Does a Bad Start Lead to a Bad Finish in Japan?

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Abstract

There has been a growing concern about "Bad Start, Bad Finish (BS/BF)" issues in European countries for the last decade. Many young persons make a bad start to their working career and remain as atypical workers for long periods, being anticipated to reach retirement age with inadequate social security pension benefits.

What about the case of Japan? In this paper, we discuss whether the BS/BF problem is as serious in Japan. The data set used is the *2011 Longitudinal Survey on Employment and Fertility (LOSEF): An Internet Version*. The survey represents a sample of 3893 individuals aged 30-49 (born between November 1961 and October 1981). It contains long-term retrospective panel data of around 160,000 observations transcribed from the special Social Security Statements (the Japanese version of "Orange Letter") issued by the Social Insurance Agency in fiscal 2009.

Our provisional findings in this paper confirm that the BS/BF issue is currently as serious in Japan as in European countries. For young workers of the current generation, the proportions of BS have been increasing up to around 40% (females) and 32% (males) respectively, and the BF risk for current young BS persons will be around 90% (females) and a little more than 50% (males) respectively. Their incidence of poverty after retirement is likely to become quite problematic.

1. Introduction

There has been a growing concern about “Bad Start, Bad Finish (BS/BF)” issues in European countries for the last decade.[1] Many young persons make a bad start to their working career and remain as atypical workers for long periods, being anticipated to reach retirement age with inadequate social security pension benefits.

What about the case of Japan? In this paper, we discuss whether the BS/BF problem is as serious in Japan. We address the following issues:

1) Have “bad starts” been increasing?

2) What changes were observed in career history for each generation?

3) What different circumstances in living conditions are currently caused by different career starts?

4) What factors dominate a bad start?

5) For persons with a bad start, what factors can influence the shift to a typical working career?

And:

6) How likely is a bad start to cause a bad finish?

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[1] See Boeri-Galasso (2010) for example.

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The data set used is the *2011 Longitudinal Survey on Employment and Fertility (LOSEF): An Internet Version*, which was conducted in November 2011 by the Project on Intergeneration-

al Equity (PIE).[3] This survey represents a sample of 3893 individuals aged 30-49 (born between November 1961 and October 1981).[4] It contains long-term retrospective panel data[5] of around 160,000 observations transcribed from the special Social Security Statements (the Japanese version of "Orange Letter")[6] issued by the Social Insurance Agency (SIA; currently, Japan Pension Service) in fiscal 2009. The special Social Security Statements mentioned above include the names of companies

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[2] The BS issues have been already one of the major challenges to policy makers not only in European countries but also in Japan. See Bukodi-Dex(2010), Genda(2008), Hamaaki et al.(2011), Kondo(2007), McGinnity et al(2005), and Ohta(2010)

[3] The PIE launched in 2000 and is scheduled to run until 2015, headed by Prof. N. Takayama. It is one of several academic projects funded by the Grant-in-Aid for Specially Promoted Research from Japan's Ministry of Education (grant number: 22000001).

[4] The LOSEF internet version does not include a sample of civil servants. Civil servant pensions have been administered by other agents than the Social Insurance Agency. See Takayama-Inagaki-Oshio (2012) for further details.

[5] Consider a sample of those aged 59, for example. Their record in the SIA database contains each figure of monthly earnings for 45 years (just after their graduation from junior high school) maximum.

[6] Japan faced a serious pension recordkeeping problem in 2007, when the government announced that around 50 million pension records had been floating, rather than being integrated to each individual's pension identification number (see Takayama (2009) for the details). The first and special Social Security Statements were sent in fiscal 2009 to all persons of age 20 (or 15 if enrolled) and over to verify whether on-line recorded data at the SIA were correct or not.

(or institutions) employing each individual, history of registered monthly earnings, and which pension system he/she was covered by, dating from the outset of pension enrollment for each person. The LOSEF additionally includes data on changes in jobs, marriage status, and number of children, on a yearly basis. It has information on family background, educational background, some future prospects, and the latest figures on living conditions including household annual income, financial asset holdings, and monthly consumption expenditure as well. Thus, one may say that the 2011 LOSEF is an unprecedentedly unique and comprehensive panel data set with considerable accuracy in Japan.

The Bad Start (BS) is defined in this paper as follows. First, we re-classified the employment status given by the LOSEF from 14 to 5 categories: (1) typical salaried workers (TY), (2) atypical salaried workers (AT),[7] (3) self-employed and professional people (SE/Professional), (4) full-time housewives (FTHW), and (5) students. Second, we defined the bad start as a group of persons with any AT experiences in their young days (under age 25).[8] Third, for the remaining other categories, we defined the good start (GS),[9] SE/Professional, and FTHW following their first jobs, respectively. Fourth, we defined all remaining persons as student starts.

2. Working Situations at the Start of Career

Figure 1 shows working situations at career start-up by cohort and by sex. Proportions of BS were higher for females than for males, and also higher for younger

[7] Unemployed workers seeking work are included in "AT."

[8] In this paper, persons starting their careers as "AT" aged age 25 or above are also included in "AT."

[9] In this paper, we confined "GS" to those persons who started their working career within one year after the shortest standard schooling years at each educational status respectively.

generations. Taking the youngest cohort born between April 1976 and October 1981 (currently aged 30-34), for instance, proportions of BS were around 40% for females, and 32% for males.

Figure 2 presents working situations at career start-up by educational attainment, indicating that the better the educational qualifications are, the lower the proportion of BS.

Figure 1　Proportions of BS and GS by Sex & by Cohort

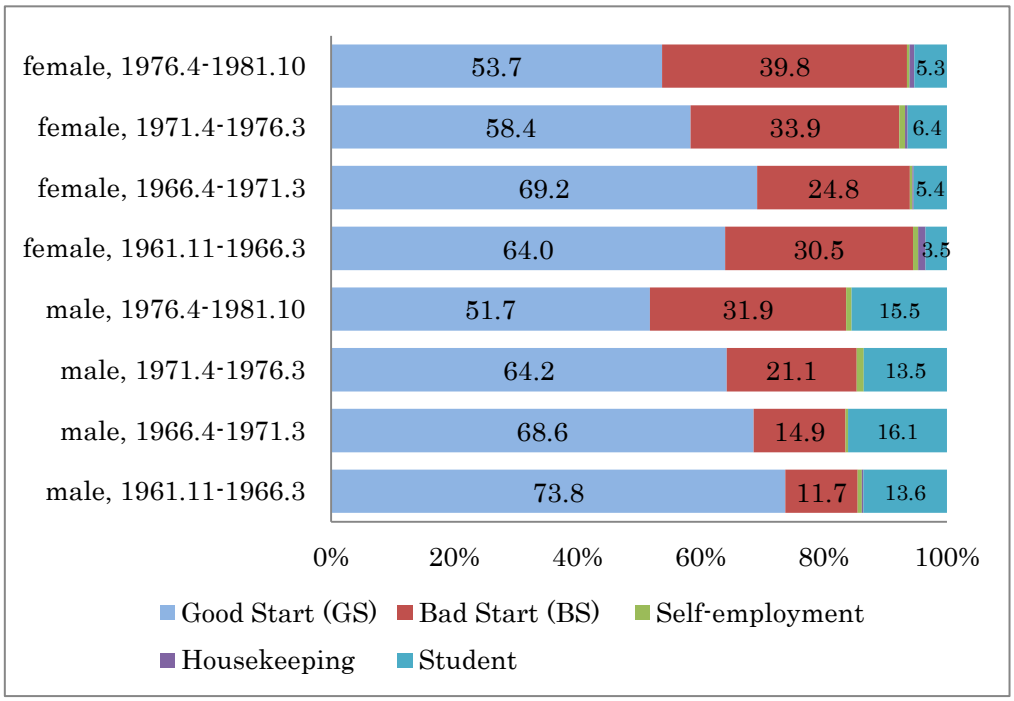
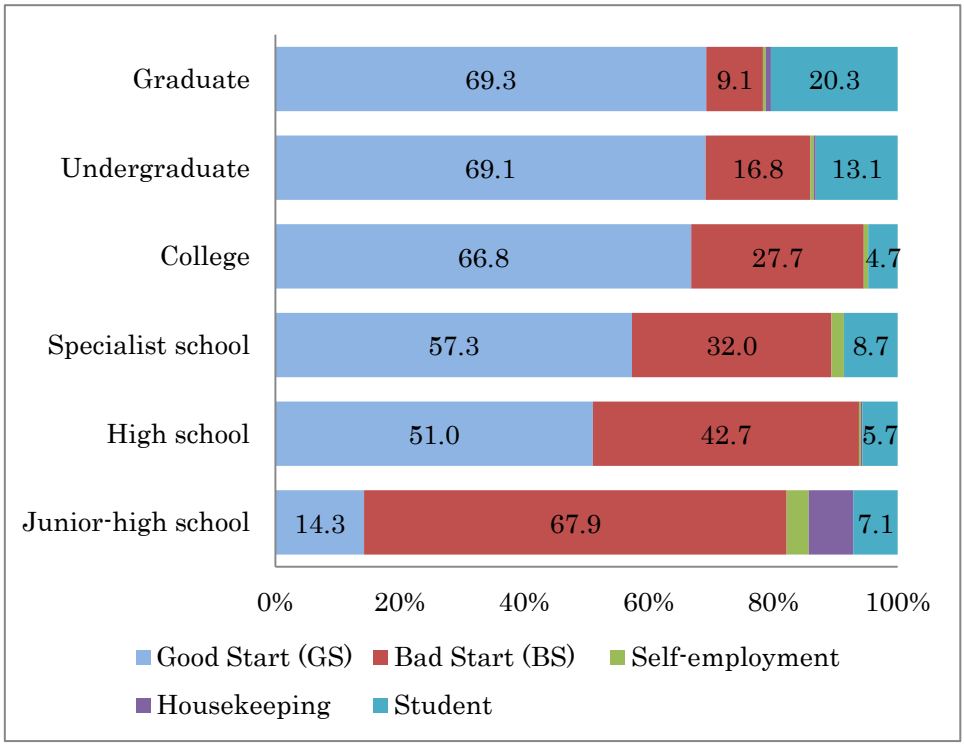


Figure 2　Proportions of BS and GS by Educational Attainment



The monthly earnings first recorded in each individual's SIA database were not found to vary greatly by the BS/GS difference on average, although earnings were a little higher for males than for females.[10]

3. Dynamics of Working Status

Yearly changes in working status by cohort and by sex are depicted in Figures 3 to 13. Major findings can be summarized as follows.

1) The changing pattern basically differs by sex, since many Japanese females quit their jobs to become full-time housewives around age 30.

2) For GS males, their survival rate as a typical employee was considerably high.

[10] The monthly earnings used here are those evaluated at the current earnings level.

The proportion of those whose jobs became atypical remained very low at around 15%, even for workers into their late 40s.

3) BS males were fairly likely to move up to become a typical employee by age 35. However, after that age, the proportion of typical employees among them began to decrease. The career move-up mentioned above was observed to occur more slowly and less for younger generations.

4) The majority of males who made a student start began working as a typical employee by around 30 years of age.

5) For GS females, survival rate as a typical employee was observed to decline sharply as they aged, while proportions of those who quit their job to become a full-time housewife increased to greater than their survival rate as typical employees after around age 30. Furthermore, those who changed their employment status into atypical workers increased in number as they aged, and were greater in number than those who survived as typical after age 40.

6) The majority of BS females remained as atypical employees. The move up to becoming a typical employee usually took place by age 23, although this move-up rate was 40% at the highest. The move-up rate began to decrease just before age 30, whereas a great many quit their jobs to become full-time housewives during their 30s.

Figure 3　Employment History

(Survival Rate of Typical Employees for GS Males)

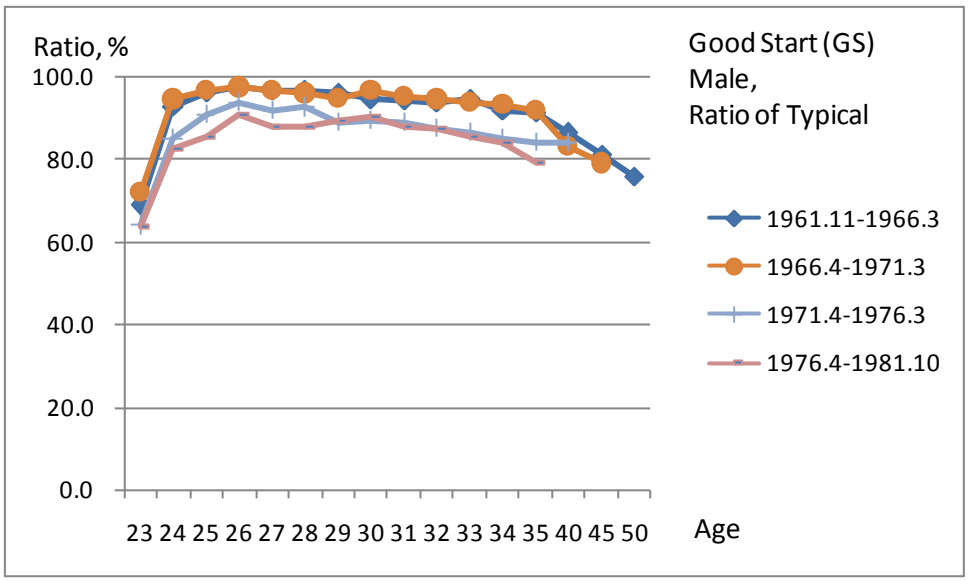


Figure 4　Employment History

(Proportions of Switch to Typical Employees for BS Males)

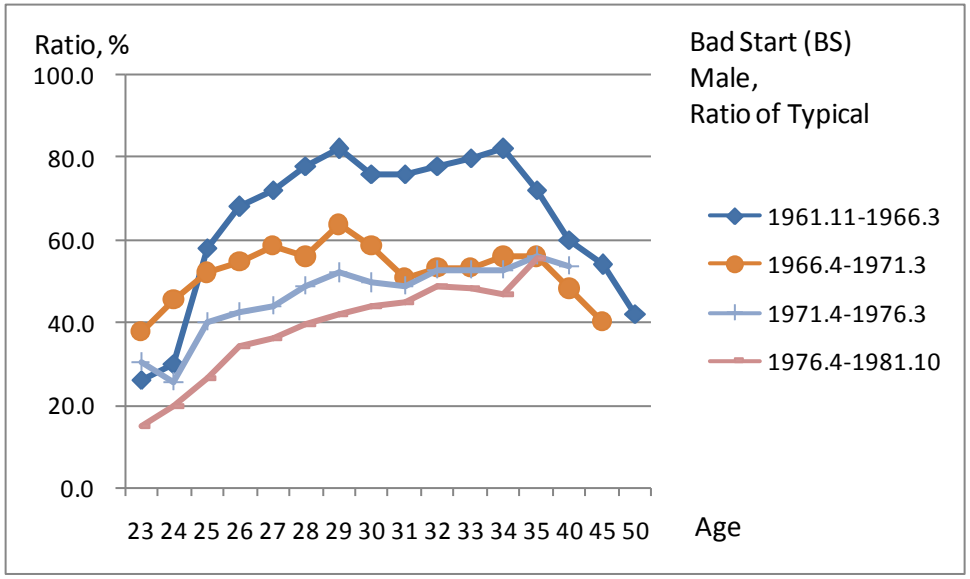


Figure 5　Employment History

(Survival Rate of Atypical Employees for BS Males)

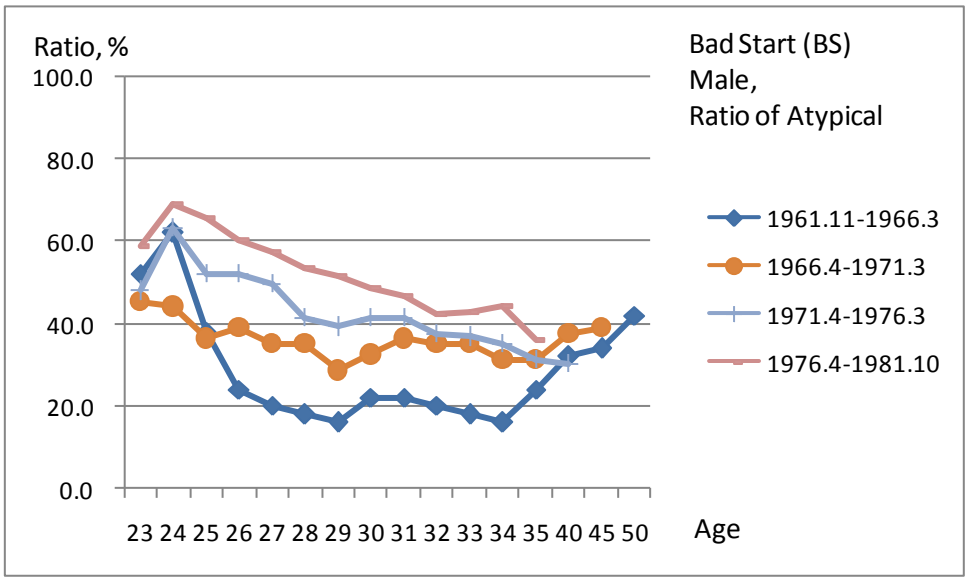


Figure 6　Employment History

(GS Females, Age 45-49)

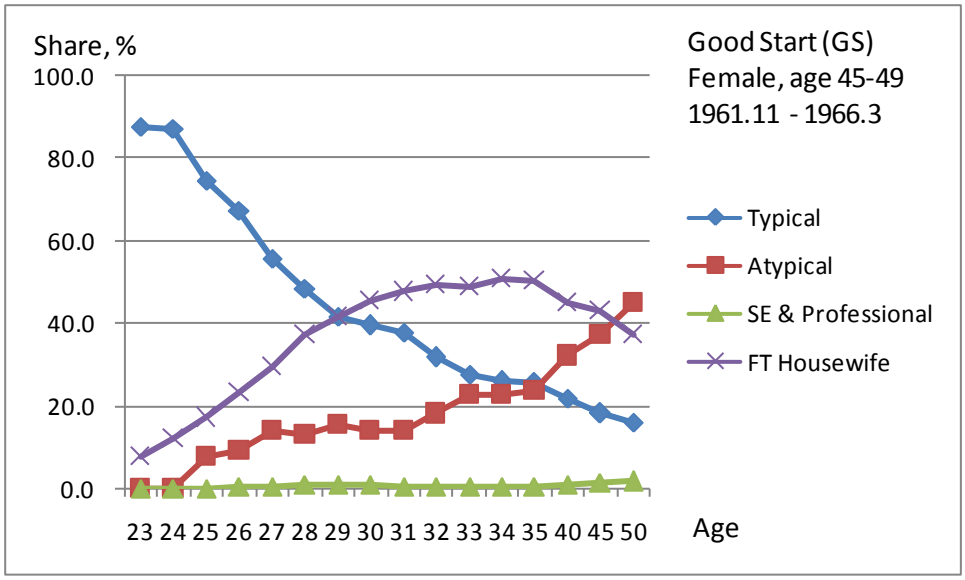


Figure 7　Employment History
(BS Females, Age 45-49)

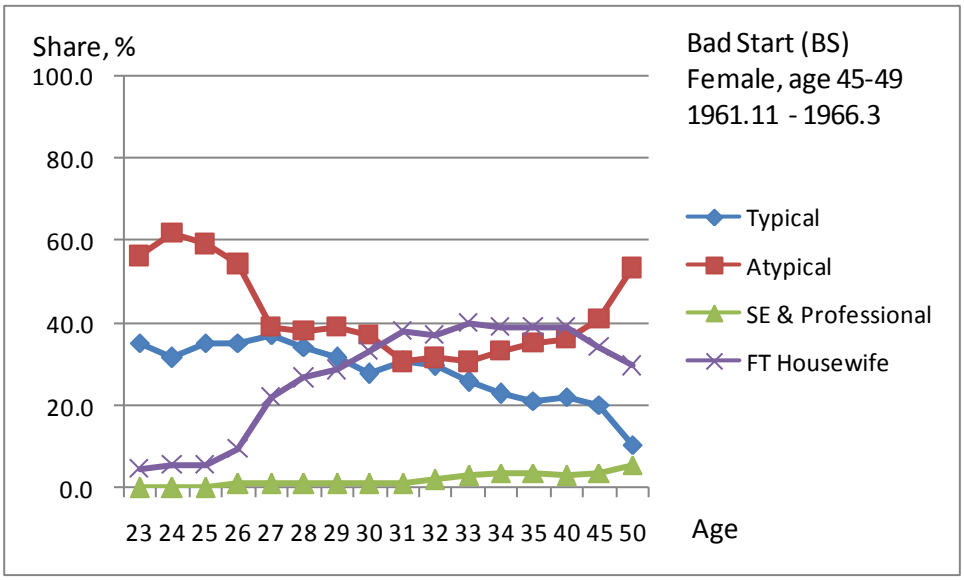


Figure 8　Employment History
(GS Females, Age 40-44)

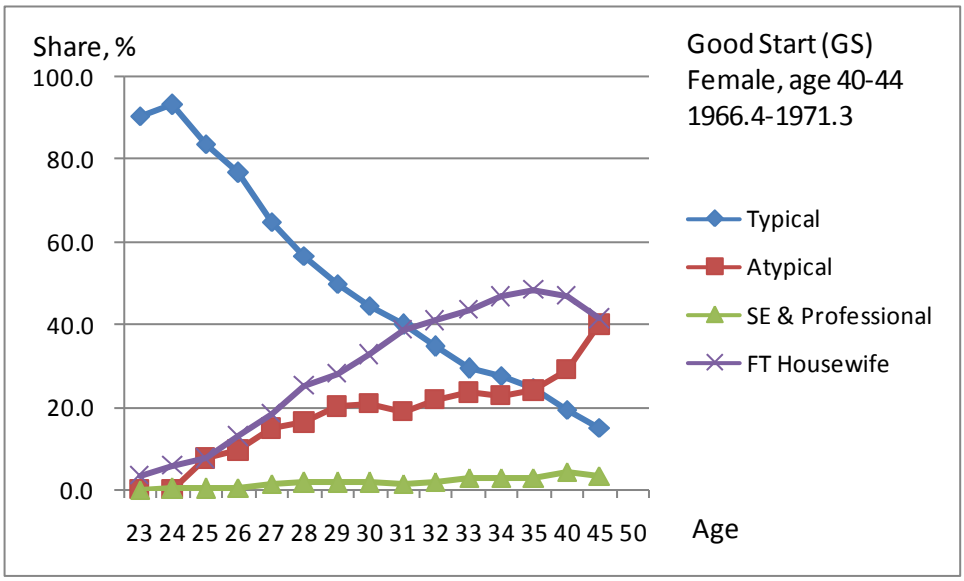


Figure 9　Employment History
(BS Females, Age 40-44)

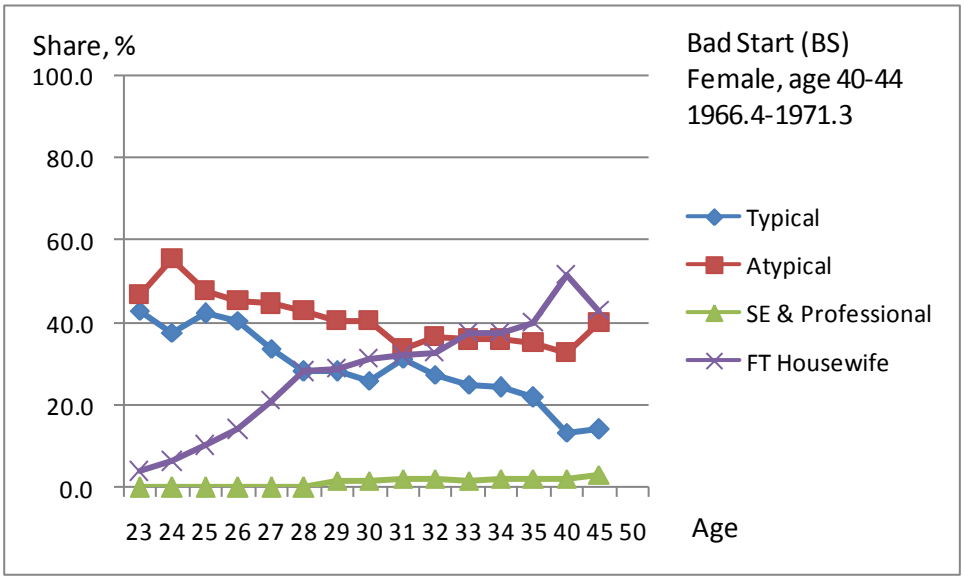


Figure 10　Employment History
(GS Females, Age 35-39)

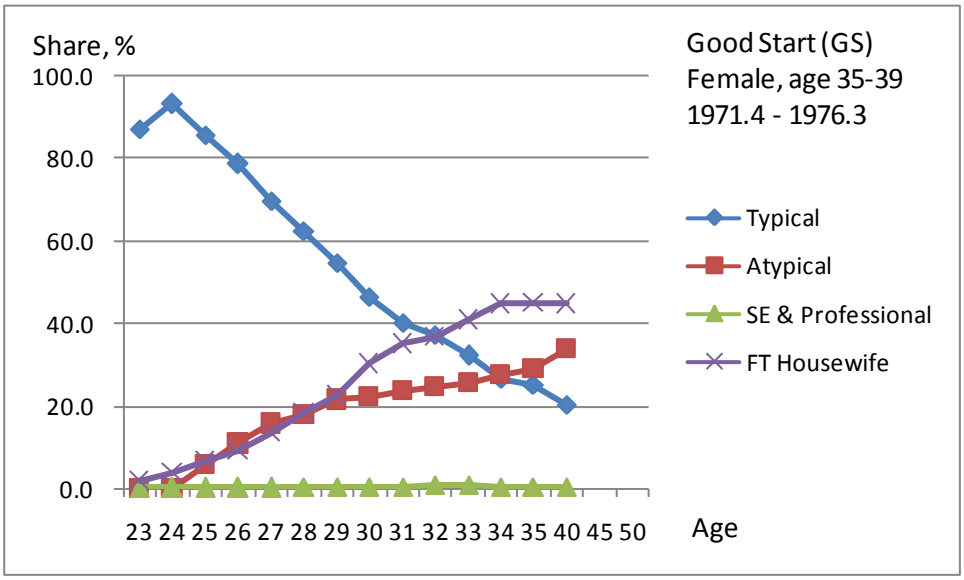


Figure 11　Employment History

(BS Females, Age 35-39)

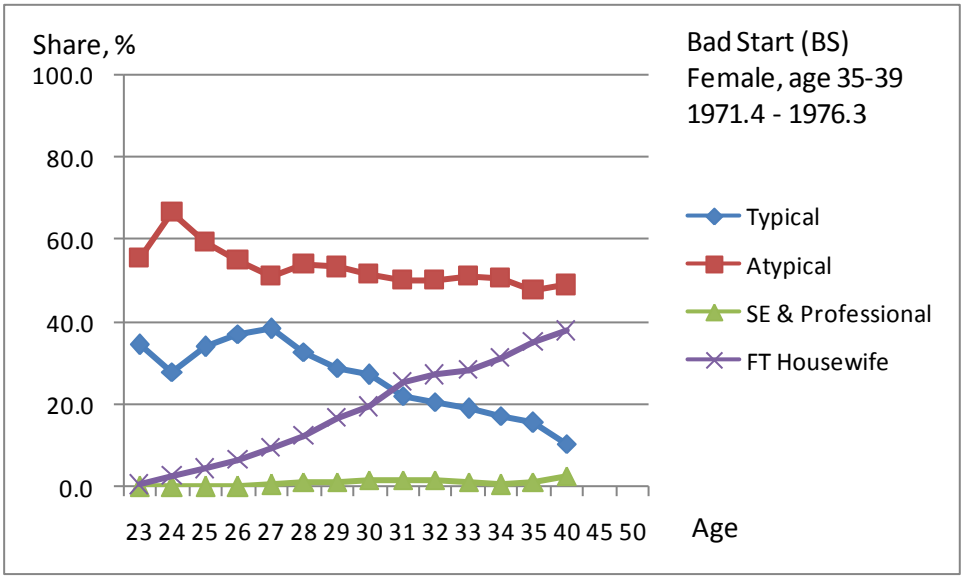


Figure 12　Employment History

(GS Females, Age 30-34)

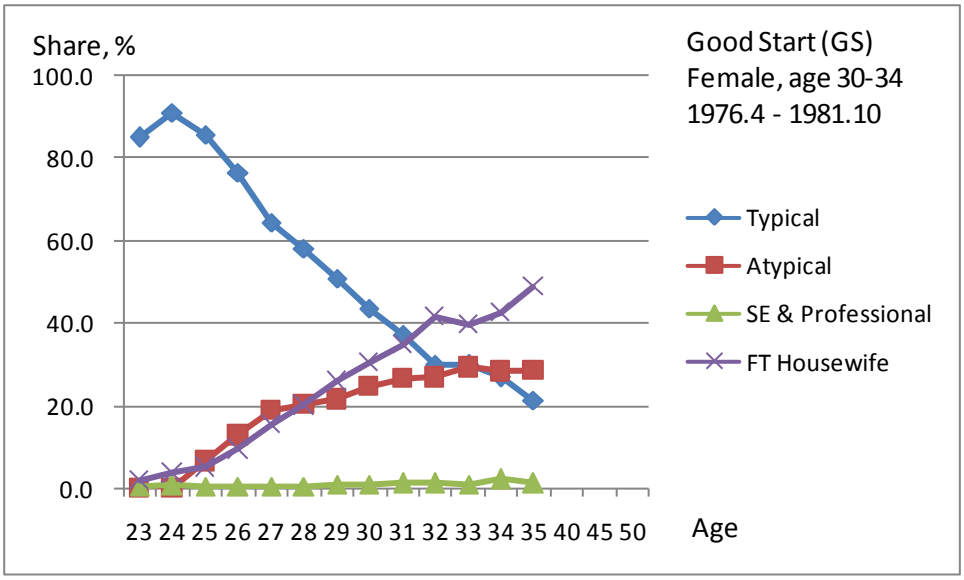
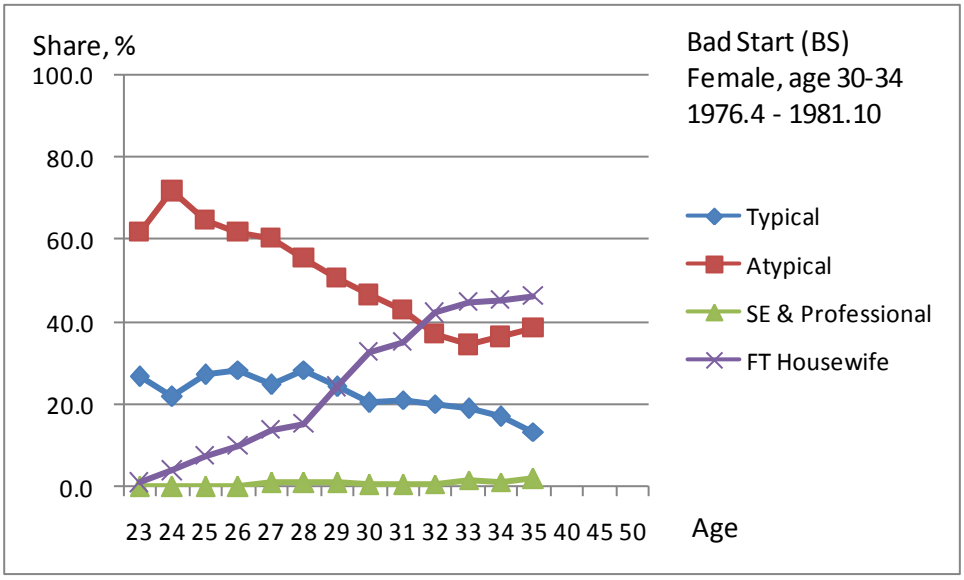


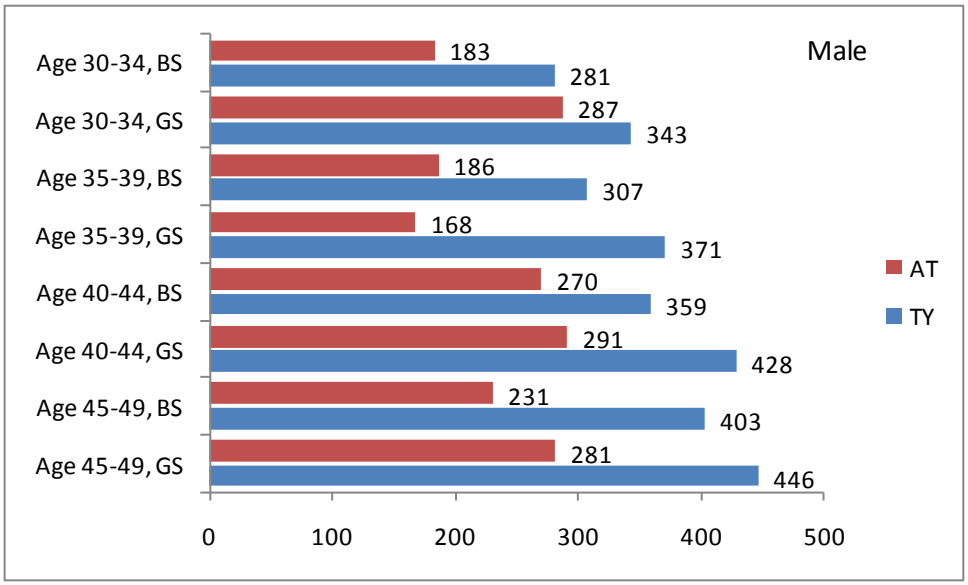
Figure 13　Employment History
(BS Females, Age 30-34)

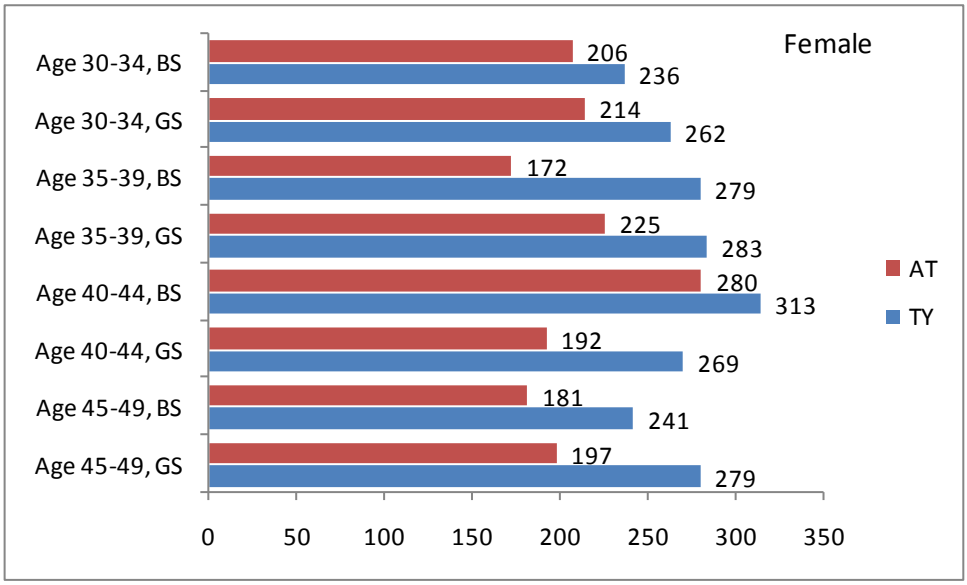


4.　Current Indicators in Living Conditions by BS/GS

Figure 14 shows the current average amounts of monthly earnings by sex and by BS/GS. These differ remarkably by sex and by TY/AT, while the differences are found to be rather small among females.

Figure 14　Current Average Monthly Earnings (1,000 yen)



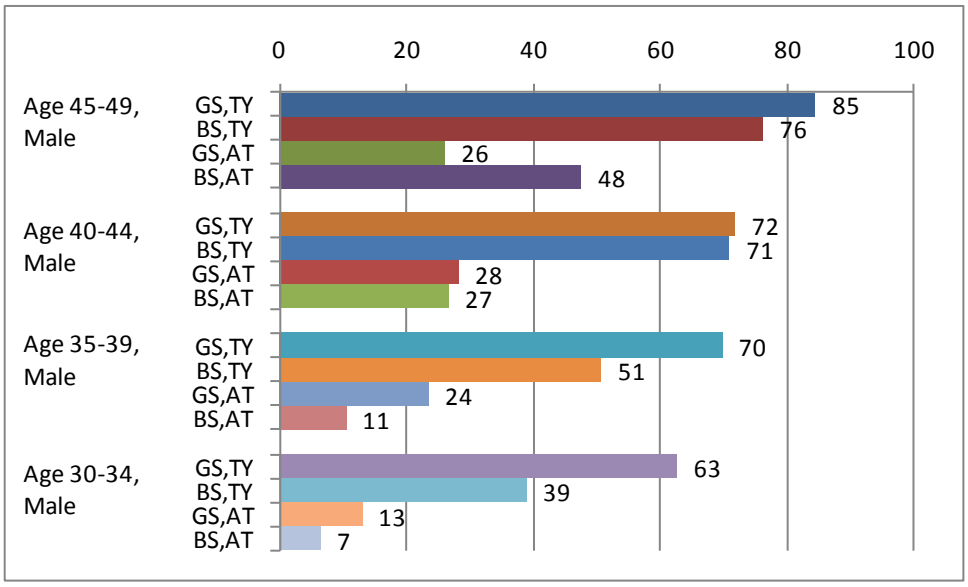


Second, the average number of children is greater among the GS group than the BS one.

Third, as Figure 15 indicates, marriage rates are higher for typical male employees than atypical ones, while quite the opposite is true for female employees; namely, marriage rates for typical female employees are very low at less than 50%, and show little increase with age. The divorce rates among actively working employees are higher for females than those for males. They are also higher for typical female employees than atypical female ones.

Fourth, for atypical male employees of age 30-39, the rates of current procreation or planned procreation within 5 years are very low at less than 20% (see Figure 16).

Figure 15　Marriage Rate (Males)



Marriage Rate (Females)

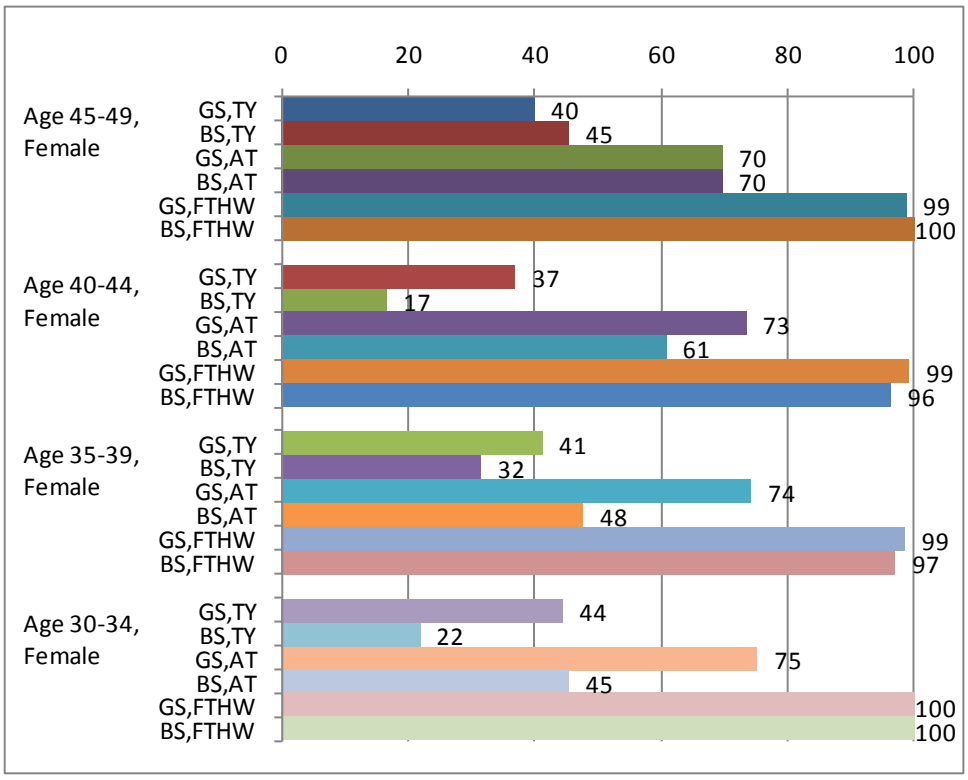
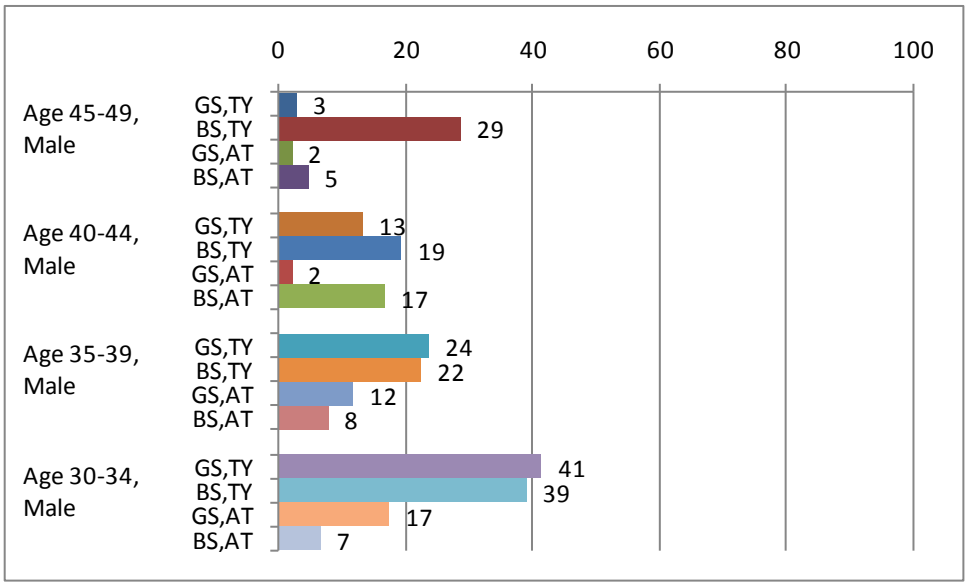
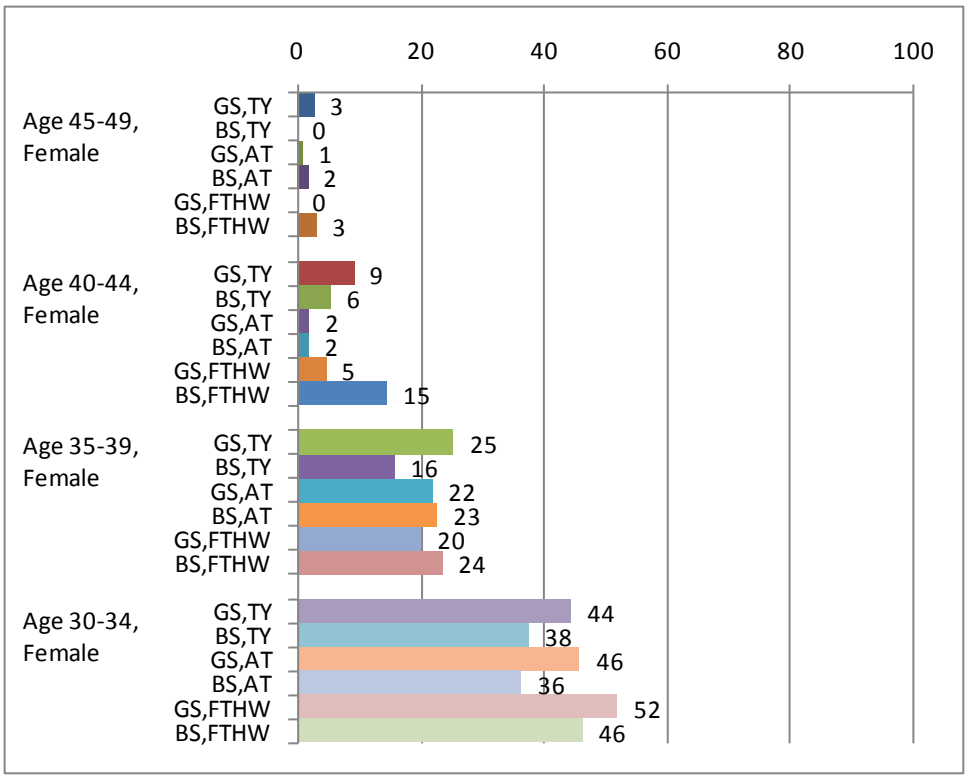


Figure 16 Proportion of Current Procreation or Planned Procreation within 5 Years (Males)



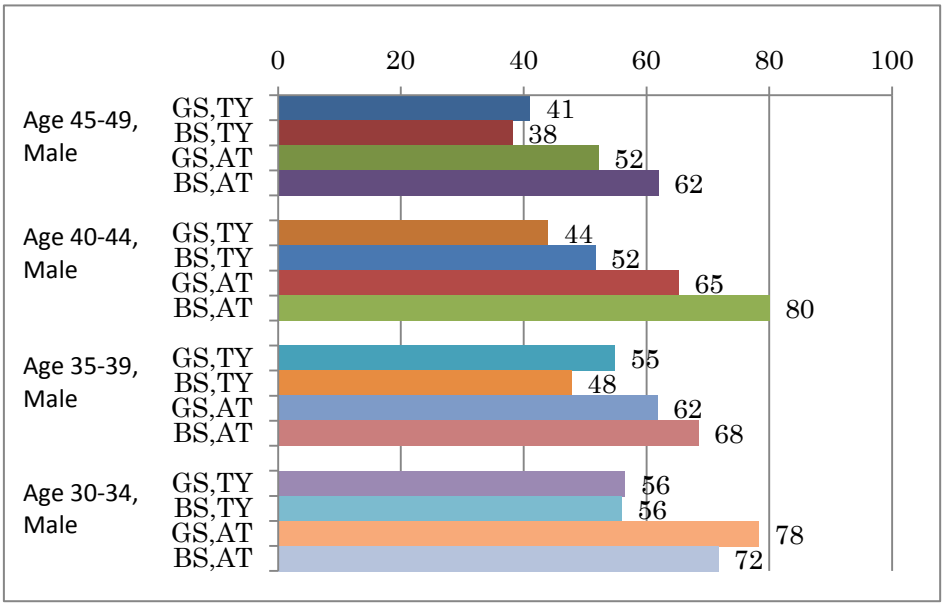
Proportion of Current Procreation or Planned Procreation within 5 Years (Females)



Fifth, Figure 17 implies that the majority of the actively working generation aged 30-49 do not believe that they could be better-off than their parents' generations. In particular, only less than 20% of young people (aged 30-39) expect that they could be better-off than their parents.

Sixth, the majority of actively working employees do not believe that their living standard will go up in the next ten years. Fewer than 25% of those aged 30-39 believe their living standard will rise in the next ten years (see Figure 18).

Figure 17 Proportion of Those Not Expecting To Be Better-off Than Their Parents (Males)



Proportion of Those Not Expecting To Be Better-off Than Their Parents (Females)

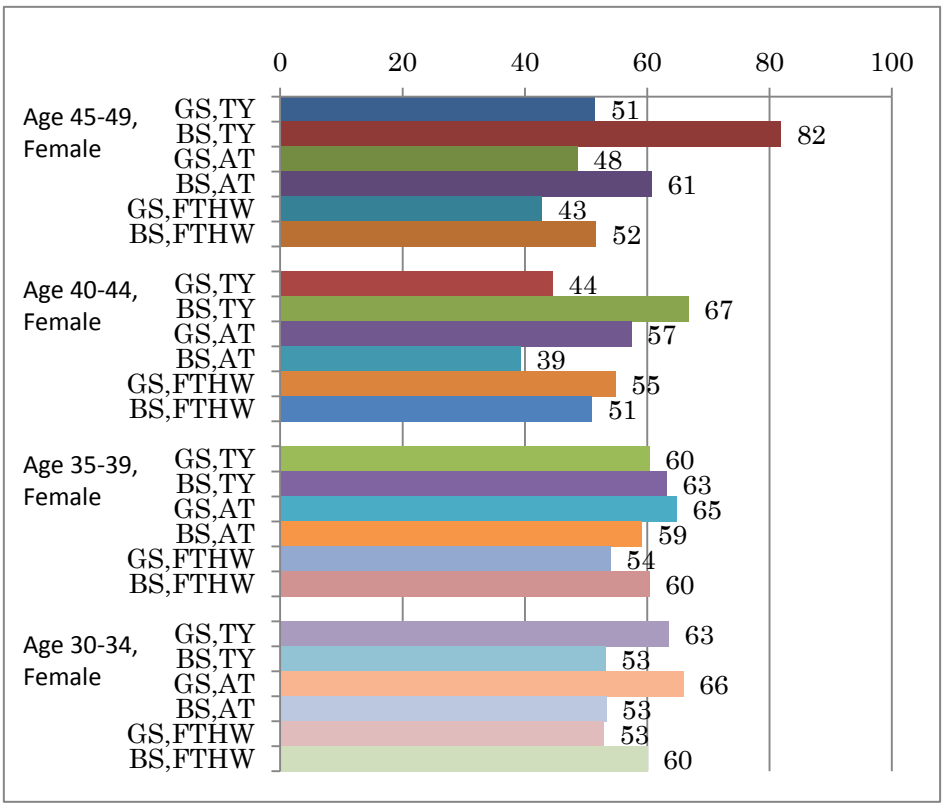
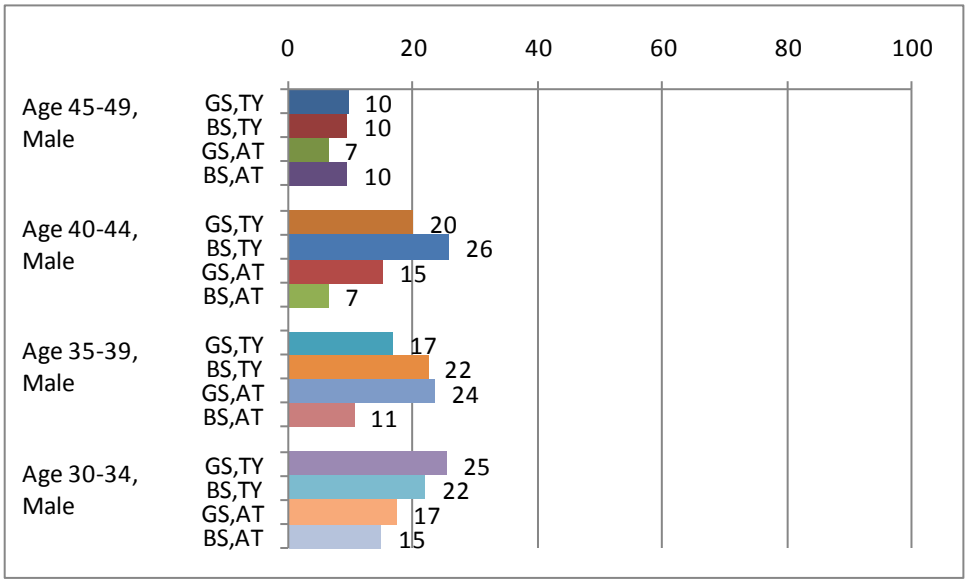
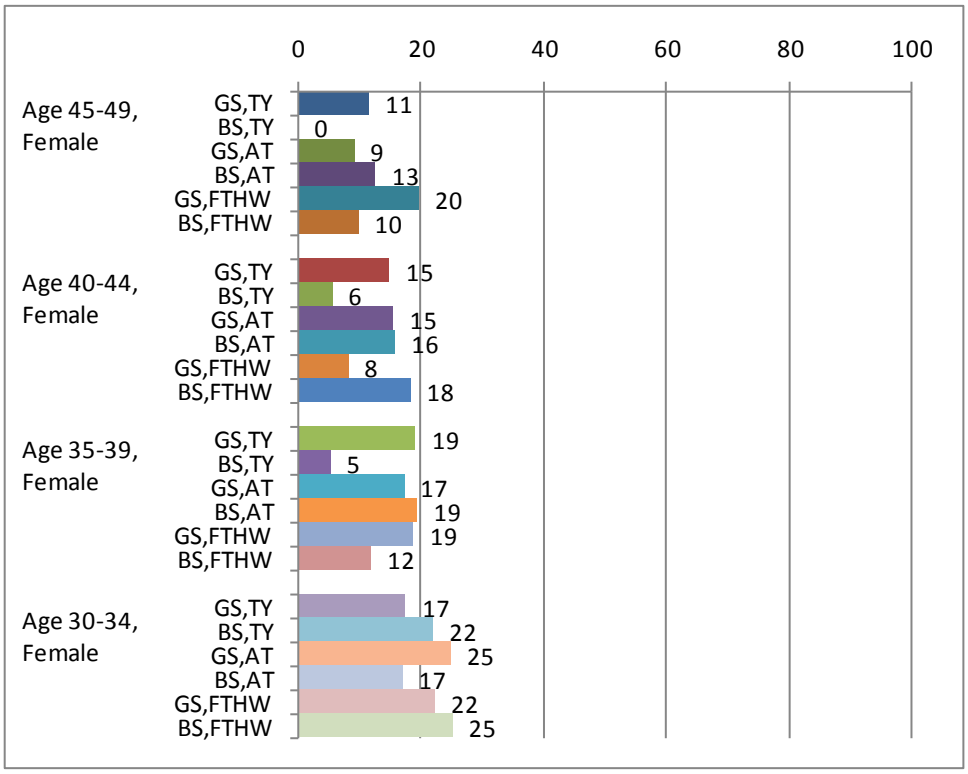


Figure 18 Proportion of Those Expecting An Improved Living Standard In The Next 10 Years (Males)

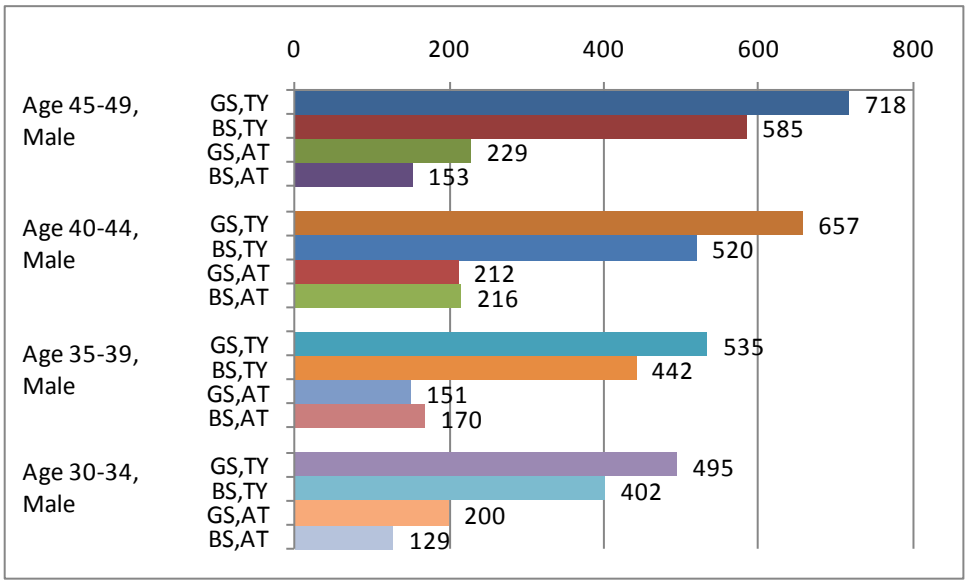


Proportion of Those Expecting An Improved Living Standard In The Next 10 Years (Females)

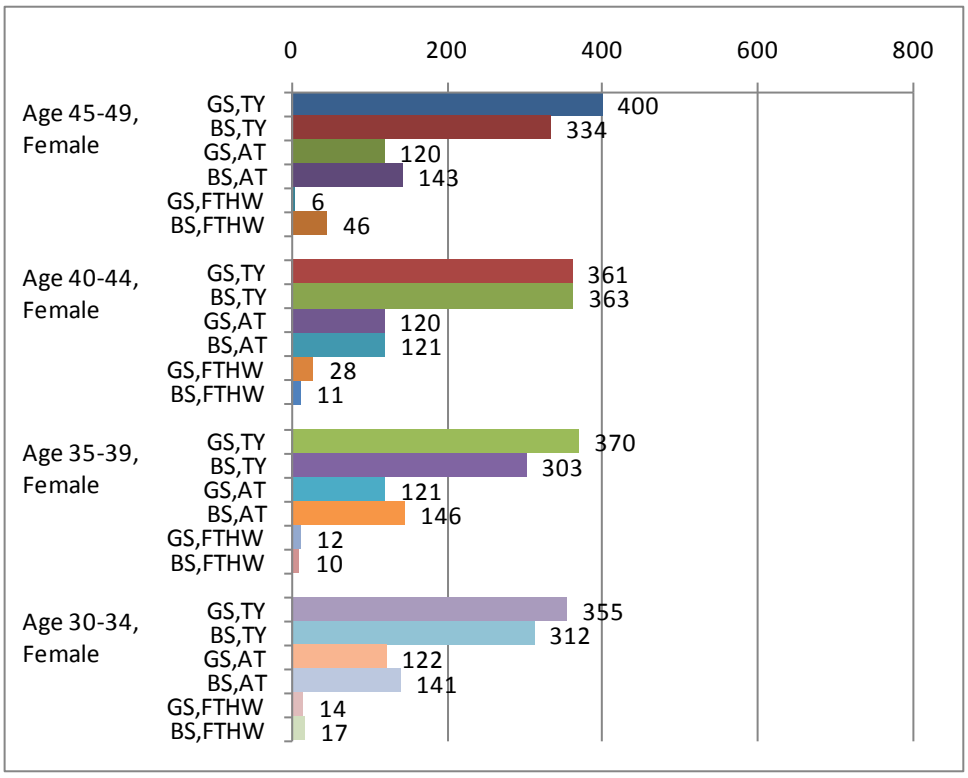


Seventh, Figure 19 suggests that current annual income for typical employees is considerably higher than that for atypical ones. It increases with age for typical male employees, whereas it changes little with age for all others.

Figure 19 Current Average Annual Income on an Individual Basis (Males; 10,000 yen)

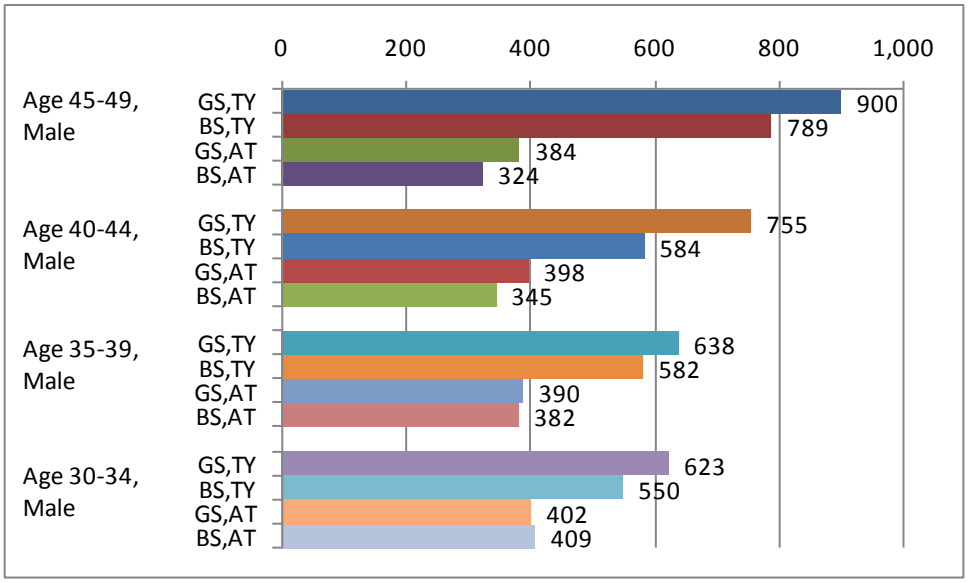


Current Average Annual Income on an Individual Basis
(Females; 10,000 yen)

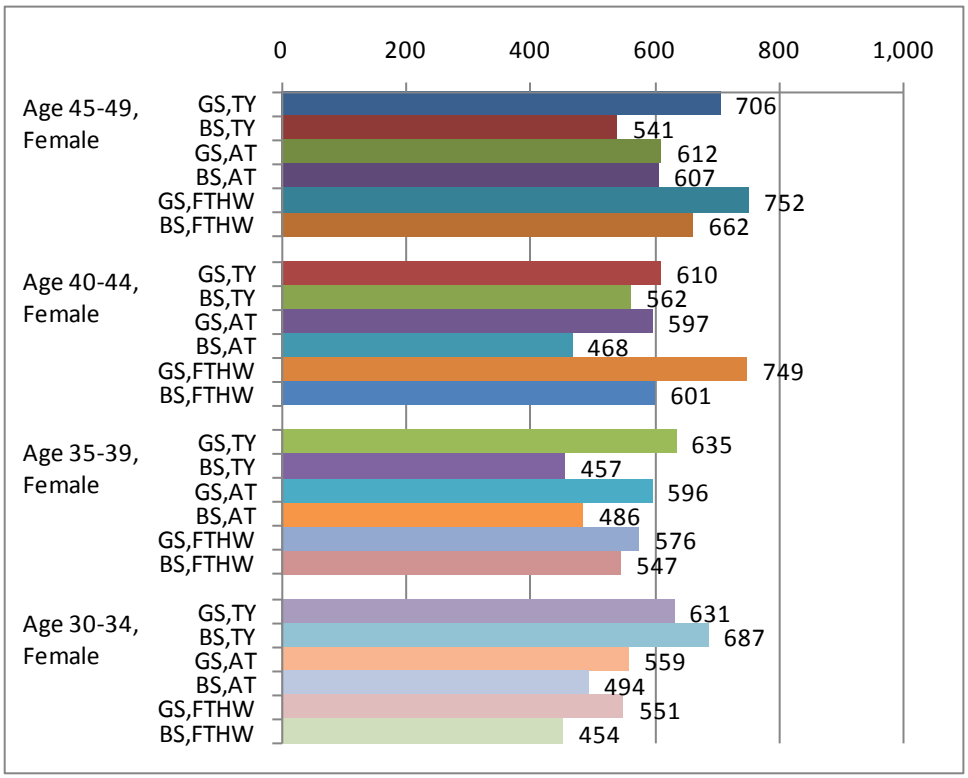


Eighth, Figure 20 indicates that for atypical male employees, current *household* income is almost the same regardless of age: evidence of a widening gap in household income between typical and atypical male employees. For females, the household income gap is smaller than for males. The household income for GS females of age 40-49 who quit their jobs to become full-time housewives is relatively high.

Figure 20 Average Household Annual Income
(Males; 10,000 yen)



Average Household Annual Income
(Females; 10,000 yen)



5. What Factors Dominate a Bad Start?

We assume that a person faces the following three choices at the career start just after he/she leaves school: a good start (GS); a bad start (BS); and others (OT), where their probabilities (P) are mutually independent. Here we adopt a multinominal logit model to examine what factors dominated the bad start.

The dependent variable is log [P(BS)/P(GS)], and we divide the independent variables into the following three groups:

A: *Timing of New Entry into the Labor Market*

1) dummies of cohort

   (base: born between November 1961 and March 1966)

B: *Family Background*

2) mother dummy

   (base: no full-time houseworker)

3) dummy of parental affection to children

   (base: no affection)

4) dummy of a bad relationship between their father and mother

   (base: a good relationship)

5) dummies of no family-mentors currently

   (base: having one or more mentors)

C: *Personal Abilities including Sociability*

6) dummy of educational qualifications

(base: senior-high school or less)

7) dummy of no friends at age 15

(base: having one or more intimate friends)

5.2 Regression Results

5.2.1 Males

We adopted 3 models which have different groups of independent variables. Table 1 gives the regression results for males. It indicates that the BS risks were higher for younger cohorts, even if we control the effects of personal abilities and their family background.

Risks were also higher for those whose father and mother did not enjoy good relations. Risks were lower if the mother was a full-time houseworker.

Risks were also lower if their educational attainments were higher. Risks were higher for those who avoided establishing intimate contact with any classmates in junior high school, and for those without any family mentors.

Table 1 Estimation Results (Males)

Independent Variables	Log (P_{BS}/P_{GS})		
	Model 1	Model 2	Model 3
Constant	-1.84 (-12.09)	-1.83 (-8.20)	-1.03 (-4.28)
Dummies of cohort			
April 1966- March 1971	0.315 (1.60)	0.332 (1.66)	0.381 (1.81)
April 1971- March 1976	0.726 (3.95)	0.768 (4.12)	0.827 (4.29)
April 1976- March 1981	1.36 (7.33)	1.38 (7.37)	1.57 (8.04)
Mother dummy		-0.440 (-1.84)	-0.347 (-1.38)
Dummy of parental affection		-0.315 (-1.90)	-0.123 (-0.71)
Dummy of parents' relationship		0.436 (2.89)	0.340 (2.15)
Dummies of no family-mentors			
No mentors		0.411 (2.86)	0.402 (2.65)
No other family-members		0.674 (3.59)	0.544 (2.64)
Dummy of educational qualif.			
Vocational school			-0.679 (-3.44)
College			-1.381 (-3.65)
Undergraduate			-1.544 (-10.5)
Graduate			-2.248 (-7.53)
Dummy of no friends			-0.698 (2.38)
Log L	-1744.76	-1724.41	-1639.40

Notes: a sample of 1,994 individuals. Figures in ( ) are t-values.

Table 2 Estimation Results (Females)

Independent Variables	Log (P_{BS}/P_{GS})		
	Model 1	Model 2	Model 3
Constant	-0.740 (-6.24)	-0.530 (-2.70)	-0.161 (-0.76)
Dummies of cohort			
April 1966- March 1971	-0.286 (1.82)	-0.299 (-1.88)	-0.259 (-1.59)
April 1971- March 1976	0.196 (1.30)	0.207 (1.35)	0.345 (2.20)
April 1976- March 1981	0.438 (2.91)	0.474 (3.09)	0.716 (4.43)
Mother dummy		0.450 (2.54)	0.537 (2.90)
Dummy of parental affection		-0.400 (-2.53)	-0.281 (-1.69)
Dummy of parents' relationship		0.195 (1.46)	0.156 (1.15)
Dummy of no family-mentors			
No mentors		0.062 (0.40)	0.0160 (0.102)
No other family-members		0.611 (3.12)	0.637 (3.17)
Dummies of educational qualifications			
Vocational school			-0.303 (-1.77)
College			-0.733 (-5.19)
Undergraduate			-1.136 (-8.21)
Graduate			-1.313 (-2.72)
Dummy of no friends			0.348 (0.883)
Log L	-1587.72	-1567.91	-1511.91

Notes: a sample of 1,899 individuals. Figures in ( ) are t-values.

5.2.2 Females

For females, the BS risks were more or less similar to those for males, as Table 2 suggests. Only one difference is observed; the BS risks were higher if their mother was a full-time houseworker. Daughters in a family with a full-time housewife may wish to follow their mother's example in becoming a full-time housewife sooner or later. Therefore, they may not always possess a strong wish to work as a typical employee.

6. What Generates a Career Move-Up?

Our next concern is to investigate what factors help generate a career move-up for BS persons in their younger days.

6.1 A Binary Modal

We divide the BS persons into 2 sub-groups; BS-A and BS-B. We denote BS-A and BS-B respectively as:

BS-A: Those with experiences of working as a typical employee at least once by age 35 for males and age 23 for females.

BS-B: The remaining others

We use a multinominal binary logit model. The dependent variable is $P_{BS\text{-}A}$. The independent variables are:

1) dummy of having any intimate friends in junior high school
   (base: having no friends)
2) dummy of non-manufacturing industry in the first job
   (base: manufacturing industry)
3) dummies of white-collar or blue-collar work for the first job

(base: grey-collar work)

4) dummies of restrictions of term of working years in the first job

(base: between one and five years)

5) dummy of having any job training experience at public institutions

(base: having no such experiences)

6) dummy of having working experience of 2 or more consecutive years at a single company/institution

(base: having no such experience)

7) dummy of their mother's working status during their childhood (before their entrance to elementary school)

(base: market work)

8) dummies of working-experience years under age 35 for males (23 for females)

1: zero (base)

2: less than 5 years (males), less than 2 years (females)

3: 5-10 years (males), 2-4 years (females)

4: 10-15 years (males), 4-6 years (females)

5: 15+ years (males), 6+ years (females)

6.1 Regression Results

6.2.1 Males

Table 3 shows that career-up probabilities for male employees in their younger years were greater if they had no restrictions on term of working years at their first job, if they worked for 2 or more consecutive years at one company/institution, if they had

longer working experiences before age 35, and if they had any intimate friends in their junior high school days. On the contrary, the probabilities were rather smaller if they had any experiences of job training at public institutions,[11] or if their mother performed paid work in their childhood (before entrance to the elementary school), although the latter was not statistically significant.

Table 3 Estimation Results (Males)

Independent variables	$P_{BS\text{-}A}$ Coefficient	(t-value)
Constant	-4.539	(-2.91)
Dummies of cohort (birth year and month)		
1966.4-1971.3	0.682	(0.86)
1971.4-1976.3	-0.139	(-0.20)
1976.4-1981.10	-0.204	(-0.30)
Dummy of intimate friends	0.776	(1.69)
Dummy of non-manufacturing industry	0.918	(1.53)
Dummies of the first job		
White collar	1.062	(1.75)
Blue collar	-0.470	(-0.79)
Dummies of term-conditions		
No restriction	2.694	(3.67)
1 to 12 months	0.386	(0.49)
Dummy of job training	-1.603	(-2.81)
Dummy of 2+ consec. yrs working exp.	1.615	(2.81)
Dummies of working-experience years	0.811	(2.62)
Dummy of mother's working status	-0.431	(-1.12)
Likelihood Ratio	216.6	

Note: a sample of 398 individuals.

6.2.2 Females

Table 4 indicates that career-up probabilities for females were basically similar to those for males. However, they were lower if their first job was in non-manufacturing industries or was of a blue-collar type. Furthermore those born between April 1976 to

[11] Job training at any companies with subsidies might be more effective for BS persons.

Table 4 Estimation Results (Females)

Independent variables	$P_{BS\text{-}A}$ Coefficient	(t-value)
Constant	-2.865	(-3.80)
Dummies of cohort (birth year and month)		
1966.4-1971.3	-0.0029	(-0.01)
1971.4-1976.3	-0.5560	(-1.75)
1976.4-1981.10	-0.8349	(-2.68)
Dummy of non-manufacturing industry	-0.6261	(-1.70)
Dummies of the first job		
White collar	-0.122	(-0.45)
Blue collar	-0.939	(-1.56)
Dummies of term-conditions		
No restriction	1.910	(4.63)
1 to 12 months	-0.014	(-0.02)
Dummy of job training	-1.063	(-3.61)
Dummy of 2+ consec. yrs working exp.	0.083	(0.27)
Dummies of working-experience years	1.008	(5.39)
Likelihood Ratio	268.3	

Note: a sample of 615 individuals.

October 1981 (currently of age 30-34) were subject to a peculiar “downward” cohort effect.

7. Simulating Probabilities of a Bad Finish

In Japan, workers are qualified to receive social security old-age pension benefits if they are covered by the pension system for 25 years or more. Furthermore, the amount of monthly pension benefits is quite different depending whether or not they have an earnings-related pension, in addition to a flat-rate component. Namely, the average expected monthly pension benefits for those contributing for 25 years or more to the *Kosei-Nenkin-Hoken* (KNH), a principal pension program for private-sector employees, amount to JPY180,000 (equivalent to around USD 2,300) for males and JPY 140,000 for females, whereas those having KNH coverage for less than 25 years will receive

around JPY 91,500 for males and JPY 82,000 for females on average, respectively[12]. In this paper, we thus define the Bad Finish as those having KNH coverage for less than 25 years (300 months) at age 60.

In simulating how many will make a bad finish among BS persons, we adopt the following simple procedures.

First, we calculate each share of observations, their average age, and the average years covered by KNH, broken down by age and by employment status. Subsequently, we compute each transition probability of respective employment status during the latest five years. Assuming the increases in KNH covered months during the latest five years as 60 for the (TY→TY) group, 45 for the (TY→AT) and the (AT→TY) groups, 30 for the (AT→AT) group, and 0 for the (Others→Others) group, we can work out the BF proportions among the BS persons at age 60. Table 5 presents the results of the transition probabilities, indicating that for males the survival rates of TY or AT are considerably high, while changes from TY to AT or from AT to TY are around 20% during the most recent five-year period. For females, the survival rate of TY is still high, but lower than that for males, whereas changes from AT to TY remain very rare (less than 10%).

The results of these BF simulations are given in Figure 21. These suggest in general that the BF risk will slowly increase, to a greater or lesser degree, such that for the youngest BS group (currently of age 30-34) it will be just above 50% (males) and around 90% (females) respectively.[13]

[12] The data set used in this calculation is from the *2011 LOSEF* internet version covering ages 55-59 (a sample of 508 individual males and 360 females respectively).

[13] It should be remembered, however that Japanese wives commonly have virtually total control over household budgetary matters, including disposal of their husband's salaries. They

Table 5 Transition Probabilities of Employment (BS Males)

Changes in age class	(30-34) -> (35-39)	(35-39) -> (40-44)	(40-44) -> (45-49)	(45-49) -> (50-54)	(50-54) -> (55-59)
TY->TY	89%	80%	67%	78%	93%
TY->AT	6%	12%	24%	19%	0%
TY->OT	5%	7%	9%	4%	7%
sub total	100%	100%	100%	100%	100%
AT->TY	18%	10%	20%	22%	22%
AT->AT	77%	79%	75%	78%	72%
AT->OT	5%	10%	5%	0%	6%
sub total	100%	100%	100%	100%	100%
OT->TY	13%	10%	0%	0%	0%
OT->AT	6%	20%	0%	17%	7%
OT->OT	81%	70%	100%	83%	93%
sub total	100%	100%	100%	100%	100%

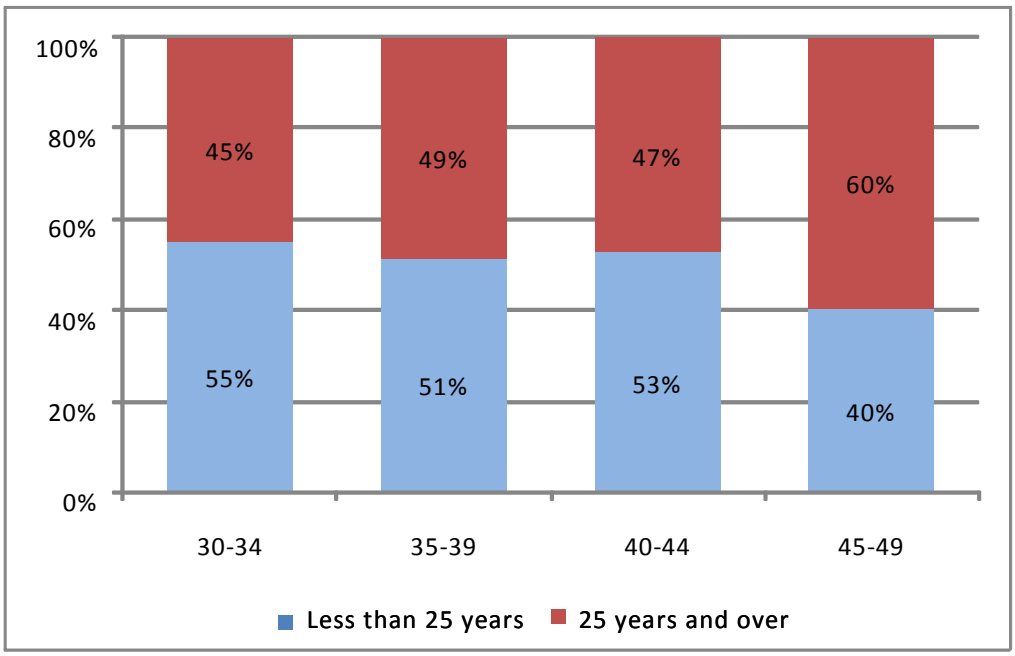
Transition Probabilities of Employment (BS Females)

Changes in age class	(30-34) -> (35-39)	(35-39) -> (40-44)	(40-44) -> (45-49)	(45-49) -> (50-54)	(50-54) -> (55-59)
TY->TY	53%	44%	71%	60%	60%
TY->AT	15%	32%	21%	7%	15%
TY->OT	32%	24%	8%	33%	25%
sub total	100%	100%	100%	100%	100%
AT->TY	7%	6%	2%	2%	4%
AT->AT	71%	76%	78%	87%	86%
AT->OT	22%	18%	20%	11%	10%
sub total	100%	100%	100%	100%	100%
OT->TY	2%	0%	2%	0%	0%
OT->AT	2%	14%	17%	18%	5%
OT->OT	97%	86%	81%	82%	95%
sub total	100%	100%	100%	100%	100%

usually have a spare bank cash card for their husband's account. A different approach to evaluating a BF risk is thus needed for females in Japan.

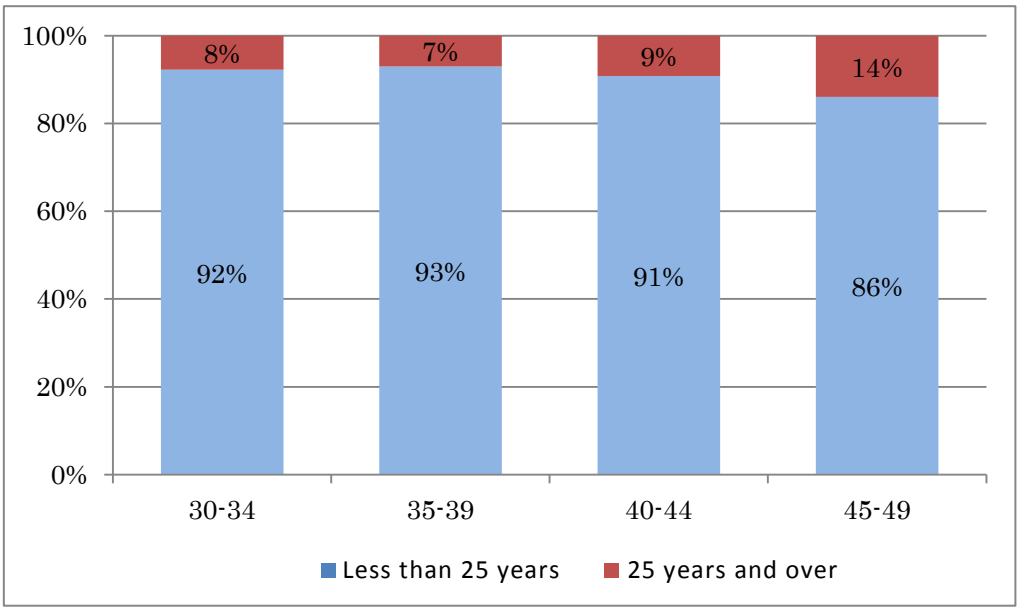
Figure 21

Probabilities of BF for BS Males



Note) BF: KNH Coverage less than 25 years at age 60

Probabilities of BF for BS Females



Note) BF: KNH Coverage less than 25 years at age 60

References

Boeri, T. and Galasso, V. (2010), "Is Social Security Secure with NDC?" IZA-DP No.5235, available on the website: http://ftp.iza.org/dp5235.pdf.

Bukodi, E. and Dex, S. (2010), "Bad Start: Is There a Way Up? Gender Differences in the Effect of Initial Occupation on Early Career Mobility in Britain," *European Sociological Review*, 26 (4), pp.431-446.

Genda, Y. (2008), "Irregular Employment as the Lower Tier of Internal Labor Market," *Economic Review*, 59(4), pp.340-356 (in Japanese).

Hamaaki, J., Hori, M., Maeda, S., and Murata, K. (2011), "How Does the First Job Matter for an Individual's Career Life in Japan?" Available on the website: http://cis.ier.hit-u.ac.jp/English/publication/cis/dp2011/dp516/text.pdf

Inagaki, S. (2010), "Income Disparities and Behavior of People Born in the 1950s: Outline and Analysis of Internet Survey on the Individual Records of Regular Pension Coverage Notice," Available on the website (in Japanese): http://cis.ier.hit-u.ac.jp/Japanese/publication/cis/dp2010/dp495/text.pdf

Kondo, A. (2007), "Does the First Job Really Matter? State Dependency in Employment Status in Japan," *Journal of the Japanese and International Economies*, 21(3), pp.379-402.

McGinnity, F. et al. (2005), "A Bad Start? Fixed-Term Contracts and the Transition from Education to Work in West Germany," *European Sociological Review*, 21 (4), pp.359-374.

Ohta, S. (2010), *Economics of the Youth Labor Market*, Nikkei Publishing Inc. (in Japanese)

Takayama, N. (2009), “On 50 Million Floating Pension Records in Japan,” *The Geneva Papers*, 34, pp.631-638.

Takayama, N., Inagaki, S. and Oshio, T. (2012), “The Japanese Longitudinal Survey on Employment & Fertility (LOSEF): Essential Features of the 2011 Internet Version and a Guide for Its Users,” forthcoming on the PIE-DP website: http://cis.ier.hit-u.ac.jp/English/publication/cis/dp2012