

Balancing Career and Family in Higher Education – New Trends and Results

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I Introduction

There is general agreement that Germany currently offers only limited possibilities in the sciences for achieving the work-life-balance needed for compatibility of job and family. This manifests itself predominantly in the low numbers of female professors who have children. The situation of the coming generation of scientists, both male and female, has recently been receiving attention with respect to existing children and balancing a career in science and a family (Aufertkorte-Michaelis & Wergen et al., 2006). Meanwhile, a look across the borders demonstrates that the situation for balancing a scientific career with family looks completely different in other European countries where there is evidence of higher numbers of female scientists with children (European Commission, 2006; Zimmer & Krimmer et al., 2007). Results obtained so far on this topic largely refer to the life and working situations of female scientists with children (Strehmel, 1999) or focus on the number of female scientists pursuing careers with or without children (Dorbritz, 2003; Zimmer & Krimmer et al., 2007). Very few findings exist on the determinants of scientific institutions responsible for scientists favoring a lifestyle without children.¹

This paper offers an overview on the number of children of male and female scientists in Germany as well as in international comparison. This data is complemented by findings on the compatibility of having a family along with a career in the sciences for which we provide results from a soon to be published survey prepared by CEWS (CEWS 2006). In addition, we present the current CEWS study on Balancing of Science and Parenthood, which was intended to shed light on the research gaps which still exist. Before this though, the German discourse on the compatibility of career and family in the sciences shall be critically challenged.²

¹ As a cause for this one assumes, among other things, that the long term insecure employment situation of those working at non-tenured scientific jobs is partly perceived as precarious and makes long-term life planning very difficult (see also Aufertkorte-Michaelis & Wergen et al., 2006; Klecha, 2008; Müller, 2008).

² For a more in-depth critical analysis of the debate on balancing science and family as well as on the generally accepted assumptions on the causes of the comparatively low proportion of women in science in Germany, see Lind & Löther, 2007.

II Discourse on work-life-balance

A few of the issues in the debate on balancing science and parenthood can be shown to be untenable, and even counter-productive for the subject. Two points in particular from this discourse worth naming are: First, the topic is almost exclusively discussed in relation to women, and second, the discussion of the problem of work-life-balance serves as an explanation for the low proportion of women in high scientific positions in Germany. Both points are dysfunctional in our view, for the improvement of equal chances as well as for work-life-balance and science.

Largely ignoring men and fathers in the discussion is a problem and goes against current societal trends, while it also indicates that old role models and availability expectations for men in science remain unquestioned. At the same time, ignoring fathers does not do justice to those men who, whether in partnership or as a single parent are responsible for taking care of their children. Mentors in the sciences are only slowly becoming aware of the fact that even for men, work-life-balance becomes increasingly difficult in the course of new types of lifestyles and partnerships (Rusconi & Solga, 2002; Wolf-Wendel & Twombly et al., 2003; Solga & Rusconi, 2004). On the other hand, the problem of work-life-balance frequently serves as the major explanation for women's unequal career chances in science; occasionally the topics of the work-life-balance and of marginalization of women in science are equated with one another (Lind, 2007). Two observations may be responsible for these being equated: The fact that there is a low proportion of women in higher scientific positions as well as the situation that female scientists have more rarely, and fewer children than their male counterparts. These two independent findings are melted into one assumption that the problem of work-life-balance is *the central* cause for the women's low career chances in science. As in Germany, the societal conditions for balancing career and family are still more disadvantageous than in other countries, this assumption appears to be at least intuitively plausible.

The undifferentiated equating of unequal opportunity and the problem of work-life-balance for women in science however, obscures the view on structural barriers germane to science, which, independent of existing children, generally limits women's career options. In reality, there is currently no evidence for a monocausal relationship between children and low career options for female scientists. There are neither average differences between mothers and childless female scientists with regard to time spans needed for their qualification phases (Lind, 2004c) nor is there clear evidence for a low publication rate for mothers in science (Kiegelmann, 2000; Leemann, 2002; Lind, 2004c; Allmendinger, 2005).³ On the contrary, already at the time prior to birth of the first child, a different career course for young and upcoming female scientists in comparison to their male counterparts can be observed (Lind, 2007; Lind & Löther, 2007). All in all, in the end, even female scientists without children are seldom as successful compared to their male colleagues, independent of

³ See also the findings from the USA on the scientific productivity of women, National Academy of Sciences, 2007. There are impressive results on the scientific productivity of women, which demonstrate the great influence of the position as well as reputation of the scientific institution on the number of publications. See also Xie & Shauman, 1998; National Research Council, 2001; Bordons, 2003.

whether they have children or not (Wimbauer, 1999; Stebut, 2003; Allmendinger, 2005). These, and similar findings show that motherhood is not the only obstacle for women's university careers.

The phenomenon of under-representation of women in science and the topic of balancing science and family are – in the sense of a constructive discourse – to be seen therefore as two separate – albeit interfering – phenomena (Lind, 2007). Possibly, both phenomena – the low number of children female scientists have (increasingly male scientists as well) and the low career advancement probability of women are caused by specifics of the German science system which have an effect on reinforcing, or at least maintaining unequal chances and insufficient options for work-life-balance⁴.

III Current Results

Number of children of female and male scientists

So far, findings on the number of children had by female and male professors in Germany can only be based on survey results, actual statistical data does not exist. A study by Zimmer & Krimmer et al. (2007) found the proportion of childless female professors to be 51%, and that of childless male professors to be 19%.⁵ The proportions found of childless female professors in this survey however, varies in terms of the cohort considered: Data on the proportion of mothers among female professors of various different birth cohorts demonstrate that female mid-level faculty professors have more children compared to the first generation of female professors (Zimmer, 2003; see. Zimmer & Krimmer et al., 2007).

Proportion of female professors with children in %

Year of Birth	With children	Without children	N=
Up to 1935	22%	78%	9
1936 – 1940	49%	51%	63
1941 – 45	54%	46%	126
1946 – 50	55%	45%	141
1951 – 55	61%	39%	170
1956 – 60	36%	64%	145
1961 – 65	32%	68%	71
Together			725

Source: Research and Training Network "Women in European Universities" (Zimmer, 2003)

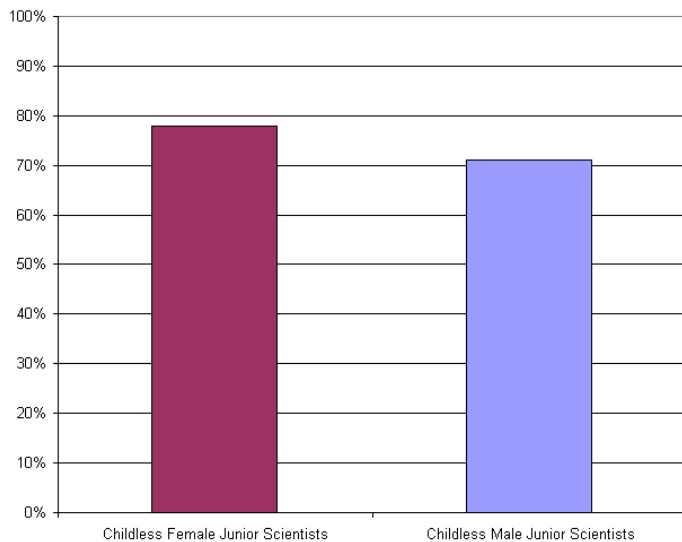
⁴ In our view, looking at the structural conditions and their effects on equal opportunity and work-life-balance holds a high potential for information. Particularly the assumed interactions between the individual level on behalf of the male and female scientists and the structural level of the scientific institutions are highly interesting and may yield information for sensible measures (see also Lind, 2004a).

⁵ The survey as part of the project "Wissenschaftskarriere" under the direction of Prof. Dr. Zimmer, University of Münster, took place in 2002/2003 as part of the Research and Training Network "Women in European Universities."

The Dortmund university based team of Prof. Metz-Göckel and Dr. Auferkorte-Michaelis has presented current data on the number of children had by mid-level non-tenured staff in North Rhine Westphalia (Auferkorte-Michaelis & Metz-Göckel et al., 2005; Auferkorte-Michaelis & Wergen et al., 2006). A comprehensive survey of the mid-level faculty at universities in North Rhine Westphalia using statistical secondary analysis established a proportion of childless female junior scientists of 78% and a proportion that has clearly risen over the past ten years of childless male junior scientists of 71%. These values represent a cross-section of all age groups. This means that $\frac{3}{4}$ of non-tenured staff at universities in NRW are childless or still childless. While the proportion of childless female scientists has remained consistently high over the past decade a clear increase in childlessness can be registered among the male junior scientists.⁶ Age comparison also shows that female scientists postpone the birth of their first child more and more until the phase of life after they reach the age of 35 (Auferkorte-Michaelis & Metz-Göckel et al., 2005).

⁶ The high number of childless males in the mid-level faculty points to structural conditions such as long routes to qualification in conjunction with limited work contracts which work against establishing a family (see also Auferkorte-Michaelis & Wergen et al., 2006). A high proportion of childless male academics was also proven in other statistical analyses (see: Biedenkopf & Bertram et al., 2005; Schmitt, 2004).

Figure 1: Childlessness among female junior scientists and childless among male, junior scientists in NRW



Source: (Auferkorte-Michaelis & Metz-Göckel et al., 2005) – own illustration.

The proportion of childless female and male scientists in NRW is clearly higher compared with the average of male and female academics without children in the total population.⁷ The coming expansion of the study to other German federal states will soon make more visible data available concerning this issue amongst scientific personnel at German universities.⁸

Desire for children

The actual numbers of children appear to not correspond with the desire for children expressed by female scientists. In a survey at the university of Mainz, only a small portion of female scientists reported having made a conscious decision at the beginning of their careers against having children (Kemkes-Grottenthaler, 2003).⁹ A

⁷ With respect to the number of children of male and female academics, population scientists point to the overly high numbers spread in open debates. There is currently a, partially, controversial discussion on this problem, particularly on the number of children of female academics (compare Schmitt & Winkelmann, 2005; Hufnagel, 2008). Definitive statistical data showing number of children and educational level are currently not yet available (Dorbritz, 2003; Scharein & Unger, 2005; Schmitt & Winkelmann, 2005). A study on the current family situation in Germany demonstrated a proportion of 35.6% of 40-44 year old childless male academics in the old German federal states and 24.7% in the new German federal states in 2003. The proportion of childless female academics of the same age was 32.7% in the old German federal states and 12.5% in the new German federal states (Biedenkopf et al., 2006, p. 48/49).

⁸ Project, 'Wissen- oder Elternschaft? Kinderlosigkeit und Beschäftigungsbedingungen an Hochschulen in Deutschland' (Science or Parenthood? Childlessness and employment conditions at German universities") under the direction of Prof. Dr. Metz-Göckel.

⁹ Contrary to that, Höhn et al. (2005) surveyed 10,000 Germans and found a remarkably low desire for children among women and men in the total population: German women's desire for children was expressed to the extent of 1.75 children; German men, only 1.59 children on average. The desire for children in Germany was found to be far below that in all other countries surveyed.

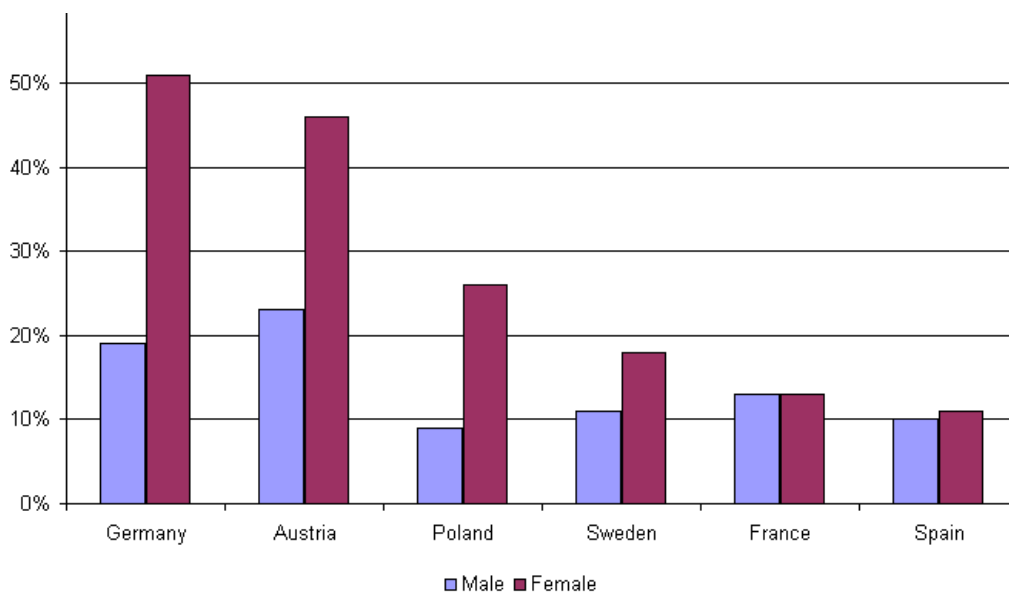
discrepancy between the expressed desire for children and actual number of children was also evidenced in surveys by CEWS of among approximately 700 junior female scientists. These surveys demonstrated that, for these female scientists, it was particularly professional reasons that spoke against the realization of an existing desire to have a child (Lind & Löther, 2006). Even female scientists who already held a junior professorship or C1 position reported that it was mostly professional reasons that kept them from having a, (or having another) child (CEWS, 2006).

As it has thus far always been, the female scientists are still primarily solely or almost solely in charge of childcare (Strehmel, 1999; Krimmer & Zimmer, 2003; Buchholz, 2004; Buchinger & Gödl et al., 2004; CEWS, 2006; Lind, 2006).¹⁰ Both in terms of everyday division of labor and role models there is still an overall strong tendency towards a traditional distribution of tasks, which appears to be especially pronounced among West German male scientists (Hanson & Fuchs et al., 2004).

European Perspective

Only a few studies are available for placing the German situation into a European context. The exception being the above cited project “Research and Training Network” (Zimmer & Krimmer et al., 2007).

Figure 2: Proportion of childless male and female professors in European countries



Source: (Krimmer & Stallmann et al., 2004; Majcher, 2007) – own illustration.

In the course of this network project surveys on the career paths of female and male scientists were conducted in different European countries along with collecting sociodemographic data. The surveys showed that Germany - in comparison to other European countries - had the highest proportion of childless female professors with 51% (see Figure 2), unlike France, where no significant gender effect could be found

¹⁰ See also Mason & Goulden (2004) on the extent of responsibility for childcare among female scientists with children compared to male scientists with children in the USA.

and where an alignment between the genders settled at a low level of childlessness could already be seen.

Austria demonstrates great similarities with Germany, not just in terms of a high rate of childlessness (48% of the female professors) but also in terms of the institutional structures of the scientific system and the predominant gender roles. As far as Sweden and France are concerned, the low values of childlessness are not surprising given the well developed childcare systems and the largely well accepted non-traditional role models in their societies. A definite causal attribution is, nonetheless, difficult since basic societal conditions interfere with the rules of scientific careers and very different conditions for this exist in these individual countries.

Majcher (2007) has explored in greater detail the reasons for the differences when comparing Poland with Germany: The author points out that in Poland 74% of the female professors, and 91% of the male professors have children. Hence, while in Poland there is less childlessness, the majority of Polish female scientists have only one child. In contrast, most female professors in Germany, when having children, have more than one child. Majcher (2007) identifies additional factors such as a cultural hostility towards working mothers in Germany as well as an insufficient childcare infrastructure. Mostly however, the crucial factor seems to be the difference in the academic qualification path: The Polish scientific system offers relative job security while demanding little mobility, whereas the qualification course at German universities is distinguished by short-term situations, great planning insecurity and appears to follow a sort of "all or nothing" logic. Given this, starting a family in Germany is associated with much higher risks for a university career than in Poland (Majcher, 2007).

Results on balancing science and parenthood.¹¹

It has been well known for quite some time now that female scientists who have children struggle mostly with organizational problems which, in turn, have an unfavorable effect on their presence in everyday scientific academia and negatively influence the maintenance of networks and informal contacts (Drews, 1996; Strehmel, 1999).¹² Above all, flexible working hours are an advantage for female scientists with children, whereas the amount of working hours has less of an effect on their work satisfaction or stress (Drews, 1996; Strehmel, 1999). They see their greatest problems as lying in conjunction with expectations regarding the amount of time they are expected to be available, as well as negative biases coming from their superiors and coworkers with respect to their achievements (Strehmel, 1999; Krais, 2000; see also Ostrow, 2002). Having to balance both areas of life is considered a burden and a career obstacle by female scientists with children; male scientists, on the other hand, definitely experience fewer conflicts and find that fatherhood barely limits their career options (Buchholz, 2004; CEWS, 2006).

Neither private life situation nor relationship constellation are irrelevant: In contrast to their male colleagues with families, the female scientists are oftentimes in a relationship with a partner who is very busy professionally (Krimmer & Zimmer, 2003;

¹¹ For more detail see Lind, 2004b.

¹² See also the results on family burdens of scientists with children in the USA (Mason & Goulden, 2004).

Buchholz, 2004; Buchinger & Gödl et al., 2004; Lind & Löther, 2006). The majority are, therefore, part of a dual career couple, if they are involved in a relationship at all, which is the case for far fewer female scientists in high positions compared with their male colleagues (Krimmer & Zimmer, 2003; Buchholz, 2004). For female scientists with children this means that they do not easily find relief from the burden of “reproduction work” as much as, or in the same manner as their male colleagues. On the contrary, female scientists report having to be in charge of organizing child care mostly themselves (Strehmel, 1999; Macha & Klinkhammer et al., 2000; Solga & Wimbauer, 2005).

In the meantime first results exist which may be interpreted as a tendency towards a slow dissolution of the traditional gender roles. The findings of the CEWS study (CEWS, 2006) presented in the following, suggest this.

Current results from CEWS

In a study of 138 junior professors and C1-assistants, both female and male scientists at universities in North Rhine-Westphalia were surveyed regarding career path to date, vocational situation, work-life-balance and private life situation (CEWS, 2006). Average age in the total sample was 36, while the majority (over 80%) were part of a relationship, 54% of whom were married. The sample revealed no gender differences regarding relationship but there were differences with respect to dual career partnerships: Of the women, 43% had partners working in science as well, while the percentage for the men surveyed was only 28%. In comparison to their male colleagues female scientists were more frequently involved in long-distance relationships. The high rate of childlessness among the scientists of this sample, over 50%, is consistent with other studies (Allmendinger & Fuchs et al., 2001; Buchholz, 2004; Zimmer & Krimmer et al., 2007). Over half of those with children had their first child after finishing their Ph.D. and another quarter during their Ph.D. program. In terms of gender roles, the study demonstrated a clear orientation towards traditional role patterns: Female scientists were more frequently in charge of childcare; children of male scientists were largely cared for by their female partners. Partners sharing child care were rather rare in this sample (8%).

Noteworthy here is the significant number of female scientists (14%) living together with a partner who is the person responsible for household and childcare. Another result showed a total of 40% of the female scientists with children whose male partners did not work full-time. This evidence is rather atypical given that international comparison studies show a substantial surge back towards traditional roles in academic partnerships making the transition to parenthood (Blossfeld & Drobni, 2001).

Examining the desire for children among female and male scientists was another objective of this study so those reporting an acute desire for children were further queried on what spoke against having children. The low proportion of childless scientists citing reasons for not having children is remarkable: Less than 5% did not wish to have any children.

There were clear gender differences with respect to the reasons against having children: Almost half of the childless women (48%) viewed professional reasons as

an obstacle. In the total sample which included parents, the proportion of women citing professional reasons as an obstacle was even higher (55%). Only 30% of men surveyed thought that professional reasons were grounds not to have children. The most remarkable gender difference however is that 40% of the men did not see anything in the way of having a child while this opinion was shared by just under 4% of the women.

So this study of young successful female and male scientists also showed that the desire for children was higher than the actual existing number of children, while it was mostly women who - due to professional reasons - argued against parenthood or having larger numbers of children.

Female scientists with children reported negative effects of parenthood on their academic careers in that they have to plan their work in a very structures manner, frequently need the evening hours for working and are more dependent on set working hours than their male colleagues who have children. At the same time, mothers reported experiencing life with their children as more motivating and enriching for their own profession than did the fathers. (CEWS, 2006).

Among the desired measures geared towards a better work-life-balance, most of the scientists surveyed mentioned having child care possibilities available at universities. While men requested mostly institutionalized forms of care, women expressed a desire for more flexible working hours and work locations. Female scientists also often favored part-time professorships where they see an advantage in terms of gaining time for child care or for a second child. Women were however, concerned that such an arrangement might more dramatically limit their career possibilities than men, who more likely expected a decrease in work quality (CEWS, 2006).

IV Open questions

Overall, there is still a considerable lack of research findings on balancing a career in science with parenthood. To date, for instance, the real life and working situation of male and female scientists and how they view their career options still remains unclear. Furthermore, the question of how the determinants and institutional factors of science negatively impact family planning, thereby contributing to high rates of childlessness among junior female and male scientists in Germany has not been sufficiently examined. The reasons for giving up on a career as well as career stagnation in the conflict between scientific structures and models of work-life-balance should also be subject to more in-depth analysis. Finally, it is unclear how the conditions of different faculty cultures and types of organizations interact with generative decisions and mothers' and fathers' life situations in science. Additionally, little knowledge exists on the individual coping strategies as well as on basic institutional conditions with respect to a better balancing of work and job. One major gap that can be seen however, is the fact that men are severely neglected in the research on balancing science and family.

V Current research project – Balancing Academia and Parenthood BAWIE

The project “Balancing Academia and Parenthood” (BAWIE) was developed with the intention of shedding light on the research gaps described above. It is financed through the Federal Ministry of Education and Research (BMBF) and conducted by Center of Excellence Women and Science - CEWS; the project began on July 1, 2007, running for a period of 24 months.

The overall goal of BAWIE is to study individual decision making processes and organizational structures at German Universities that benefit and/or hamper combining a scientific career with parenting. These analyses can be used for recommendations in creating action approaches for university policy. One important goal is the inclusion of male scientists into the study. The survey is independent of the number of children, in that both childless persons as well as mothers and fathers are surveyed. In order to get information on family planning in the course of the qualification process both male and female professors as well as junior scientists at the lower and mid-faculty level are included.

The methodical procedure is divided in a quantitative and qualitative part. In a first step, a large-scale online survey is conducted. About 40,000 female and male scientists from selected universities nationwide are contacted per e-mail and asked to participate in the survey. The quantitative survey results are then supplemented by more in-depth, qualitative telephone interviews using a smaller sample.¹³

Conclusion

The specific situation of female and male scientists seeking to combine the responsibility for children with their scientific career deserves increased special attention. The question of balancing career and family not only affects women, but increasingly also male scientists. Even if - just as in the past - traditional role models still prevail among scientists, there are, especially among junior scientists, tendencies towards a slow dissolution of these patterns and towards new role constellations in relationships. These tendencies require a redefinition of the, so far, unquestioned expectations of availability and a traditional familial division of labor among partners.

The high proportion of childless female and male scientists has to be interpreted as an indicator for the existence of great difficulties in the German science system for accommodating work-life-balance. This means that more intense discussion and targeted measures for the men and women involved is urgently needed. The long-term attractiveness of the occupational field “Science in Germany” will unquestionably be dependent on establishing adequate conditions for both sexes to balance family with a career in science.

¹³ More in-depth information and the current status of of the project can be found at the project homepage: www.bawie.de

Literature:

- Allmendinger, Jutta (2005): Fördern und Fordern - was bringen Gleichstellungsmaßnahmen in Forschungseinrichtungen? Empirische Ergebnisse. In: Annette Spellerberg (Hg.), *Die Hälfte des Hörsaals: Frauen in Hochschule, Wissenschaft und Technik*. Berlin: Edition Sigma, S. 51-74.
- Allmendinger, Jutta; Stefan Fuchs; Nina von Stebut (2001): Zwei Schritte vor, einer zurück. In: *DUZ* Jg. 2001, H. 24, S. 26-27.
- Auferkorte-Michaelis, Nicole; Sigrid Metz-Göckel; Jutta Wergen; Annette Klein; et al. (2005): Junge Elternschaft und Wissenschaftskarriere. Wie kinderfreundlich sind Wissenschaft und Universitäten? In: *Zeitschrift für Frauenforschung & Geschlechterstudien* Jg. 23 2005, H. 4, S. 14-23.
- Auferkorte-Michaelis, Nicole; Jutta Wergen; Annette Klein; Sigrid Metz-Göckel; et al. (2006): "*Junge Elternschaft und Wissenschaftskarriere*": kaum Nachwuchs beim 'wissenschaftlichen Nachwuchs' an den Universitäten in NRW, Universität Dortmund, Hochschuldidaktisches Zentrum.
- Biedenkopf, Kurt; Hans Bertram; Margot Käßmann; Paul Kirchhof; Elisabeth Niejahr; Hans-Werner Sinn; Frans Willekens, Hg. (2005): *Starke Familie. Bericht der Kommission "Familie und demographischer Wandel"*. Stuttgart, Robert Bosch Stiftung GmbH.
- Blossfeld, Hans-Peter; Sonja Drobni, Hg. (2001): *Careers of Couples in Contemporary Society: From Male Breadwinner to Dual Earner Families*. Oxford, Oxford University Press.
- Bordons, M.; Morillo, F.; Fernandez, M.T.; Gomez, I. (2003). One Stepp further in the production of bibliometric indicators at the micro level: Differences by gender and professional category of scientists. In: *Scientometrics*, Vol. 57, No. 2, 159-173.
- Buchholz, Lydia (2004): Wissenschaftskarrieren an österreichischen Universitäten. Erfahrungen und Einstellungen von Professorinnen und Professoren. In: Erna M. Appelt (Hg.), *Karrierenschere. Geschlechtsverhältnisse im österreichischen Wissenschaftsbetrieb*. Wien: LIT Verlag, S. 71 - 91.
- Buchinger, Birgit; Doris Gödl; Ulrike Gschwandtner (2004): Karriereverläufe und Vereinbarkeit von Beruf und Privatem bei WissenschaftlerInnen. In: Erna M. Appelt (Hg.), *Karrierenschere. Geschlechterverhältnisse im österreichischen Wissenschaftsbetrieb*. Wien: LIT Verlag, S. 46-69.
- CEWS, Kompetenzzentrum Frauen in Wissenschaft und Forschung (2006): *Kurzexpertise zum Themenfeld Frauen in Wissenschaft und Forschung, im Auftrag der Robert Bosch Stiftung*. Bonn: CEWS, Kompetenzzentrum Frauen in Wissenschaft und Forschung.
- CEWS, Kompetenzzentrum Frauen in Wissenschaft und Forschung (2006): Juniorprofessuren in Nordrhein-Westfalen. Ein Vergleich der Qualifikationswege Juniorprofessur und C1-Assistentenstelle. Bericht des Kompetenzzentrums Frauen in Wissenschaft und Forschung CEWS, Bonn. Online verfügbar unter: <http://www.cews.org/cews/files/484/de/cews-studie-jp-endbericht.pdf>
- Dorbritz, Jürgen (2003): Polarisierung versus Vielfalt. Lebensformen und Kinderlosigkeit in Deutschland - eine Auswertung des Mikrozensus. In: *Zeitschrift für Bevölkerungswissenschaft* Jg. 28 2003, H. 3-4, S. 403-421.
- Drews, Lydia (1996): Kind und Karriere - die Auswirkungen der Elternschaft auf das akademische Fortkommen. In: Bärbel Kracke; Elke Wild (Hg.), *Arbeitsplatz*

- Hochschule. Überlegungen und Befunde zur beruflichen Situation und Förderung des wissenschaftlichen Nachwuchses.* Heidelberg: Mattes Verlag, S. 97 - 114.
- European Commission (2006): *She Figures 2006.* Luxemburg: Office for Official Publications of the European Communities.
- Hanson, Sandra L.; Stefan Fuchs; Silke Aisenbrey; Natalya Kravets (2004): Attitudes toward gender, work, and family among female and male scientists in Germany and the United States. In: *Journal of Women and Minorities in Science and Engineering* Jg. 10 2004, H., S. 99-129.
- Höhn, Charlotte; Ette, Andreas; Ruckdeschel, Kerstin (2005). Kinderwünsche in Deutschland. Konsequenzen für eine nachhaltige Familienpolitik. Bundesinstitut für Bevölkerungsforschung; erstellt im Auftrag der Robert Bosch Stiftung.
- Hufnagel, Rainer (2008). Kinderwunsch und Partnerwahl in Deutschland. In: *Hauswirtschaft und Wissenschaft - Europäische Zeitschrift für Haushaltsökonomie, Haushaltstechnik und Sozialmanagement*, 65. Jg, H. 1/2008, S. 8-25.
- Kemkes-Grottenthaler, Ariane (2003): Postponing or rejecting parenthood? Results of a survey among female academic professionals. In: *Journal of biosocial science* Jg. 2003, H. 35, S. 213-226.
- Kiegelmann, Mechthild (2000): Habilitation. Anmerkungen aufgrund einer empirischen Erhebung. In: *Hochschule Ost* Jg. 2000, H. 3-4, S. 39-46.
- Klecha, Stephan (2008): Prekäre Wissenschaft. Wie der wissenschaftliche Nachwuchs seine Lage beurteilt. In: *Forschung & Lehre* Jg. 2008 2008, H. 4, S. 230 - 232.
- Krais, Beate (2000): Das soziale Feld Wissenschaft und die Geschlechterverhältnisse. Theoretische Sondierungen. In: Beate Kraus (Hg.), *Wissenschaftskultur und Geschlechterordnung. Über die verborgenen Mechanismen männlicher Dominanz in der akademischen Welt.* Frankfurt am Main; New York: Campus Verlag, S. 31-54.
- Krimmer, Holger; Freia Stallmann; Markus Behr; Annette Zimmer (2004): *Karrierewege von Professorinnen an Hochschulen in Deutschland.* Münster: Projekt Wissenschaftskarriere.
- Krimmer, Holger; Annette Zimmer (2003): Karrierewege von Professorinnen an Hochschulen in Deutschland. In: *Zeitschrift für Frauenforschung & Geschlechterstudien* Jg. 21 2003, H. 4, S. 18-33.
- Leemann, Regula Julia (2002): *Chancenungleichheiten im Wissenschaftssystem: wie Geschlecht und soziale Herkunft Karrieren beeinflussen.* Chur/Zürich: Rüegger.
- Lind, Inken (2004a): *Aufstieg oder Ausstieg? Karrierewege von Wissenschaftlerinnen. Ein Forschungsüberblick* (cews.Beiträge Frauen in Wissenschaft und Forschung; No. 2). Bielefeld: Kleine.
- Lind, Inken (2004b): *Balancierung von Wissenschaft und Elternschaft im Spiegel der Forschung.* soFid Frauen und Geschlechterforschung. 2004: 23 - 37.
- Lind, Inken (2004c): Evaluation des Lise Meitner-Habilitationsprogramms. In: Andrea Löhner (Hg.), *Erfolg und Wirksamkeit von Gleichstellungsmaßnahmen an Hochschulen.* Bielefeld: Kleine, S. 122-147.

- Lind, Inken (2006): Wissenschaftlerinnen an Hochschulen: Analyse der aktuellen Situation. In: Jutta Dalhoff (Hg.), *Anstoß zum Aufstieg - Karrieretraining für Wissenschaftlerinnen auf dem Prüfstand*. Bielefeld: Kleine Verl., S. 142 - 169.
- Lind, Inken (2007): Ursachen der Unterrepräsentanz von Wissenschaftlerinnen - Individuelle Entscheidungen oder Strukturelle Barrieren? In: Wissenschaftsrat (Hg.), *Exzellenz in Wissenschaft und Forschung. Neue Wege in der Gleichstellungspolitik. Dokumentation der Tagung am 28./29. November 2006 in Köln*. Köln: Wissenschaftsrat, S. 59 - 86.
- Lind, Inken; Andrea Löther (2007): Chancen für Frauen in der Wissenschaft - eine Frage der Fachkultur? Retrospektive Verlaufsanalysen und aktuelle Forschungsergebnisse. In: *Schweizerische Zeitschrift für Bildungswissenschaften* Jg. 29 2007, H. 2, S. 249-271.
- Macha, Hildegard; Monika Klinkhammer; Siegmund Gehlert (2000): *Erfolgreiche Frauen: wie sie wurden, was sie sind*. Frankfurt am Main; New York: Campus Verlag.
- Majcher, Agnieszka (2007): Seeking the Guilty - Academics between Career and Family in Poland and Germany. In: Renata Siemienka; Annette Zimmer (Hg.), *Gendered Career Trajectories in Academia in Cross-National Perspective*. Warsaw, Poland: Wydawnictwo Naukowe Scholar Sp. z o.o., S. 298 - 321.
- Mason, M.A.; Goulden, M. (2004). Marriage and baby blues: Redefining gender equity in the academy. *Annals of the American Academy of Political and Social Science*, 596 (1); 86-103.
- Müller, Vera (2008): Wissenschaft als riskante Berufskarriere. Ergebnisse des ersten Bundesberichts zur Lage des wissenschaftlichen Nachwuchses. In: *Forschung & Lehre* Jg. 2008 2008, H. 4, S. 224 - 227.
- National Academy of Sciences (2007). Beyond bias and Barriers. Fulfilling the potential of Women in Academic Science and Engineering. / Committee on Maximizing the Potential of Women in Academic Science and Engineering (U.S.). Washington, D.C.
- National Research Council (2001). From Scarcity to Visibility: Gender Differences in the Careers of Doctoral Scientists and Engineers. Washington, DC: National Academy Press.
- Ostrow, E. (2002). The backlash against academic parents. *Chronicle of Higher Education* (Feb.,22).
- Rusconi, Alessandra; Heike Solga (2002): *Auswertung der Befragung deutscher Hochschulen zur "Verflechtung von beruflichen Karrieren in Akademikerpartnerschaften"*. Kromsdorf/Weimar: vdg-Verlag.
- Scharein, Manfred; Reiner Unger (2005): *Kinderlosigkeit bei Akademikerinnen? Die Aussagekraft empirischer Daten zur Kinderlosigkeit bei Akademikerinnen*. (BiB-Mitteilungen 02/2005).
- Schmitt, Christian (2004): Kinderlosigkeit bei Männern - Geschlechtsspezifische Determinanten ausbleibender Elternschaft. In: *Zeitschrift für Familienforschung* Jg. 2004 2004, H. Sonderheft 4, S. 18 - 43.
- Schmitt, Christian; Ulrike Winkelmann (2005): Wer bleibt kinderlos? Was sozialstrukturelle Daten über Kinderlosigkeit bei Frauen und Männern verraten. In: *Feministische Studien* Jg. 2005 2005, H. 1, S. 9 - 23.
- Solga, Heike; Alessandra Rusconi (2004): Deutsche Hochschulen und ihr ambivalentes Verhältnis zu Doppelkarrieren in Akademikerpartnerschaften. In: Guenther Vedder (Hg.), *Familiengerechte Hochschule: Analysen Konzepte Perspektiven*. Frankfurt am Main: Gemeinnützige Hertie-Stiftung, S. 64-89.

- Solga, Heike; Christine Wimbauer, Hg. (2005): *"Wenn zwei das Gleiche tun." Ideal und Realität sozialer (Un-)Gleichheit in Dual Career Couples*. Opladen, Verlag Barbara Budrich.
- Stebut, Nina von (2003): *Eine Frage der Zeit? Zur Integration von Frauen in die Wissenschaft. Eine empirische Untersuchung der Max-Planck-Gesellschaft* (Studien zur Wissenschafts- und Organisationssoziologie; Bd. 3). Opladen: Leske + Budrich.
- Strehmel, Petra (1999): *Karriereplanung mit Familie: eine Studie über Wissenschaftlerinnen mit Kindern* (Wissenschaftliche Reihe; Bd. 120). Bielefeld: Kleine.
- Wimbauer, Christine (1999): *Organisation, Geschlecht, Karriere: Fallstudien aus einem Forschungsinstitut*. Opladen: Leske + Budrich.
- Wolf-Wendel, Lisa; Susan B. Twombly; Suzanne Rice (2003): *The two-body problem: dual-career-couple hiring policies in higher education*. Baltimore: The Johns Hopkins University Press.
- Xie, Y; Shauman, K.A. (1998). Sresearch productivity: New evidence about an old puzzle. *American Sociological Review*, 63(6): 847-870.
- Zimmer, Annette (2003): *European Research Training Network "Women in European Universities", Final Report 2000-2003*. Münster: Research and Training Network, Westfälische Wilhelms-Universität Münster.
- Zimmer, Annette; Holger Krimmer; Freia Stallmann (2007): *Frauen an Hochschulen: Winners among Losers. Zur Feminisierung der deutschen Universität*. Opladen & Farmington Hills: Verlag Barbara Budrich.