COVID-19 Confirmed Cases by Colorado County

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```
knitr::opts_chunk$set(fig.path='figs/',
                      fig.pos='h',
                      # out.extra='',
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                      # dpi = 320,
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knitr::opts_knit$set(root.dir = '../')
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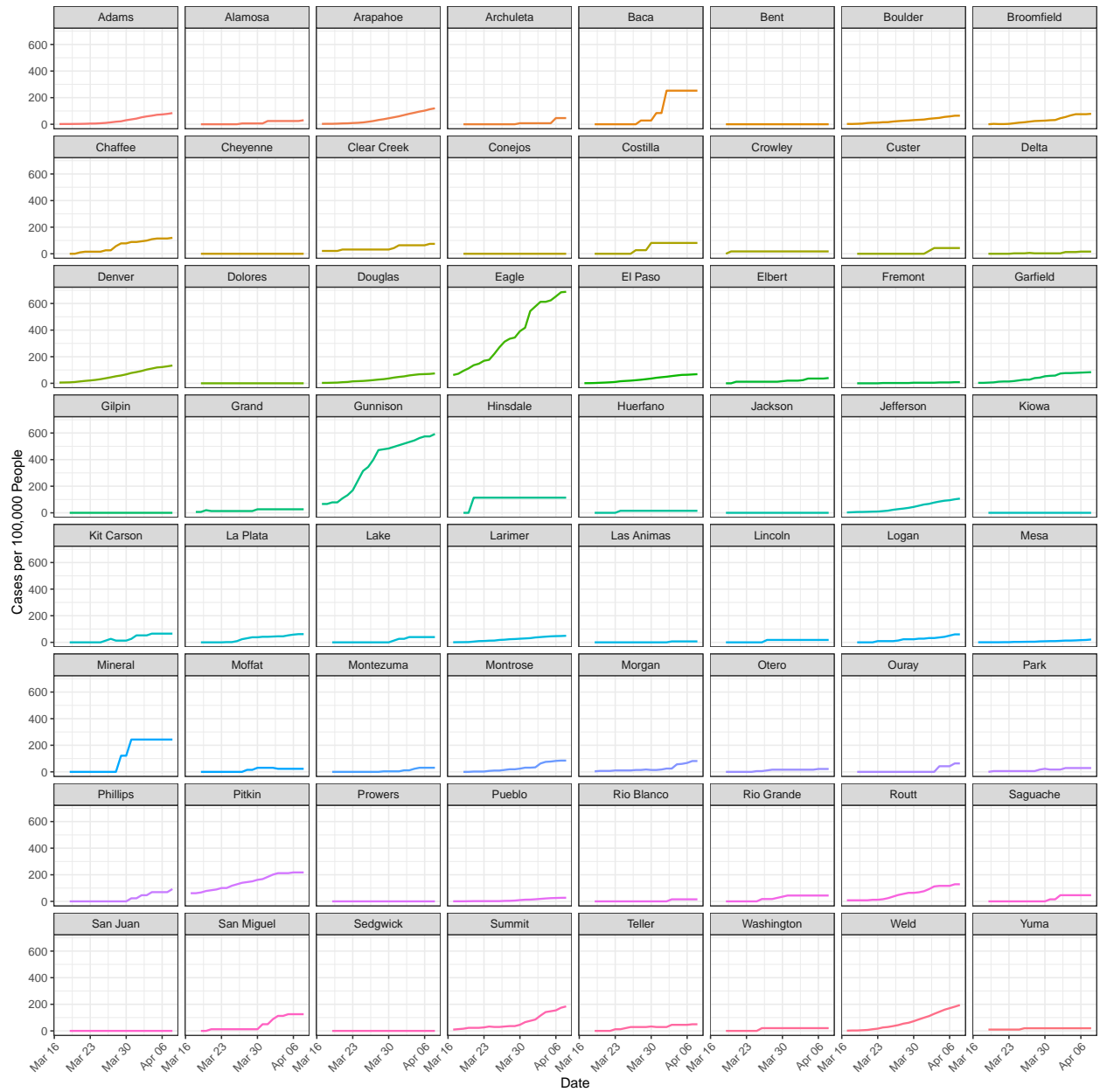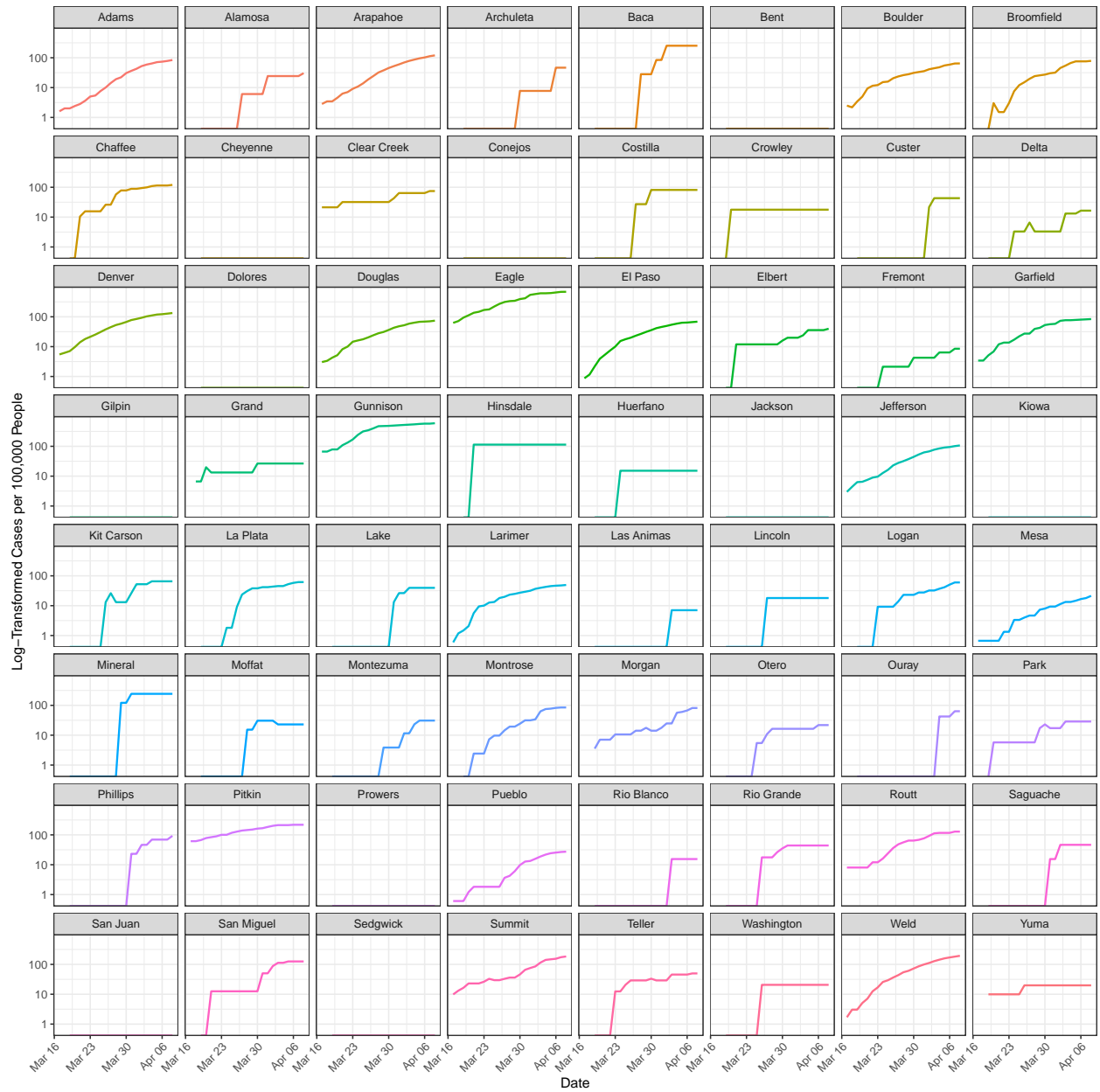
Daily Cases by Colorado County

```
## Using an auto-discovered, cached token.
## To suppress this message, modify your code or options to clearly consent to the use of a cached token
## See gargle's "Non-interactive auth" vignette for more details:
## https://gargle.r-lib.org/articles/non-interactive-auth.html
## The googledrive package is using a cached token for jotu9073@colorado.edu.
```

Raw Cases per 100,000 People by County

Log-Transformed Cases per 100,000 People by County

County Confirmed Case Trajectories (Experimental)
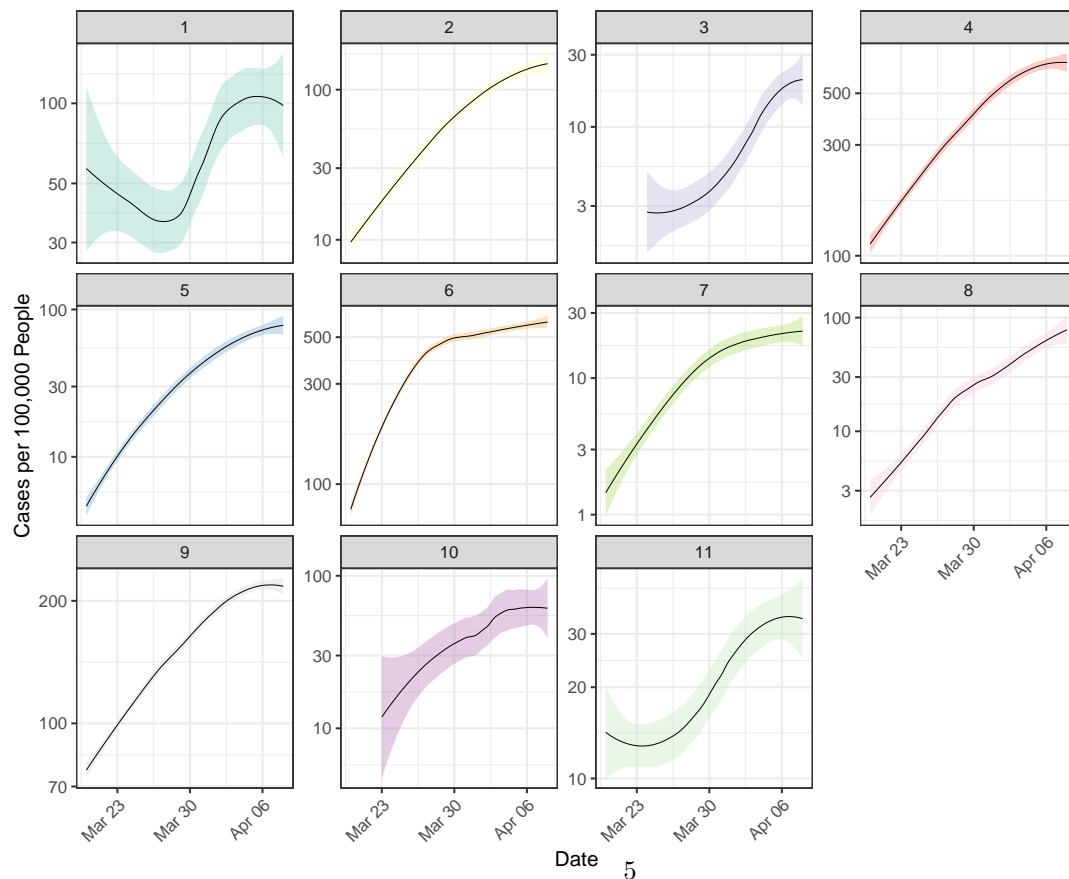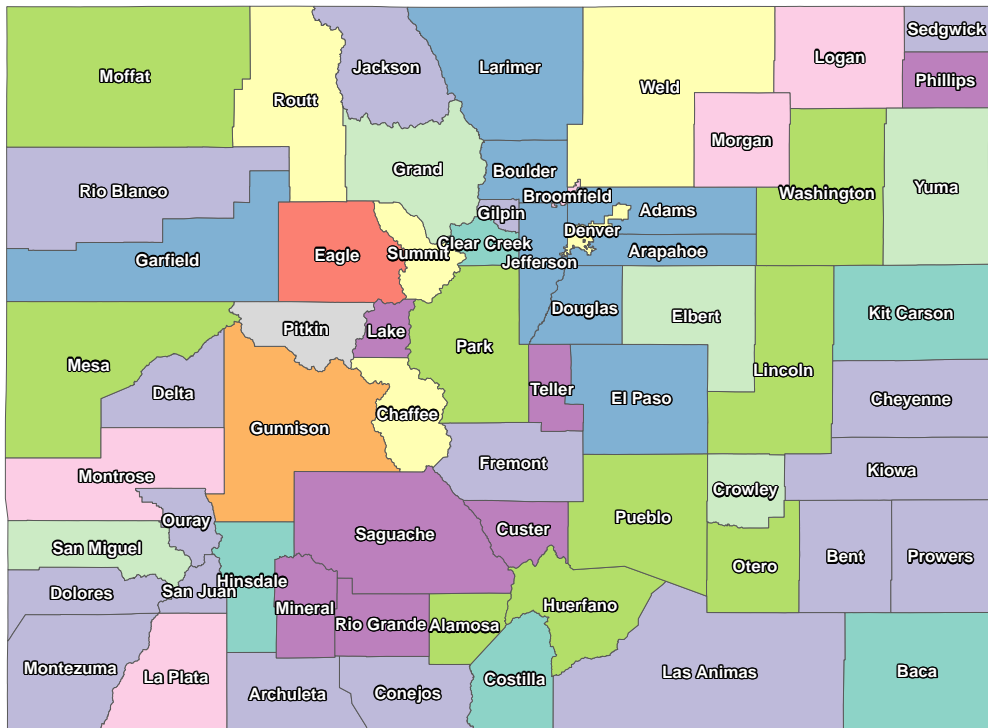
Methodology

Use Affinity Propagation clustering to group daily reports of confirmed cases by county based on two criteria:

1. The current rate of confirmed cases per 100,000 people.
2. The change in confirmed cases per 100,000 people since the previous day.

- March 20, 2020 is used as the intial date, since it is the first day at which the change in cases/100k people by county can be measured (3/19/2020 marks the first day in which all counties were reporting).

- From the ensemble of daily clusterings, measure the percentage of days to date that any two counties shared a cluster label.

- Perform a final clustering (also using Affinity Propagation) to group the change trajectories from 3/20/2020 to present.

Smoothed Raw Cases per 100,000 people by cluster with variable y-axes

Colorado COVID–19 Daily Confirmed Case Trajectories
(2020–03–20 – 2020–04–08)

Smoothed Log-transformed Cases per 100,000 people by cluster with fixed y-axes

Colorado COVID−19 Daily Confirmed Case Trajectories
(2020−03−20 − 2020−04−08)