gestation_at_lifebirth_us_2009.R

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```
library(dplyr)
```

```
##
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':
##
##     filter, lag

## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
library(ggplot2)

load("../../priv/data/processed_microdata/us_fideath_con_2009.Rdata")
```

This is the distribution of life-births by week of gestation for US infants conceived in 2009.

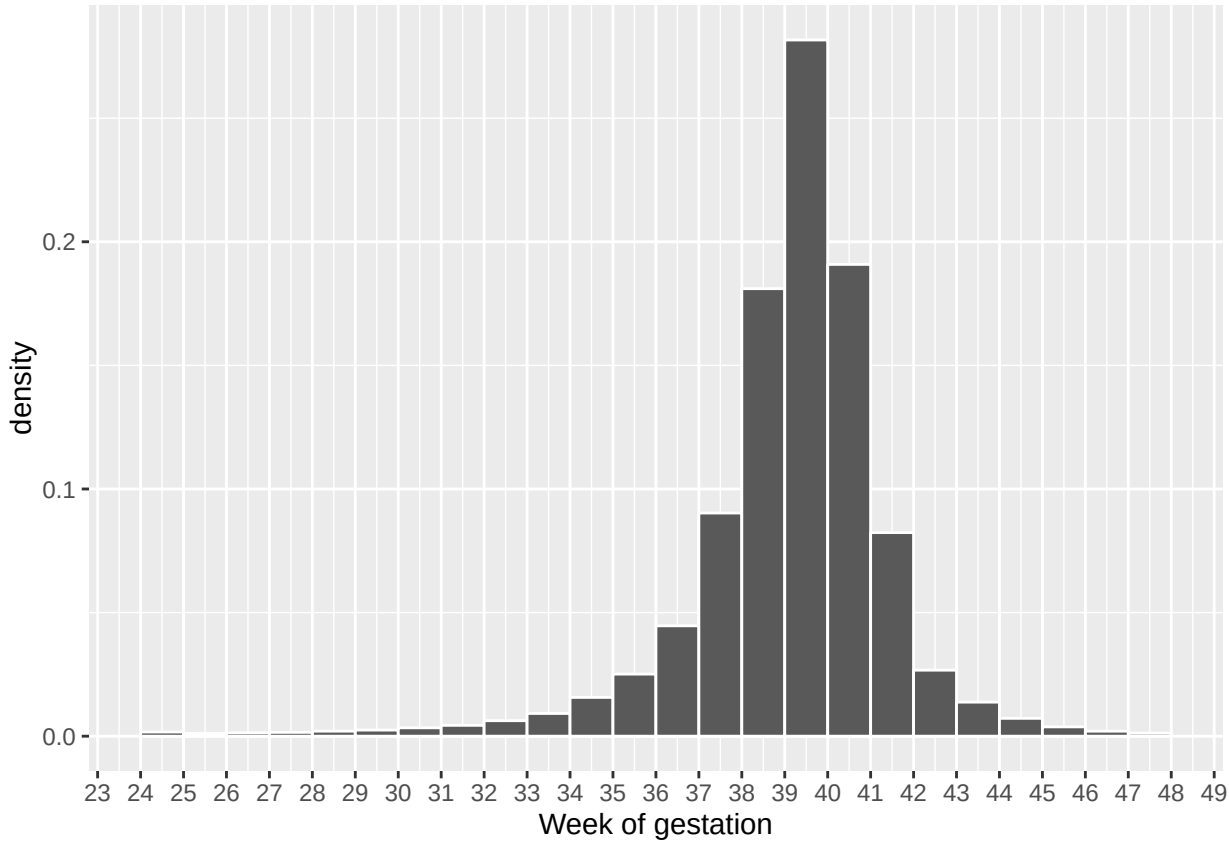
```
us_fideath_con_2009 %>%
  filter(type == "infant") -> lifebirth

lifebirth %>%
  count(gestation_at_delivery_w) %>%
  mutate(p = round(n / sum(n), 3)) %>% print(n = nrow(.))
```

```
## # A tibble: 25 x 3
##    gestation_at_delivery_w       n     p
##                      <int>   <int> <dbl>
## 1                       23    2864 0.001
## 2                       24    3941 0.001
## 3                       25    4560 0.001
## 4                       26    5459 0.001
## 5                       27    6235 0.002
## 6                       28    8170 0.002
## 7                       29    9911 0.002
## 8                       30   13577 0.003
## 9                       31   17628 0.004
## 10                      32   25142 0.006
## 11                      33   36839 0.009
## 12                      34   62807 0.016
## 13                      35  100548 0.025
## 14                      36  178722 0.045
## 15                      37  361258 0.090
## 16                      38  724407 0.181
```

```
## 17                      39 1126945 0.282
## 18                      40  763724 0.191
## 19                      41  329569 0.082
## 20                      42  106861 0.027
## 21                      43   55164 0.014
## 22                      44   28914 0.007
## 23                      45   15124 0.004
## 24                      46    8105 0.002
## 25                      47    4999 0.001
```

```
lifebirth %>%
  ggplot(aes(x = gestation_at_delivery_w+1)) + # align the bins to integer boundaries
  geom_histogram(aes(y = ..density..), binwidth = 1, boundary = 1, color = "white") +
  scale_x_continuous("Week of gestation", breaks = 20:50)
```




```
lifebirth$gestation_at_delivery_w %>% quantile()
```

```
##   0%  25%  50%  75% 100%
##   23   38   39   40   47
```