
The Policy Response to Declining Fertility Rates in Japan: Relying on Logic and Hope Over Evidence

Leonard J. SCHOPPA*

Why are women (and men) in advanced industrialized nations having fewer babies, and is there anything society can do to encourage more procreation? Over the past three decades, governments have become interested in these questions as societies squeezed between an aging baby boomer generation and a shrinking base of taxpayers have searched for ways to 'cure' their declining fertility problem. Social science has not identified any consistent policy solution to this problem, but that has not stopped policy entrepreneurs from presenting available evidence in ways that promote work–life balance policies as the 'cure'. This article examines how Japan has adopted policies from this menu over the past three decades, in hopes of boosting fertility rates. The absence of a strong rebound, despite these policy changes, suggests that policy entrepreneurs have oversold childcare services and parental leave as the solution. What may be needed to increase rates, Japan's experience suggests, are far-reaching changes in norms governing gender roles, the demands employers can make on employees, and ideas about what it means to be a 'family'.

Keywords: *demography; population; gender; politics; fertility; social policy*

I. Introduction

It has now been 30 years since the Japanese realized they had a 'declining fertility problem' (*shōshika mondai*). The realization is generally dated to the summer of 1990 when the government reported that the nation's total fertility rate (TFR) for the previous year had fallen to 1.57—below the superstition-induced previous record low of 1.58 from 1966. In that year, couples across Japan avoided giving birth to fire horse daughters who would face the stigma of a Chinese zodiac sign that would mark them as unattractive mates. In 1990, there was no such explanation for the new record low: Japan's fertility rate had been falling steadily since the mid-1970s, and it would go on to set new record lows almost every year into the mid-2000s.

Ever since the realization that Japan had a fertility rate problem set in around 1990, the questions of *why* and *what to do about it* have preoccupied social commentators, social scientists, government officials, and, to a growing extent, the Japanese general public. A number of studies published in the first decade of the 2000s (Peng 2002; Schoppa 2006; Boling 2008) told the story of the first 15 years of this public debate, but enough time has passed to update the story with the perspective provided by an additional 15 years of policy debate. What new patterns have characterized the latest stage of the public discussion of this issue? Have Japanese policymakers determined the cause of the malady? Have they figured out a policy cure? And have their efforts to tweak public policy to boost fertility yielded any success?

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One way in which the last 15 years of debate over what to do about declining fertility has been distinct from the first 15 is that recent years have seen policymakers become much more direct about the *goals* of policy change. In the earlier period, officials were hesitant to admit that raising fertility rates was their goal. The 1999 Health and Welfare White Paper was subtitled ‘creating a society in which child-bearing and -rearing is a “dream” again’. The goal was to enable all couples to have all of the children they desired (MHW 1999). In contrast, the Cabinet of Prime Minister Abe Shinzō was quite explicit when, on 2 June 2016, it adopted a plan to raise the Japanese TFR to 1.80 by 2025. This rate was referred to as a ‘desirable birthrate’ rather than a ‘goal’, but it was clear that the plan was designed to push birthrates up to this number from around 1.40, where it was when the plan was adopted (Tobita 2016).

Greater clarity about the policy goal has prompted policymakers to pay more attention to various types of social scientific analysis that have begun to focus more explicitly, as well, on which policies will have the greatest effects on fertility rates. Unfortunately, policymakers have seized on the simplest, easy-to-digest nuggets emerging from this social scientific analysis, while ignoring more careful work that has made it clear that there are very few policies that have been shown, with statistical confidence, to raise fertility rates in low fertility countries. What is striking about the latest stage of the Japanese policy debate is the *disconnect* between the little we know about how to raise fertility rates in low fertility countries and the energetic efforts by policymakers to implement certain kinds of policy changes (especially expanded child allowances, childcare services, and parental leave) in an effort to ‘cure’ the problem. The argument in this article is not that these policy changes have not been good for Japanese women or the society as a whole. I simply argue that they have been oversold as a cure. The over-emphasis on these ‘solutions’ has distracted policymakers and the public from the more far-reaching changes that will probably be needed before the fertility rate can rebound to a level where the demographic transition is less of a disruption to the economy.

2. The First Decade of the Debate

In the first years after the declining fertility rate was identified as a ‘problem’, Japanese feminists reacted by disputing this claim. They were worried that the new focus on fertility would risk reviving the kind of pro-natalist interventions seen before and during the war years, when the government restricted access to birth control and exhorted women to ‘go forth and multiply’ (*umeyo fuyaseyo*) to ensure that Japan would have enough soldiers and workers to keep it a ‘great power’. Leading feminists like Ueno Chizuko described the growth in the number of women opting not to marry and not to have children as a sign of progress (Ueno 1998). Women were now free to make their own choice of life course, and feminists felt that this ought to be celebrated rather than seen as a ‘problem’.

Even demographers were unwilling to commit to the view that Japan had a fertility problem. The national population projections issued in 1992 and 1997 each saw the dip in the TFR as a *temporary* result of couples postponing marriage and child-bearing (Figure 1). They expected the TFR to bounce back to 1.8 (in the 1992 projection) or 1.6 (in 1997). The TFR is a somewhat artificial statistic, summing the age-specific fertility rates for every age in a given year (the number of children born to women who are 21 in 1989, the number born to women who are 22 in 1989, etc) to generate the total that a single woman would bear if she behaved through her whole life as women in each age cohort did in that year. During periods when women are forming families at later ages, the TFR drops even if all of those women end up having the same 2.1 children their mothers had. A TFR rate that falls while women are delaying family formation bounces right back once the delay is over and they start having the postponed children.

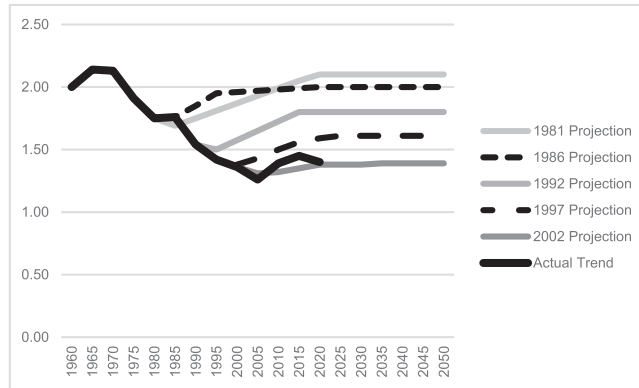


Figure 1. Japan's Fertility Projections for 1981–2002 and Actual Trend Through 2018. Source: Adapted from [Yashiro 1999](#), p. 16, updated with the 2002 NIPSSR population projection and actual total fertility rates for specific years from *Population Statistics of Japan*.

The demographers who made the rebound projections should not be faulted for getting things wrong. They were social scientists constrained by available data, and the data showed that Japanese couples *were* marrying later. The unmarried women they polled, moreover, told them that they still planned to get married and have over two children. The experts at the National Institute of Population and Social Security Research (NIPSSR), who by law were required to develop the best-possible, data-informed population projections, thus plugged these numbers into their models and concluded that, as couples slowed and then stopped delaying marriage, fertility rates would rebound to 1.8 or 1.6 over the long term. Since future fertility rates were such an important variable in population projections, these experts also forecast that Japan's aging and population decline would be modest, allowing the government, through some reasonable changes to the social security system, to keep its pay-as-you-go pension and health care systems solvent. Demographic 'knowledge' of this type—that the fall in the TFR could be attributed to a 'tempo effect' as couples postponed family formation and that population aging would be modest—helped douse some of the initial concern about declining fertility during the decade of the 1990s.

3. Demographers Confirm Japan Has a Fertility Problem (2002)

When the 1997 population projection was issued, Japan's TFR stood at 1.39. Five years later, when the 2002 projection came out, the fertility rate was not significantly lower, standing at 1.32. But the way in which the problem was perceived shifted quite dramatically within this five-year period. Changes in social science analysis—new data, different ways of analyzing it, and different ways of framing this new knowledge—helped shift the debate during this period. Once again, the demographers at NIPSSR and government officials at the Ministry of Health, Labor and Welfare (MHLW), which formed through a merger of the health and labor ministries in 2000, played a prominent role in bringing about this shift.

By 2002, when the next population projection was issued, Japan's leading demographers employed by NIPSSR had access to new data from the 2000 census. They learned that many women in younger cohorts, who had told them in the earlier surveys that they were merely postponing marriage and still planned to marry and have two children, were remaining unmarried at even higher

rates than they had projected. Their 1997 projection was based on the expectation that women in the 1961–1965 cohort, 19.7 of whom were unmarried in their early 30s (at that time), would marry in sufficient numbers to bring this level down to 12.5% by their late 30s—in time to have at least one child. The 2000 census revealed that the actual unmarried share remained at 13.8% (Figure 2). Their guess for where the 1966–1970 cohort would come in undershot the actual number as well. The actual share of women unmarried in their early 30s was 26.6%, compared to their 1997 projection of 25.5. With Japan’s extremely low rate of birth outside of marriage, this evidence that many women were marrying even later than expected, or not at all, meant that many women were going to have no children and that other late-marrying women were going to have just one. Projecting forward based on the latest data, NIPSSR forecast that the proportion remaining never-married to the end of their years of fertility would soon reach 20% to 30% of the cohort, with most of those not expected to have any children.

The other new data that demographers collected in the interim concerned child-bearing patterns among married women. Every five years, NIPSSR surveys married women and asks them how many children they *have* and how many they *plan to have*. The survey results published in 2002 (NIPSSR 2002) raised alarms on both counts. Up through the previous survey carried out in 1997, the number of children women married 10–14 years had and planned to have was remarkably consistent (Table 1). Very few had no children; around 10% had one; and the largest proportion (around 55%) had two. The 2002 survey showed a sharp uptick in the number having only one child so many years into marriage, up to 16%. The number with three or more was down, as was the planned total number of children.

These shifts in the data drove NIPSSR to project much less of a fertility rebound in the future than they had forecast just five years earlier. Instead of rebounding to 1.6, the medium-variant projection issued in 2002 predicted that the TFR would stabilize at 1.39. Combined with the additional ‘bad news’ that Japanese were living longer than expected, the future population models based on this data predicted that Japan would face a much steeper population decline and that the nation would see its share of over-65s in the population rise to above 35% (from 19% in 2002).

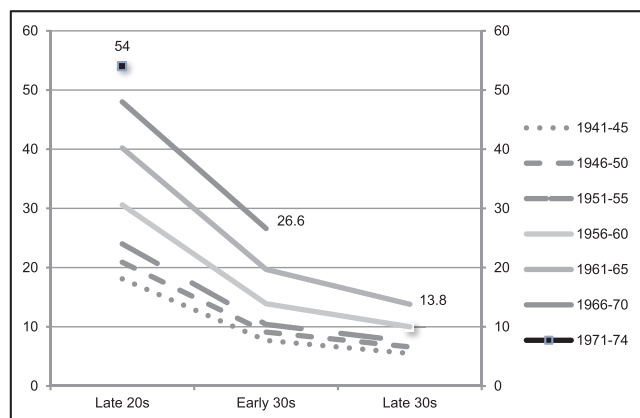


Figure 2. Percent Never Married among Cohorts of Japanese Women (as seen in the 2000 Census). Source: Census data in Population Statistics of Japan 2003, p. 77. The newest data points from the 2000 census are shown with percentage labels.

Table 1. Number of Children Reported by Women Married 10–14 Years.

Survey Year	Zero Children	1 Child	2 Children	3 or More Children	Planned Number
1977	3	11	55	30	2.18
1982	3	10	60	27	2.18
1987	3	10	59	28	2.20
1992	5	10	52	34	2.25
1997	6	12	54	29	2.18
2002	5	16	52	26	2.10

Source: Based on data from National Institute of Population and Social Security Research, ‘Summary of Survey of Married Couples’, *Twelfth Japanese National Fertility Survey*, 2002, pp 6 and 8.

Since this survey was issued, NIPSSR has issued three more population projections, with the most recent arriving in 2017. These have forecast even higher rates of aging (the latest one forecasts that the over-65 population could reach as high as 41%), but the adjustments have been driven primarily by revised forecasts for longevity. The fertility forecast issued in 2002 predicted the ‘bottom’ of the fertility dip fairly accurately, and the latest forecasts do not diverge significantly from the 2002 projection that fertility would stabilize at 1.39 (the 2012 projection forecast a stable rate of 1.35, whereas the 2017 forecast expects a rate of 1.44). It took over a decade from the ‘1.57 shock’ of 1990 for professional demographers to confirm the diagnosis that Japan had a fertility problem, but with its careful analysis of the latest evidence and the use of modeling tools, the social science of demography had fairly accurately diagnosed the long term trends—and the formidable challenge of rapid aging associated with such low fertility rates—by the start of the 2000s.

4. Diagnosing the Cause: Economic Opportunity Costs

As seen above, demographers had quite clearly pinpointed the immediate ‘cause’ of Japan’s fertility problem by 2002. Women were marrying later; many were not marrying at all; and even those who got married in time to have children were having and planning to have fewer children. Before policy could be brought to bear on this problem, however, policymakers needed to have a better sense of *why* women and their partners were making these choices. Once again, social scientists stepped in to offer counsel.

The predominant analytical framework for this advice was that of ‘economic opportunity costs’. Ever since Gary Becker wrote his seminal article ‘An Economic Analysis of Fertility’ in 1960, economists and sociologists who write about the choices individuals make about whether to form families have been in thrall of his central insight: that improved opportunities for women to earn income through work outside the home, combined with the growing cost of educating children to compete in a high-human-capital world, put downward pressure on fertility rates in developed nations. The growing value of their time means that women who see that having children will force them to leave work, or compromise on careers, will have good reasons to postpone or opt out of motherhood. Similarly, the cost of nurturing and educating a child to compete in our competitive world creates incentives to focus that investment on a smaller number of children—two at most, and perhaps just one.

This perspective was adopted wholesale by several of the Japanese academics who wrote widely read books on the declining fertility problem in the late 1990s. Ōsawa Machiko, a labor economist at Japan Women's University, wrote a popular-interest book titled *Atarashii kazoku no tame no keizaigaku* (Economics for a New-Style Family) in 1998, quoting Becker and attributing the decline in fertility in Japan to the mismatch between the higher career aspirations of Japanese women and the still-restricted means for them to pursue these opportunities if they became mothers (Ōsawa 1998). Yashiro Naohiro adopted the same perspective in his book *Shōshi kōreika no keizaigaku* (Economics for a Declining Fertility / Aging Society), published by Tōyō Keizai Shinpōsha in 1999. He argued that the fertility rate would only recover if policy—through parental leave and expanded childcare services—could make motherhood compatible with remaining in the workforce (Yashiro 1999). More recent works analyzing declining fertility trends in Japan, such as Tsuya and Higuchi (2009), have continued to emphasize the role opportunity costs play in shaping women's decisions about marriage and child-bearing.

Because this perspective has since been embraced so completely by policymakers in Japan and other low fertility societies as well as by international organizations like the OECD, it may appear odd for me to credit this turn to social scientists. But many of these policymakers, in Japan and elsewhere, are products of the same educational institutions that emphasize an economic approach to understanding the choices individuals make. Policymakers like Mukuno Michiko at MHLW, who played a leading role in reframing the problem in these terms in the late 1990s, would likely have gone in this direction even if academics like Ōsawa and Yashiro were not writing books. Yashiro, in fact, moved back and forth between government and academia over the course of his career, so he was able to bring his ideas into policy discussions quite seamlessly.

Yet the 'opportunity cost' framework did not have the field completely to itself. For a time, it had to compete with the 'parasite singles' explanation for Japan's falling fertility rates. As Yamada Masahiro argued in his 1999 book coining the phrase, it was not career women opting out of motherhood that explained the decline in fertility, but rather young singles hesitant to give up the comforts of living at home with their parents, that explained the decline in marriage—and fertility (Yamada 1999). The books he wrote were widely read and served to take some of the steam out of the push to reduce economic opportunity costs borne by working mothers at the moment when Yashiro, Mukuno, and others were making progress in making their perspective the dominant one.

Looking back at how Japan's policy response to declining fertility has evolved since the late 1990s, it is quite clear that the opportunity costs perspective soon regained a dominant position in shaping the reforms that were actually implemented. Japan has several times improved the terms of parental leave; working parents who take time off to care for their newborns can now receive income support (at the 50% level since 2010) and job protections for up to 14 months, including two use-it-or-lose-it 'daddy months'. Public funds have been invested in creating more spaces for young children in childcare centers and expanded hours, so that a 40-hour work week is now more compatible with parenting. The Democratic Party of Japan won office in 2009 in part on the basis of their plan to provide much more generous child allowances to help offset the costs of parenting. And new regulations directing employers to offer flextime and reduced hours to parents of young children have helped fill in gaps in the ability of new parents to balance work and family in the period when children are young.

Given where Japan was in 1990, when new mothers had only eight weeks of maternity leave before they needed to be back at work full-time, childcare centers almost universally closed at 05:00 pm, and the only way for new parents to get reduced hours was to step off the career track and become part-timers, it is amazing how far Japan has gone to make it possible for mothers to stay on the

career track by taking advantage of all of the new policies—at least if they work in the public sector or for a large corporation. Interestingly, the policies Japan has adopted during this period resemble in many respects those adopted earlier in Northern Europe. Many of these policies came earlier to France and Scandinavia, but Japan has adopted them in a timeframe that is not very different from Germany or Italy.

The convergence on this set of what we could call ‘work–life balance best practices’ is not a coincidence, because the social scientists and many of the officials advocating the above steps to lower opportunity costs for working women in Japan have been immersed in a wider global milieu in which this approach is firmly entrenched. Rianne Mahon has done some of the most interesting work (Mahon 2006, 2008) documenting how the OECD’s Directorate of Employment, Labour, and Social Affairs (DELSA) became the nucleus of activist research and policy advocacy aimed at advocating a shift from maternalist work and welfare policies toward a new regime aimed at supporting dual-earner families in an effort to boost the share of women in the workforce and raise fertility rates.

The best-known product of this team’s work was the OECD’s well-known *Babies and Bosses* studies of work–family reconciliation policies. This set of four reports, published between 2002 and 2005, focused closely on how policies in 13 countries eased (or did not ease) the ability of parents to reconcile work with their childrearing responsibilities at home. A synthesis published in 2007 included data on a more comprehensive set of countries and featured the project’s most important findings. The policy lessons drawn by the OECD staff overseeing the series of country studies evolved over time (Mahon 2008). The project had grown out of earlier OECD efforts to advise member countries on how to bring more women into the workforce in order to reduce women’s poverty (especially of single mothers) and avoid a looming labor shortage as populations aged. As the project began investigating the relationship between women’s work and fertility and looking closely at problems in specific countries, however, the project team began to present work–family reconciliation as a way of actually increasing fertility rates. Thus the *Babies and Bosses* synthesis report concludes that ‘systems which provide a continuum of support to families—support for parents at home when the child is very young, leading on to a childcare place, pre-school, school and out-of-school-hours care activities—perform best in helping parents reconcile work and family life. Such an approach stimulates birth rates as parents can realistically plan their work and family commitments’ (OECD 2007).

This company line of the family policy ‘epistemic community’ has remained consistent in the decade since these landmark reports were issued. As recently as March 2019, the OECD’s Willem Adema was back in Tokyo speaking to a crowd assembled in the NIPSSR offices about what Japan could learn from best practices in work–life balance that might help it address its still-low fertility rates (Adema 2019).

5. Strong Logic, But Little Support From the Data

The logic behind the ‘opportunity costs’ framing of the fertility problem that shaped the policy debate in Japan and the OECD was seductively convincing. It was consistent with the problem Japan was experiencing: women were leaving the workforce after having children, and the fertility rate had fallen as women’s opportunities to pursue careers improved. It seems almost common sense that policies that give women a chance to remain in the workforce after having children, through parental leave and childcare services, ought to make motherhood much more attractive to them and thus increase the birthrate.

Table 2. Key Indicators on Birth Rates, Female Employment and Child Poverty

	Total Fertility Rate	Employment/Population Ratio by Group				Child Poverty around 2000*****	
	2005*	Women, 2006**		Mothers, 2005***		percent	
	Children per woman	All	Part-time	Youngest child <2	Youngest child aged 3-5	Sole parents, 2005 or latest year ****	
Australia	1.81	65.5	40.7	48.3		49.9	11.6
Austria	1.41	63.5	31.4	60.5	62.4	75.0	13.3
Belgium	1.72	53.6	34.7	63.8	63.3	62.0	4.1
Canada	1.53	69.0	26.2	58.7	68.1	67.6	13.6
Czech Republic	1.28	56.8	5.6	19.9	50.9	63.0	7.2
Denmark	1.80	73.2	25.6	71.4	77.8	82.0	2.4
Finland	1.80	67.3	14.9	52.1	80.7	70.0	3.4
France	1.94	57.1	22.9	53.7	63.8	70.1	7.3
Germany	1.34	61.5	39.2	36.1	54.8	62.0	12.8
Greece	1.28	47.5	12.9	49.5	53.6	82.0	12.5
Hungary	1.32	51.2	4.2	13.9	49.9	..	13.1
Iceland	2.05	81.6	26.0	83.6		81.0	..
Ireland	1.88	58.8	34.9	56.3		44.9	15.7
Italy	1.34	46.3	29.4	47.3	50.6	78.0	15.7
Japan	1.26	58.8	40.9	28.5	47.5	83.6	14.3
Korea	1.08	53.1	12.3	..	..	..	..
Luxembourg	1.70	53.7	27.2	58.3	58.7	94.0	..
Mexico	2.20	42.9	27.6	..	..	..	24.8
Netherlands	1.73	66.0	59.7	69.4	68.3	56.9	9.0
New Zealand	2.01	68.4	34.5	46.6		53.2	14.6
Norway	1.84	72.3	32.9	..	..	69.0	3.6
Poland	1.24	48.2	16.3	..	..	..	9.9
Portugal	1.40	62.0	13.2	69.1	71.8	77.9	15.6
Slovak Republic	1.25	51.9	4.1	23.1	46.6	..	..
Spain	1.34	54.0	21.4	45.1	47.9	84.0	15.6
Sweden	1.77	72.1	19.0	71.9	81.3	81.9	3.6
Switzerland	1.42	71.1	45.7	58.3	61.7	83.8	6.8
Turkey	2.19	23.8	17.8	..	..	..	21.1
United Kingdom	1.80	66.8	38.8	52.6	58.3	56.2	16.2
United States	2.05	66.1	17.8	54.2	62.8	73.8	21.6
OECD	1.63	56.8	26.4	..	..	70.6	12.0

Source: From OECD, *Babies and Bosses: Reconciling Work and Family Life: A Synthesis of Findings for OECD Countries* (Paris: OECD 2007), p.16.

But we need to remember that logic is not evidence, and it is striking how far the argument that ‘work–life balance best practices’ would boost fertility rates advanced *without* evidence that these policies, where adopted, had actually had that result. The *Babies and Bosses* project itself was a qualitative study of work–life balance policies in 13 countries. It described these policies in great detail and produced a raft of data on each nation, such as the proportion of women in the workforce, the share of young children in childcare, and fertility rates. But the project did not carry out a rigorous analysis of the correlates of high and low fertility across the sample countries. The closest it came to exploring the connection between fertility rates and the policies it recommended came in a table (Table 2) that showed each nation’s fertility rate alongside data indicating how it scored on several key measures of work–life balance.

The plethora of numbers in this table were not particularly helpful in teasing out the ‘cause’ of higher and lower fertility rates, so the authors of the *Babies and Bosses* project chose to summarize the evidence in the form of a figure showing the connection between the first two columns: the *positive* correlation between fertility rates and the proportion of women in the workforce (Figure 3).

Willem Adema, the chief organizer of the *Babies and Bosses* project, featured this chart prominently in a PowerPoint presentation posted on the Babies and Bosses website (<http://www.oecd.org/els/family/39696968.pdf>), although he did not record the R^2 . The OECD Directorate of Employment, Labour, and Social Affairs had actually featured versions of this chart several times before, dating back to 1999 (OECD 1999, OECD 2001), and Adema has continued to include updated versions of the figure in his public remarks (e.g. Adema 2019, slide 30). A virtually identical correlation chart was featured in the book by Yashiro cited above (Yashiro 1999) and in several of the Japanese government’s white papers on gender equality and declining fertility countermeasures (e.g. Cabinet Office 2000: 45; MHLW 2000: 14; and Cabinet Office Gender Equality Bureau 2006: 14).

Because this figure represents virtually the only nugget of empirical analysis exploring the relationship between work–life balance policies and fertility rates in Japanese government reports published during this period, it deserves close scrutiny to consider what exactly it demonstrates. A careful reading of the headline given to the chart by Adema shows that he is quite aware of the limits of what his data shows. He writes: ‘Countries with high female employment rates now have the highest

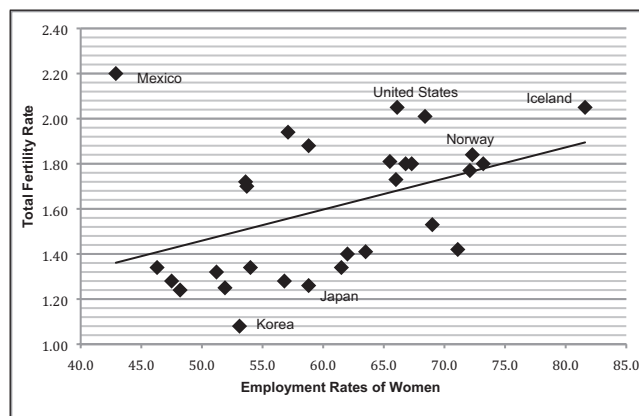


Figure 3. Countries with High Female Employment Rates Now Also Have the Highest Fertility Rates. Source: From OECD, *Babies and Bosses: Reconciling Work and Family Life: A Synthesis of Findings for OECD Countries* (Paris: OECD 2007), p.35.

fertility rates'. This is a factually correct statement of what the pattern in the data reveals. He has shown that there is positive correlation between these two variables across countries. What he does not do, at least in the synthesis report of the *Babies and Bosses* project, emphasizes the limits of what this simple correlation tells us. First, the correlation is not very positive (the slope of $y = 0.0138x$ means that a nation would have to increase its share of women working by 10 percentage points to increase its TFR from 1.26 to 1.39) and not very strong ($R^2 = 0.18$). Second, correlation is not causation. It could be that other factors, not considered in the simple bivariate correlation, are causing both variables to move in the same direction. Finally, given the limits to what a cross-national correlation of very different nations at a single point in time can tell us, a natural complement to this snapshot ought to be a close look at what longitudinal data tells us about the correlation between these variables.

Interestingly, Adema himself had participated in an OECD project that carried out that analysis several years earlier. The 2001 OECD *Employment Outlook* included a longitudinal analysis of the connection between women's employment and fertility, noting that in virtually all OECD countries, the correlation between women's work and fertility over time has been *negative*. Earlier cohorts of women worked less and had more babies, while recent cohorts have worked more and had fewer children. If Adema had presented a chart showing the longitudinal trend for Japan at the time he offered the cross-sectional analysis shown above, it would have revealed that Japan has had exactly this experience (Figure 4). Of course, there are similar limits to the conclusions we can draw from this longitudinal data, but if one were to make predictions based on this pattern, one would expect that further increases in female employment rates would continue to *lower* fertility rates. Some Japanese government reports during this period featured versions of the longitudinal figure below (Cabinet Office Gender Equality Bureau 2006: 14) but paired it with the cross-sectional chart and examples of countries that had recently seen increases in fertility after growing the share of women in the labor force. By doing so, the authors of these reports were suggesting that Japan was poised to reverse direction and begin propelling fertility rates upward by continuing to increase the proportion of women in the workforce.

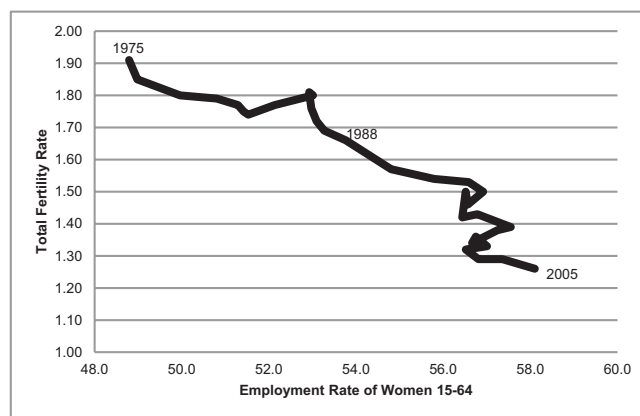


Figure 4. Rising Female Employment Rate Associated with Falling Fertility in Japan, 1975–2005. Source: From OECD, *Babies and Bosses: Reconciling Work and Family Life: A Synthesis of Findings for OECD Countries* (Paris: OECD 2007), p.35.

6. Triumph of Hope Over Experience

The above discussion shows that Japanese policymakers actually had very limited evidence about how policies designed to improve work–life balance for women would affect fertility rates at the time these policies were being adopted. Recall that the Angel Plan policies for expanding childcare services (longer hours, more spaces for younger children) were adopted in the mid-1990s, and that the policy raising the income replacement rate for parental leave from 25% to 40% was adopted in 2000. Prime Minister Koizumi’s effort to shorten childcare waitlists under the Plus One Plan began in 2003. Policymakers advocating these policies could point to the logic of opportunity costs and cross-sectional data that suggested Japan *might* get a modest fertility boost from raising female workforce participation rates further, but all of its own experience showed that earlier increases in female work rates had been associated with falling fertility. The Angel Plans did not produce a turnaround in fertility rates. Neither did the changes adopted in the early 2000s. Yet policy innovation on the model of *Babies and Bosses* continued.

How were advocates of family policy innovation able to convince politicians to adopt work–life balance policies, given the absence of positive results from earlier innovations? Especially when one considers how opponents of the carbon tax and other policy innovations designed to respond to climate change have been stymied when opponents seize on even modest levels of ‘uncertainty’ in the scientific community, it is striking how the much greater uncertainty about the fertility rate claims being made in this case did not seem to get in the way of innovation once everyone agreed that Japan had a ‘fertility problem’ and that *something* needed to be done. My own interpretation is that advocates of family policy changes in Japan realized by around 2000 that they could use the broad anxiety about fertility decline to advance their agenda. They could not say with confidence that the Angel Plans or the Plus One Plan would actually increase fertility rates, but they knew that they would make life easier for working mothers and allow at least a few more women of the next generation to stay in career positions after having children.

7. The Cost of Relying on Logic and Hope Over Evidence

The family policy innovations adopted in Japan over the period since fertility became a concern have been good for the country. They have succeeded in growing the proportion of new mothers maintaining their positions (continuous employment either with childcare leave or without) from just 27.5% in 2000–2004 to 38.3% in 2010–2015 (NIPSSR 2017: 35). By making it easier for women to stay attached to the labor force through their child-bearing years, they have also helped grow the labor force participation of women aged 25–54 from 63.7% in 2000 to 77% in 2018 (OECD)—now several percentage points *higher* than the employment rate for women in the United States and France.

Nevertheless, given the economic challenges posed by the persistently low fertility rates, we should be concerned that these policies have been oversold as a solution to *this* problem. The correlation chart featured many times in the period before Japan adopted work–life balance policies suggested that if Japan boosted its employment rate for women above those of the United States and France, it would see its fertility rate rise to their level. Instead, while Japan’s TFR has risen slightly since its lows in the mid-2000s, it remains stuck at 1.42 (TFR for 2018)—far below the rates for the United States and France and only a few points above the rate of 1.39 where NIPSSR forecast it would stabilize back in 2002. Just as NIPSSR forecast, the rate rebounded slightly as Japan came to the end of the period during which women were delaying their fertility (the ‘tempo effect’). The 2015 census showed that cohorts born since 1980 have been following the pattern set by the 1971–1974 cohort, instead of further delaying marriage (Figure 5).

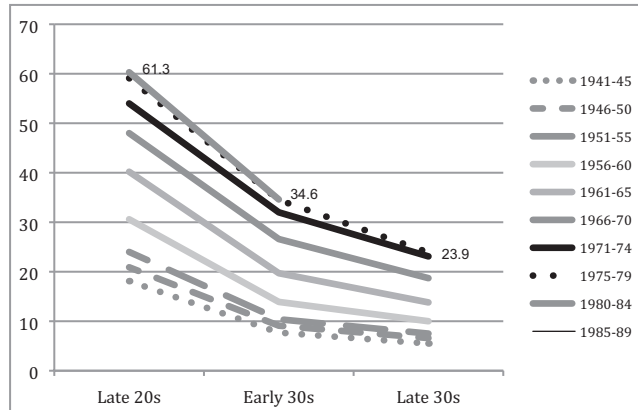


Figure 5. Percent Never Married Among Cohorts of Japanese Women, Updated with 2015 Data. Source: Census data in Population Statistics of Japan 2003, p. 77. The newest data points from the 2015 census are shown with percentage labels.

Similarly, the latest age-specific fertility rates (Figure 6) show that the number of babies being born to younger age groups has stopped shrinking, but they show only a modest off-setting increase for older ages instead of the broad increase across ages one would expect to see if work-life balance policies were prompting working women to have more children.

Perhaps the starkest sign that the fertility claims made for work-life balance policies have lost their luster is the limited discussion of fertility rates during the recent period in which Prime Minister Abe was promoting ‘womenomics’, a set of policies designed to grow the proportion of working-age women in the workforce, especially in management positions (Dalton 2017). Consider, for example, the data assembled to support these reforms by Kathy Matsui and her partners at Goldman Sachs (Matsui et al 2014). Her analysis helped convince Abe to increase spending on childcare services and adopt other policies aimed at growing the number of women on the career track, but nowhere in the Goldman Sachs research report does the team argue for the reforms based on their fertility benefits. Instead, the case is made exclusively based on the need to tap the full potential of this pool of talented labor in order to address expected labor shortages, with the discussion of fertility limited to a final section of the report disputing the ‘myth’ that increasing female employment rates will push down the fertility rate. The main evidence for this claim (Matsui et al. 2014: 27), again, is the cross-national correlation data favored by the *Babies and Bosses* project; but instead of being used to argue that work-life balance policies will push fertility rates up, it was now being used to reassure the public that fertility rates would not go further down.

8. A Closer Look at the Data

The absence of a sustained fertility rate rebound after Japan adopted a wide range of work-life balance policies suggests that we should take a closer look at the data we have available on the fertility effects of these policies, rather than relying on the limited information provided by the *Babies and Bosses* correlation chart. Fortunately, a number of scholars have begun to offer more careful analyses of the impact of increased childcare spending, improved parental leave, and cash benefits for children on fertility rates in OECD countries. Luci-Greulich and Thevenon (2013) examined the effects

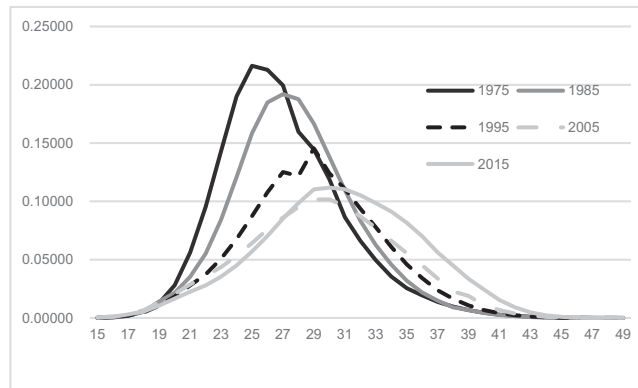


Figure 6. Age-Specific Fertility Rates. Source: *Population Statistics of Japan*, various issues.

on fertility rates of the above reforms in 18 countries between 1982 and 2007 while controlling for tempo effects, national fixed effects, economic development, and other factors. Their conclusion finds that the reforms have positive effects, but only modest ones. An increase in childcare services of 15 percentage points, they found, increases the fertility rate by just 0.01 children per woman. They found no evidence that an increase in parental leave payments has an effect on fertility rates. Spending more on children helps, but a 25% increase yields only 0.036 more children per woman. This study followed earlier ones (D’Addio and d’Ercole 2005; Gauthier 2007; Kalwij 2010) that came to similar conclusions. Thevenon and Gauthier (2011: 211) reviewed all of these studies and concluded that work–life balance policies ‘have a positive impact on fertility’ but can account for ‘only a limited share of the variations in fertility in the developed countries’.

Studies focused more specifically on Japan, leveraging variations in geography or differences across firms in family policies, have come to similar conclusions. Ogura and Kadoda (2010) examined how variations across municipalities in child welfare expenditures were related to TFRs in those areas and found that, after controlling for other factors such as local labor markets, these differences in policy accounted for only ‘a small but steady [positive] influence on fertility of around 0.2% to 0.3%’. Nakajima and Tanaka (2014) raised questions about whether even this effect is real, since some couples who are planning to have children migrate to communities with more expenditures on child welfare, creating a selection-effect problem for studies that do not model the prior decision of couples to move to such areas. Their study found that, after modeling migration decisions, differences in spending on pro-natal policies accounted for some variation in fertility but that ‘the magnitude of the effects is small and limited’. Date and Shimizutani (2007) reviewed several studies of differences across firms in childcare leave policies and concluded that better leave policies have ‘strong effects on promoting employment continuation’ but have only small effects on fertility rates.

Japan’s experience since it adopted some of these reforms is consistent with these findings. The reforms have helped more mothers stay in the workforce, and at the margins they may have eased the juggle of work and ‘life’ for these new mothers—but not enough to inspire large numbers of women who are on the fence about marriage and motherhood to take the leap. This may be because the most important societal changes affecting whether working women choose to have multiple children are not subject to manipulation through government policy or spending. One can provide every child with a daycare spot during the work day and give one parent a year of leave after every birth and still leave working mothers with an unattractive juggling act if—as in Japan—mothers are expected to do

the bulk of the housework and child-minding duties, and career employees are expected to put in long hours of overtime.

This diagnosis gets support from studies that have begun to explore the role that gender *norms* in the home, workplace, and broader society have played in influencing fertility rates. The need to look beyond work–life balance policy to broader social norms was propelled by the findings in a short but influential paper published in *Nature* by Myrskylä, Kohler, and Billari (2009), which explored the relationship between fertility and ‘development’ (measured by the human development index) and found that fertility rates tend to turn upward, in a J-shape, once HDI reaches the level of 0.85 to 0.90. Their data (Figure 7) shows how some of the nations with the highest HDI (those in Scandinavia, the United States, France) have seen fertility recover to 1.8 to 2.0 once their human development index surpassed the 0.85 to 0.9 level. The same paper featured a second figure (Figure 8) that singles out Japan and Korea as striking *exceptions* to this pattern of fertility recovery once nations reach the HDI hinge point. Myrskylä and his co-authors showed that virtually every other country has seen its fertility rate rise after hitting a low point near the 0.85 to 0.9 HDI stage. Japan (the green line) and Korea (in pink) breached that point and just kept on falling.

The 2009 paper did not attempt to explain how exactly ‘development’ pushed most countries’ fertility rates upward once they passed the pivot point, suggesting that a combination of policies and norms was likely to be involved. In a follow-up paper (2011) the same authors attempted to zero in on why some countries (not only Japan and Korea, but also Kuwait and Brunei) did not see a rebound in fertility rates after their Human Development Index reached the hinge point. What they found was that this list of countries all had high income and education levels but scored lower on ‘gender equity’—measured by the World Economic Forum’s Global Gender Gap Index—than the nations that had seen bigger rebounds in fertility. In 2018, Japan’s score on this measure, which takes into account not only economic factors such as the remuneration gap but also political empowerment,

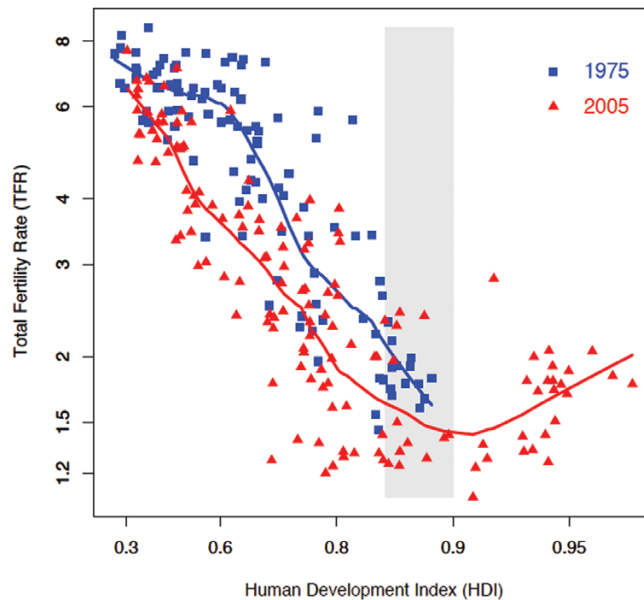


Figure 7. Cross-Sectional Relationship between the Total Fertility Rate (TFR) And the Human Development Index (HDI) in 1975 and 2005. Source: Myrskylä, Kohler, and Billari 2009, p. 3.

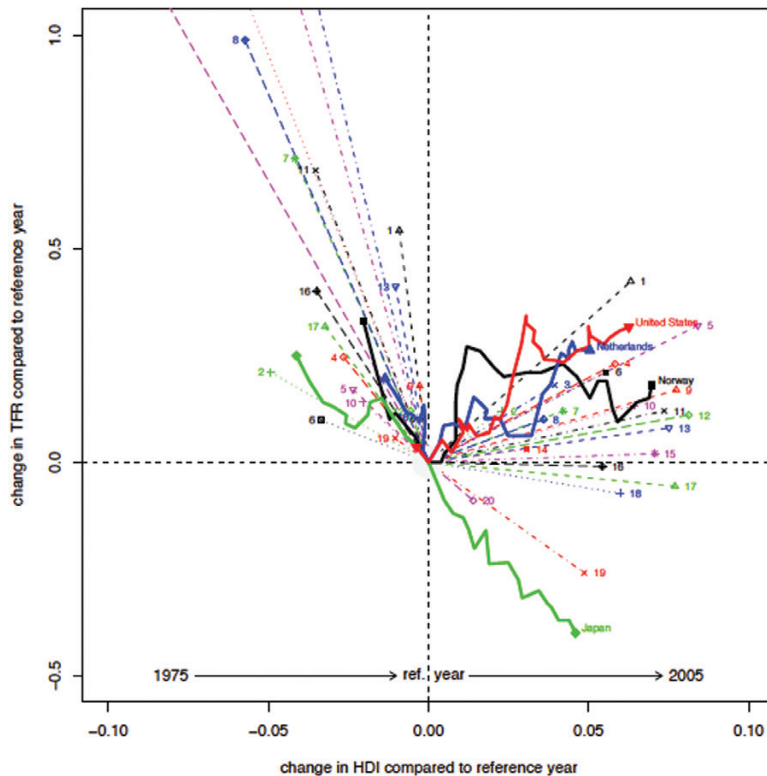


Figure 8. Within-Country Time-Path of the HDI-TFR for All Countries that Attained an HDI \geq 0.9 by 2005. Source: Myrskylä, Kohler, and Billari 2009, p. 5.

was just .66 (where 1.0 is parity between men and women)—well below the scores of nations like the United States (.72), France (.78), and Sweden (.82).

Mary Brinton and her co-authors have helped flesh out this connection between development, gender equity, and fertility rates in Japan and Korea in two recent papers (Brinton and Lee 2016; Brinton and Oh 2019). In the first paper, Brinton and Lee argue that high levels of development have brought a change in values to Japan and Korea, rendering them more accepting of women pursuing opportunities in the workplace, while leaving in place ‘gender essentialist norms’ that endorse breadwinning as men’s primary role and regard caring for family members and housework as the primary responsibility of women, even if they also have careers. They call this combination of values ‘pro-work conservatism’ and show that among a sample of 24 OECD countries, those that score highest on this combination of values (including Japan and Korea) have the lowest fertility rates.

In the second paper, Brinton and Oh carry out in-depth interviews with highly educated women and men in Korea and Japan in order to learn how exactly these couples make complex, interdependent decisions about work outside the home, getting married, and whether to have one or more children. What they find is that, confronted by the long hours that career employees are expected to work and influenced by norms that tell them that breadwinning is the most important thing men can do and that caring is a valuable thing for women to do, highly educated women either compromise their career ambitions or give up on having children. Childcare services end too early

(even after the expansion in services over the past three decades) for both husband and wife to work the long hours expected of them, so the wife tends to compromise her career so that her husband can continue to be the breadwinner. If she is not willing to give up on her career, they figure out how to make things work with one child but often give up on having a second one.

Brinton and her co-authors help us understand why fertility rates have barely budged in Japan despite several rounds of family policy reform that have given Japan childcare services and parental leave benefits that are roughly on par with the policies in place in high-fertility northern European countries such as Sweden and France. In Europe, these policies interacted with a work culture that values family time for men and women and a gender egalitarian culture that values a more even division of caring and paid work between men and women. In that context, policies for investing in childcare and parental leave helped these countries boost their fertility rates to 1.8 or above.

Japanese values differ in other ways, as well, from Sweden, France, and other northern European nations with higher fertility rates. Japanese also have more traditional attitudes toward what constitutes a ‘normal’ family. This difference in norms was emphasized by [Iwasawa Miho \(2000\)](#), a demographer working for NIPSSR. The higher fertility countries, she pointed out, all had higher co-habitation rates, higher out-of-wedlock birth rates, and higher divorce rates. She noted that Japan and these other nations actually had similar fertility rates among *married* women. The difference in overall fertility rates in France, Sweden, and the United States was entirely accounted for by the extra births taking place outside of marriage. If Japan really wanted to boost fertility rates, she suggested, it needed to shift social norms (and perhaps some public policies) to become more welcoming and supportive of non-traditional families. Others have noted that Japan has also been slower to accept marriages without children. If a young couple marry, they face strong pressure to immediately have children. Women who are unsure if they want to have children consequently have an incentive to avoid marriage entirely.

Needless to say, Japan has not adopted any policies to promote alternative family structures. The proportion of never-married women who report at least one experience with co-habitation is barely changed since 2002, rising from 8.2% of 30- to 34-year-olds in that year to 11.9% in 2015, but falling for 25- to 29-year-olds from 10% to 9.9% over the same period ([NIPSSR 2017](#): 15). Also, little changed is the proportion of births outside of marriage, which stood at 1.87% in 2002 and had risen by 2015 to 2.29 ([NIPSSR 2017](#)). That is still a very low rate when compared to the 2013 figures for France (56.7%) and Sweden (54.4%). The crude divorce rate in Japan has actually fallen over this period, from 2.3 divorces per 1,000 people to 1.8. This contrasts with rates for France (3.6 per 1,000) and Sweden (5.3 per 1,000). There are now more couples who have been married for 15–19 years without children, up from 3.4% in 2002 to 6.2% in 2015 ([NIPSSR 2017](#): 28). On balance, it seems that Japan remains strongly wedded to the notion of the heterosexual married couple with children as the singularly idealized family form. This ‘family essentialism’ ought to be considered alongside the ‘gender essentialism’ emphasized by Brinton and her co-authors as part of the social context that has shaped how work–life balance policies influence fertility rates in Japan.

9. Conclusion

This investigation of how social science research has informed the debate in Japan over how to increase fertility rates reveals how unevenly this research has been consumed by government officials and politicians, with the policy influence of specific findings having little relationship to the strength (in terms of statistical significance and magnitude of policy impact) of the empirical findings. In the

first decade, careful work by demographers, based on data suggesting that the fall in fertility rates was likely to be only temporary, helped delay Japan's policy response. Once the team of demographers at NIPSSR digested new data showing that the dip was likely to be prolonged, policymakers scrambled to find policy solutions. They embraced reforms that made sense based on the logic of economic opportunity costs but had little support from fertility studies, beyond an easy-to-digest correlation chart showing that some of the rich countries with higher levels of fertility than Japan had higher rates of female labor force participation enabled by more generous childcare services, parental leave, and child support programs.

Most of the more careful research on whether or not these reforms were associated with strong impacts on fertility rates was not done until Japan had already adopted work–life balance policies that put the nation's programs on par with those high-fertility countries. When the research was finally completed, it showed that the effects of more generous parental leave, more childcare services, and child allowances had only very small, and in many cases statistically insignificant, effects on fertility rates once other factors were included in the empirical analysis. In retrospect, it is clear that this package—strongly backed by the OECD *Babies and Bosses* project not only to increase female labor force participation but also to increase birthrates—was oversold as a solution to Japan's fertility problem. A close reading of the *Babies and Bosses* documents shows that the authors were careful to note that correlation was not causation and recognized that many other factors played a role in influencing fertility rates across a diverse sample of OECD countries, but these caveats were largely neglected by Japanese policymakers in the rush to *do something* about a trend that threatened the solvency of social welfare programs in Japan.

The most recent research on the causes of low fertility in Japan, now based World Values Survey data, micro-data on employment, marriage, and fertility behavior, and in-depth interviews with highly educated men and women, shows that even generous childcare, parental leave, and child allowance programs cannot convince couples who are struggling with Japan's long work hour expectations to have additional children. These programs do reduce the costs of raising children, but as long as most career jobs in Japan ask employees to work until 08:00 or 09:00 pm every night and accept transfers at the risk of their continued employment, couples will have no relief from the single largest opportunity cost mothers continue to pay: the need to give up her full-time regular employment. Couples tasked with figuring out how to juggle work and family obligations under the influence of gender essentialist norms that expect men to be the breadwinners and women to take on the primary burdens at home will continue to ask the wife to sacrifice her career and limit her hours to part-time or temporary jobs. Japan's labor market institutions, of course, are also implicated in this decision-making (Rosenbluth 2007), but a big part of the problem is not laws and regulations but norms. Similarly, norms that define the essential family form as a married couple with breadwinner-father, devoted mother, and two children will continue to cause young working men and women to hesitate before moving in with partners or having children outside of marriage when they are unsure if they can live up to this ideal.

Prime Minister Abe declared in 2016 that 1.8 was a desirable fertility rate, a number chosen because demographers told him that if Japan brought the rate up to that level by 2025 Japan could maintain its population at 100 million instead of watching it fall to 80 million or below. The Cabinet has been implementing another round of expansion in childcare services, the biggest budget item in the new package, but his policy team would do well to pick up the articles by Myrskylä, Kohler, and Billari (2009; 2011), which show that fertility rates in Japan and South Korea are not responding to growing wealth the way other rich nations did, even after the nations adopted work–life balance policies. What needs changing are work and family norms, and an LDP government led by older,

conservative men does not seem very well equipped to carry out the social changes that will be needed before those norms begin to significantly change.

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