

Generate histograms in Figure 3

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Load the relevant libraries

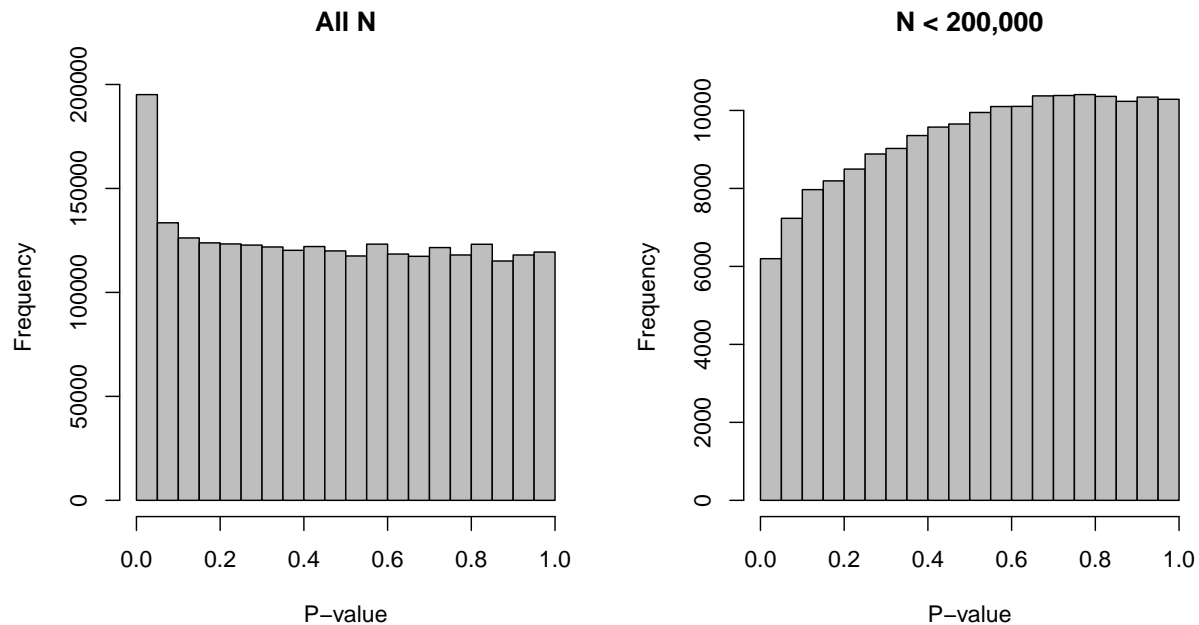
```
library(readr)
library(dplyr)
library(fdrtool)
library(betareg)
library(splines)
library(Hmisc)
library(ggplot2)
```

Load the .RData file with the BMI GIANT GWAS meta-analysis data:

```
load("BMI_GIANT_GWAS.RData")
```

Generate histogram of p-values for all sample sizes and histogram of p-values for sample sizes < 200,000:

```
par(mfrow=c(1,2))
hist(BMI_GIANT_GWAS$p, col="grey", main="All N", xlab="P-value")
hist(BMI_GIANT_GWAS$p[BMI_GIANT_GWAS$N < 200000],
     col="grey", main="N < 200,000", xlab="P-value")
```



Session Information

```
devtools::session_info()
```

```
## Session info -----

## setting value
## version R version 3.3.1 (2016-06-21)
## system x86_64, mingw32
## ui RTerm
## language (EN)
## collate English_United States.1252
## tz America/New_York
## date 2016-10-27

## Packages -----

## package * version date source
## acepack 1.3-3.3 2014-11-24 CRAN (R 3.3.0)
## assertthat 0.1 2013-12-06 CRAN (R 3.3.1)
## betareg * 3.0-5 2014-09-25 CRAN (R 3.3.1)
## BiocStyle * 2.0.2 2016-05-16 Bioconductor
## chron 2.3-47 2015-06-24 CRAN (R 3.3.1)
## cluster 2.0.4 2016-04-18 CRAN (R 3.3.1)
## codetools 0.2-14 2015-07-15 CRAN (R 3.3.1)
## colorspace 1.2-6 2015-03-11 CRAN (R 3.3.1)
## data.table 1.9.6 2015-09-19 CRAN (R 3.3.1)
## DBI 0.4-1 2016-05-08 CRAN (R 3.3.1)
## devtools 1.12.0 2016-06-24 CRAN (R 3.3.1)
## digest 0.6.9 2016-01-08 CRAN (R 3.3.1)
## dplyr * 0.5.0 2016-06-24 CRAN (R 3.3.1)
## evaluate 0.9 2016-04-29 CRAN (R 3.3.1)
## fdrtool * 1.2.15 2015-07-08 CRAN (R 3.3.0)
## flexmix 2.3-13 2015-01-17 CRAN (R 3.3.1)
## foreign 0.8-66 2015-08-19 CRAN (R 3.3.1)
## formatR 1.4 2016-05-09 CRAN (R 3.3.1)
## Formula * 1.2-1 2015-04-07 CRAN (R 3.3.0)
## ggplot2 * 2.1.0 2016-03-01 CRAN (R 3.3.1)
## gridExtra 2.2.1 2016-02-29 CRAN (R 3.3.1)
## gtable 0.2.0 2016-02-26 CRAN (R 3.3.1)
## Hmisc * 3.17-4 2016-05-02 CRAN (R 3.3.1)
## htmltools 0.3.5 2016-03-21 CRAN (R 3.3.1)
## knitr 1.13 2016-05-09 CRAN (R 3.3.1)
## lattice * 0.20-33 2015-07-14 CRAN (R 3.3.1)
## latticeExtra 0.6-28 2016-02-09 CRAN (R 3.3.1)
## lmtest 0.9-34 2015-06-06 CRAN (R 3.3.1)
## magrittr 1.5 2014-11-22 CRAN (R 3.3.1)
## Matrix 1.2-6 2016-05-02 CRAN (R 3.3.1)
## memoise 1.0.0 2016-01-29 CRAN (R 3.3.1)
## modeltools 0.2-21 2013-09-02 CRAN (R 3.3.0)
## munsell 0.4.3 2016-02-13 CRAN (R 3.3.1)
## nnet 7.3-12 2016-02-02 CRAN (R 3.3.1)
```

##	plyr	1.8.4	2016-06-08	CRAN	(R 3.3.1)
##	R6	2.1.2	2016-01-26	CRAN	(R 3.3.1)
##	RColorBrewer	1.1-2	2014-12-07	CRAN	(R 3.3.0)
##	Rcpp	0.12.6	2016-07-19	CRAN	(R 3.3.1)
##	readr	* 0.2.2	2015-10-22	CRAN	(R 3.3.1)
##	rmarkdown	1.0	2016-07-08	CRAN	(R 3.3.1)
##	rpart	4.1-10	2015-06-29	CRAN	(R 3.3.1)
##	sandwich	2.3-4	2015-09-24	CRAN	(R 3.3.1)
##	scales	0.4.0	2016-02-26	CRAN	(R 3.3.1)
##	stringi	1.1.1	2016-05-27	CRAN	(R 3.3.0)
##	stringr	1.0.0	2015-04-30	CRAN	(R 3.3.1)
##	survival	* 2.39-4	2016-05-11	CRAN	(R 3.3.1)
##	tibble	1.1	2016-07-04	CRAN	(R 3.3.1)
##	withr	1.0.2	2016-06-20	CRAN	(R 3.3.1)
##	yaml	2.1.13	2014-06-12	CRAN	(R 3.3.1)
##	zoo	1.7-13	2016-05-03	CRAN	(R 3.3.1)