

gapminder

```
## # A tibble: 1,704 x 6
##   country      continent  year lifeExp      pop gdpPercap
##   <fct>        <fct>    <int>  <dbl>    <int>    <dbl>
## 1 Afghanistan Asia      1952   28.8  8425333    779
## 2 Afghanistan Asia      1957   30.3  9240934    821
## 3 Afghanistan Asia      1962   32.0 10267083    853
## 4 Afghanistan Asia      1967   34.0 11537966    836
## 5 Afghanistan Asia      1972   36.1 13079460    740
## 6 Afghanistan Asia      1977   38.4 14880372    786
## 7 Afghanistan Asia      1982   39.9 12881816    978
## 8 Afghanistan Asia      1987   40.8 13867957    852
## 9 Afghanistan Asia      1992   41.7 16317921    649
## 10 Afghanistan Asia      1997   41.8 22227415    635
## # ... with 1,694 more rows
```

```
gapminder %>%  
  group_by(country, continent) %>%  
  nest()
```

```
## # A tibble: 142 x 3  
## # Groups:   country, continent [710]  
##   country      continent data  
##   <fct>        <fct>    <list>  
## 1 Afghanistan Asia      <tibble [12 x 4]>  
## 2 Albania      Europe    <tibble [12 x 4]>  
## 3 Algeria      Africa    <tibble [12 x 4]>  
## 4 Angola       Africa    <tibble [12 x 4]>  
## 5 Argentina    Americas  <tibble [12 x 4]>  
## 6 Australia    Oceania   <tibble [12 x 4]>  
## 7 Austria      Europe    <tibble [12 x 4]>  
## 8 Bahrain      Asia      <tibble [12 x 4]>  
## 9 Bangladesh   Asia      <tibble [12 x 4]>  
## 10 Belgium     Europe    <tibble [12 x 4]>  
## # ... with 132 more rows
```

```
gapminder %>%
  group_by(country, continent) %>%
  nest() %>%
  mutate(model = map(data,
    ~lm(lifeExp ~ year, data = .x)),
    results = map(model, broom::glance))
```

```
## # A tibble: 142 x 5
## # Groups:   country, continent [710]
##   country    continent data          model results
##   <fct>      <fct>    <list>      <list> <list>
## 1 Afghanistan Asia      <tibble [12 x 4]> <lm>    <tibble
## 2 Albania     Europe    <tibble [12 x 4]> <lm>    <tibble
## 3 Algeria     Africa    <tibble [12 x 4]> <lm>    <tibble
## 4 Angola      Africa    <tibble [12 x 4]> <lm>    <tibble
## 5 Argentina   Americas  <tibble [12 x 4]> <lm>    <tibble
## 6 Australia   Oceania   <tibble [12 x 4]> <lm>    <tibble
## 7 Austria     Europe    <tibble [12 x 4]> <lm>    <tibble
## 8 Bahrain     Asia      <tibble [12 x 4]> <lm>    <tibble
## 9 Bangladesh  Asia      <tibble [12 x 4]> <lm>    <tibble
## 10 Belgium    Europe    <tibble [12 x 4]> <lm>    <tibble
## # ... with 132 more rows
```

```
gapminder %>%
  group_by(country, continent) %>%
  nest() %>%
  mutate(model = map(data,
    ~lm(lifeExp ~ year, data = .x)),
    results = map(model, broom::glance)) %>%
  unnest(results)
```

```
## # A tibble: 142 x 15
## # Groups:   country, continent [710]
##   country continent data model r.squared adj.r.squared
##   <fct>    <fct>    <lis> <lis>      <dbl>      <dbl>
## 1 Afghan~ Asia      <tib~ <lm>      0.948      0.942
## 2 Albania Europe     <tib~ <lm>      0.911      0.902
## 3 Algeria Africa     <tib~ <lm>      0.985      0.984
## 4 Angola  Africa     <tib~ <lm>      0.888      0.877
## 5 Argent~ Americas <tib~ <lm>      0.996      0.995
## 6 Austra~ Oceania  <tib~ <lm>      0.980      0.978
## 7 Austria Europe     <tib~ <lm>      0.992      0.991
## 8 Bahrain Asia      <tib~ <lm>      0.967      0.963
## 9 Bangla~ Asia      <tib~ <lm>      0.989      0.988
## 10 Belgium Europe    <tib~ <lm>      0.995      0.994
## # ... with 132 more rows, and 7 more variables: p.value <dbl>,
## #   logLik <dbl>, AIC <dbl>, BIC <dbl>, deviance <dbl>, c
```

```
gapminder %>%
  group_by(country, continent) %>%
  nest() %>%
  mutate(model = map(data,
    ~lm(lifeExp ~ year, data = .x)),
    results = map(model, broom::glance)) %>%
  unnest(results) %>%
  ggplot(aes(x = continent, y = r.squared)) +
  ggbeeswarm::geom_quasirandom()
```

