

What explains happiness? The relationships between happiness and marriage, religion
health, trust, and saving

Asha¹, Joanna¹, & Thuy¹

¹ University of Oregon

Author Note

We thank Dr. Nese for his guidance in this project. All mistakes remain ours.

Correspondence concerning this article should be addressed to Asha, Postal address.

E-mail: my@email.com

9

Abstract

10 abstract goes here

11 *Keywords:* happiness

12 Word count: X

13 What explains happiness? The relationships between happiness and marriage, religion
14 health, trust, and saving

15 ## [1] "Rather happy"
16 ## [2] "Very happy"
17 ## [3] "Not very happy"
18 ## [4] "Not at all happy"
19 ## [5] "No answer"
20 ## [6] "Dont know"
21 ## [7] "HT: Missing-Dropped out survey; RU: Inappropriate response{Inappropriate}"

22 ## Warning: Unknown levels in `f`: HT: Missing-Dropped out survey; RU:
23 ## Inappropriate response{Inappropriate}

24 ## Warning: Unknown levels in `f`: No answer, Dont know

family_savings	feeling_of_happiness	n
Just get by	Not at all happy	813
Just get by	Not very happy	4650
Just get by	Rather happy	18661
Just get by	Very happy	10545
Save money	Not at all happy	203
Save money	Not very happy	1449
Save money	Rather happy	11060
Save money	Very happy	9177
Spent savings and borrowed money	Not at all happy	400
Spent savings and borrowed money	Not very happy	1577
Spent savings and borrowed money	Rather happy	3867
Spent savings and borrowed money	Very happy	2489
Spent some savings and borrowed money	Not at all happy	207
Spent some savings and borrowed money	Not very happy	1471
Spent some savings and borrowed money	Rather happy	5853
Spent some savings and borrowed money	Very happy	3800

Figure 1

Happiness levels by family savings: Raw numbers

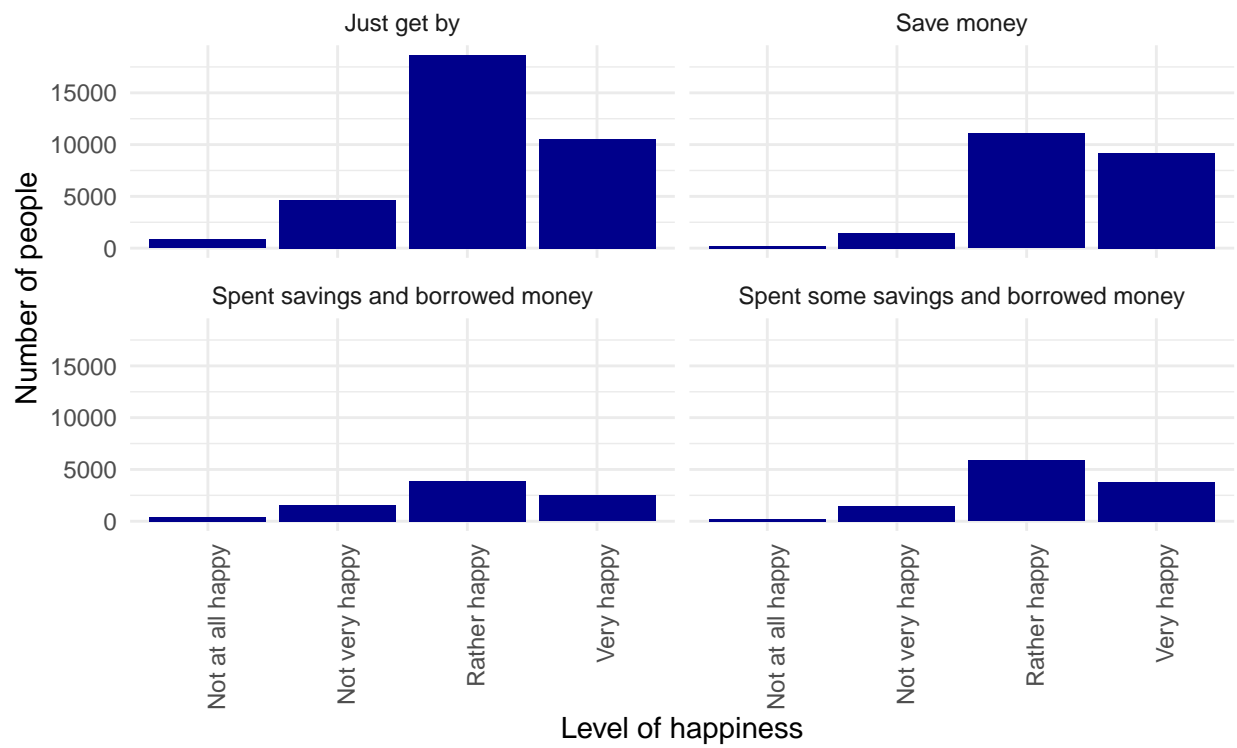
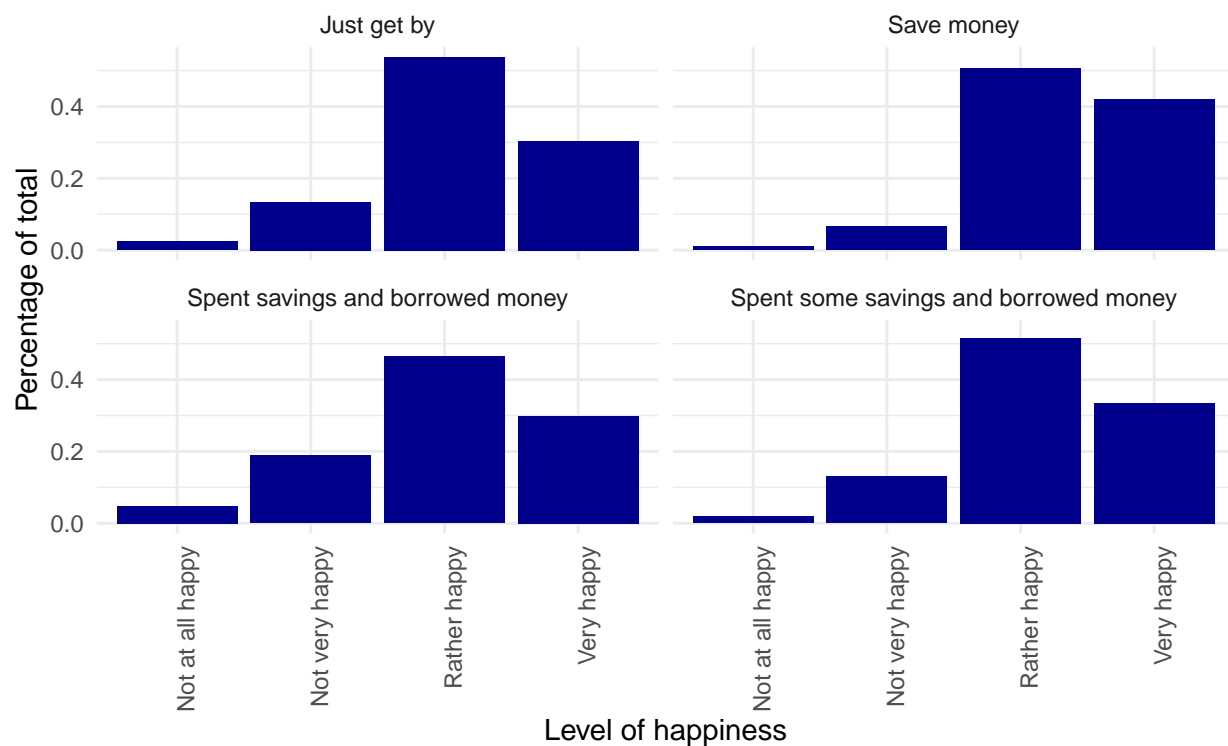


Figure 2

Happiness levels by family savings: percentage



27

28 ## # A tibble: 16 x 5

```

29 ##   family_savings      feeling_of_happine~      n total percent
30 ##   <fct>              <fct>              <int> <int>    <dbl>
31 ## 1 Save money        Not at all happy        203 21889 0.00927
32 ## 2 Spent some savings and borrowed~ Not at all happy        207 11331 0.0183
33 ## 3 Just get by       Not at all happy        813 34669 0.0235
34 ## 4 Spent savings and borrowed money Not at all happy        400  8333 0.0480
35 ## 5 Save money        Not very happy        1449 21889 0.0662
36 ## 6 Spent some savings and borrowed~ Not very happy        1471 11331 0.130
37 ## 7 Just get by       Not very happy        4650 34669 0.134
38 ## 8 Spent savings and borrowed money Not very happy        1577  8333 0.189
39 ## 9 Spent savings and borrowed money Very happy          2489  8333 0.299
40 ## 10 Just get by      Very happy          10545 34669 0.304

```

41	## 11 Spent some savings and borrowed~	Very happy	3800	11331	0.335
42	## 12 Save money	Very happy	9177	21889	0.419
43	## 13 Spent savings and borrowed money	Rather happy	3867	8333	0.464
44	## 14 Save money	Rather happy	11060	21889	0.505
45	## 15 Spent some savings and borrowed~	Rather happy	5853	11331	0.517
46	## 16 Just get by	Rather happy	18661	34669	0.538

```

47 ## List of 65
48 ## $ line :List of 6
49 ## ..$ colour : chr "black"
50 ## ..$ size : num 0.5
51 ## ..$ linetype : num 1
52 ## ..$ lineend : chr "butt"
53 ## ..$ arrow : logi FALSE
54 ## ..$ inherit.blank: logi TRUE
55 ## ..- attr(*, "class")= chr [1:2] "element_line" "element"
56 ## $ rect :List of 5
57 ## ..$ fill : chr "white"
58 ## ..$ colour : chr "black"
59 ## ..$ size : num 0.5
60 ## ..$ linetype : num 1
61 ## ..$ inherit.blank: logi TRUE
62 ## ..- attr(*, "class")= chr [1:2] "element_rect" "element"
63 ## $ text :List of 11
64 ## ..$ family : chr ""
65 ## ..$ face : chr "plain"
66 ## ..$ colour : chr "black"

```

```

67 ##    ..$ size           : num 11
68 ##    ..$ hjust         : num 0.5
69 ##    ..$ vjust         : num 0.5
70 ##    ..$ angle         : num 0
71 ##    ..$ lineheight    : num 0.9
72 ##    ..$ margin        : 'margin' num [1:4] Opt Opt Opt Opt
73 ##    .. ..- attr(*, "valid.unit")= int 8
74 ##    .. ..- attr(*, "unit")= chr "pt"
75 ##    ..$ debug         : logi FALSE
76 ##    ..$ inherit.blank: logi TRUE
77 ##    ..- attr(*, "class")= chr [1:2] "element_text" "element"
78 ##    $ axis.title.x           :List of 11
79 ##    ..$ family         : NULL
80 ##    ..$ face           : NULL
81 ##    ..$ colour        : NULL
82 ##    ..$ size           : NULL
83 ##    ..$ hjust         : NULL
84 ##    ..$ vjust         : num 1
85 ##    ..$ angle         : NULL
86 ##    ..$ lineheight    : NULL
87 ##    ..$ margin        : 'margin' num [1:4] 2.75pt Opt Opt Opt
88 ##    .. ..- attr(*, "valid.unit")= int 8
89 ##    .. ..- attr(*, "unit")= chr "pt"
90 ##    ..$ debug         : NULL
91 ##    ..$ inherit.blank: logi TRUE
92 ##    ..- attr(*, "class")= chr [1:2] "element_text" "element"
93 ##    $ axis.title.x.top       :List of 11

```



```

94 ##    ..$ family      : NULL
95 ##    ..$ face        : NULL
96 ##    ..$ colour      : NULL
97 ##    ..$ size        : NULL
98 ##    ..$ hjust       : NULL
99 ##    ..$ vjust       : num 0
100 ##    ..$ angle       : NULL
101 ##    ..$ lineheight   : NULL
102 ##    ..$ margin      : 'margin' num [1:4] Opt Opt 2.75pt Opt
103 ##    .. ..- attr(*, "valid.unit")= int 8
104 ##    .. ..- attr(*, "unit")= chr "pt"
105 ##    ..$ debug        : NULL
106 ##    ..$ inherit.blank: logi TRUE
107 ##    ..- attr(*, "class")= chr [1:2] "element_text" "element"
108 ##    $ axis.title.y      :List of 11
109 ##    ..$ family        : NULL
110 ##    ..$ face          : NULL
111 ##    ..$ colour        : NULL
112 ##    ..$ size          : NULL
113 ##    ..$ hjust         : NULL
114 ##    ..$ vjust         : num 1
115 ##    ..$ angle         : num 90
116 ##    ..$ lineheight    : NULL
117 ##    ..$ margin        : 'margin' num [1:4] Opt 2.75pt Opt Opt
118 ##    .. ..- attr(*, "valid.unit")= int 8
119 ##    .. ..- attr(*, "unit")= chr "pt"
120 ##    ..$ debug         : NULL

```

```

121 ## ..$ inherit.blank: logi TRUE
122 ## ..- attr(*, "class")= chr [1:2] "element_text" "element"
123 ## $ axis.title.y.right      :List of 11
124 ## ..$ family               : NULL
125 ## ..$ face                  : NULL
126 ## ..$ colour                : NULL
127 ## ..$ size                   : NULL
128 ## ..$ hjust                  : NULL
129 ## ..$ vjust                  : num 0
130 ## ..$ angle                  : num -90
131 ## ..$ lineheight             : NULL
132 ## ..$ margin                 : 'margin' num [1:4] Opt Opt Opt 2.75pt
133 ## .. ..- attr(*, "valid.unit")= int 8
134 ## .. ..- attr(*, "unit")= chr "pt"
135 ## ..$ debug                  : NULL
136 ## ..$ inherit.blank: logi TRUE
137 ## ..- attr(*, "class")= chr [1:2] "element_text" "element"
138 ## $ axis.text                 :List of 11
139 ## ..$ family                 : NULL
140 ## ..$ face                    : NULL
141 ## ..$ colour                  : chr "grey30"
142 ## ..$ size                    : 'rel' num 0.8
143 ## ..$ hjust                   : NULL
144 ## ..$ vjust                   : NULL
145 ## ..$ angle                   : NULL
146 ## ..$ lineheight              : NULL
147 ## ..$ margin                  : NULL

```

```

148 ## ..$ debug          : NULL
149 ## ..$ inherit.blank: logi TRUE
150 ## ..- attr(*, "class")= chr [1:2] "element_text" "element"
151 ## $ axis.text.x          :List of 11
152 ## ..$ family           : NULL
153 ## ..$ face             : NULL
154 ## ..$ colour           : NULL
155 ## ..$ size             : NULL
156 ## ..$ hjust            : num 1
157 ## ..$ vjust            : num 1
158 ## ..$ angle            : num 90
159 ## ..$ lineheight       : NULL
160 ## ..$ margin           : 'margin' num [1:4] 2.2pt Opt Opt Opt
161 ## .. ..- attr(*, "valid.unit")= int 8
162 ## .. ..- attr(*, "unit")= chr "pt"
163 ## ..$ debug           : NULL
164 ## ..$ inherit.blank: logi FALSE
165 ## ..- attr(*, "class")= chr [1:2] "element_text" "element"
166 ## $ axis.text.x.top     :List of 11
167 ## ..$ family           : NULL
168 ## ..$ face             : NULL
169 ## ..$ colour           : NULL
170 ## ..$ size             : NULL
171 ## ..$ hjust            : NULL
172 ## ..$ vjust            : num 0
173 ## ..$ angle            : NULL
174 ## ..$ lineheight       : NULL

```

```

175 ##    ..$ margin          : 'margin' num [1:4] Opt Opt 2.2pt Opt
176 ##    .. ..- attr(*, "valid.unit")= int 8
177 ##    .. ..- attr(*, "unit")= chr "pt"
178 ##    ..$ debug           : NULL
179 ##    ..$ inherit.blank: logi TRUE
180 ##    ..- attr(*, "class")= chr [1:2] "element_text" "element"
181 ##    $ axis.text.y              :List of 11
182 ##    ..$ family           : NULL
183 ##    ..$ face             : NULL
184 ##    ..$ colour          : NULL
185 ##    ..$ size            : NULL
186 ##    ..$ hjust           : num 1
187 ##    ..$ vjust           : NULL
188 ##    ..$ angle           : NULL
189 ##    ..$ lineheight      : NULL
190 ##    ..$ margin          : 'margin' num [1:4] Opt 2.2pt Opt Opt
191 ##    .. ..- attr(*, "valid.unit")= int 8
192 ##    .. ..- attr(*, "unit")= chr "pt"
193 ##    ..$ debug           : NULL
194 ##    ..$ inherit.blank: logi TRUE
195 ##    ..- attr(*, "class")= chr [1:2] "element_text" "element"
196 ##    $ axis.text.y.right       :List of 11
197 ##    ..$ family           : NULL
198 ##    ..$ face             : NULL
199 ##    ..$ colour          : NULL
200 ##    ..$ size            : NULL
201 ##    ..$ hjust           : num 0

```

```

202 ##    ..$ vjust          : NULL
203 ##    ..$ angle          : NULL
204 ##    ..$ lineheight     : NULL
205 ##    ..$ margin         : 'margin' num [1:4] Opt Opt Opt 2.2pt
206 ##    ..- attr(*, "valid.unit")= int 8
207 ##    ..- attr(*, "unit")= chr "pt"
208 ##    ..$ debug          : NULL
209 ##    ..$ inherit.blank: logi TRUE
210 ##    ..- attr(*, "class")= chr [1:2] "element_text" "element"
211 ##    $ axis.ticks          : list()
212 ##    ..- attr(*, "class")= chr [1:2] "element_blank" "element"
213 ##    $ axis.ticks.length   : 'unit' num 2.75pt
214 ##    ..- attr(*, "valid.unit")= int 8
215 ##    ..- attr(*, "unit")= chr "pt"
216 ##    $ axis.ticks.length.x : NULL
217 ##    $ axis.ticks.length.x.top : NULL
218 ##    $ axis.ticks.length.x.bottom: NULL
219 ##    $ axis.ticks.length.y   : NULL
220 ##    $ axis.ticks.length.y.left : NULL
221 ##    $ axis.ticks.length.y.right : NULL
222 ##    $ axis.line            : list()
223 ##    ..- attr(*, "class")= chr [1:2] "element_blank" "element"
224 ##    $ axis.line.x          : NULL
225 ##    $ axis.line.y          : NULL
226 ##    $ legend.background    : list()
227 ##    ..- attr(*, "class")= chr [1:2] "element_blank" "element"
228 ##    $ legend.margin        : 'margin' num [1:4] 5.5pt 5.5pt 5.5pt 5.5pt

```

```
229 ##   ..- attr(*, "valid.unit")= int 8
230 ##   ..- attr(*, "unit")= chr "pt"
231 ##   $ legend.spacing           : 'unit' num 11pt
232 ##   ..- attr(*, "valid.unit")= int 8
233 ##   ..- attr(*, "unit")= chr "pt"
234 ##   $ legend.spacing.x         : NULL
235 ##   $ legend.spacing.y         : NULL
236 ##   $ legend.key               : list()
237 ##   ..- attr(*, "class")= chr [1:2] "element_blank" "element"
238 ##   $ legend.key.size          : 'unit' num 1.2lines
239 ##   ..- attr(*, "valid.unit")= int 3
240 ##   ..- attr(*, "unit")= chr "lines"
241 ##   $ legend.key.height        : NULL
242 ##   $ legend.key.width         : NULL
243 ##   $ legend.text              :List of 11
244 ##   ..$ family                 : NULL
245 ##   ..$ face                   : NULL
246 ##   ..$ colour                 : NULL
247 ##   ..$ size                   : 'rel' num 0.8
248 ##   ..$ hjust                  : NULL
249 ##   ..$ vjust                  : NULL
250 ##   ..$ angle                  : NULL
251 ##   ..$ lineheight             : NULL
252 ##   ..$ margin                 : NULL
253 ##   ..$ debug                  : NULL
254 ##   ..$ inherit.blank: logi TRUE
255 ##   ..- attr(*, "class")= chr [1:2] "element_text" "element"
```

```

256 ## $ legend.text.align      : NULL
257 ## $ legend.title           :List of 11
258 ## ..$ family              : NULL
259 ## ..$ face                 : NULL
260 ## ..$ colour               : NULL
261 ## ..$ size                  : NULL
262 ## ..$ hjust                 : num 0
263 ## ..$ vjust                 : NULL
264 ## ..$ angle                 : NULL
265 ## ..$ lineheight           : NULL
266 ## ..$ margin                : NULL
267 ## ..$ debug                 : NULL
268 ## ..$ inherit.blank: logi TRUE
269 ## ..- attr(*, "class")= chr [1:2] "element_text" "element"
270 ## $ legend.title.align      : NULL
271 ## $ legend.position         : chr "right"
272 ## $ legend.direction        : NULL
273 ## $ legend.justification    : chr "center"
274 ## $ legend.box              : NULL
275 ## $ legend.box.margin       : 'margin' num [1:4] 0cm 0cm 0cm 0cm
276 ## ..- attr(*, "valid.unit")= int 1
277 ## ..- attr(*, "unit")= chr "cm"
278 ## $ legend.box.background   : list()
279 ## ..- attr(*, "class")= chr [1:2] "element_blank" "element"
280 ## $ legend.box.spacing      : 'unit' num 11pt
281 ## ..- attr(*, "valid.unit")= int 8
282 ## ..- attr(*, "unit")= chr "pt"

```

```
283 ## $ panel.background          : list()
284 ##   ..- attr(*, "class")= chr [1:2] "element_blank" "element"
285 ## $ panel.border                : list()
286 ##   ..- attr(*, "class")= chr [1:2] "element_blank" "element"
287 ## $ panel.spacing              : 'unit' num 5.5pt
288 ##   ..- attr(*, "valid.unit")= int 8
289 ##   ..- attr(*, "unit")= chr "pt"
290 ## $ panel.spacing.x            : NULL
291 ## $ panel.spacing.y            : NULL
292 ## $ panel.grid                 :List of 6
293 ##   ..$ colour                 : chr "grey92"
294 ##   ..$ size                   : NULL
295 ##   ..$ linetype               : NULL
296 ##   ..$ lineend                : NULL
297 ##   ..$ arrow                  : logi FALSE
298 ##   ..$ inherit.blank: logi TRUE
299 ##   ..- attr(*, "class")= chr [1:2] "element_line" "element"
300 ## $ panel.grid.minor           :List of 6
301 ##   ..$ colour                 : NULL
302 ##   ..$ size                   : 'rel' num 0.5
303 ##   ..$ linetype               : NULL
304 ##   ..$ lineend                : NULL
305 ##   ..$ arrow                  : logi FALSE
306 ##   ..$ inherit.blank: logi TRUE
307 ##   ..- attr(*, "class")= chr [1:2] "element_line" "element"
308 ## $ panel.ontop                : logi FALSE
309 ## $ plot.background            : list()
```



```

310 ##   ..- attr(*, "class")= chr [1:2] "element_blank" "element"
311 ## $ plot.title           :List of 11
312 ##   ..$ family           : NULL
313 ##   ..$ face              : NULL
314 ##   ..$ colour           : NULL
315 ##   ..$ size              : 'rel' num 1.2
316 ##   ..$ hjust             : num 0
317 ##   ..$ vjust             : num 1
318 ##   ..$ angle             : NULL
319 ##   ..$ lineheight        : NULL
320 ##   ..$ margin            : 'margin' num [1:4] Opt Opt 5.5pt Opt
321 ##   .. ..- attr(*, "valid.unit")= int 8
322 ##   .. ..- attr(*, "unit")= chr "pt"
323 ##   ..$ debug             : NULL
324 ##   ..$ inherit.blank: logi TRUE
325 ##   ..- attr(*, "class")= chr [1:2] "element_text" "element"
326 ## $ plot.subtitle        :List of 11
327 ##   ..$ family           : NULL
328 ##   ..$ face              : NULL
329 ##   ..$ colour           : NULL
330 ##   ..$ size              : NULL
331 ##   ..$ hjust             : num 0
332 ##   ..$ vjust             : num 1
333 ##   ..$ angle             : NULL
334 ##   ..$ lineheight        : NULL
335 ##   ..$ margin            : 'margin' num [1:4] Opt Opt 5.5pt Opt
336 ##   .. ..- attr(*, "valid.unit")= int 8

```

```
337 ## ..- attr(*, "unit")= chr "pt"
338 ## ..$ debug          : NULL
339 ## ..$ inherit.blank: logi TRUE
340 ## ..- attr(*, "class")= chr [1:2] "element_text" "element"
341 ## $ plot.caption      :List of 11
342 ## ..$ family         : NULL
343 ## ..$ face           : NULL
344 ## ..$ colour         : NULL
345 ## ..$ size           : 'rel' num 0.8
346 ## ..$ hjust          : num 1
347 ## ..$ vjust          : num 1
348 ## ..$ angle          : NULL
349 ## ..$ lineheight     : NULL
350 ## ..$ margin         : 'margin' num [1:4] 5.5pt 0pt 0pt 0pt
351 ## ..- attr(*, "valid.unit")= int 8
352 ## ..- attr(*, "unit")= chr "pt"
353 ## ..$ debug          : NULL
354 ## ..$ inherit.blank: logi TRUE
355 ## ..- attr(*, "class")= chr [1:2] "element_text" "element"
356 ## $ plot.tag          :List of 11
357 ## ..$ family         : NULL
358 ## ..$ face           : NULL
359 ## ..$ colour         : NULL
360 ## ..$ size           : 'rel' num 1.2
361 ## ..$ hjust          : num 0.5
362 ## ..$ vjust          : num 0.5
363 ## ..$ angle          : NULL
```

```

364 ##    ..$ lineheight      : NULL
365 ##    ..$ margin          : NULL
366 ##    ..$ debug           : NULL
367 ##    ..$ inherit.blank: logi TRUE
368 ##    ..- attr(*, "class")= chr [1:2] "element_text" "element"
369 ##    $ plot.tag.position      : chr "topleft"
370 ##    $ plot.margin            : 'margin' num [1:4] 5.5pt 5.5pt 5.5pt 5.5pt
371 ##    ..- attr(*, "valid.unit")= int 8
372 ##    ..- attr(*, "unit")= chr "pt"
373 ##    $ strip.background       : list()
374 ##    ..- attr(*, "class")= chr [1:2] "element_blank" "element"
375 ##    $ strip.placement        : chr "inside"
376 ##    $ strip.text             :List of 11
377 ##    ..$ family             : NULL
378 ##    ..$ face                : NULL
379 ##    ..$ colour              : chr "grey10"
380 ##    ..$ size                : 'rel' num 0.8
381 ##    ..$ hjust               : NULL
382 ##    ..$ vjust               : NULL
383 ##    ..$ angle               : NULL
384 ##    ..$ lineheight          : NULL
385 ##    ..$ margin              : 'margin' num [1:4] 4.4pt 4.4pt 4.4pt 4.4pt
386 ##    .. ..- attr(*, "valid.unit")= int 8
387 ##    .. ..- attr(*, "unit")= chr "pt"
388 ##    ..$ debug               : NULL
389 ##    ..$ inherit.blank: logi TRUE
390 ##    ..- attr(*, "class")= chr [1:2] "element_text" "element"

```

```

391 ## $ strip.text.x          : NULL
392 ## $ strip.text.y          :List of 11
393 ## ..$ family              : NULL
394 ## ..$ face                 : NULL
395 ## ..$ colour               : NULL
396 ## ..$ size                 : NULL
397 ## ..$ hjust                : NULL
398 ## ..$ vjust                : NULL
399 ## ..$ angle                : num -90
400 ## ..$ lineheight           : NULL
401 ## ..$ margin               : NULL
402 ## ..$ debug                : NULL
403 ## ..$ inherit.blank: logi TRUE
404 ## ..- attr(*, "class")= chr [1:2] "element_text" "element"
405 ## $ strip.switch.pad.grid   : 'unit' num 2.75pt
406 ## ..- attr(*, "valid.unit")= int 8
407 ## ..- attr(*, "unit")= chr "pt"
408 ## $ strip.switch.pad.wrap   : 'unit' num 2.75pt
409 ## ..- attr(*, "valid.unit")= int 8
410 ## ..- attr(*, "unit")= chr "pt"
411 ## - attr(*, "class")= chr [1:2] "theme" "gg"
412 ## - attr(*, "complete")= logi TRUE
413 ## - attr(*, "validate")= logi TRUE

```

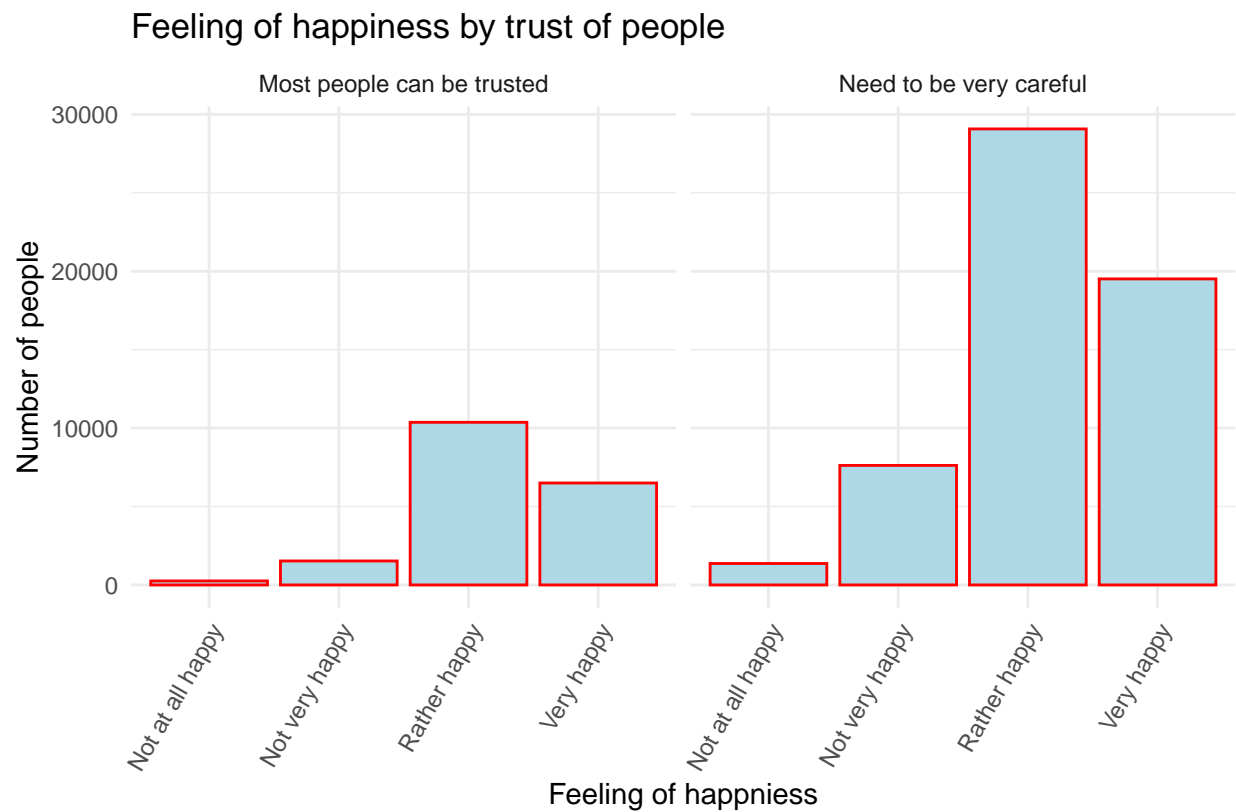
414 As Figure 3 shows, although patterns of happiness levels are similar overall (e.g. most
415 people report being “Rather Happy”, fewest people report being “Not happy at all”), there
416 are some differences of happiness level distributions between groups. A greater percentage
417 of those with the lowest level of family savings (those who spent savings and borrowed

money) reported being “Not at all happy” or “Not very happy”. On the other hand, the greatest percentage of people reporting being “Rather happy” were those who reported just getting by, and the greatest percentage of people reporting the highest level of happiness were those in the strongest financial position - those who saved money.

(NOTE: I'd like to use inline code here to reference exact percentages. How do put one cell value into inline code??)



Survey of more than 85,000 respondents across the world. Source: WVS 2012



Survey of more than 85,000 respondents across the world. Source: WVS 2012

most_people_trusted	feeling_of_happiness	n
Most people can be trusted	Not at all happy	255
Most people can be trusted	Not very happy	1528
Most people can be trusted	Rather happy	10369
Most people can be trusted	Very happy	6499
Need to be very careful	Not at all happy	1368
Need to be very careful	Not very happy	7619
Need to be very careful	Rather happy	29072
Need to be very careful	Very happy	19512

Happiness and trust

Out of totla 76222 people, only slightly more than 24.47 percent say they can trust most of the people around them, while 75.53 is caucious about the society.

Introduction

Study of happiness and its causal factors has been flourished in recent years. This project explores the relationship between happiness and some candidate variables, namely marital status, religious affiliation, level of income, status of heath, and level of trust. We use individual level survey of more than 85,000 respondents across 60 countries and societies around the world in World Value Survey Dataset 2012.

Scholars have studied the relationship between happines and political system (Inglehart, 2009)...

Johnson (2012) finds that “trust as measured by the World Values Survey is positively correlated with experimentally measured trust”.

Gandelman and Hernández-Murillo (2013) reviews relationship of self-rate health status and perceived life quality.

Methods

We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study.

Data analysis

We used R (Version 3.5.1; R Core Team, 2018) and the R-packages *dplyr* (Version 0.8.3; Wickham, François, Henry, & Müller, 2019), *forcats* (Version 0.4.0; Wickham, 2019a), *ggplot2* (Version 3.2.1; Wickham, 2016), *here* (Version 0.1; Müller, 2017), *janitor* (Version 1.2.0; Firke, 2019), *kableExtra* (Version 1.1.0; Zhu, 2019), *knitr* (Version 1.25; Xie, 2015), *papaja* (Version 0.1.0.9842; Aust & Barth, 2018), *purrr* (Version 0.3.3; Henry & Wickham, 2019), *readr* (Version 1.3.1; Wickham, Hester, & Francois, 2018), *rio* (Version 0.5.16; C.-h. Chan, Chan, Leeper, & Becker, 2018), *stringr* (Version 1.4.0; Wickham,

453 2019b), *tibble* (Version 2.1.3; Müller & Wickham, 2019), *tidyr* (Version 1.0.0; Wickham &
454 Henry, 2019), and *tidyverse* (Version 1.2.1; Wickham, 2017) for all our analyses.

455 **Results**

456 **Discussion**

References

- Aust, F., & Barth, M. (2018). *papaja: Create APA manuscripts with R Markdown*. Retrieved from <https://github.com/crsh/papaja>
- Chan, C.-h., Chan, G. C., Leeper, T. J., & Becker, J. (2018). *Rio: A swiss-army knife for data file i/o*.
- Firke, S. (2019). *Janitor: Simple tools for examining and cleaning dirty data*. Retrieved from <https://CRAN.R-project.org/package=janitor>
- Gandelman, N., & Hernández-Murillo, R. (2013). What do happiness and health satisfaction data tell us about relative risk aversion? *Journal of Economic Psychology*, 39, 301–312.
- Henry, L., & Wickham, H. (2019). *Purrr: Functional programming tools*. Retrieved from <https://CRAN.R-project.org/package=purrr>
- Inglehart, R. (2009). 11. democracy and happiness: What causes what? *Happiness, Economics and Politics: Towards a Multi-Disciplinary Approach*, 256.
- Johnson, N. D., & Mislin, A. (2012). How much should we trust the world values survey trust question? *Economics Letters*, 116(2), 210–212.
- Müller, K. (2017). *Here: A simpler way to find your files*. Retrieved from <https://CRAN.R-project.org/package=here>
- Müller, K., & Wickham, H. (2019). *Tibble: Simple data frames*. Retrieved from <https://CRAN.R-project.org/package=tibble>
- R Core Team. (2018). *R: A language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing. Retrieved from <https://www.R-project.org/>
- Wickham, H. (2016). *Ggplot2: Elegant graphics for data analysis*. Springer-Verlag New

York. Retrieved from <https://ggplot2.tidyverse.org>

Wickham, H. (2017). *Tidyverse: Easily install and load the 'tidyverse'*. Retrieved from <https://CRAN.R-project.org/package=tidyverse>

Wickham, H. (2019a). *Forcats: Tools for working with categorical variables (factors)*. Retrieved from <https://CRAN.R-project.org/package=forcats>

Wickham, H. (2019b). *Stringr: Simple, consistent wrappers for common string operations*. Retrieved from <https://CRAN.R-project.org/package=stringr>

Wickham, H., & Henry, L. (2019). *Tidyr: Tidy messy data*. Retrieved from <https://CRAN.R-project.org/package=tidyr>

Wickham, H., François, R., Henry, L., & Müller, K. (2019). *Dplyr: A grammar of data manipulation*. Retrieved from <https://CRAN.R-project.org/package=dplyr>

Wickham, H., Hester, J., & François, R. (2018). *Readr: Read rectangular text data*. Retrieved from <https://CRAN.R-project.org/package=readr>

Xie, Y. (2015). *Dynamic documents with R and knitr* (2nd ed.). Boca Raton, Florida: Chapman; Hall/CRC. Retrieved from <https://yihui.name/knitr/>

Zhu, H. (2019). *KableExtra: Construct complex table with 'kable' and pipe syntax*. Retrieved from <https://CRAN.R-project.org/package=kableExtra>

Final Paper

The final project must:

- (a) be a reproducible and dynamic APA manuscript produced with R Markdown, via the {papaja} package and include references to the extant literature;
- (b) be housed on GitHub, with contributions from all authors obvious;
- (c) demonstrate moving data from its raw “messy” format to a tidy data format through the R Markdown file, but not in the final document;

(d) include at least two exploratory data visualizations, and

(e) include at least summary statistics of the data in tables, although fitted models of any

sort are an added bonus (not literally, there are not extra points for fitting a model).

The points for the final project are broken down as follows:

Writing (abstract, intro, methods, results, discussion, references).

- 30 points(25%) Document is fully reproducible and housed on GitHub
- 25 points (21%) Demonstrate use of inline code
- 5 points (4%) Demonstrate tidying messy data
- 30 points (25%) Two data visualizations
- 20 points(10 points each) (17%) Production of at least one table (of summary statistics or model results)
- 10 points (8%)

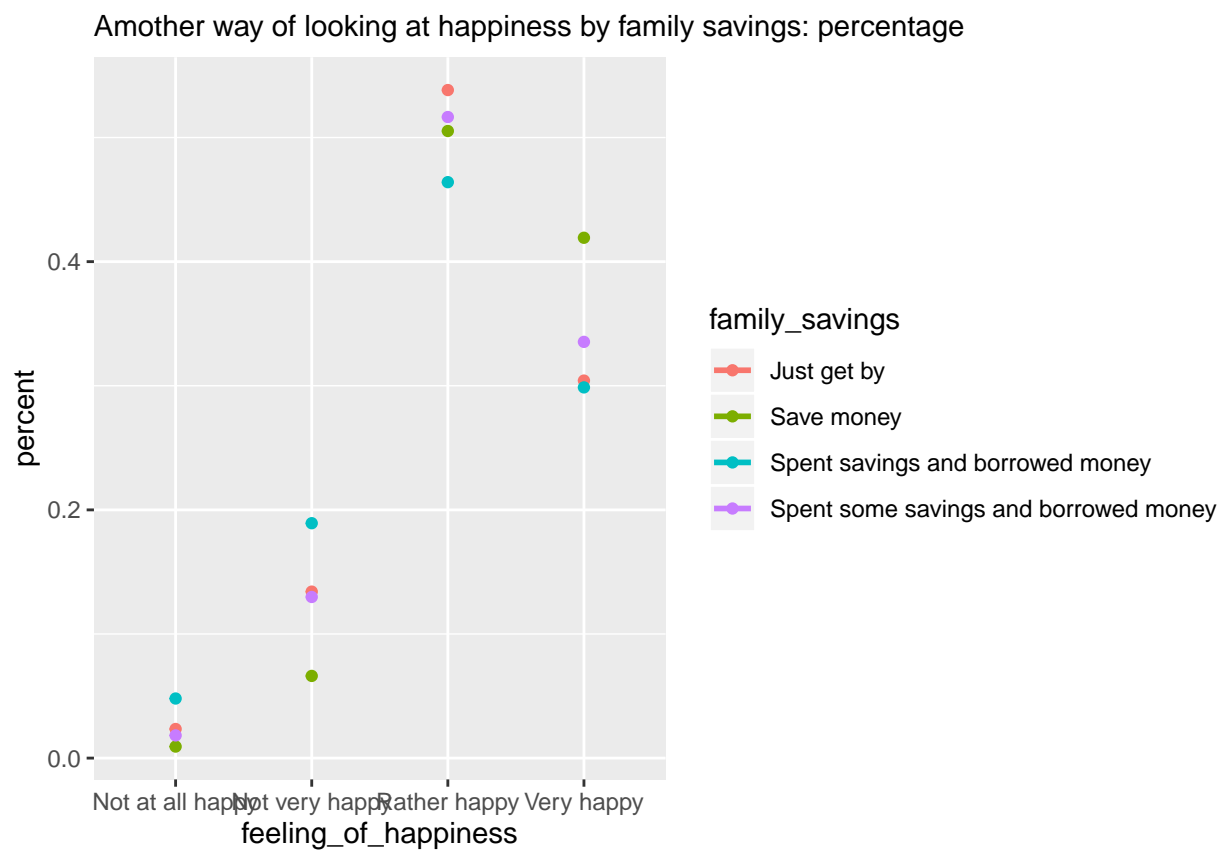


Figure 1