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1   ********************************************************************
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2   * Katrin Auspurg & Thomas Hinz (in cooperation with Carsten
    Sauer)
3   * Accompanying material for: Factorial Survey Experiments.
4   * SAGE,  Series: Quantitative Applications in the Social
    Sciences No. 175,
5   * Thousand Oaks, CA: SAGE
6   *
7   * // §1 SETUP OF VIGNETTE UNIVERSE AND RANDOM SAMPLE OF
    VIGNETTES
8   ********************************************************************
    ***********
9
10
11  ****************************************
12  // #1 GENERATION OF VIGNETTE UNIVERSE
13  ****************************************
14
15  ** Generate variables for the single dimensions
16
17  range x1 1 2 2      // sex (2 levels)
18  range x2 1 8 8      // age (8 levels)
19  range x3 1 3 3      // degree (3 levels)
20  range x4 1 6 6      // children (6 levels)
21  range x5 1 10 10    // job (10 levels)
22  range x6 1 2 2      // experience (2 levels)
23  range x7 1 2 2      // tenure (2 levels)
24  range x8 1 10 10    // income (10 levels)
25
26  ** Now generate a rectangular dataset
27
28  fillin x1 x2 x3 x4 x5 x6 x7 x8
29  drop _fillin
30
31  ** Drop lines with missings
32
33  foreach var of varlist  x1-x8 {
34  drop if `var' == .
35  }
36
37  ** Check if the number of cases is correct:
38  * 2*8*3*6*10*2*2*10 = 115200
39
40  fre x1
41
42  ** the correlations among the dimensions should be zero:
43
44  corr x1 - x8
45
46  ** and all levels should appear with the same frequency:
47
48  tab1 x1 - x8
```

```
49  fre x1 - x8              // alternative command
50
51  // To put it in terms of experimental designs,
52  // in the vignette universe the dimensions are completely
    "orthogonal" (uncorrelated)
53  // and "balanced" (all levels appear with the same frequency).
54  // One can also say, the design has a maximum of statistical
    efficiency
55  // (maximal independent variation and variance of all
    dimensions).
56  // These are all desirable features of experimental designs!
57
58
59  save universe_1, replace
60
61  ****************************************
62  // #2 DELETION OF IMPLAUSIBLE CASES
63  ****************************************
64
65  ** See earnignsexample.doc for more information on
    implausible cases
66
67  drop if x6 == 1  & x7 == 2
68  drop if x5 == 8  & x3 == 1
69  drop if x5 == 10 & x3 < 3
70  drop if x5 == 1  & x8 > 6
71  drop if (x5 == 2 | x5 == 3)  & x8 > 7
72  drop if (x5 > 3 & x5 < 7) & x8 > 8
73  drop if x5 == 8  & x8 < 3
74  drop if x5 > 8 & x8 < 5
75
76  ** Save the reduced vignette universe:
77
78  save universe_2, replace
79
80  ****************************************
81  // #3 DRAWING A RANDOM SAMPLE
82  ****************************************
83
84  * To make the random sampling replicable, indicate a seed
    number for the
85  * algorithm used by Stata. Otherwise, Stata will use the
    computer time clock.
86
87  set seed 0813 // in this example, 0813 is defined as the
    seed number
88  sample 120, count  // draws a random sample of N = 120
    vignettes
89
90
91  * Save your random vignette sample:
92
93  save random_sample120, replace
```

```
94
95  ****************************************
96  // #4 ALLOCATION OF VIGNETTES TO DECKS
97  ****************************************
98
99  * If you want the respondents to evaluate 10 vignettes
100 * you have to create 120/100 = 12 decks
101
102 ** To create these decks, you can proceed like this:
103 * divide the sample into 12 equal-sized fractions:
104
105 gen nr = _n // running number for all vignettes
106 xtile deck = nr, nquantiles(12) //splits the sample into 12
    quantiles
107 lab var deck "vignette deck"
108 drop nr
109
110 * This procedure leads to a random allocation of vignettes,
    since the vignettes
111 * were already randomly drawn from the universe and hence
112 * in a random order.
113
114 ** Generate a variable indicating the serial position of
    each vignette
115 * within the deck:
116
117 bysort deck: gen vignr = _n
118 lab var vignr "position of vignette within deck"
119
120 ** Move all identifiers to the first columns of the data set:
121
122 order deck vignr, first
123
124
125 ** Check again the statistical efficiency of the vignette
    sample
126 * and the single decks:
127
128 corr x1 - x8
129 fre  x1 - x8
130
131 bysort deck: corr x1 - x8
132 bysort deck: fre x1 - x8
133
134 * You might also check two-way interactions:
135
136 unab vars : x1-x8
137 local nvar : word count `vars'
138 forval i = 1/`nvar' {
139   forval j = 1/`=`i'-1' {
140     local x : word `i' of `vars'
141     local y : word `j' of `vars'
142     generate `y'X`x' = `y' * `x'
```

```
143     }
144   }
145   corr x1 - x7Xx8
146   drop x1Xx2 - x7Xx8
147
148   ******************************************
149   // # 5 SAVE DATA
150   ******************************************
151
152   save random120, replace
153
154
```