# Can we have it all?

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

### Philip Unger & Philipp Ständer

### 13 May 2016

## Contents

L	Des	criptive results	3
	1.1	Life-satisfaction measures in the GSS	3
	1.2	Reported happiness in different survey years	3
	1.3	Happiness and age	4
	1.4	Respondent's income and reported happiness	4
	1.5	Work, household constallations and gender	5
2	Ana	alysis	8
	2.1	Marriage / family constellation, income and happiness	8
	2.2	Interaction effects of marriage and job income for working men and women	10
	2.3	Double-click on married respondent's: How does high-income differ between genders?	10
	2.4	Effect on happiness of young children	10
	2.5	Satisfaction with marriage and family constellation.	15
	2.6	Cohorts and norms	17
3	Dis	cussion	17
1	Cor	nclusion	17
5	Soft	ware and packages used for the analysis	17

References 19

### 1 Descriptive results

#### 1.1 Life-satisfaction measures in the GSS

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).

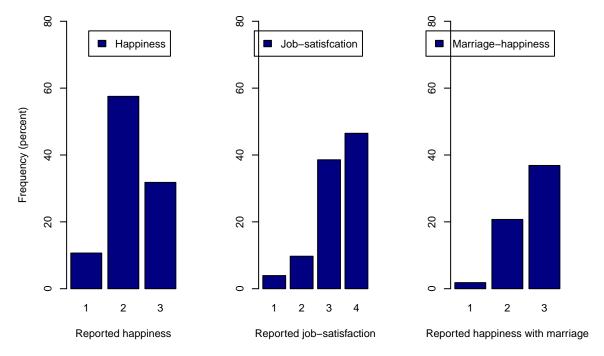


Figure 1: Distribution of reported happiness and job-satisfaction

#### 1.2 Reported 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

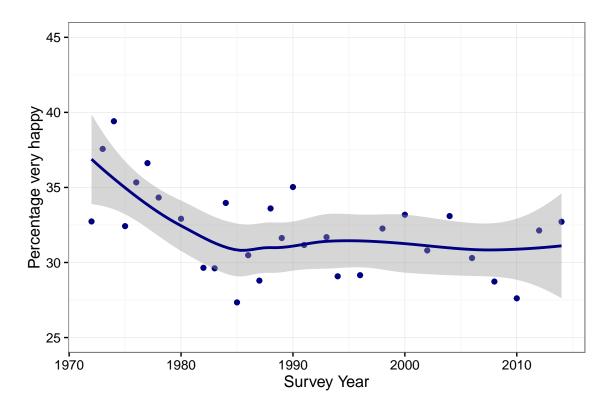


Figure 2: Average reported happiness over survey year, 1972-2014

what is caused by structural changes, however, it signifies that it is pragmatic to control for survey year in a regression design to control for survey year fixed effects.

#### 1.3 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%).

#### 1.4 Respondent's income and reported happiness

This section needs to be populated.

The section includes two figures, one of the distribution of income and one of the relationship between respondent's income and reported happiness.

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).

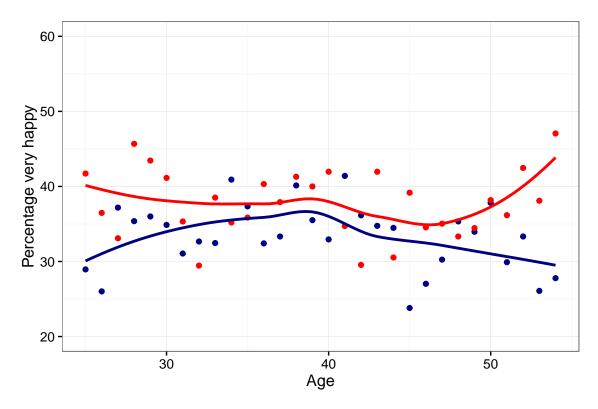


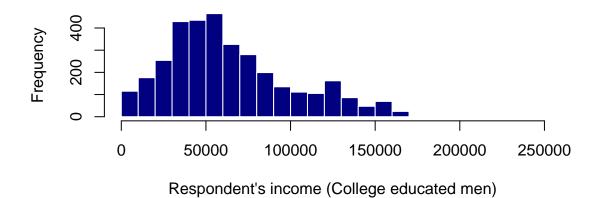
Figure 3: Happiness and age (college educated men and women)

#### 1.5 Work, household constallations and 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 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 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 happe regardless of whether they are high earners or not, whereas the difference is substantial for men. The difference for men is



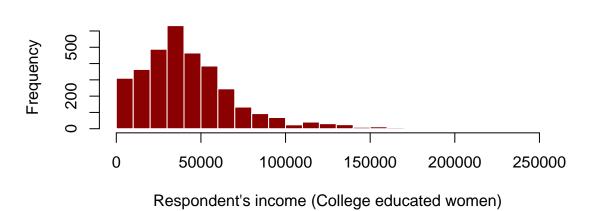


Figure 4: Distribution of income

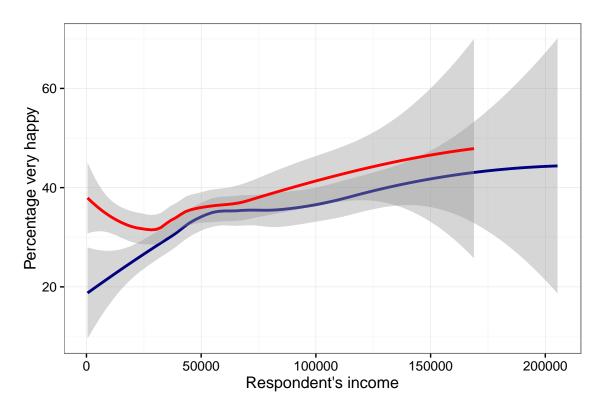


Figure 5: Happiness and respondent's income (college educated men and women)

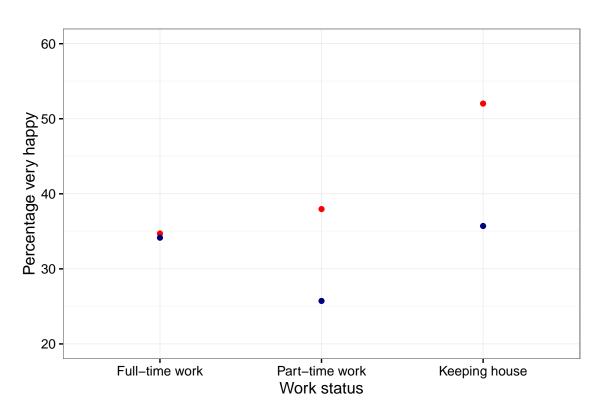


Figure 6: Happiness and labour-market affiliation (college educated men and women)

Table 1: 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

even more pronounced when the threshold is set at the 50th percentile.

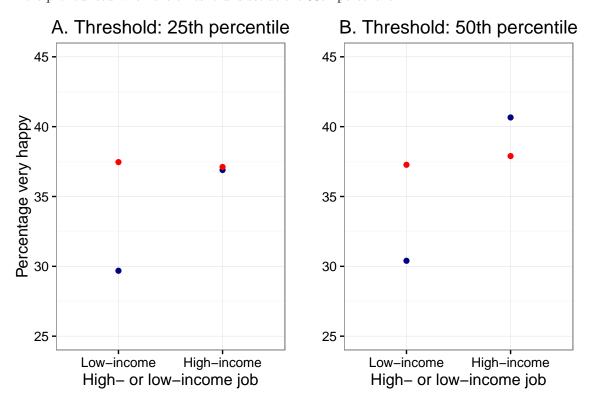


Figure 7: Happiness and income level

[take table out if not needed elsewhere]

### 2 Analysis

I think we should start our analysis section here. But we of course needs a real analysis introduction.

#### 2.1 Marriage / family constellation, income and happiness

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.



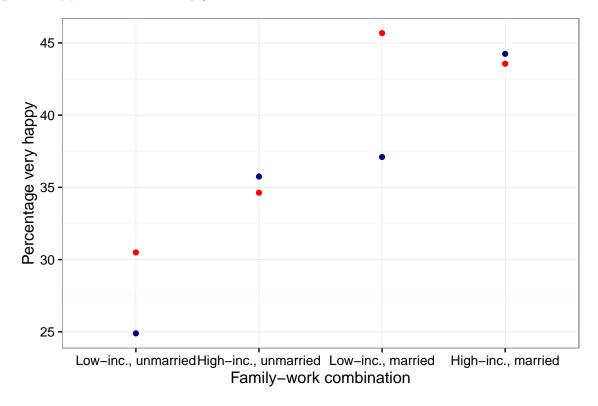


Figure 8: Happiness and marriage constellation (college educated subsample)

2.2Interaction effects of marriage and job income for working men and women

The correlations shown in Figure X-Y 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 1: Happiness, marriage and high-income

NOTE: Table 1: There is a problem with the omit. labels function.

Figure: Interaction between marriage and high-income

2.3 Double-click on married respondent's: How does high-income differ be-

tween genders?

Table 2: Double-click on married individuals

Table 2: The omit.label function is still bugging!!!!!!!

2.4 Effect on happiness of young children

Table 3: Happiness and young children

In the third model we seek to investigate whether having young children (children below the age of 4) can

explain part of the observed differences in preferences for keeping-house or having a high income. The

10

Table 2: Happiness, marriage and income for college educated men and women

		$D\epsilon$	pendent variable	2:			
	Very happy						
	Women	Men	Women	Men			
	(1)	(2)	(3)	(4)			
High-income	6.92*	8.10***	8.00**	7.79**			
	(3.53)	(3.11)	(3.61)	(3.17)			
Married	21.61***	17.46***	21.00***	18.98***			
	(1.79)	(2.03)	(1.84)	(2.09)			
High-income*Married	-9.96**	0.18	-9.94**	0.02			
	(4.83)	(3.81)	(4.84)	(3.84)			
Constant	24.84***	20.22***	105.73***	21.55			
	(1.36)	(1.55)	(25.99)	(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 <sup>2</sup>	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

Table 3: Happiness and work-status for married, college educated women and men

			Dependent var	iable:
			Very happ	y
	Women	Men	Women	Men
	(1)	(2)	(3)	(4)
High-income	-0.55	8.34***	2.19	8.37***
	(3.51)	(2.34)	(3.86)	(2.79)
Keeping house	14.46***	-4.52	7.27*	-1.91
	(2.91)	(14.20)	(3.75)	(14.65)
Child	$-5.40^{*}$	$-4.65^{*}$	-2.16	-2.41
	(2.76)	(2.76)	(3.01)	(3.04)
Constant	47.32***	41.34***	171.03***	47.75
	(2.47)	(2.56)	(37.68)	(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 <sup>2</sup>	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

Table 4: Happiness and young children, college educated women and men with a family

	Dependent variable:  Very happy					
	Women	Men	Women	Men	Women	Men
	(1)	(2)	(3)	(4)	(5)	(6)
High-income	1.39	7.11***	6.33	6.04*	$9.40^{*}$	5.69
	(4.18)	(2.60)	(4.64)	(3.15)	(5.35)	(3.58)
Keeping house	14.40***	-3.80	6.61	-3.07	5.29	
•	(3.06)	(16.36)	(4.12)	(16.62)	(4.86)	
Young child					4.82	1.90
O					(4.44)	(3.82)
Keeping House*Young child					1.89	
F					(6.49)	
High-income*Young child					-11.13	1.51
moome roung emia					(9.63)	(5.95)
Constant	41.72***	37.14***	119.85**	34.88	99.94**	27.75
	(1.62)	(1.57)	(46.79)	(46.47)	(49.15)	(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:

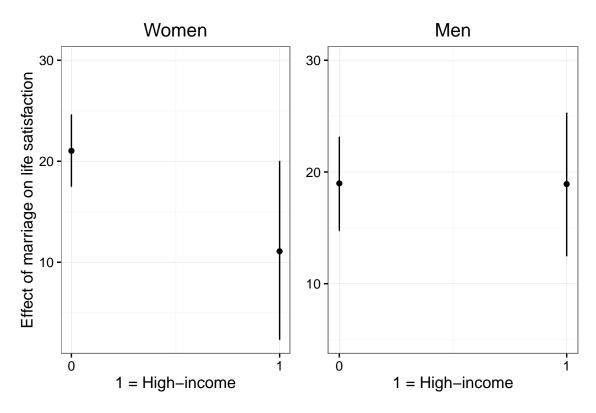


Figure 9: Interaction effects of marriage and job income on life satisfaction

underlying assumption is that young children demand more intensive care which could makes a reconciliation of a high-income job with having family more difficult. Model three further restricts the sample to people who have a family, which we define as being married and having kids. The specifications 1 to 4 are comparable to the previous model with the difference that all observed individuals have children. Specification 1 and 2 without controls show again that women are significantly happier when keeping house while having a high income makes men significantly more happy. When adding control variables (specification 3 and 4), the effect of high-income equals out, although it reaches only weak significance for men. The effect is positive and of some magnitude, indicating that in a family men and women are happier when they have a high income. The effect of keeping house is still opposite although of no significance.

The specifications 5 and 6 add interaction terms of both independent variables with having a young child. Women with a high income but without a young child tend to report higher life satisfaction. The coefficient of having a high-income but no young child is only weakly significant but of high magnitude. The second interaction term indicates a large decrease of life satisfaction for women who have a high income and a young child, although the coefficient remains insignificant. A potential reason for the low significance is the low number of observations for women who have both, a high income job and a young child (less than 50). The observation for women is nonetheless interesting as it indicates that women who have children that are four

Table 5: 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

years and older are happier when they have a high income career while this seems not to be the case for women with young children. Men's life satisfaction on the other hand is neither impacted by high income when not having a child nor by having both. In contrast to women the interaction term is positive and of low magnitude [story for men is confusing].

[F-test is missting]

#### 2.5 Satisfaction with marriage and family constellation.

In the next step we investigate the impact of the spouse's work status on marriage happiness. We choose marriage happiness as dependent variable in this model because we assume that the spouse's work intensity affects the quality of family life and relationship more strongly than the responents overall happiness which is also affected by other individual factors.

Table X shows that the spouse's work status differs significantly between married, college-educated male and female respondents. Regardles of the income, more than 90 percent of married female respondents have a partner who works full-time. For male respondants the picture differs slightly depending on the income group. 54 percent of low-income married males have a spouse who works full-time, while this share drops to 42 percent for high-income males. The share of spouses who work part-time increase by 8 percent for high-income males and the share of spouses who keep home increase by 4 percent.

Table X shows regression results for marriage happiness and the spouse's work status. We apply the same model specifications for two different sample restrictions. Specification 1 and 2 limit the sample to married, college-educated individuals. Specification 3 and 4 further limit the sample to the individuals of the former group who have a high income. The work status coefficients in specification 1 and 2 point in the expected directions. Women report higher happiness with marriage when their men work full-time rather than part-time (base categroy), while men report the oppiste although at a very low magnitude. Men report however higher happiness when their spouse stays at home compared to working part-time<sup>1</sup>. Having children has a strong and significant negative effect on marriage happiness of women.

<sup>&</sup>lt;sup>1</sup>We omit the coefficient for women's spouses who stay at home due to too few observations.

When limiting the sample only to high income individuals, the coefficient magnitude of the spouse's work status increases. Women report much higher happiness with marriage when their spouses work full-time. The significant drop in sample size between model 1 and 3 probably explains why the effect remains insignificant. Men's marriage happiness decreases when their spouses work full-time. This effect is of strong magnitude and reaches weak significance. Also the happiness increase when the spouse stays at home increased for men but stays insignificant. Having children is now found to be insignificant for both genders.

Table 4: Marriage happiness and spouse employment status

Table 6: Marriage happiness and spouse's work-status

	Women	Men	Women	Men		
	(1)	(2)	(3)	(4)		
Spouse FT	6.44	-0.97	14.03	$-8.42^{*}$		
	(5.26)	(2.89)	(11.93)	(4.85)		
Spouse Home		2.17		4.03		
-		(3.16)		(4.95)		
Children	-8.09***	-1.67	3.31	-3.21		
	(2.93)	(3.09)	(7.97)	(5.46)		
Constant	150.03***	154.04***	145.45	231.51**		
	(38.23)	(37.79)	(133.90)	(93.70)		
Family income	Yes	Yes	Yes	Yes		
Age	Yes	Yes	Yes	Yes		
Age-squared	Yes	Yes	Yes	Yes		
Year	Yes	Yes	Yes	Yes		
Race	Yes	Yes	Yes	Yes		
Cohort	Yes	Yes	Yes	Yes		
Restricted to high-income	No	No	Yes	Yes		
Observations	1,746	1,830	222	646		
Adjusted R <sup>2</sup>	0.03	0.02	0.04	0.04		

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 career 1 = 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 unmanageble.

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

2.6 Cohorts and norms

Populate with text.

Figure: Cohortian differences

3 Discussion

Conclusion 4

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.

5 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 2016), "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).

17

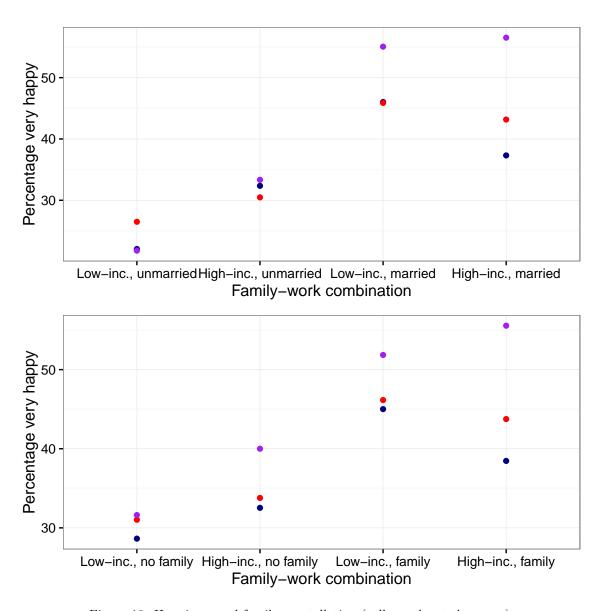


Figure 10: Happiness and family constellation (college educated women)

#### 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. 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. 2016. *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.