

Can we have it all?

How reconcilability of career pursuits and life satisfaction differs between women and men

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Contents

1	Descriptive results	2
1.1	Inspecting the variables of interest	2
1.2	Respondent's happiness and income	3
1.3	Work, household constallations & gender	4
2	Regression Analysis	10
2.1	Interaction effects of marriage and job income for working men and women	10
2.2	Effect of young children	13
3	Regressions	13
3.1	Marriage happiness and family constellation.	15
3.2	Cohorts and norms	16
4	Discussion	17
5	Conclusion	17
6	Software and packages used for the analysis	17
	References	17

1 Descriptive results

1.1 Inspecting the variables of interest

Two of the central variables for our research are reported happiness and job-satisfaction, which are based on the two questions: *“Taken all together, how would you say things are these days?”* and *“On the whole, how satisfied are you with the work you do?”*. Figure 1 shows the distribution of answers to the two questions. The former is measured on a three point scale (higher is better), of which around 60 % of the sample report a middle happiness level. The latter is measured on a four point scale, and Figure 1 shows that a majority of the sample report either moderate or high job satisfaction (score 3 and 4).

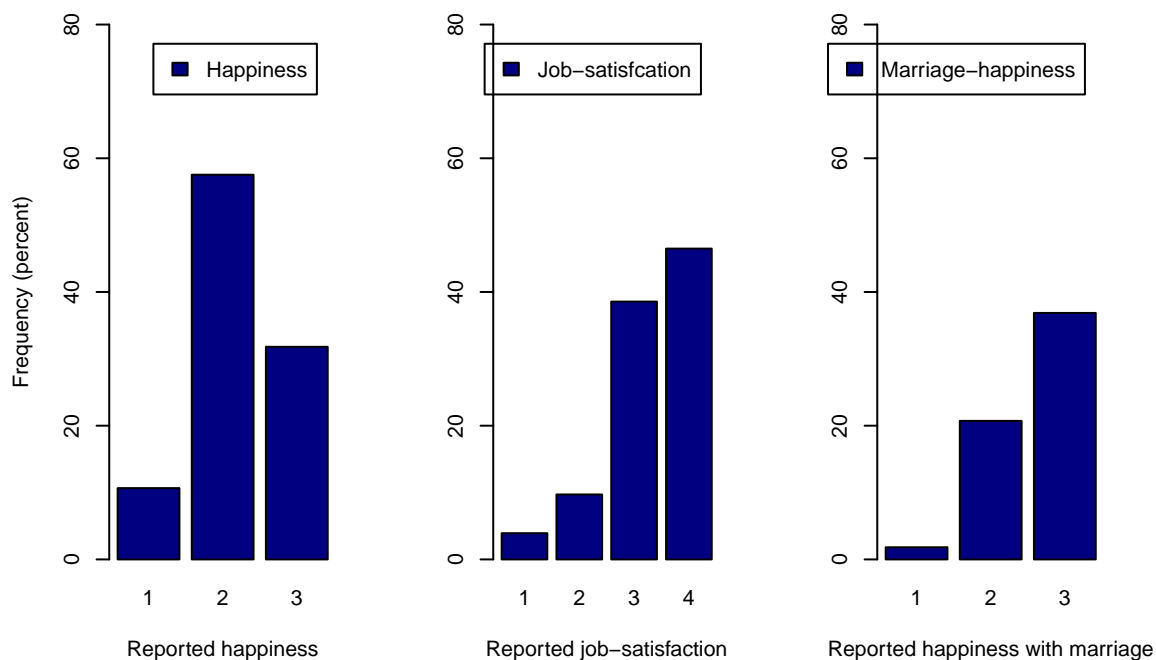


Figure 1: Distribution of reported happiness and job-satisfaction

1.1.1 Average happiness in different survey years

The GSS is conducted between 1972 and 2014. Due to year specific events, unintended differences in the implementation of the survey or trends in overall happiness, there can be year-specific differences. Figure 2 shows the average share of the population who reports to be very happy (score of 3) across the survey years. Figure 2 shows that there is considerable variation between years, and a weak negative trend particularly between 1972 and 1983. It is not directly possible to disentangle what can be attributed to random noise and what is caused by structural changes, however, it signifies that it is pragmatic to control for survey year in a

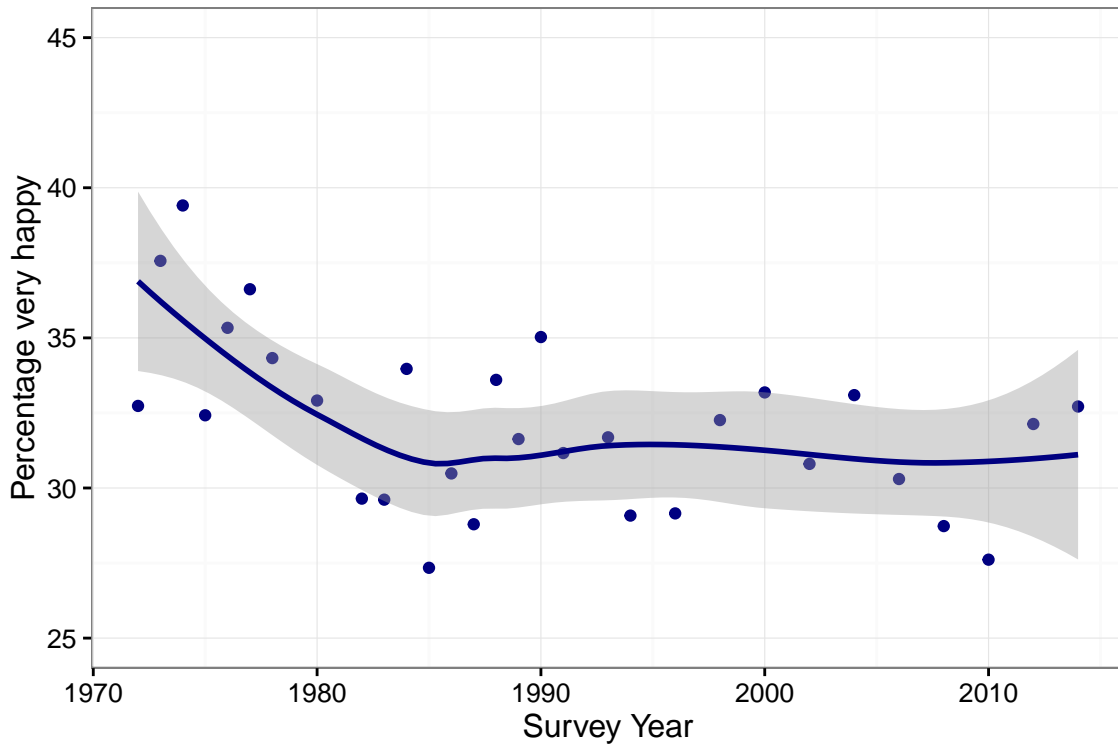


Figure 2: Average reported happiness over survey year, 1972-2014

regression design to control for survey year fixed effects.

1.1.2 Happiness and age

Figure 3 investigates the relationship between reported happiness and age for college educated men and women. In the GSS there is no apparent structural relationship between the share of respondents who report being very happy and age. Further, college educated women have a slightly higher average reported happiness level relative to men (38% vs. 34%).

1.2 Respondent's happiness and income

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We should probably comment on: * Women's happiness as home-going. * That income is based on brackets, but deflated. * There are few observations with very high-income (high statistical dispersion).

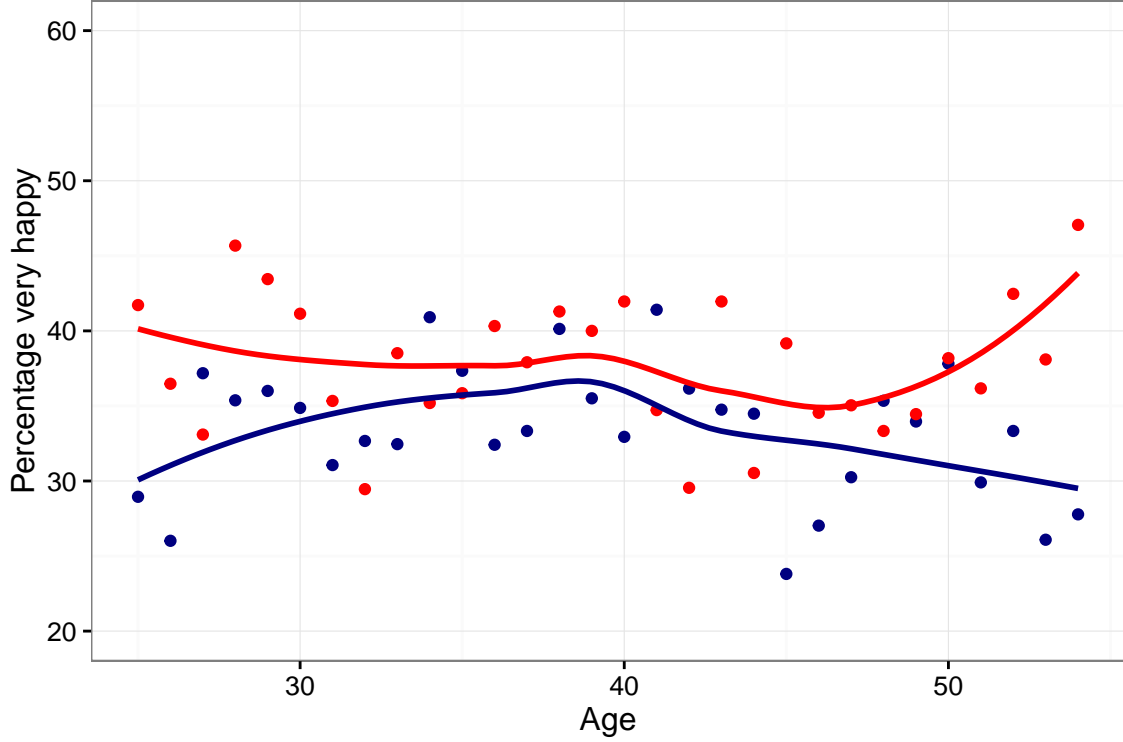


Figure 3: Happiness and age (college educated men and women)

1.2.1 Distribution of work-hours for full-time workers

Work intensity is another variable of interest for the final research design. “Hours worked last week” is available across the full survey from 1972-2014. This is an imperfect proxy for respondents average working hours over a full year, which unfortunately is not available. Figure 4 shows the frequency of hours worked last week for full-time workers. It is apparent that most respondents have worked around 40 hours a week, but also that there is considerable variance.

1.3 Work, household constallations & gender

In today’s society the strive for gender equality often clashes with labour market realities and the persistence of traditional gender norms. Previous studies found that the reconcilability of having a family and pursuing a career is still difficult to achieve for women, while it is rather the norm for men (Hipp and Leuze 2015). Thus, women who clash with traditional customs might face a “life happiness penalty”.

Figure 5 shows how reported happiness depends on labour-market affiliation for men (blue) and women (red) with a college degree. It shows that men are substantially more likely to report being very happy when in full-time employment relative to part-time employment, which is not the case for women. Further, both

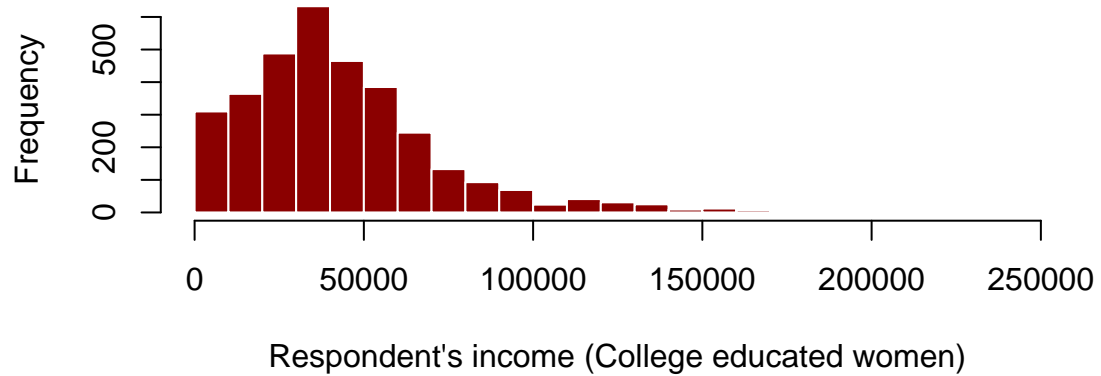
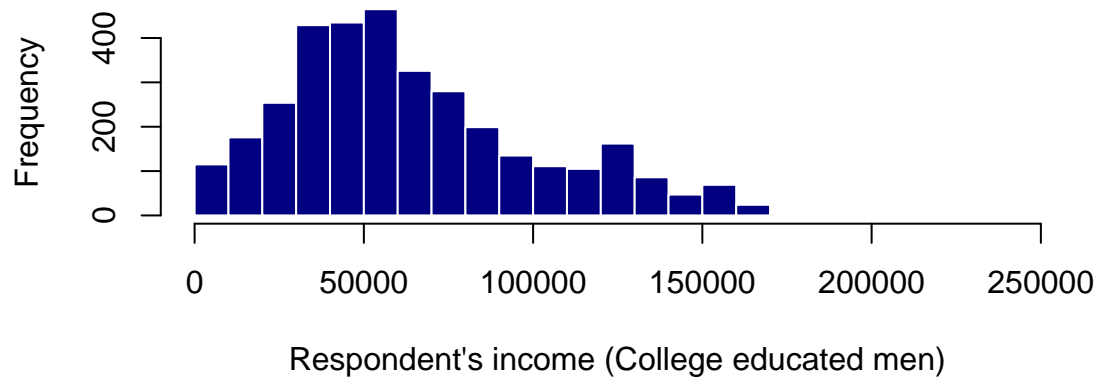


Figure 4: Distribution of income

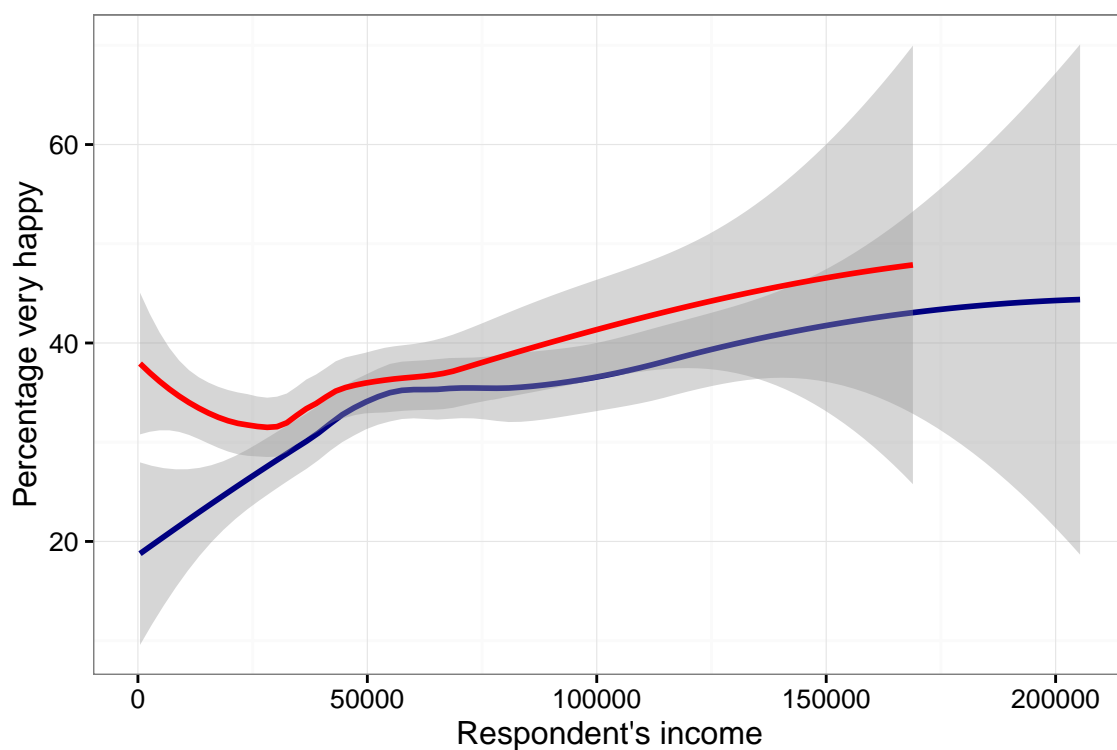


Figure 5: Happiness and respondent's income (college educated men and women)



Figure 6: Histogram of hours worked last week for full-time workers

Table 1: Gender, income (p50) and spouse work status (row percentages)

		Full-time	Part-time	Keeping house	n
Female	High-income	92.45	4.15	3.4	265
	Low-income	95.62	0.99	3.39	1713
Male	High-income	42.28	33.56	24.16	745
	Low-income	54.86	25.06	20.08	1285

men and women report high happiness levels when keeping house. Note, in the full sample only 35 college educated men are keeping house (there are 650 women) and when looking at all men, the average share who reports being very happy while keeping house is only 24 %.

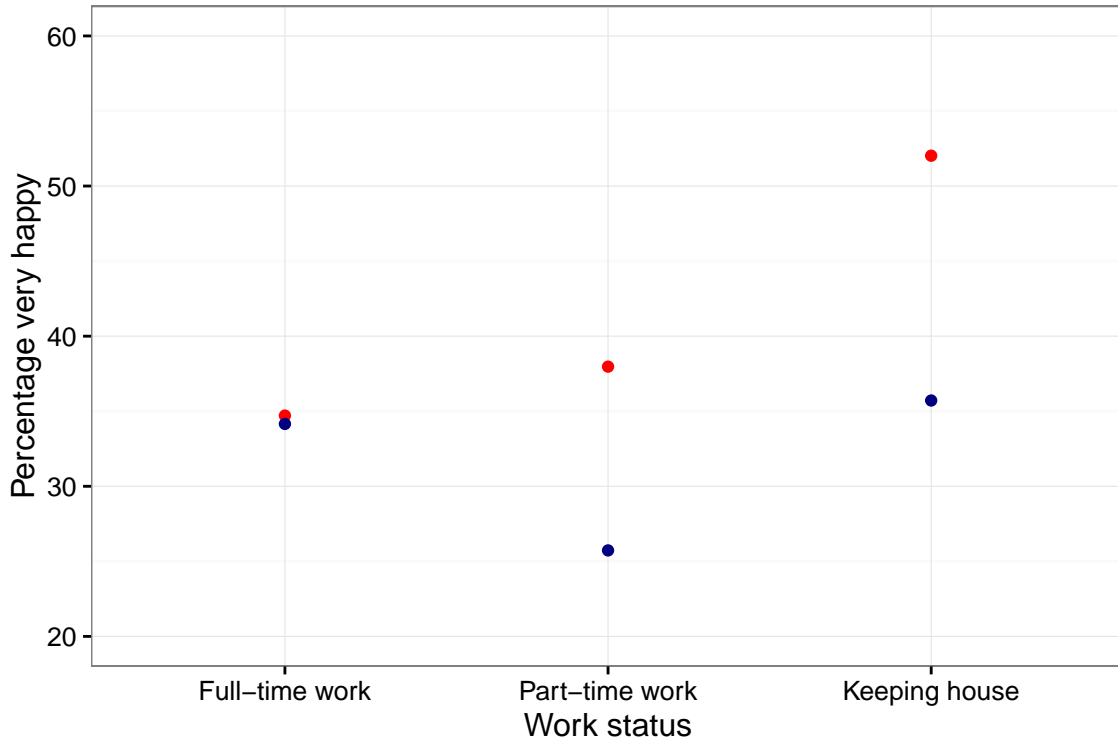


Figure 7: Happiness and labour-market affiliation (college educated men and women)

Figure 6 shows the share of college educated men and women who report being very happy depending on whether they earn more than the 25th (panel A) or 50th (panel B) income percentile of college educated men in their age cohort. The graph suggests that women have the same propensity to be very happy regardless of whether they are high earners or not, whereas the difference is substantial for men. The difference for men is even more pronounced when the threshold is set at the 50th percentile.

1.3.1 Marriage / family constellation, income and happiness

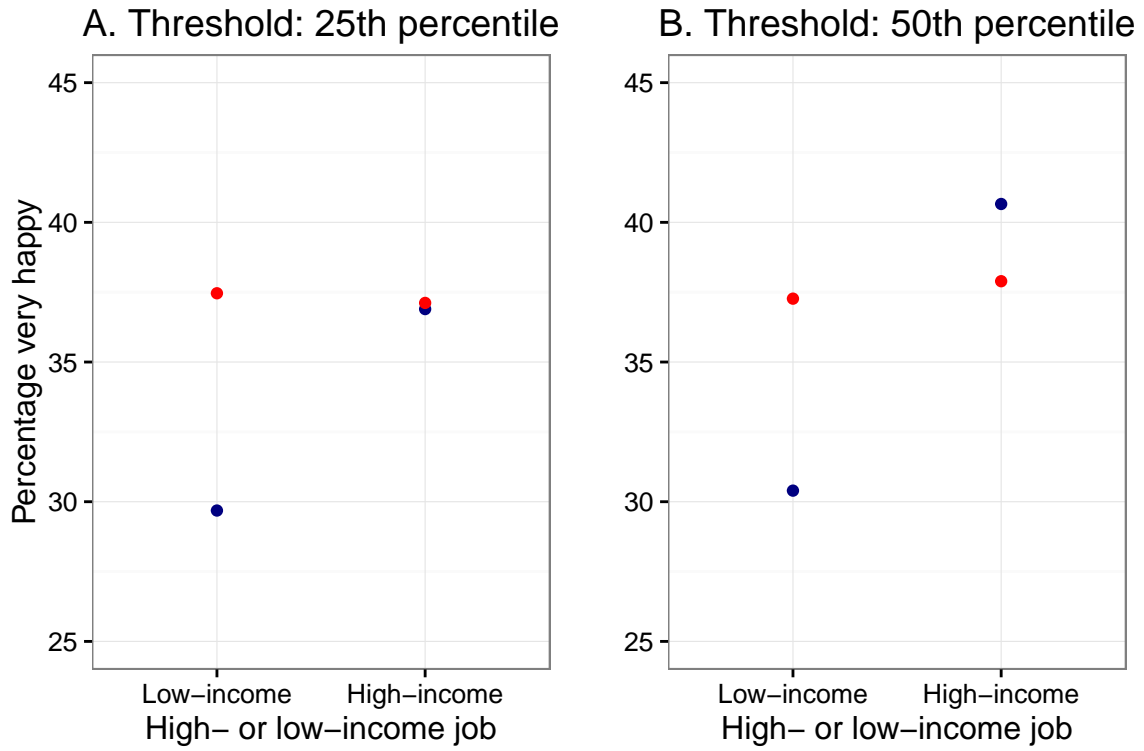


Figure 8: Happiness and income level

Table 2: Gender, income (p25) and spouse work status (row percentages)

		Full-time	Part-time	Keeping house	n
Female	High-income	94.1	3.04	2.86	559
	Low-income	95.63	0.78	3.59	1419
Male	High-income	47.71	28.98	23.31	1201
	Low-income	53.92	27.02	19.06	829

Figure 7 differentiates between the four possible combinations of having a family (married and children) and having a high- or low-income job (defined as earning more than the 25th income percentile of college educated men in the respondent's cohort). Both college educated men and women report substantially higher happiness levels when having a family. When not having a family, higher income improves life satisfaction for both genders although the increase is larger for men. Gender differences become more pronounced when people have a family. With a family, women are happier when they are not in a high-income job, whereas the opposite is true for men.

These descriptive results suggest that on average married couples with kids are best-off when following a male bread-winner model, which conflicts with more progressive gender norms. Note, however, that the results could be driven by omitted factors such as assymetric total family income or age across the family constellations which also could affect subjective well-being. In our final analysis we seek to identify the factors that are driving these results.

1.3.2 Two versions of similar graph: Family or marriage?

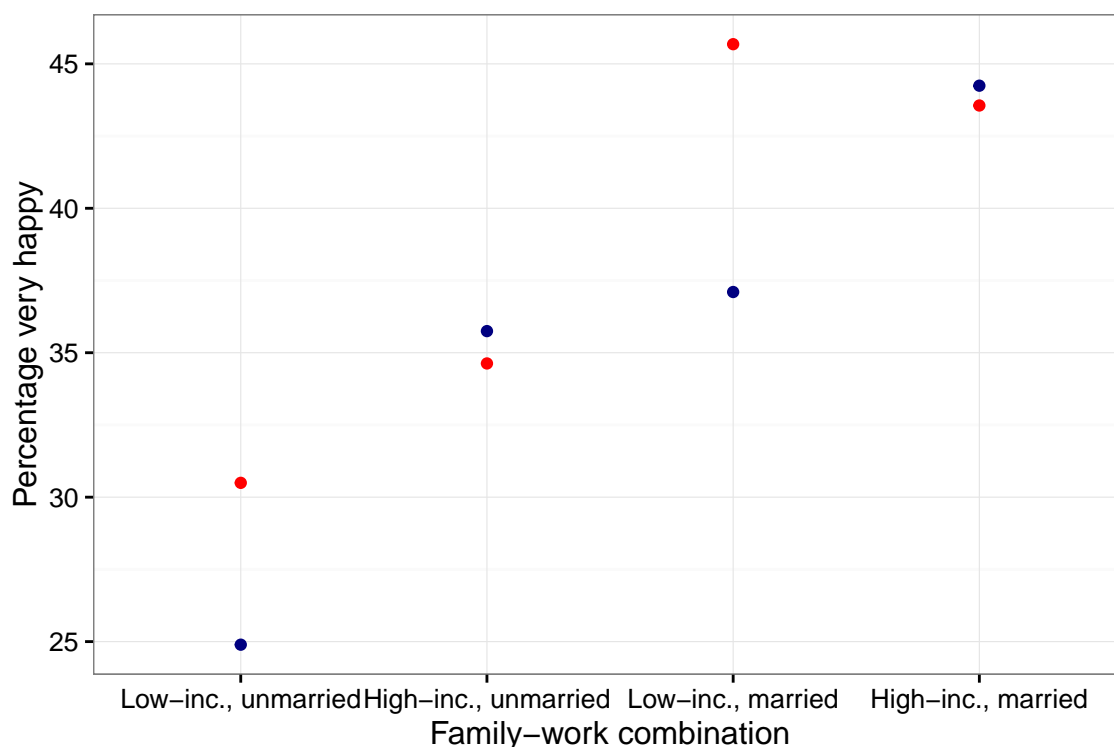


Figure 9: V1: Happiness and marriage constellation (college educated subsample)

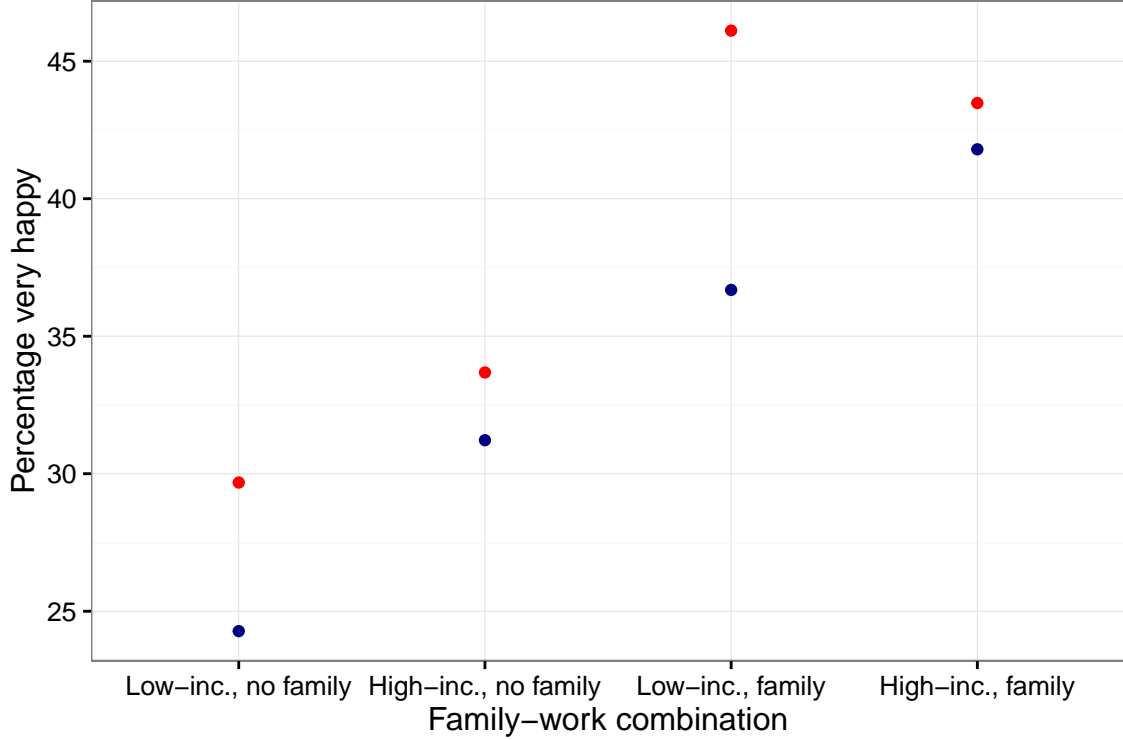


Figure 10: V2: Happiness and family constellation (college educated subsample)

2 Regression Analysis

2.1 Interaction effects of marriage and job income for working men and women

The correlations shown in Figure 5-8 are influenced by omitted factors. To control for some of the confounding factors that are observable, we replicate a linear probability model by Bertrand (2013) and estimate the effect of marriage and the interaction effect of marriage and having a high-paid job (career) on the binary variable of being very happy. While Bertrand (2013) limits her analysis to college-educated women who are working, we also compare these findings to college educated men. The model controls for age, age-squared, the survey year, race and decade of birth.

Figure 9 shows the effect of marriage on the probability of being very happy for college educated men and women depending on job income. First, the effect of marriage is positive and significantly different from zero regardless of respondents' income level. The left panel shows that the effect of marriage on reported happiness is stronger for women who do not have a high-income job compared to women who do, as the interaction term between marriage and high job income is -0.07. Although this difference only is significant

at the 10% level, job income seem to be much more important for the happiness of women compared to men, where having a high-paying job or not hardly influences the effect of marriage on happiness.

% Table created by stargazer v.5.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu

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Table 3:

	<i>Dependent variable:</i>			
	Women	Men	Very happy Women	Men
	(1)	(2)	(3)	(4)
High-income	6.92* (3.53)	8.10*** (3.11)	8.00** (3.61)	7.79** (3.17)
Married	21.61*** (1.79)	17.46*** (2.03)	21.00*** (1.84)	18.98*** (2.09)
High-income*Married	-9.96** (4.83)	0.18 (3.81)	-9.94** (4.84)	0.02 (3.84)
Constant	24.84*** (1.36)	20.22*** (1.55)	105.73*** (25.99)	21.55 (26.01)
Age	No	No	Yes	Yes
Age-squared	No	No	No	No
Year	No	No	No	No
Race	No	No	No	No
Cohort	No	No	No	No
Observations	3,309	3,119	3,309	3,119
Adjusted R ²	0.04	0.04	0.05	0.05

Note:

*p<0.1; **p<0.05; ***p<0.01

Models are restricted to college educated men and women

*NOTE: There is a problem with the omit.labels function.

2.1.1 Bertrand table 2

Model 2: Double-click on married individuals

% Table created by stargazer v.5.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu

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The omit.label function is still bugging!!!!!!!

Table 4:

	<i>Dependent variable:</i>			
			Very happy	
	Women	Men	Women	Men
	(1)	(2)	(3)	(4)
High-income	−0.55 (3.51)	8.34*** (2.34)	2.19 (3.86)	8.37*** (2.79)
Keeping house	14.46*** (2.91)	−4.52 (14.20)	7.27* (3.75)	−1.91 (14.65)
Child	−5.40* (2.76)	−4.65* (2.76)	−2.16 (3.01)	−2.41 (3.04)
Constant	47.32*** (2.47)	41.34*** (2.56)	171.03*** (37.68)	47.75 (37.45)
Partner's income	No	No	No	No
Age	No	No	No	No
Age-squared	No	No	No	No
Year	No	No	No	No
Race	No	No	No	No
Cohort	No	No	No	No
Observations	1,881	1,928	1,881	1,928
Adjusted R ²	0.01	0.01	0.03	0.02

Note:

*p<0.1; **p<0.05; ***p<0.01

Models are restricted to married, college educated men and women

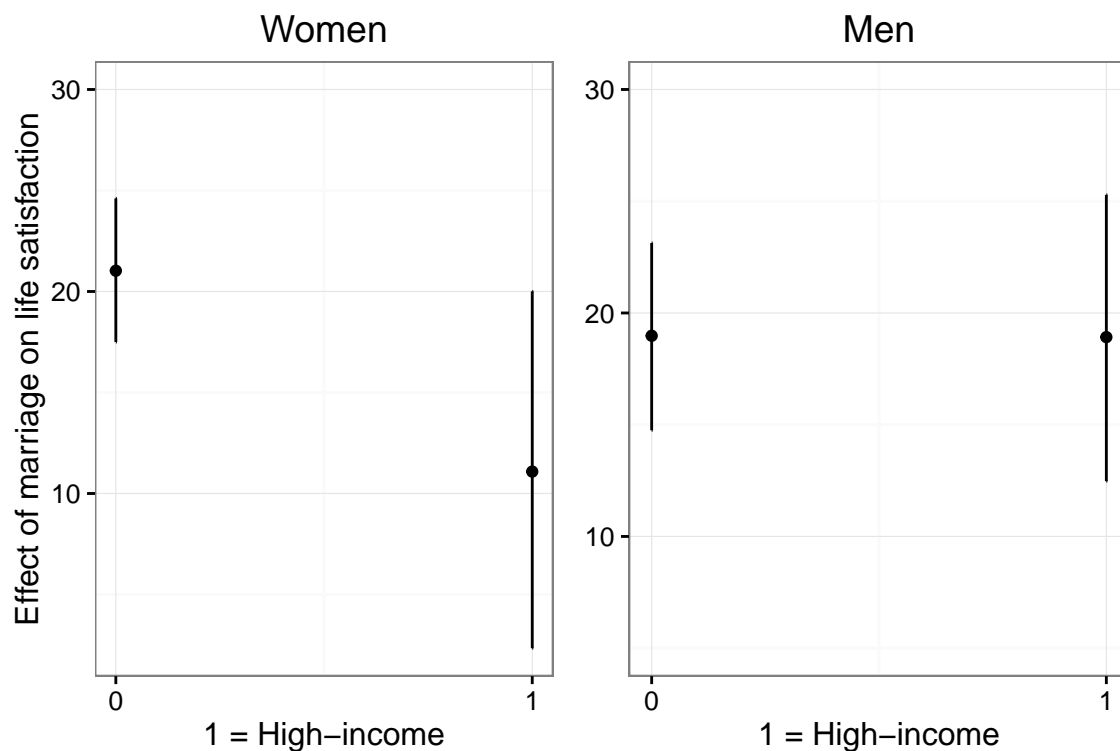


Figure 11: Interaction effects of marriage and job income on life satisfaction

2.2 Effect of young children

3 Regressions

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Needs to be populated

There story remains relatively weak. We don't have a significant negative interaction term, partly because we have less than 50 individuals that have both career1 and a young child.

Nonetheless, we can argue that at least it seems to be the career individuals with a young child that reports low life hapiness.

Do we have a problem of maternity leave? I guess they are excluded as they wont earn much.

Table 5:

	<i>Dependent variable:</i>					
			Very happy			
	Women	Men	Women	Men	Women	Men
	(1)	(2)	(3)	(4)	(5)	(6)
High-income	1.39 (4.18)	7.11*** (2.60)	6.33 (4.64)	6.04* (3.15)	9.40* (5.35)	5.69 (3.58)
Keeping house	14.40*** (3.06)	-3.80 (16.36)	6.61 (4.12)	-3.07 (16.62)	5.29 (4.86)	
Young child					4.82 (4.44)	1.90 (3.82)
Keeping House*Young child					1.89 (6.49)	
High-income*Young child					-11.13 (9.63)	1.51 (5.95)
Constant	41.72*** (1.62)	37.14*** (1.57)	119.85** (46.79)	34.88 (46.47)	99.94** (49.15)	27.75 (47.55)
Partner's income	No	No	No	No	No	No
Age	No	No	No	No	No	No
Age-squared	No	No	No	No	No	No
Year	No	No	No	No	No	No
Race	No	No	No	No	No	No
Cohort	No	No	No	No	No	No
Observations	1,448	1,529	1,448	1,529	1,448	1,529
Adjusted R ²	0.01	0.004	0.02	0.02	0.02	0.02

Note:

*p<0.1; **p<0.05; ***p<0.01

Models are restricted to married + child, college educated men and women

3.1 Marriage happiness and family constellation.

% Table created by stargazer v.5.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu

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Table 6:

	<i>Dependent variable:</i>					
	Very happy (marriage)					
	Women	Men	Women	Men	Women	Men
	(1)	(2)	(3)	(4)	(5)	(6)
Spouse FT	6.44 (5.26)	-0.97 (2.89)	14.03 (11.93)	-8.42* (4.85)	15.87 (12.69)	-10.12* (5.35)
Spouse Home		2.17 (3.16)		4.03 (4.95)		4.99 (5.23)
Children	-8.09*** (2.93)	-1.67 (3.09)	3.31 (7.97)	-3.21 (5.46)		
Constant	150.03*** (38.23)	154.04*** (37.79)	145.45 (133.90)	231.51** (93.70)	163.19 (166.64)	244.38** (110.32)
Family income	Yes	Yes	Yes	Yes	Yes	Yes
Age	Yes	Yes	Yes	Yes	Yes	Yes
Age-squared	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes
Race	Yes	Yes	Yes	Yes	Yes	Yes
Cohort	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,746	1,830	222	646	156	535
Adjusted R ²	0.03	0.02	0.04	0.04	0.06	0.05

Note:

*p<0.1; **p<0.05; ***p<0.01

Models are restricted to married, college educated men and women

We need to shine up the table and indicate (3) and (4) is for career1 == 1

Text: The story needs to be pushed here again. Problem is that people presumably choose the career constellations they believe they will be happy in.

We should probably add the contingency tables here.

Question to be answered: Do we also report life happiness and family constellation? Problem is that career women actually prefer their husband to not work full-time :/ It could work as a story, but does hardly align with the lower marriage happiness.

Another meth. problem: A full-time job is not necessarily intensive. 40 hours a week is not unmanageable.

Problem is that we don't have a better variable.

3.2 Cohorts and norms

Populate with text.

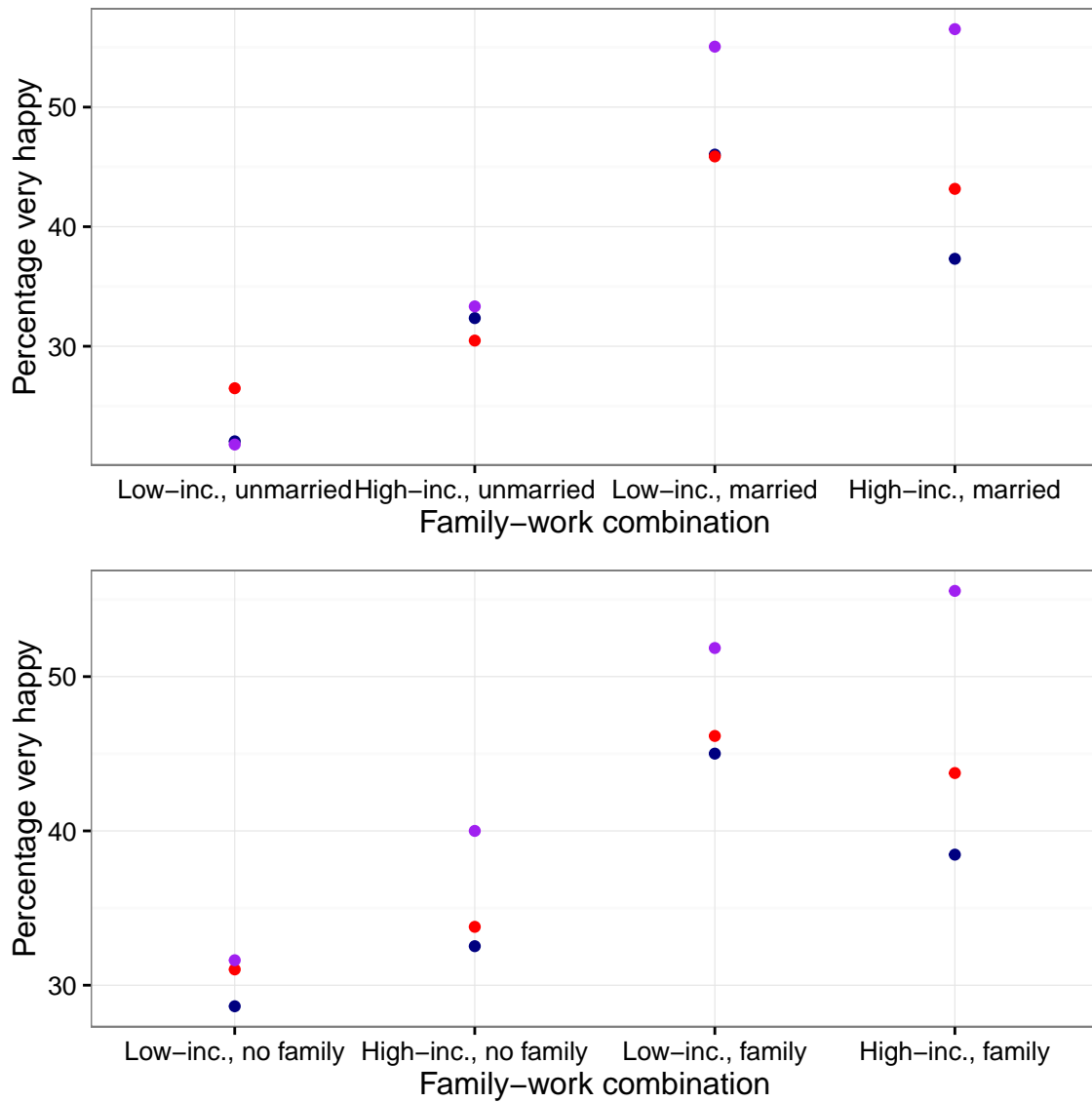


Figure 12: Happiness and family constellation (college educated women)

4 Discussion

5 Conclusion

The preliminary analyses indicate that some variation in reported happiness is associated with job-affiliation and gender. Further, our descriptive results suggest that determinants for happiness, such as having a family or high job-income, differ in magnitude and direction between genders. This supports our initial assumption of differences in reconcilability of a career pursuit and a happy life. However, it remains a challenge to construct models which can attenuate problems of confounding factors. For the final project we intend to investigate in more detail how the intensity of work influences happiness and whether there is a trade-off between job satisfaction and overall hapiness.

6 Software and packages used for the analysis

The analysis is done in R (R Core Team 2015b) with the use of the following packages: “ggplot2” (Wickham and Chang 2015), “repmis” (Gandrud 2016), “plyr” (Wickham 2015), “dplyr” (Wickham and Francois 2015), “MASS” (Ripley 2015), “Hmisc” (Harrell 2016), “interplot” (Solt and Hu 2016), “gridExtra” (Auguie 2016), “car” (Fox and Weisberg 2016), “foreign” (R Core Team 2015a), “gmodels” (Warnes et al. 2015), “quantmod” (Ryan 2015) and “reshape” (Wickham 2014).

References

- Auguie, Baptiste. 2016. *GridExtra: Miscellaneous Functions for “Grid” Graphics*. <https://CRAN.R-project.org/package=gridExtra>.
- Bertrand, Marianne. 2013. “Career, Family, and the Well-Being of College-Educated Women.” *The American Economic Review* 103 (3). American Economic Association: 244–50.
- Fox, John, and Sanford Weisberg. 2016. *Car: Companion to Applied Regression*. <https://CRAN.R-project.org/package=car>.
- Gandrud, Christopher. 2016. *Repmis: Miscellaneous Tools for Reproducible Research*. <https://CRAN>.

R-project.org/package=repmis.

Harrell, Frank E, Jr. 2016. *Hmisc: Harrell Miscellaneous*. <https://CRAN.R-project.org/package=Hmisc>.

Hipp, Lena, and Kathrin Leuze. 2015. "Institutionelle Determinanten Einer Partnerschaftlichen Aufteilung von Erwerbsarbeit in Europa Und Den USA." *KZfSS Kölner Zeitschrift Für Soziologie Und Sozialpsychologie* 67 (4). Springer: 659–84.

R Core Team. 2015a. *Foreign: Read Data Stored by Minitab, S, SAS, SPSS, Stata, Systat, Weka, DBase, .* <https://CRAN.R-project.org/package=foreign>.

———. 2015b. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. <https://www.R-project.org/>.

Ripley, Brian. 2015. *MASS: Support Functions and Datasets for Venables and Ripley's MASS*. <https://CRAN.R-project.org/package=MASS>.

Ryan, Jeffrey A. 2015. *Quantmod: Quantitative Financial Modelling Framework*. <https://CRAN.R-project.org/package=quantmod>.

Solt, Frederick, and Yue Hu. 2016. *Interplot: Plot the Effects of Variables in Interaction Terms*. <https://CRAN.R-project.org/package=interplot>.

Warnes, Gregory R., Ben Bolker, Thomas Lumley, Randall C Johnson. Contributions from Randall C. Johnson are Copyright SAIC-Frederick, Inc. Funded by the Intramural Research Program, of the NIH, National Cancer Institute, and Center for Cancer Research under NCI Contract NO1-CO-12400. 2015. *Gmodels: Various R Programming Tools for Model Fitting*. <https://CRAN.R-project.org/package=gmodels>.

Wickham, Hadley. 2014. *Reshape: Flexibly Reshape Data*. <https://CRAN.R-project.org/package=reshape>.

———. 2015. *Plyr: Tools for Splitting, Applying and Combining Data*. <https://CRAN.R-project.org/package=plyr>.

Wickham, Hadley, and Winston Chang. 2015. *Ggplot2: An Implementation of the Grammar of Graphics*. <https://CRAN.R-project.org/package=ggplot2>.

Wickham, Hadley, and Romain Francois. 2015. *Dplyr: A Grammar of Data Manipulation*. <https://CRAN.R-project.org/package=dplyr>.