HCGWAY Project Information
As of October 2020

Project Overview
This project is split into 3 parts: a MySQL database, a PHP web server, and an instance of R Studio. Historically this has been run on a LAMP server on an AWS EC2 instance.

Setup Instructions for LAMP Server & R Studio
If setting up via EC2, you can follow the instructions at this website, with a few modifications.
https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/install-LAMP.html
When you are creating a new EC2 instance, in the User Data textbox (as part of the Advanced Settings during the EC2 Instance set-up), make sure you paste the following lines of code to install R-Studio on the instance while AWS initializes your new EC2 Instance.

```
#!/bin/bash
#install R
yum install -y R
#install RStudio-Server
wget https://download2.rstudio.org/rstudio-server-rhel-0.99.465-x86_64.rpm
yum install -y --nogpgcheck rstudio-server-rhel-0.99.465-x86_64.rpm
#install shiny and shiny-server
R -e "install.packages('shiny', repos='http://cran.rstudio.com/')"
wget https://download3.rstudio.org/centos5.9/x86_64/shiny-server-1.4.0.718-rh5-x86_64.rpm
yum install -y --nogpgcheck shiny-server-1.4.0.718-rh5-x86_64.rpm
#add user(s)
useradd hcgwayadmin
echo hcgwayadmin:yH2vtDcfGK21 | chpasswd
```

Once R Studio is up and configured, replace the files with rstudio-september-2020.zip. There are some old R libraries that this code requires which are cached there. Additionally, the archive has the SQL export of the database which can be imported into phpMyAdmin.

Supporting Additional Years
The system was redesigned in early 2020 to remove the vast majority of barriers for adding support for additional years. This will step you through the process. In general, a global text search for the previous max supported year should show you the pattern you must follow.
1. /admin/processForms.php: Change MAX_YEAR_NUM to the max year
2. /form/processForms.php: Change the 2 for loops to iterate through the max year
3. /form/protected_page.php: Search for "2018" and you will see the 3 places to add an additional line.
4. /form/includes/all_fields.php: Change the 2 for loops to iterate through the max year
5. /form/includes/table_generator.php: Change MAX_YEAR_NUM to the max year
6. In the R script, change the year range at the top to go through the max year.
7. Add any additional year data you need to the ggplots in the R script for the pdf export. Search for "2018" to find some examples.