```
# overall statistics calculated by year, study data type, type of transparency
measure
fig2 data2 %>%
  select(year_split, EmpiricalStudyData, Type, n, prop, available) %>%
  print(., n = nrow(fig2_data2))
## # A tibble: 30 × 6
## # Groups:
               year_split, EmpiricalStudyData [4]
##
      year_split
                           EmpiricalStudyData Type
                                                                       n prop availa…¹
##
      <fct>
                                               <fct>
                                                                  <int> <dbl> <fct>
##
    1 Post-RC (2018-2019) Primary
                                               "Materials "
                                                                         75.7 " Not a...
                                                                    106
                                                                          24.3 " Avail...
    2 Post-RC (2018-2019) Primary
                                               "Materials '
                                                                     34
## 3 Post-RC (2018-2019) Secondary
                                               "Materials "
                                                                     43
                                                                         91.5 " Not a...
   4 Post-RC (2018-2019) Secondary
                                               "Materials "
                                                                          8.5 " Avail...
                                               "Materials "
                                                                         85.2 " Not a...
## 5 Pre-RC (2008-09)
                                                                    104
                           Primary
                                               "Materials "
                                                                         14.8 " Avail...
## 6 Pre-RC (2008-09)
                           Primary
                                                                     18
                                                                         97.9 " Not a...
                                               "Materials
## 7 Pre-RC (2008-09)
                           Secondary
                                                                     47
## 8 Pre-RC (2008-09)
                                               "Materials "
                           Secondary
                                                                      1
                                                                          2.1 " Avail...
## 9 Post-RC (2018-2019) Primary
                                               "Raw Data "
                                                                           3.6 " Avail...
                                                                         42.6 " Avail...
## 10 Post-RC (2018-2019) Secondary
                                               "Raw Data "
                                                                     20
                                                                          6.5 " Avail...
                                               "Raw Data "
## 11 Pre-RC (2008-09)
                           Primary
                                                                      8
                                                                               " Avail...
## 12 Pre-RC (2008-09)
                                               "Raw Data "
                                                                     17
                                                                         34
                           Secondary
                                               "Raw Data "
## 13 Post-RC (2018-2019) Primary
                                                                          96.4 " Not a...
                                                                    135
                                               "Raw Data "
## 14 Post-RC (2018-2019) Secondary
                                                                          57.4 " Not a...
                                                                     27
## 15 Pre-RC (2008-09)
                                               "Raw Data "
                                                                         93.5 " Not a...
                                                                    115
                           Primary
                                                                               " Not a...
                                               "Raw Data "
## 16 Pre-RC (2008-09)
                           Secondary
                                                                     33
                                                                          66
                                               "Processed Data "
                                                                          3.6 " Avail...
## 17 Post-RC (2018-2019) Primary
                                                                      5
                                               "Processed Data "
                                                                           8.5 " Avail...
## 18 Post-RC (2018-2019) Secondary
                                               "Processed Data "
                                                                           0.8 " Avail...
## 19 Pre-RC (2008-09)
                           Primary
                                                                      1
                                               "Processed Data "
                                                                               " Avail…
## 20 Pre-RC (2008-09)
                           Secondary
                                                                      2
                                                                           4
                                               "Processed Data "
                                                                         96.4 " Not a...
## 21 Post-RC (2018-2019) Primary
                                                                    135
                                               "Processed Data
                                                                         91.5 " Not a...
## 22 Post-RC (2018-2019) Secondary
                                                                     43
## 23 Pre-RC (2008-09)
                                               "Processed Data
                                                                    122
                                                                         99.2 " Not a...
                           Primary
                                                                               " Not a...
## 24 Pre-RC (2008-09)
                                               "Processed Data
                                                                         96
                           Secondary
                                                                     48
                                               "Analysis "
                                                                           0.7 " Avail...
## 25 Post-RC (2018-2019) Primary
                                                                      1
## 26 Post-RC (2018-2019) Secondary
                                               "Analysis "
                                                                          4.3 " Avail...
                                                                      2
                                               "Analysis "
## 27 Post-RC (2018-2019) Primary
                                                                    139
                                                                         99.3 " Not a...
                                               "Analysis "
                                                                         95.7 " Not a...
## 28 Post-RC (2018-2019) Secondary
                                                                     45
                                               "Analysis "
                                                                               " Not a...
## 29 Pre-RC (2008-09)
                           Primary
                                                                    123 100
## 30 Pre-RC (2008-09)
                                               "Analysis "
                                                                               " Not a...
                           Secondary
                                                                     50 100
## # ... with abbreviated variable name ¹available
# statistics calculated by year, type of transparency measure (summed over study data
type)
fig2_data2 %>%
  group_by(year_split, Type, available) %>%
  summarise(total_n = sum(n), .groups = "keep") %>%
  group_by(year_split, Type) %>%
  mutate(total_prop = total_n / sum(total_n) * 100)
## # A tibble: 15 × 5
## # Groups:
               year_split, Type [8]
##
      year_split
                                              available
                                                                total n total prop
                           Type
##
                           <fct>
                                              <fct>
                                                                  <int>
                                                                              <dbl>
      <fct>
                           "Materials "
                                              " Available"
   1 Pre-RC (2008-09)
                                                                     19
                                                                              11.2
                           "Materials "
                                              " Not available"
## 2 Pre-RC (2008-09)
                                                                    151
                                                                              88.8
                                              " Available"
                           "Raw Data "
## 3 Pre-RC (2008-09)
                                                                              14.5
                                                                     25
                                              " Not available"
                           "Raw Data "
## 4 Pre-RC (2008-09)
                                                                              85.5
                                                                    148
```

```
"Processed Data " " Available"
## 5 Pre-RC (2008-09)
                                                                             1.73
                                                                     3
                           "Processed Data " " Not available"
## 6 Pre-RC (2008-09)
                                                                   170
                                                                            98.3
## 7 Pre-RC (2008-09)
                           "Analysis "
                                             " Not available"
                                                                   173
                                                                           100
## 8 Post-RC (2018-2019) "Materials "
                                             " Available"
                                                                    38
                                                                            20.3
## 9 Post-RC (2018-2019) "Materials "
                                               Not available"
                                                                   149
                                                                            79.7
                                             " Available"
## 10 Post-RC (2018-2019) "Raw Data "
                                                                    25
                                                                            13.4
                                             " Not available"
## 11 Post-RC (2018-2019) "Raw Data "
                                                                   162
                                                                            86.6
## 12 Post-RC (2018-2019) "Processed Data " " Available"
                                                                    9
                                                                             4.81
## 13 Post-RC (2018-2019) "Processed Data " " Not available"
                                                                   178
                                                                            95.2
                                             " Available"
## 14 Post-RC (2018-2019) "Analysis "
                                                                     3
                                                                             1.60
                                             " Not available"
## 15 Post-RC (2018-2019) "Analysis "
                                                                   184
                                                                            98.4
# statistics calculated by study data type, transparency measured (summed over years)
fig2 data2 %>%
  group_by(EmpiricalStudyData, Type, available) %>%
  summarise(total_n = sum(n), .groups = "keep") %>%
  group by(EmpiricalStudyData, Type) %>%
  mutate(total_prop = total_n / sum(total_n) * 100)
## # A tibble: 16 × 5
               EmpiricalStudyData, Type [8]
## # Groups:
##
      EmpiricalStudyData Type
                                            available
                                                              total n total prop
##
      <fct>
                                            <fct>
                                                                <int>
                                                                           <dbl>
                          <fct>
                          "Materials "
                                            " Available"
## 1 Secondary
                                                                    5
                                                                           5.26
                                            " Not available"
                          "Materials "
                                                                   90
## 2 Secondary
                                                                          94.7
                                            " Available"
## 3 Secondary
                          "Raw Data "
                                                                   37
                                                                          38.1
                                            " Not available"
                          "Raw Data "
## 4 Secondary
                                                                   60
                                                                          61.9
                          "Processed Data " " Available"
## 5 Secondary
                                                                    6
                                                                           6.19
                          "Processed Data " " Not available"
## 6 Secondary
                                                                   91
                                                                          93.8
                                            " Available"
## 7 Secondary
                          "Analysis "
                                                                    2
                                                                           2.06
                          "Analysis "
                                            " Not available"
                                                                   95
## 8 Secondary
                                                                          97.9
                          "Materials "
                                            " Available"
## 9 Primary
                                                                   52
                                                                          19.8
                          "Materials "
                                            " Not available"
## 10 Primary
                                                                  210
                                                                          80.2
                                            " Available"
                          "Raw Data "
                                                                   13
                                                                           4.94
## 11 Primary
                          "Raw Data "
                                            " Not available"
                                                                  250
## 12 Primary
                                                                          95.1
                          "Processed Data " " Available"
## 13 Primary
                                                                           2.28
                                                                   6
                          "Processed Data " " Not available"
## 14 Primary
                                                                  257
                                                                          97.7
                          "Analysis "
                                            " Available"
## 15 Primary
                                                                    1
                                                                           0.380
                                            " Not available"
## 16 Primary
                          "Analysis "
                                                                  262
                                                                          99.6
# statistics calculated by study data type (summed over transparency measures and
years )
fig2 data2 %>%
  group by(Type, available) %>%
  summarise(total_n = sum(n), .groups = "keep") %>%
  group by(Type) %>%
 mutate(total prop = total n / sum(total n) * 100)
## # A tibble: 8 × 4
## # Groups:
               Type [4]
##
                       available
                                         total_n total_prop
     Type
##
                                           <int>
                                                       <dbl>
     <fct>
                       <fct>
## 1 "Materials "
                         Available"
                                              57
                                                      16.0
                       " Not available"
## 2 "Materials "
                                             300
                                                     84.0
## 3 "Raw Data "
                       " Available"
                                              50
                                                     13.9
                       " Not available"
## 4 "Raw Data "
                                             310
                                                     86.1
## 5 "Processed Data " " Available"
                                              12
                                                      3.33
## 6 "Processed Data " " Not available"
                                             348
                                                     96.7
## 7 "Analysis "
                       " Available"
                                               3
                                                      0.833
```

```
" Not available"
## 8 "Analysis "
                                             357
                                                      99.2
# open access statistics after fixing coding issues on the initial dataset (n = 600)
by year
openaccessDF all %>%
 group_by(open_access, year_split) %>%
  summarize(total_n = n(), .groups = "keep") %>%
  group_by(open_access) %>%
  mutate(open_prop = total_n / sum(total_n) * 100)
## # A tibble: 6 × 4
## # Groups:
               open access [3]
##
     open_access year_split total_n open_prop
##
                 <chr>>
                               <int>
                                         <dbl>
     <chr>>
## 1 no
                 Post-RC
                                144
                                         42.1
## 2 no
                 Pre-RC
                                 198
                                          57.9
## 3 unknown
                                 29
                                         61.7
                 Post-RC
## 4 unknown
                 Pre-RC
                                  18
                                          38.3
## 5 yes
                 Post-RC
                                127
                                         60.2
## 6 ves
                 Pre-RC
                                  84
                                          39.8
\# open access statistics on the included dataset (n = 519) by year
openaccessDF used %>%
  group_by(open_access, year_split) %>%
  summarize(total_n = n(), .groups = "keep") %>%
 group_by(open_access) %>%
 mutate(open_prop = total_n / sum(total_n) * 100)
## # A tibble: 6 × 4
## # Groups:
               open_access [3]
##
     open_access year_split total_n open_prop
##
     <chr>>
                 <chr>>
                               <int>
                                         <dbl>
## 1 no
                 Post-RC
                                119
                                         40.8
## 2 no
                 Pre-RC
                                 173
                                          59.2
## 3 unknown
                 Post-RC
                                 21
                                         60
## 4 unknown
                                  14
                                          40
                 Pre-RC
                                         59.9
## 5 yes
                 Post-RC
                                115
## 6 yes
                 Pre-RC
                                          40.1
                                  77
# open access statistics on the included articles reporting empirical studies (n =
360) by year
openaccessDF_filtered %>%
  group_by(open_access, year_split) %>%
  summarize(total_n = n(), .groups = "keep") %>%
  group by(open access) %>%
 mutate(open prop = total n / sum(total n) * 100)
## # A tibble: 6 × 4
## # Groups:
               open access [3]
##
     open_access year_split total_n open_prop
##
     <chr>>
                 <chr>>
                               <int>
                                         <dbl>
## 1 no
                 Post-RC
                                 93
                                         44.7
                                          55.3
## 2 no
                 Pre-RC
                                 115
## 3 unknown
                 Post-RC
                                 13
                                         56.5
                 Pre-RC
## 4 unknown
                                  10
                                          43.5
## 5 yes
                 Post-RC
                                 81
                                         62.8
                 Pre-RC
                                  48
                                          37.2
## 6 yes
# replication statistics on the included articles reporting empirical studies (n =
360) by year
# note that we double checked these and one was not a replication study and was
miscoded
```

```
DF_filtered_ps$Replication[DF_filtered_ps$Replication == ""] <- "There is no clear</pre>
statement that the article reports a replication study (or studies)"
DF filtered ps %>%
 group by(Replication, year split) %>%
 summarize(total_n = n(), .groups = "keep")
## # A tibble: 4 × 3
               Replication, year_split [4]
## # Groups:
                                                                      year_...¹ total_n
##
     Replication
     <chr>>
                                                                      <chr>>
                                                                                 <int>
## 1 The article claims to report a replication study (or studies)
                                                                      Post-...
                                                                                    1
## 2 The article claims to report a replication study (or studies) Pre-RC
                                                                                     4
## 3 There is no clear statement that the article reports a replic... Post-...
                                                                                  186
## 4 There is no clear statement that the article reports a replic... Pre-RC
                                                                                   169
## # ... with abbreviated variable name 'year_split
# coi statistics on the included dataset (n = 519) by year
DF_filtered$COI[DF_filtered$COI == ""] <- "No, there is no conflict of interest
statement"
DF_filtered %>%
 group_by(COI, year_split) %>%
  summarize(total n = n(), .groups = "keep") %>%
 group by(COI) %>%
 mutate(COI_prop = total_n / sum(total_n) * 100)
## # A tibble: 4 × 4
               COI [2]
## # Groups:
                                                              year_...¹ total n COI p...²
##
     COI
##
     <chr>>
                                                              <chr>>
                                                                        <int>
                                                                                 <dbl>
## 1 No, there is no conflict of interest statement
                                                              Post-...
                                                                          209
                                                                                 44.8
## 2 No, there is no conflict of interest statement
                                                              Pre-RC
                                                                           258
                                                                                  55.2
## 3 Yes, the statement says that there is no conflict of ... Post-...
                                                                           46
                                                                                 88.5
## 4 Yes, the statement says that there is no conflict of ... Pre-RC
                                                                            6
                                                                                  11.5
## # ... with abbreviated variable names 'year_split, 'COI_prop
```