouse/partner	0.476 (0.279)	0.446 (0.311)
Years of service (ref = 0 years)	1–3 years	0.130 (0.078)	0.084 (0.086)
	4–6 years	0.289** (0.089)	0.155 (0.088)
	7–9 years	0.513*** (0.102)	0.148 (0.094)
	10+ years	0.503*** (0.112)	-0.217* (0.091)
	Number of observations	104 034	56 835
	Number of events	3 220	2 235
	SC without covariates	28 732	18 856
	SC with covariates	21 124	17 051

*** significant at 0.1%; ** significant at 1%; * significant at 5%.

Numbers in parenthesis are standard errors. Estimates are unstandardized logistic regression coefficients.

Model 1 concerns transition to the motherhood while Model 2 shows the transition to the second birth. Models include additional indicators of the economic activity status. Economic activity reflects personal and professional aspirations and it determines timing of giving birth.

First child

The results of the models of the first birth give no evidence to accept the “positive turn” hypothesis for Poland. Instead, both paid-work and childcare incompatibility hypothesis and stability hypothesis seem to be valid. Obtained results from the Polish LFS suggest

that being employed or self-employed in the year before giving birth delays transition to the first birth comparing with the state of inactivity. However, there is a significant difference between the state of inactivity and unemployment – state of unemployment reduces the odds of giving birth to similar extent as being employed. The difference between the effect of inactivity and unemployment goes in line with the preference hypothesis – women who prefer not to involve into the labour market decide more eagerly to have a child while women on the labour market who are looking for a job rather than do not treat unemployment as an appropriate moment for having a child. Then, being a student does not go in line with having children in Poland – women that described their status year ago as “in education” have significantly lower relative odds of having their first child comparing with status of inactivity, lower than for any other labour market status. Therefore, it is important to distinguish between involvement in education and other forms of labour market inactivity. Negative effect of being in education can be interpreted as postponing decision on the first birth until obtaining a tertiary level of education. Having in mind that in 2011 in Poland 44.5% of women aged 25–29 had a tertiary education level, this may lead to a conclusion that such popularity of tertiary education results not only in relatively late entering the labour market, but also in fertility postponement and, consequently, in low TFR levels.

It seems not only women labour market status matters, but also does its interaction with spouse/partner labour market status. Indeed, the odds of giving first birth increases for working women if her spouse/partner is active on the labour market. However, this cannot recuperate the negative effect of female employment on having first child.

Taking more detailed data on labour market status of working females into account is somewhat troublesome as it requires lagged data – this is available only for a fraction of the original dataset. For example, percentage of fixed-term contracts and fertility in Poland in 2010, by type of contract suggests there is a negative relation between fixed-term contracts and fertility, comparing with permanent contracts. Working part-time seems to have rather negative impact comparing full-time work. In Poland, part-time work also delays the transition to first child, as it is in large extent unwilling phenomenon and reflects a fragile position on the labour market [Matysiak 2007].

To fully reflect the impact of labour market participation and living standards on fertility, additional covariates were included into the models. These covariates concern age and age squared, marital status combined with labour market status of a spouse, level of education, place of residence, household status and professional experience measured by years of service. To fully reflect the relation between the husband labour market status and his household status, appropriate interaction has been added.

Age and squared age are crucial to reflect the shape of partial fertility rates. Investigated births concern a spectrum of ages though majority of births concern women born between 25 and 29. Taking transition to the first child into account one has found sufficiently strong impact of female marital status that endorses the Stability Hypothesis. Certainly, being in a relationship influences becoming pregnant with first child. In Poland, having a spouse is a stronger incentive to have first child comparing with informal relationships. However, it must be noted that the relation between marriage and fertility can be mutual, especially in Poland, where the out-of-wedlock pregnancy can be a reason for the beginning of cohabitation and marriage. Anyway, the share of out-of-wedlock births rises steadily and weakens the risk of reversed causality.

Taking labour market status of a husband/partner into account, one can see in Poland labour market inactivity reduces the odds of having first birth in informal relationship comparing with case for partner active on the labour market. In case of formal relationships one can observe higher odds of giving birth for inactive spouses but this holds only for those living in households where husband is a son or son-in-law of the head of the household. Otherwise, if a husband (or his wife) is a head of the household, labour market inactivity of the husband significantly reduces the odds of giving first birth.

While looking into the process of first births, not so much differences were captured due to the level of education. Model shows only minor positive impact of primary and low-secondary education comparing with tertiary education. The lack of stronger differences in the effects of education level may be a bit surprising but it can be somehow explained by other effects, correlated with education, as marital status and labour market status.

A significant relation between the place of residence and fertility is found – the odds of giving first birth is higher for areas where population does not exceed 5 thousand inhabitants. However, the difference in urban and rural fertility decreased in the last 20 years and it might be expected it will diminish in the nearest future.

One can observe the household status has a significant main effect in Poland – being a head of a household or his wife/partner increases the odds of having first child. A household status can be used as a proxy for owning or renting own house/flat, so this can be interpreted living not in parents'/parents-in-law' house is positively related with having first child. However, a reversed causality is likely for this particular variable as having a child is often a cause of moving out from the parents' home.

Finally, it seems professional experience might sufficiently reduce the negative effect of female employment on giving first birth – in Poland, the odds of transition to motherhood increases with the number of years with a climax between 7 and 9 years.

Second child

Estimation results for second births reflect some differences comparing with first births and they might be also the argument against the “positive turn” in Poland. Looking at LFS data, employment and self-employment seem to have still a negative impact on a decision to have a second child for Polish women comparing with the state of inactivity. However, this negative effect is significantly reduced if a spouse/partner is active on the labour market. It seems the difference between the state of inactivity and unemployment, noticeable in Poland for the transition to the first child, is still observable for the second child. Unemployment seems to be related with higher odds of having another child.

Age and age squared is not included to the models for second birth. Instead, the age of first child is taken into account. As in case of age, the squared effect is also included to reflect a possible change of a direction of the effect. Couples in relationships have stronger incentives to have second child. The process of second births among active women is strongly determined by having a partner but the difference in effects between formal and informal relationships disappears. There is also no significant difference between the case of having husband that is active and inactive on the labour market, except the aforemen-

tioned positive interaction of female employment and husband labour market activity. Higher odds of giving second birth for women in informal relationship when partner is not labour market active is surprising but it should be taken with a pinch of salt as this particular result is based on a relatively small number of observations in the category of marital status: Informal, partner labour inactive.

Results reflect interesting effect of education on the second birth process in Poland. In particular, women with high-secondary and post-secondary education seem to have lower odds of having a second child, comparing with women with tertiary education level. It seems tertiary education might be related to higher odds of having second child. There is some evidence that degree of urbanisation has an impact of having second child in Poland.

CONCLUSIONS

The “positive turn” hypothesis, which assumed that working women have higher of becoming pregnant, is far from having been proven for Poland. Women’s labour activity status seems to be related with decision to have a child, though its impact on fertility differs slightly for the birth order. First, full-time job discourages women from having a child comparing with the state of inactivity in Poland and it is the strongest argument against “the positive turn” hypothesis. State of unemployment and “in education” has different effect than state of inactivity – women unemployed and in education have lower odds of giving birth than inactive women. Instead, the hypothesis on the incompatibility between work and raising children still can be supported by the evidence on reduced fertility of working mothers. There are some premises fulfilled for the appliance of gender equity theory, due to significant rates of educated women and inequality in fulfilling family chores.

There are some limitations for drawing conclusions from the models presented in this paper. First, decision on having a child is taken on the basis of the labour market status, household status and personal traits not from the year of birth but from the year preceding the birth of a child or even earlier. Therefore, using not lagged values (except the labour market status of women) in the research might result in biased results. Then, lack of lagged covariates leaves untouched the question whether the changes (improving or distorting their situation on the labour market) may have a positive or negative impact on fertility. Last, but not least, having a child might have an impact on the subsequent labour market status, what is advocated by the increasing bulk of research – for example, see meta-analysis [Baranowska-Rataj 2013]. Therefore, it is crucial to assure covariates to represent the state preceding births. Unfortunately, using lagged variables leads to a dramatic fall in the sample size. The inclusion of fixed-effects into model is not an option for the same reason. Fortunately, past labour market status is registered to LFS data, namely the perceived labour market status from the previous year is registered. This reduces the threat of reversed causality – giving birth is explained by the labour market status 12 months before filling the questionnaire. It can be expected the remaining covariates represent more stable characteristics than labour market situation and one can expect their values respond to the lagged values.

As a final remark, institutional analysis shows Poland has not fulfilled yet the prerequisites needed the “positive turn” hypothesis to work, in particular there are still strong work-family tensions due to insufficient or inappropriate providing childcare by the state and inflexible working time arrangements. Therefore, the stronger “positive turn” might happen in Poland as soon as the aforementioned tensions are ceased.

REFERENCES

- Baranowska-Rataj A., 2013. The family size effects on female employment. Evidence from the “natural experiments” related to human reproduction. Mimeo.
- Becker G., 1960. An Economic Analysis of Fertility. In: *Demographic and Economic Change in Developed Countries*. Universities-National Bureau, Columbia University Press, 209–240.
- Bongaarts J., Sobotka T., 2012. A Demographic Explanation for the Recent Rise in European Fertility. *Population and Development Review* 38(1), 83–120.
- Bühler C., Frątczak E., 2007. Learning from others and receiving support: the impact of personal networks on fertility intentions in Poland. *European Societies* 9(3), 359–382.
- Bühler C., Philipov D., 2005. Social Capital Related to Fertility: Theoretical Foundations and Empirical Evidence from Bulgaria. *Vienna Yearbook of Population Research*, Austrian Academy of Sciences Press, Vienna, 53–81.
- Castles F.G., Mitchell D., 1993. Worlds of Welfare and Families of Nations. In: F.G. Castles (ed.). *Families of Nations: Patterns of Public Policy in Western Democracies*. Dartmouth Publishing Company, Aldershot.
- Coleman J.S., 1988. Social Capital in the Creation of Human Capital. *American Sociological Review*.
- Coleman J.S., 1990. *Foundations of Social Theory*. The Belknap Press of Harvard University Press, Cambridge.
- Deacon B., 2000. Eastern European welfare states: the impact of the politics of globalization. *Journal of European Social Policy* 10(2), 146–161.
- Duncan S., 1995. Theorizing European Gender Systems. *Journal of European Social Policy* 5(4), 263–284.
- Easterlin R.A. (ed.), 1980. *Population and Economic Change in Developing Countries*. University of Chicago Press, Chicago.
- Esping-Andersen G., 1990. *The Three Worlds of Welfare Capitalism*. Princeton University Press, Princeton.
- Frątczak E., Ptak-Chmielewska A., 2013. The interplay of fertility intentions, female employment and work-life balance policies in contemporary Poland: Can gender equity, preference, and social capital theories provide a better insight? In: L.S. Oláh, E. Frątczak (eds.). *Childbearing, Women’s Employment and WorkLife Balance Policies in Contemporary Europe*. Palgrave Macmillan, Basingstoke.
- Glass J., Camarigg V., 1992. Gender, Parenthood, and Job-Family Compatibility. *American Journal of Sociology* 98(1), 131–151.
- Hakim C., 2003. A New Approach to Explaining Fertility Patterns: Preference Theory. *Population and Development Review* 29(3), 349–374.
- Hirdman Y., 1991. The Gender System. In: T. Adreasen, A. Borchorst, D. Dahlerup, E. Lous, H.R. Nielsen (eds.). *Moving On: New Perspectives on the Women’s Movement*. Aarhus University Press, Aarhus, 187–207.
- Hobcraft J.N., Kiernan K.E., 1995. Becoming a parent in Europe. In: *European Association for Population Studies/International Union for the Scientific Study of Population. Evolution or Revolution in European Population*, vol. I. Plenary Sessions. European Population Conference. Milan: Franco Angeli, <http://www.un.org/popin/confcon/milan/plen1.html>.

- Hobson B., Oláh L., 2006. Birthstrikes? Agency and Capabilities in the Reconciliation of Employment and Family. *Marriage & Family Review* 39(3), 197–227.
- Ibáñez M., 2010. Fertility, Female Participation in Employment and Reconciliation Policies in Spain. REC-WP 13.
- Lewis J., 1992. Gender and the Development of Welfare Regimes. *Journal of European Social Policy* 2(3), 159–173.
- Lutz W., Skirbekk V., Testa M.R., 2006. The Low-Fertility Trap Hypothesis: Forces that May Lead to Further Postponement and Fewer Births in Europe. *Vienna Yearbook of Population Research*, Vol. 4, Postponement of Childbearing in Europe. Austrian Academy of Sciences Press, Vienna, 167–192.
- Matysiak A., 2007. Indywidualne przesłanki zwiększenia aktywności ekonomicznej ludności [Individual prerequisites for increasing economic activity]. In: I. Kotowska, U. Sztanderska, I. Wóycicka (eds.). *Aktywność zawodowa i edukacyjna a obowiązki rodzinne w Polsce w świetle badań empirycznych [Economic and Educational Activity versus Family Obligations in Poland]*. Scholar Publishing, Warsaw, 383–403.
- Matysiak A., 2009. Employment first, then childbearing: women's strategy in post-socialist Poland. *Population Studies* 63(3), 253–276.
- McDonald P., 2000a. Gender Equity in Theories of Fertility Transition. *Population and Development Review* 26(3), 427–439.
- McDonald P., 2000b. Gender Equity, Social Institutions and the Future of Fertility. *Journal of Population Research* 17(1), 1–16.
- Nag M., 1980. How modernization can also increase fertility. *Curr. Anthropol.* 21, 571–587.
- Pfau-Effinger B., 2004. Development of culture, welfare states and women's employment in Europe. Ashgate, Aldershot.
- Rubery J., Fagan C., Smith M., 1995. Changing Patterns of Work and Working-Time in the European Union and the Impact of Gender Divisions. Report to the European Commission for the Network of Experts on the Situation of Women on the Labour Market. CFC, Brussels.
- Van De Kaa D., 1987. Europe's Second Demographic Transition. *Population Bulletin (Population Reference Bureau Inc.)* 42(1).
- Van De Kaa D., 2001. Demographic Transition, Second. *International Encyclopaedia of the Social & Behavioral Sciences*, Vol. 5, 3486–3488.
- Vogel J., 2003. Welfare State. *Social Indicators Research* 64. Kluwer Academic Publishers, Amsterdam, 373–391.

AKTYWNOŚĆ ZAWODOWA KOBIEŃ I DZIETNOŚĆ W POLSCE

Streszczenie. Niniejsza analiza ma na celu wskazanie socjoekonomicznych determinantów dzietności dla Polski. Analiza uwzględniła wpływ struktur rynku pracy, warunków życia, podziału ról ze względu na płeć i cenionych wartości. Zaprezentowano modele regresji logistycznej urodzeń pierwszego i drugiego dziecka, przygotowane na podstawie danych BAEL za lata 2006–2010. Pomimo zaobserwowanego odbicia w poziomie współczynnika dzietności, nie ma podstaw, by sądzić, że hipoteza o pozytywnym odbiciu współczynnika dzietności (the Hypothesis of Fertility Positive Turn) jest spełniona dla Polski. Trudności w łączeniu pracy zarobkowej i opieki nad dzieckiem wskazują, że przesłanki tej hipotezy nie zostały jeszcze spełnione. Wydaje się natomiast, że hipoteza o stabilizacji (the Stability Hypothesis) lepiej tłumaczy decyzję o urodzeniu i wychowaniu dziecka, jako że modele wskazują na istotną statystycznie relację między dzietnością a stanem cywilnym, faktem zamieszkania w domu rodziców i statusem męża/partnera na rynku pracy.

Słowa kluczowe: zatrudnienie kobiet, determinanty dzietności, poziom płodności

Appendix

Table 2. Distribution of observations and first and second births in Poland – Labour Force Survey

Variable	Category	First child				Second child			
		N	PctN	Birth N	Birth Rate	N	PctN	Birth N	Birth Rate
1	2	3	4	5	6	7	8	9	10
Age at birth									
1	16–19 years	35 232	29.07	354	0.01	1 401	2.03	55	0.04
2	20–24 years	40 045	33.04	1 199	0.03	7 172	10.41	369	0.05
3	25–29 years	21 664	17.87	1 329	0.06	14 138	20.53	870	0.06
4	30–34 years	9 005	7.43	604	0.07	14 431	20.95	868	0.06
5	35–39 years	4 330	3.57	135	0.03	9 824	14.26	292	0.03
6	40–49 years	10 935	9.02	26	0	21 910	31.81	51	0
Age of first child									
1	0–2 years					19 905	28.90	858	0.04
2	3–4 years					4 323	6.28	371	0.09
3	5–6 years					6 441	9.35	531	0.08
4	7 years and above					38 207	55.47	745	0.02
Marital status									
.	Missing	10 178	8.40	347	0.03	7 528	10.93	186	0.02
1	Single	89 049	73.47	812	0.01	8 118	11.79	187	0.02
2	Formal, spouse labour active	15 609	12.88	2 224	0.14	42 495	61.70	1954	0.05
3	Formal, spouse labour inactive	1 425	1.18	66	0.05	2 985	4.33	65	0.02
4	Informal, partner labour active	2 522	2.08	159	0.06	1 461	2.12	68	0.05
5	Informal, partner labour inactive	282	0.23	5	0.02	133	0.19	5	0.04
6	Widow, divorced or in separation	2 146	1.77	34	0.02	6 156	8.94	40	0.01
Marital status × household status									
1	Married, husband labour active × Living not in parents' house	12 259	10.11	1 498	0.12	36 316	52.73	1 556	0.04
2	Married, husband labour inactive × Living not in parents' house	1 271	1.05	26	0.02	2 643	3.84	47	0.02
3	Other	107 681	88.84	2 123	0.02	29 917	43.44	902	0.03
Education									
.	Missing	26	0.02	1	0.04	5	0.01	2	0.4
1	Primary and low-secondary	43 178	35.62	893	0.02	21 187	30.76	725	0.03
2	High-secondary and post-secondary	50 555	41.71	1 438	0.03	28 556	41.46	922	0.03
3	Tertiary	27 452	22.65	1 315	0.05	19 128	27.77	856	0.04

Table 2 – cont.

Variable	Category	First child				Second child			
		N	PctN	Birth N	Birth Rate	N	PctN	Birth N	Birth Rate
1	2	3	4	5	6	7	8	9	10
Degree of urbanisation									
1	Urban population above 5 ths.	68 314	56.36	1 975	0.03	41 053	59.60	1 283	0.03
2	Population below 5 ths.	52 897	43.64	1 672	0.03	27 823	40.40	1 222	0.04
Household status									
1	Living not in parents' house	29 029	23.95	1 916	0.07	52 324	75.97	1 832	0.04
2	Living in parents' house	92 182	76.05	1 731	0.02	16 552	24.03	673	0.04
Economic status									
.	Missing	12 408	10.24	141	0.01	2 295	3.33	59	0.03
1	Employed	37 282	30.76	1 922	0.05	37 404	54.31	1 248	0.03
2	Self-employed	4 345	3.58	181	0.04	6 809	9.89	218	0.03
3	Unemployed	8 064	6.65	313	0.04	6 857	9.96	140	0.02
4	In education	53 496	44.13	545	0.01	2 389	3.47	77	0.03
5	Inactive	5 616	4.63	545	0.1	13 122	19.05	763	0.06
Economic status × spouse/partner economic status									
1	Employed × labour active spouse/partner	12 011	9.91	1 517	0.13	25 014	36.32	1 089	0.04
2	Self-employed × labour active spouse/partner	1 767	1.46	143	0.08	5 155	7.48	193	0.04
3	Other	107 433	88.63	1 987	0.02	38 707	56.20	1 223	0.03
Years of service									
.	Missing	14 160	11.68	153	0.01	6 039	8.77	116	0.02
1	0 years	56 907	46.95	904	0.02	7 358	10.68	361	0.05
2	1–3 years	19 438	16.04	977	0.05	7 635	11.09	405	0.05
3	4–6 years	10 052	8.29	791	0.08	8 442	12.26	487	0.06
4	7–9 years	4 840	3.99	403	0.08	6 565	9.53	401	0.06
5	10 years and above	15 814	13.05	419	0.03	32 837	47.68	735	0.02
Total		12 1211	100.0	3 647	0.03	68 876	100.0	2 505	0.04

Source: own preparations based on pooled LFS data for period 2006–2010.

Observation defined as a person-quarter, observations after giving birth are removed from the risk-set.

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