In [2]:

```
import pandas as pd
import numpy as np
import seaborn as sns
import datetime
import matplotlib.pyplot as plt
import re
pd.set_option("display.max_columns", None)
```

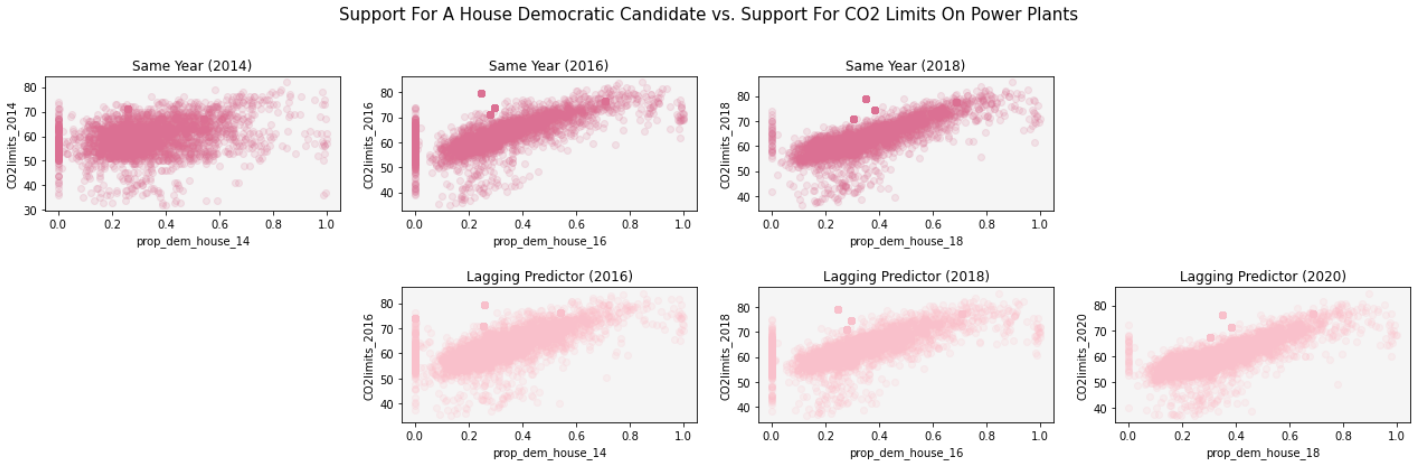
In [3]:

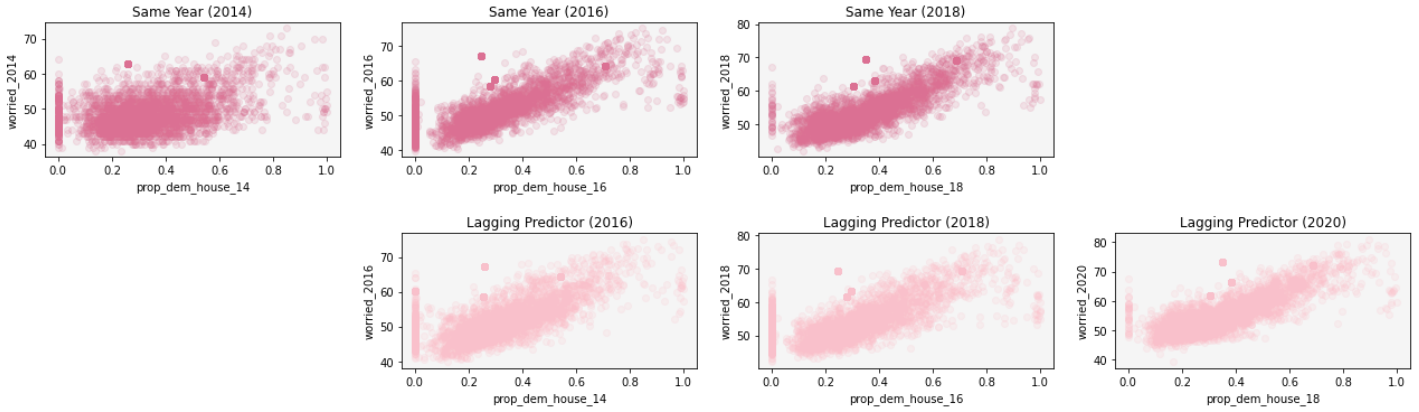
```
final_huge = pd.read_csv("final_huge.csv")
huge_2015 = pd.read_csv("huge_2015.csv")
huge_2017 = pd.read_csv("huge_2017.csv")
huge_2019 = pd.read_csv("huge_2019.csv")
```

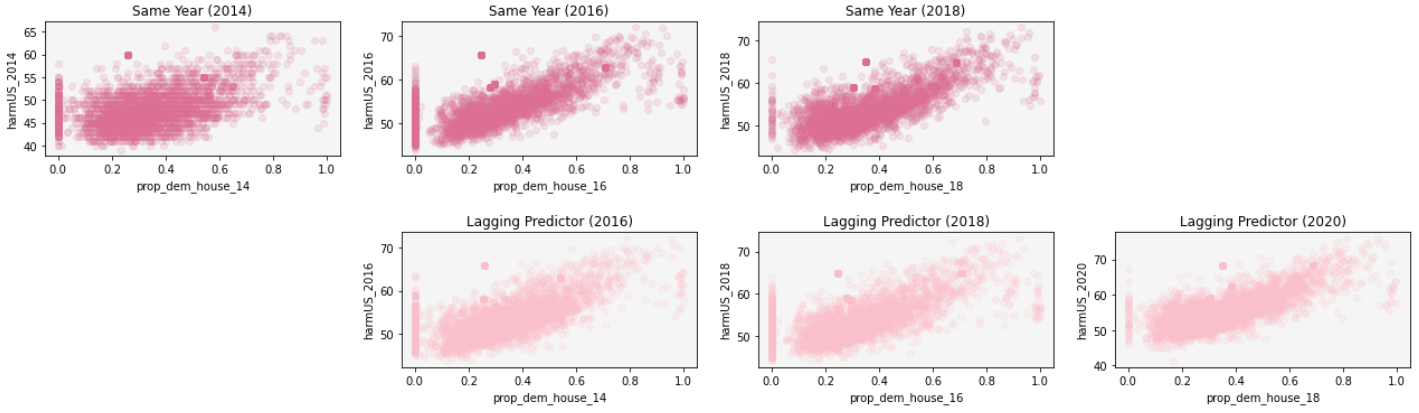
In [6]:

```
scatterplots_house1 = [
#                   "prop_dem_house_14": 'CO2limits_2014',
                  "prop_dem_house_16", 'CO2limits_2016',
                  "prop_dem_house_18", 'CO2limits_2018',
                  "prop_dem_house_14", 'CO2limits_2016',
                  "prop_dem_house_16", 'CO2limits_2018',
                  "prop_dem_house_18", 'CO2limits_2020'
                  ]

scatterplots_house2 = [
#                   "prop_dem_house_14": 'worried_2014',
                  "prop_dem_house_16", 'worried_2016',
                  "prop_dem_house_18", 'worried_2018',
                  "prop_dem_house_14", 'worried_2016',
                  "prop_dem_house_16", 'worried_2018',
                  "prop_dem_house_18", 'worried_2020'
                  ]

scatterplots_house3 = [
#                   "prop_dem_house_14": 'harmUS_2014',
                  "prop_dem_house_16", 'harmUS_2016',
                  "prop_dem_house_18", 'harmUS_2018',
                  "prop_dem_house_14", 'harmUS_2016',
                  "prop_dem_house_16", 'harmUS_2018',
                  "prop_dem_house_18", 'harmUS_2020'
                  ]


def plot_house_support(x_col, y_col, x_label, y_label, plot_num, plot_year, ax1):
    ax = plt.subplot(2, 4, plot_num)#, sharey=ax1)
    if plot_num < 4:
        ax.scatter(final_huge[x_col], final_huge[y_col], c='palevioletred', alpha=0.15)
        plt.title(f"Same Year ({plot_year})")
    else:
        ax.scatter(final_huge[x_col], final_huge[y_col], c='pink', alpha=0.15)
        plt.title(f"Lagging Predictor ({plot_year})")
    ax.set_facecolor("whitesmoke")
    plt.xlabel(x_label)
    plt.ylabel(y_label)

def plot_all_house_support(plot_title, y_col, scatterplots):
    fig = plt.figure(figsize=(18, 6))
    ax1 = plt.subplot(2, 4, 1)
    ax1.scatter(final_huge["prop_dem_house_14"], final_huge[y_col], c='palevioletred', alp
    ax1.set_facecolor("whitesmoke")
    plt.title('Same Year (2014)')
    plt.xlabel('prop_dem_house_14')
    plt.ylabel(y_col)
```

```
    plot_num = 2
    plot_year = 2016
    for i in range(0, 10, 2):
        plot_house_support(scatterplots[i], scatterplots[i + 1], scatterplots[i], scatterp
        plot_num += 1
        plot_year += 2
        if plot_num == 4:
            plot_num += 2
            plot_year = 2016
    plt.suptitle(f"Support For A House Democratic Candidate vs. {plot_title}", fontsize =
    plt.tight_layout(pad = 2)

plot_all_house_support("Support For CO2 Limits On Power Plants", "CO2limits_2014", scatter
plot_all_house_support("Percent Worried About Climate Change", "worried_2014", scatterplot
plot_all_house_support("Percent That Think Climate Change Will Harm People In The US", "ha
```



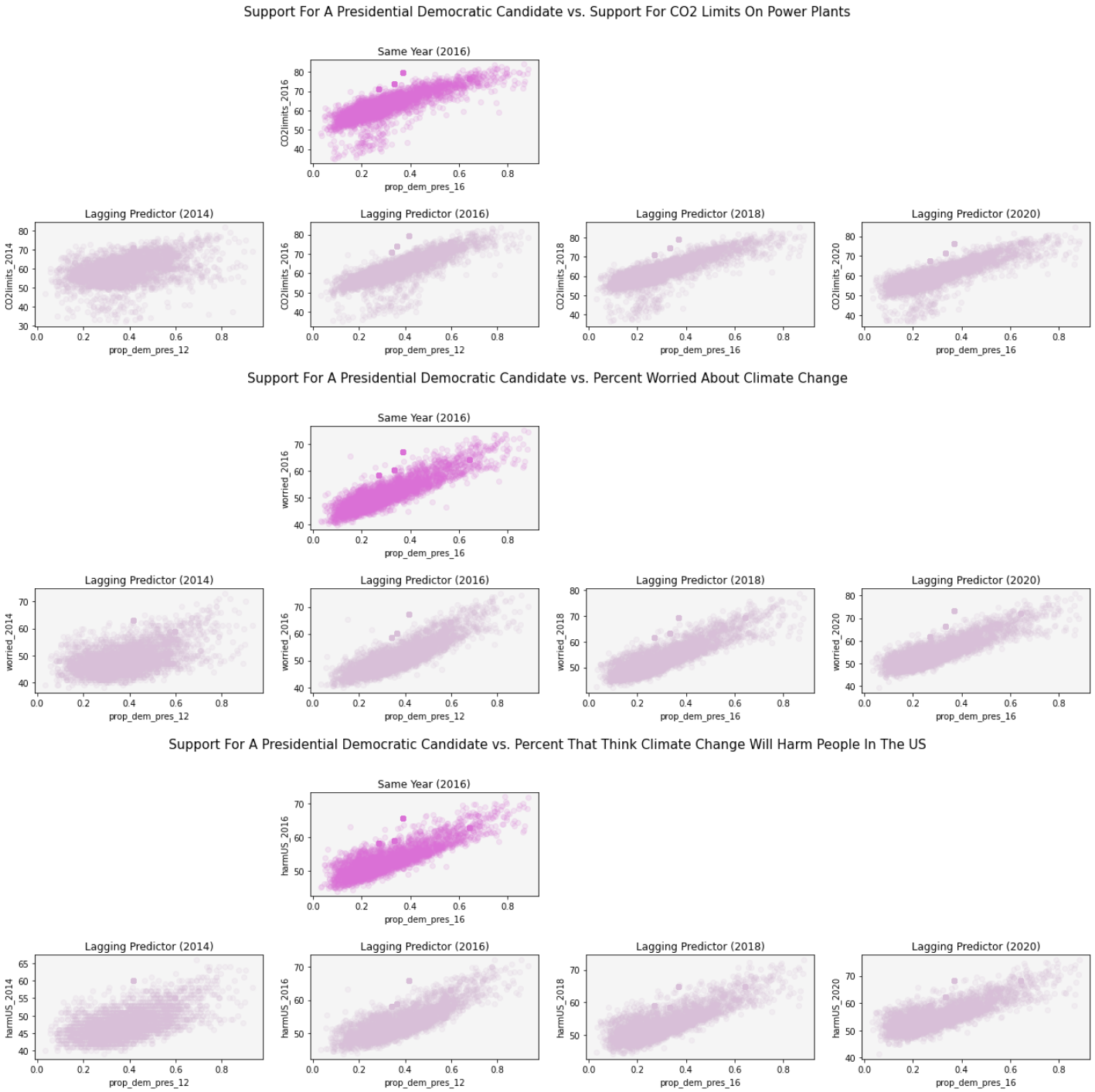




In [7]:

```
scatterplots_pres1 = [
#                 "prop_dem_pres_16", 'CO2limits_2016',
                "prop_dem_pres_12", 'CO2limits_2014',
```

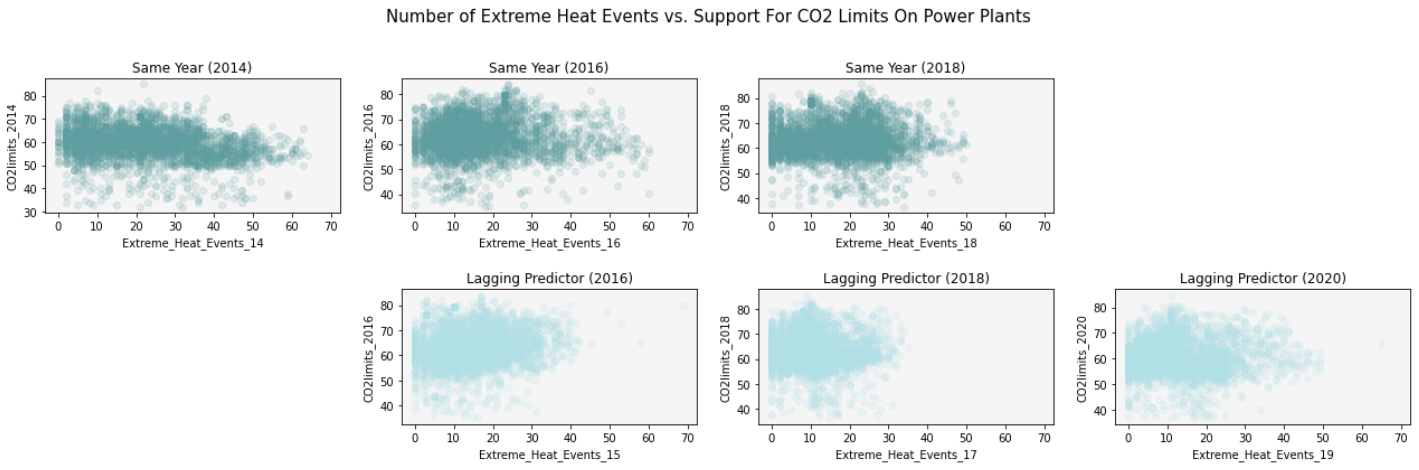
```
                "prop_dem_pres_12", 'CO2limits_2016',
                "prop_dem_pres_16", 'CO2limits_2018',
                "prop_dem_pres_16", 'CO2limits_2020'
                ]

scatterplots_pres2 = [
#                 "prop_dem_pres_16", 'worried_2016',
                "prop_dem_pres_12", 'worried_2014',
                "prop_dem_pres_12", 'worried_2016',
                "prop_dem_pres_16", 'worried_2018',
                "prop_dem_pres_16", 'worried_2020'
                ]

scatterplots_pres3 = [
#                 "prop_dem_pres_16", 'harmUS_2016',
                "prop_dem_pres_12", 'harmUS_2014',
                "prop_dem_pres_12", 'harmUS_2016',
                "prop_dem_pres_16", 'harmUS_2018',
                "prop_dem_pres_16", 'harmUS_2020'
                ]


def plot_pres_support(x_col, y_col, x_label, y_label, plot_num, plot_year, ax1):
    ax = plt.subplot(2, 4, plot_num)#, sharey=ax1)
    if plot_num < 4:
        ax.scatter(final_huge[x_col], final_huge[y_col], c='orchid', alpha=0.15)
        plt.title(f"Same Year ({plot_year})")
    else:
        ax.scatter(final_huge[x_col], final_huge[y_col], c='thistle', alpha=0.15)
        plt.title(f"Lagging Predictor ({plot_year})")
    ax.set_facecolor("whitesmoke")
    plt.xlabel(x_label)
    plt.ylabel(y_label)

def plot_all_pres_support(plot_title, y_col, scatterplots):
    fig = plt.figure(figsize=(18, 6))
    ax1 = plt.subplot(2, 4, 2)
    ax1.scatter(final_huge["prop_dem_pres_16"], final_huge[y_col], c='orchid', alpha=0.15)
    ax1.set_facecolor("whitesmoke")
    plt.title('Same Year (2016)')
    plt.xlabel('prop_dem_pres_16')
    plt.ylabel(y_col)
    plot_num = 5
    plot_year = 2014
    for i in range(0, 8, 2):
        plot_pres_support(scatterplots[i], scatterplots[i + 1], scatterplots[i], scatterpl
        plot_num += 1
        plot_year += 2
    plt.suptitle(f"Support For A Presidential Democratic Candidate vs. {plot_title}", font
    plt.tight_layout(pad = 2)

plot_all_pres_support("Support For CO2 Limits On Power Plants", "CO2limits_2016", scatterp
plot_all_pres_support("Percent Worried About Climate Change", "worried_2016", scatterplots
plot_all_pres_support("Percent That Think Climate Change Will Harm People In The US", "har
```

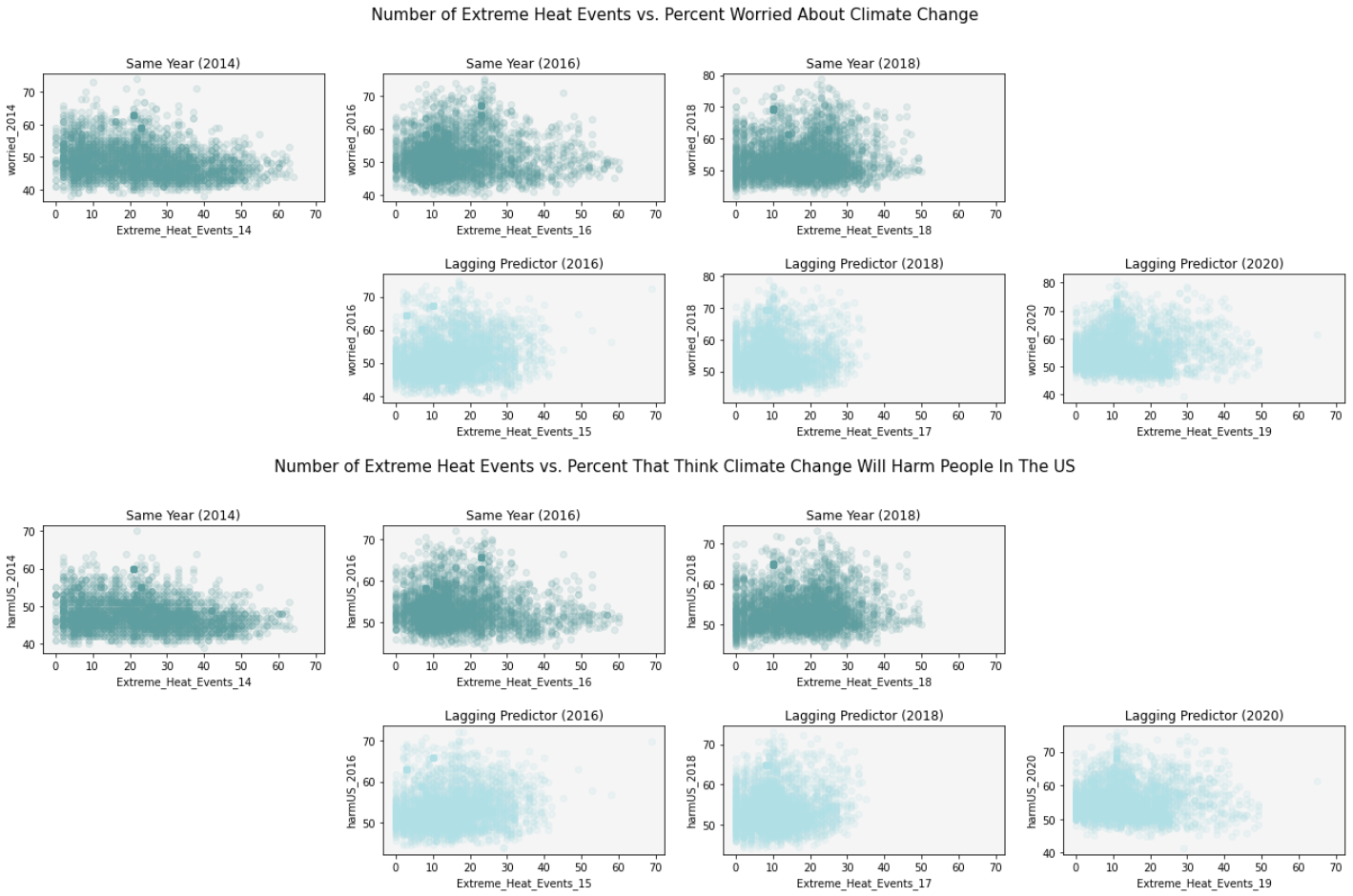


In [8]:

```
scatterplots_heat1 = {
                "Extreme_Heat_Events_16": 'CO2limits_2016',
                "Extreme_Heat_Events_18": 'CO2limits_2018',
                "Extreme_Heat_Events_15": 'CO2limits_2016',
                "Extreme_Heat_Events_17": 'CO2limits_2018',
                "Extreme_Heat_Events_19": 'CO2limits_2020'
               }

scatterplots_heat2 = {
                "Extreme_Heat_Events_16": 'worried_2016',
                "Extreme_Heat_Events_18": 'worried_2018',
                "Extreme_Heat_Events_15": 'worried_2016',
                "Extreme_Heat_Events_17": 'worried_2018',
                "Extreme_Heat_Events_19": 'worried_2020',
               }

scatterplots_heat3 = {
                "Extreme_Heat_Events_16": 'harmUS_2016',
                "Extreme_Heat_Events_18": 'harmUS_2018',
                "Extreme_Heat_Events_15": 'harmUS_2016',
```

```
                "Extreme_Heat_Events_17": 'harmUS_2018',
                "Extreme_Heat_Events_19": 'harmUS_2020',
               }


def plot_heat_event(x_col, y_col, x_label, y_label, plot_num, ax1, plot_year):
    ax = plt.subplot(2, 4, plot_num, sharex=ax1)
    if plot_num < 4:
        ax.scatter(final_huge[x_col], final_huge[y_col], c='cadetblue', alpha=0.15)
        plt.title(f"Same Year ({plot_year})")
    else:
        ax.scatter(final_huge[x_col], final_huge[y_col], c='powderblue', alpha=0.15)
        plt.title(f"Lagging Predictor ({plot_year})")
    ax.set_facecolor("whitesmoke")
    plt.xlabel(x_label)
    plt.ylabel(y_label)

def plot_all_heat_events(plot_title, y_col, scatterplots):
    fig = plt.figure(figsize=(18, 6))
    ax1 = plt.subplot(2, 4, 1)
    ax1.scatter(final_huge["Extreme_Heat_Events_14"], final_huge[y_col], c='cadetblue', al
    ax1.set_facecolor("whitesmoke")
    plt.title('Same Year (2014)')
    plt.xlabel('Extreme_Heat_Events_14')
    plt.ylabel(y_col)
    plot_num = 2
    plot_year = 2016
    for x_col in scatterplots:
        plot_heat_event(x_col, scatterplots[x_col], x_col, scatterplots[x_col], plot_num,
        plot_num += 1
        plot_year += 2
        if plot_num == 4:
            plot_num += 2
            plot_year = 2016
    plt.suptitle(f"Number of Extreme Heat Events vs. {plot_title}", fontsize = 15);
    plt.tight_layout(pad = 2)

plot_all_heat_events("Support For CO2 Limits On Power Plants", 'CO2limits_2014', scatterpl
plot_all_heat_events("Percent Worried About Climate Change", 'worried_2014', scatterplots_
plot_all_heat_events("Percent That Think Climate Change Will Harm People In The US", 'harm
```

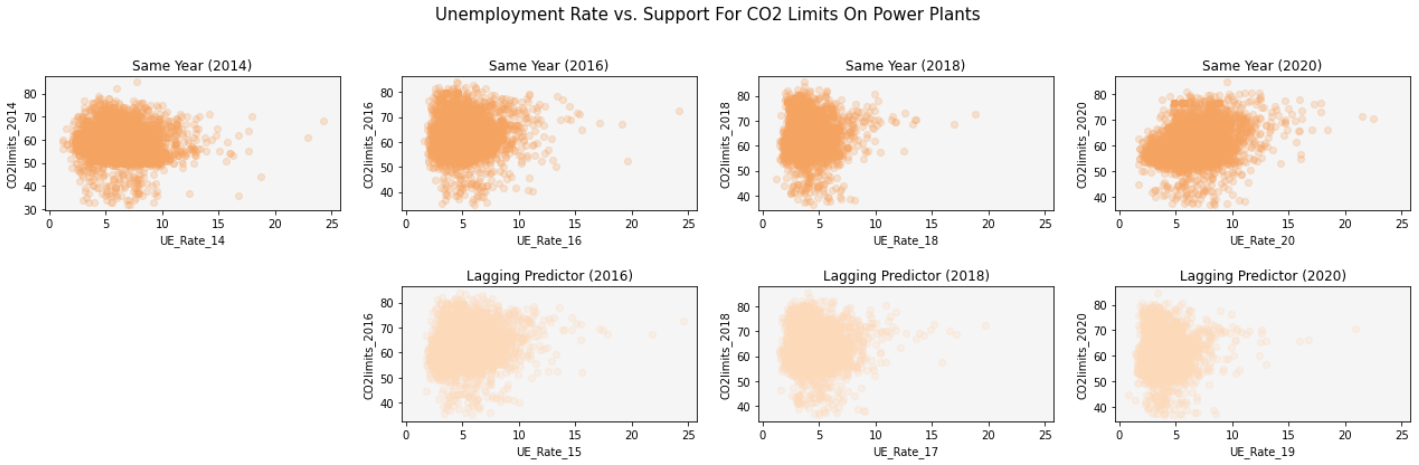


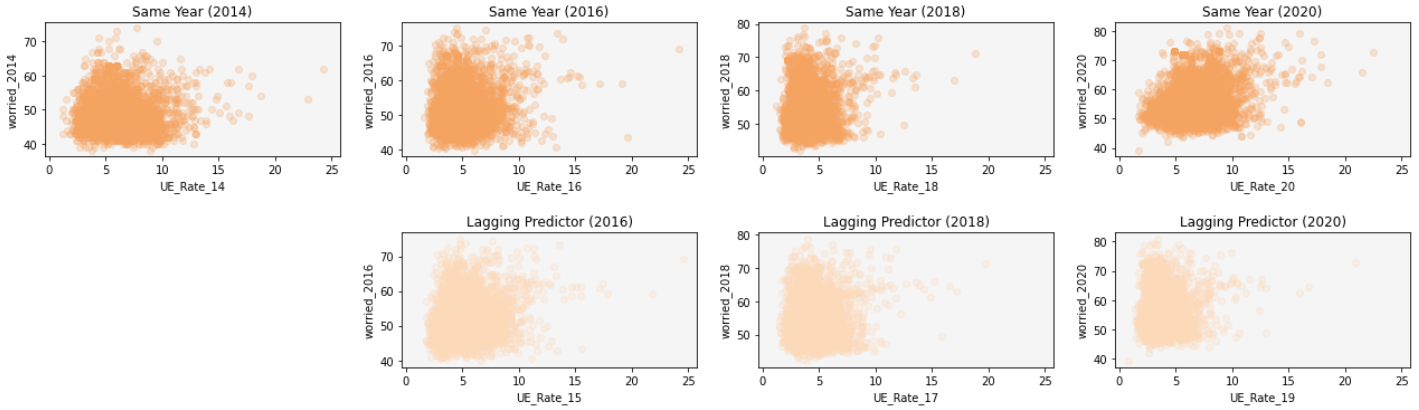


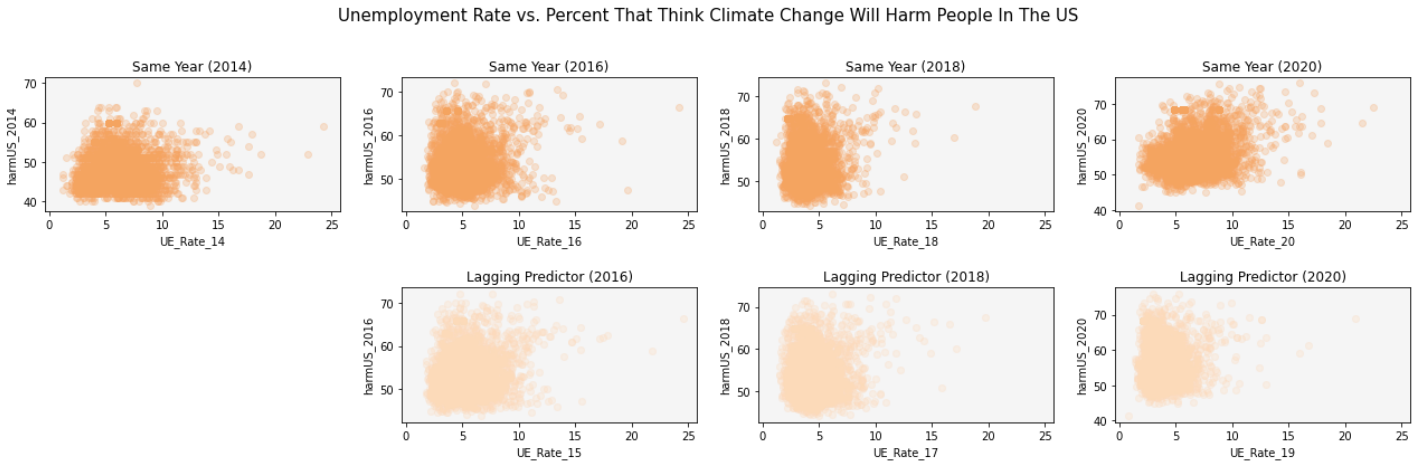
In [9]:

```
scatterplots_UE1 = [
                "UE_Rate_16", 'CO2limits_2016',
                "UE_Rate_18", 'CO2limits_2018',
                "UE_Rate_20", 'CO2limits_2020',
                "UE_Rate_15", 'CO2limits_2016',
                "UE_Rate_17", 'CO2limits_2018',
                "UE_Rate_19", 'CO2limits_2020'
                ]

scatterplots_UE2 = [
                "UE_Rate_16", 'worried_2016',
                "UE_Rate_18", 'worried_2018',
                "UE_Rate_20", 'worried_2020',
                "UE_Rate_15", 'worried_2016',
                "UE_Rate_17", 'worried_2018',
                "UE_Rate_19", 'worried_2020'
                ]

scatterplots_UE3 = [
                "UE_Rate_16", 'harmUS_2016',
                "UE_Rate_18", 'harmUS_2018',
                "UE_Rate_20", 'harmUS_2020',
                "UE_Rate_15", 'harmUS_2016',
                "UE_Rate_17", 'harmUS_2018',
                "UE_Rate_19", 'harmUS_2020'
                ]


def plot_UE(x_col, y_col, x_label, y_label, plot_num, ax1, plot_year):
    ax = plt.subplot(2, 4, plot_num, sharex=ax1)
    if plot_num <= 4:
        ax.scatter(final_huge[x_col], final_huge[y_col], c='sandybrown', alpha=0.25)
        plt.title(f"Same Year ({plot_year})")
    else:
```

```
        ax.scatter(final_huge[x_col], final_huge[y_col], c='peachpuff', alpha=0.25)
        plt.title(f"Lagging Predictor ({plot_year})")
    ax.set_facecolor("whitesmoke")
    plt.xlabel(x_label)
    plt.ylabel(y_label)

def plot_all_UE(plot_title, y_col, scatterplots):
    fig = plt.figure(figsize=(18, 6))
    ax1 = plt.subplot(2, 4, 1)
    ax1.scatter(final_huge["UE_Rate_14"], final_huge[y_col], c='sandybrown', alpha=0.25)
    ax1.set_facecolor("whitesmoke")
    plt.title('Same Year (2014)')
    plt.xlabel('UE_Rate_14')
    plt.ylabel(y_col)
    plot_num = 2
    plot_year = 2016
    for i in range(0, 12, 2):
        plot_UE(scatterplots[i], scatterplots[i + 1], scatterplots[i], scatterplots[i + 1]
        plot_num += 1
        plot_year += 2
        if plot_num == 5:
            plot_num += 1
            plot_year = 2016
    plt.suptitle(f"Unemployment Rate vs. {plot_title}", fontsize = 15);
    plt.tight_layout(pad = 2)

plot_all_UE("Support For CO2 Limits On Power Plants", 'CO2limits_2014', scatterplots_UE1)
plot_all_UE("Percent Worried About Climate Change", 'worried_2014', scatterplots_UE2)
plot_all_UE("Percent That Think Climate Change Will Harm People In The US", 'harmUS_2014',
```



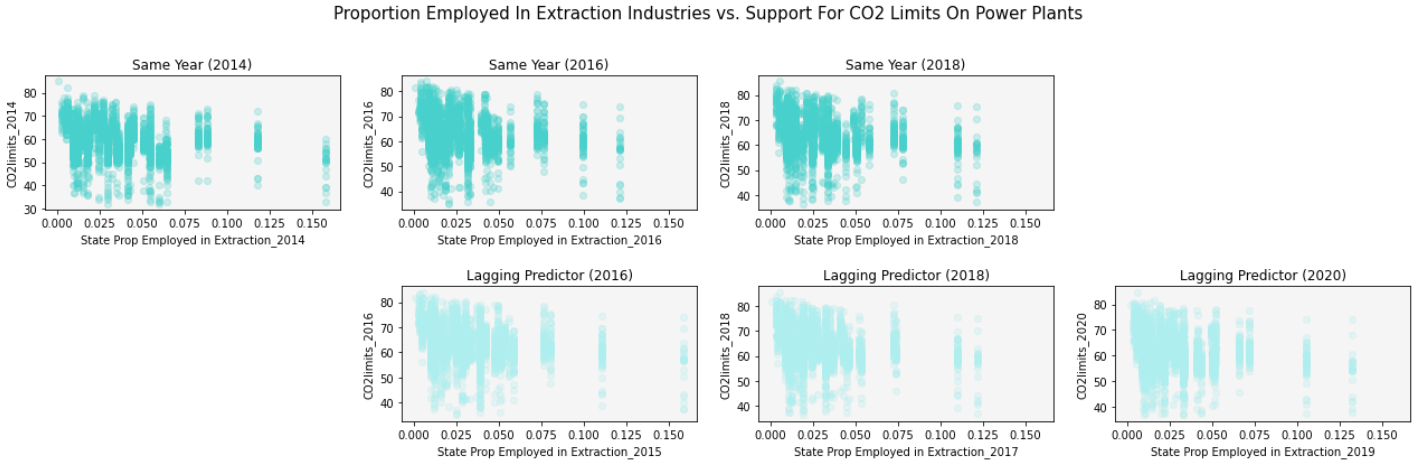


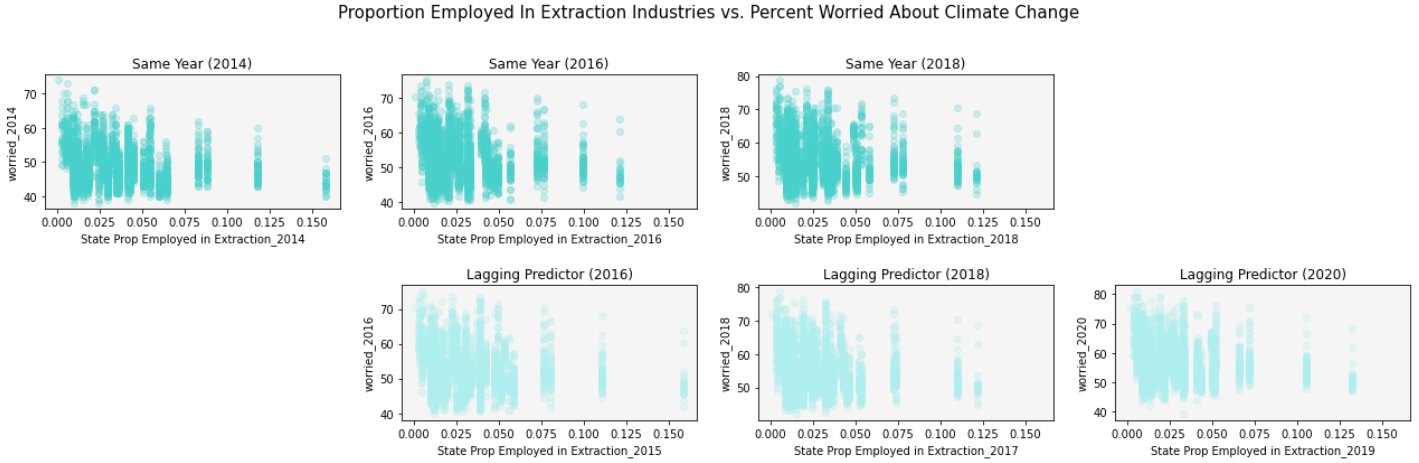


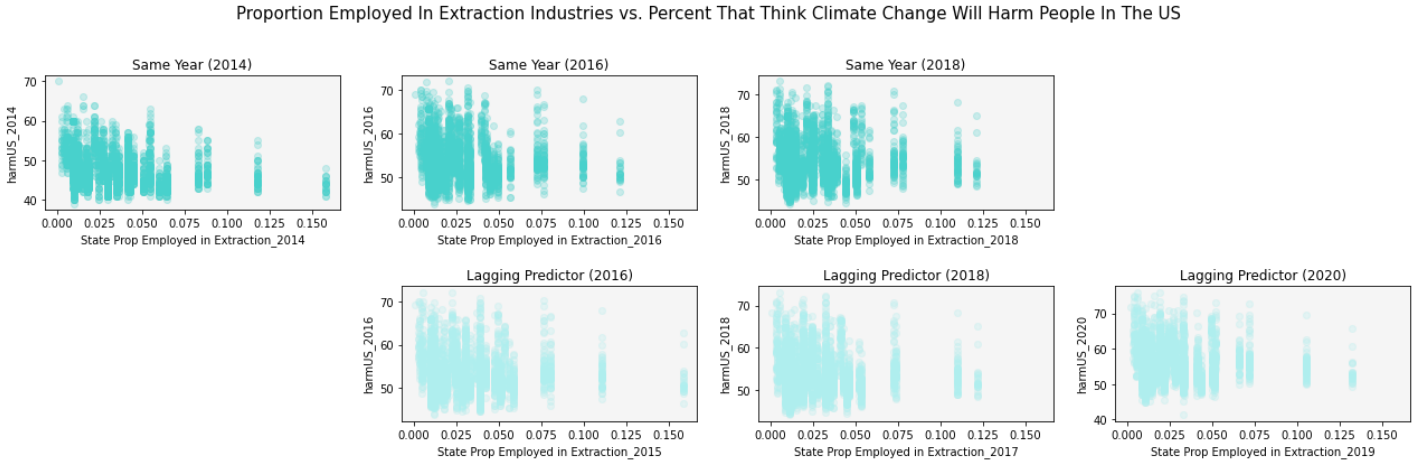
In [10]:

```
scatterplots_extraction1 = [
                "State Prop Employed in Extraction_2016", 'CO2limits_2016',
                "State Prop Employed in Extraction_2018", 'CO2limits_2018',
                "State Prop Employed in Extraction_2015", 'CO2limits_2016',
                "State Prop Employed in Extraction_2017", 'CO2limits_2018',
                "State Prop Employed in Extraction_2019", 'CO2limits_2020'
                ]

scatterplots_extraction2 = [
                "State Prop Employed in Extraction_2016", 'worried_2016',
                "State Prop Employed in Extraction_2018", 'worried_2018',
                "State Prop Employed in Extraction_2015", 'worried_2016',
                "State Prop Employed in Extraction_2017", 'worried_2018',
                "State Prop Employed in Extraction_2019", 'worried_2020'
                ]

scatterplots_extraction3 = [
                "State Prop Employed in Extraction_2016", 'harmUS_2016',
                "State Prop Employed in Extraction_2018", 'harmUS_2018',
                "State Prop Employed in Extraction_2015", 'harmUS_2016',
                "State Prop Employed in Extraction_2017", 'harmUS_2018',
                "State Prop Employed in Extraction_2019", 'harmUS_2020'
                ]


def plot_extraction_num_pp(x_col, y_col, x_label, y_label, plot_num, ax1, plot_year, first
    ax = plt.subplot(2, 4, plot_num, sharex=ax1)
    if plot_num < 4:
        if first_x == "State Prop Employed in Extraction_2014":
            ax.scatter(final_huge[x_col], final_huge[y_col], c='mediumturquoise', alpha=0.
        else:
            ax.scatter(final_huge[x_col], final_huge[y_col], c='olive', alpha=0.25)
        plt.title(f"Same Year ({plot_year})")
    else:
        if first_x == "State Prop Employed in Extraction_2014":
            ax.scatter(final_huge[x_col], final_huge[y_col], c='paleturquoise', alpha=0.25
        else:
            ax.scatter(final_huge[x_col], final_huge[y_col], c='darkkhaki', alpha=0.25)
        plt.title(f"Lagging Predictor ({plot_year})")
    ax.set_facecolor("whitesmoke")
    plt.xlabel(x_label)
    plt.ylabel(y_label)

def plot_all_extraction_num_pp(plot_title, first_x, first_y, scatterplots):
    fig = plt.figure(figsize=(18, 6))
    ax1 = plt.subplot(2, 4, 1)
    if first_x == "State Prop Employed in Extraction_2014":
        ax1.scatter(final_huge[first_x], final_huge[first_y], c='mediumturquoise', alpha=0
    else:
```

```
        ax1.scatter(final_huge[first_x], final_huge[first_y], c='olive', alpha=0.25)
    ax1.set_facecolor("whitesmoke")
    plt.title('Same Year (2014)')
    plt.xlabel(first_x)
    plt.ylabel(first_y)
    plot_num = 2
    plot_year = 2016
    for i in range(0, 10, 2):
        plot_extraction_num_pp(scatterplots[i], scatterplots[i + 1], scatterplots[i], scat
        plot_num += 1
        plot_year += 2
        if plot_num == 4:
            plot_num += 2
            plot_year = 2016
    plt.suptitle(plot_title, fontsize = 15);
    plt.tight_layout(pad = 2)

plot_all_extraction_num_pp("Proportion Employed In Extraction Industries vs. Support For C
plot_all_extraction_num_pp("Proportion Employed In Extraction Industries vs. Percent Worri
plot_all_extraction_num_pp("Proportion Employed In Extraction Industries vs. Percent That
```



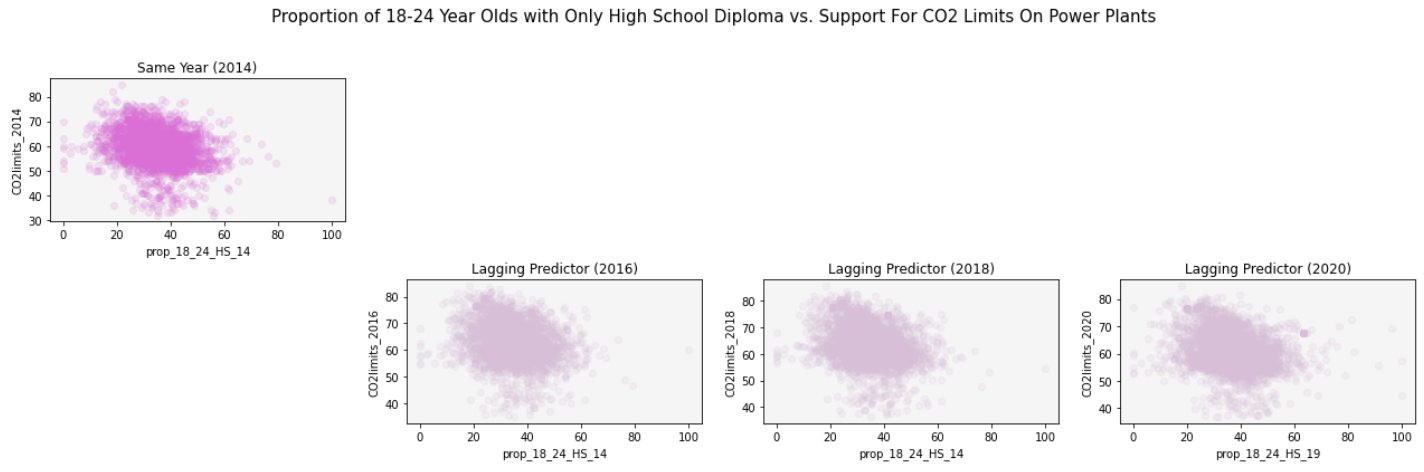




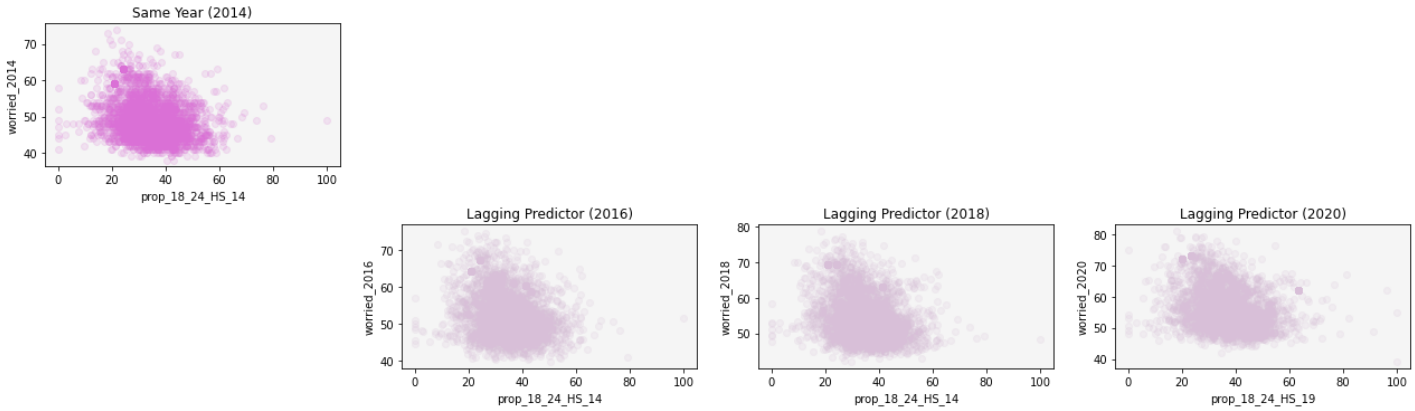
In [28]:

```
scatterplots_edu1 = [
                "prop_18_24_HS_14", 'CO2limits_2016',
                "prop_18_24_HS_14", 'CO2limits_2018',
                "prop_18_24_HS_19", 'CO2limits_2020'
                ]

scatterplots_edu2 = [
                "prop_18_24_HS_14", 'worried_2016',
                "prop_18_24_HS_14", 'worried_2018',
                "prop_18_24_HS_19", 'worried_2020'
                ]

scatterplots_edu3 = [
                "prop_18_24_HS_14", 'harmUS_2016',
                "prop_18_24_HS_14", 'harmUS_2018',
                "prop_18_24_HS_19", 'harmUS_2020'
                ]

scatterplots_edu4 = [
                "prop_18_24_BS_14", 'CO2limits_2016',
                "prop_18_24_BS_14", 'CO2limits_2018',
                "prop_18_24_BS_19", 'CO2limits_2020'
                ]

scatterplots_edu5 = [
                "prop_18_24_BS_14", 'worried_2016',
                "prop_18_24_BS_14", 'worried_2018',
                "prop_18_24_BS_19", 'worried_2020'
                ]

scatterplots_edu6 = [
                "prop_18_24_BS_14", 'harmUS_2016',
                "prop_18_24_BS_14", 'harmUS_2018',
                "prop_18_24_BS_19", 'harmUS_2020'
                ]

scatterplots_edu7 = [
                "prop_25_HS_14", 'CO2limits_2016',
                "prop_25_HS_14", 'CO2limits_2018',
                "prop_25_HS_19", 'CO2limits_2020'
                ]

scatterplots_edu8 = [
                "prop_25_HS_14", 'worried_2016',
                "prop_25_HS_14", 'worried_2018',
                "prop_25_HS_19", 'worried_2020'
                ]

scatterplots_edu9 = [
                "prop_25_HS_14", 'harmUS_2016',
                "prop_25_HS_14", 'harmUS_2018',
                "prop_25_HS_19", 'harmUS_2020'
                ]

scatterplots_edu10 = [
                "prop_25_BS_14", 'CO2limits_2016',
                "prop_25_BS_14", 'CO2limits_2018',
                "prop_25_BS_19", 'CO2limits_2020'
                ]

scatterplots_edu11 = [
                "prop_25_BS_14", 'worried_2016',
                "prop_25_BS_14", 'worried_2018',
                "prop_25_BS_19", 'worried_2020'
```

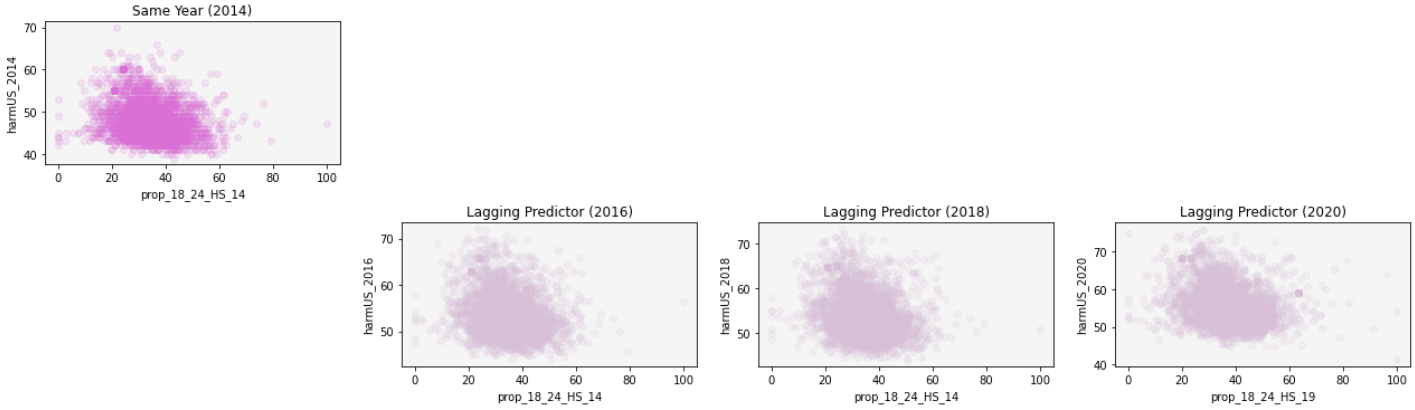
```
                ]

scatterplots_edu12 = [
                "prop_25_BS_14", 'harmUS_2016',
                "prop_25_BS_14", 'harmUS_2018',
                "prop_25_BS_19", 'harmUS_2020'
                ]


def plot_edu_support(x_col, y_col, x_label, y_label, plot_num, plot_year, ax1):
    ax = plt.subplot(2, 4, plot_num, sharex=ax1)
    if plot_num < 4:
        ax.scatter(final_huge[x_col], final_huge[y_col], c='orchid', alpha=0.15)
        plt.title(f"Same Year ({plot_year})")
    else:
        ax.scatter(final_huge[x_col], final_huge[y_col], c='thistle', alpha=0.15)
        plt.title(f"Lagging Predictor ({plot_year})")
    ax.set_facecolor("whitesmoke")
    plt.xlabel(x_label)
    plt.ylabel(y_label)

def plot_all_edu_support(plot_title, x_col, y_col, scatterplots):
    plt.figure(figsize=(18, 6))
    ax1 = plt.subplot(2, 4, 1)
    ax1.scatter(final_huge[x_col], final_huge[y_col], c='orchid', alpha=0.15)
    ax1.set_facecolor("whitesmoke")
    plt.title('Same Year (2014)')
    plt.xlabel(x_col)
    plt.ylabel(y_col)
    plot_num = 6
    plot_year = 2016
    for i in range(0, 6, 2):
        plot_edu_support(scatterplots[i], scatterplots[i + 1], scatterplots[i], scatterplo
        plot_num += 1
        plot_year += 2
    plt.suptitle(plot_title, fontsize = 15);
    plt.tight_layout(pad = 2)

plot_all_edu_support("Proportion of 18-24 Year Olds with Only High School Diploma vs. Supp
plot_all_edu_support("Proportion of 18-24 Year Olds with Only High School Diploma vs. Perc
plot_all_edu_support("Proportion of 18-24 Year Olds with Only High School Diploma vs. Perc
```



Proportion of 18-24 Year Olds with Only High School Diploma vs. Percent Worried About Climate Change



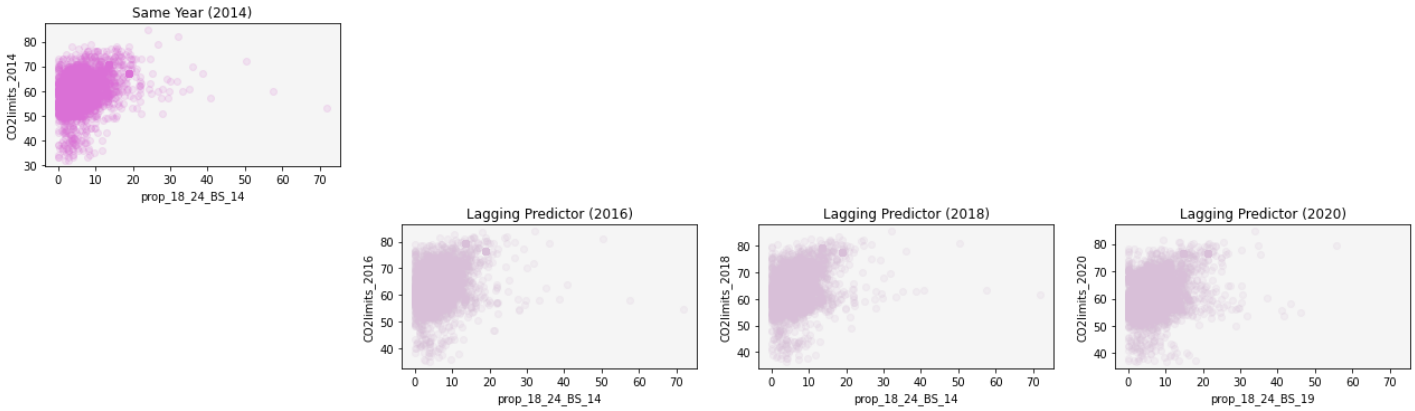
Proportion of 18-24 Year Olds with Only High School Diploma vs. Percent That Think Climate Change Will Harm People In The US



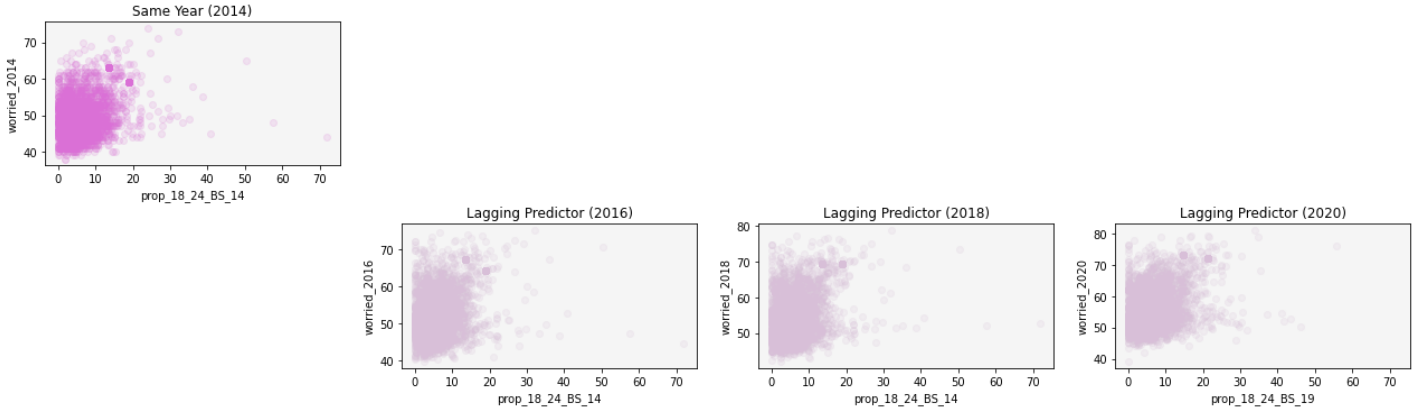
In [29]:

```
plot_all_edu_support("Proportion of 18-24 Year Olds with Bachelor's Degree or Higher vs. S
plot_all_edu_support("Proportion of 18-24 Year Olds with Bachelor's Degree or Higher vs. P
plot_all_edu_support("Proportion of 18-24 Year Olds with Bachelor's Degree or Higher vs. P
```

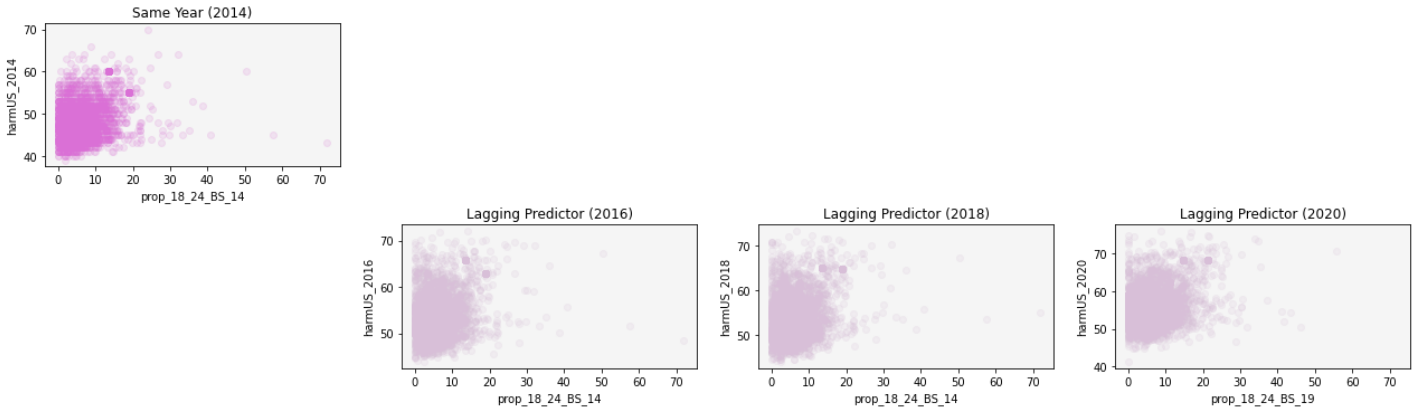
Proportion of 18-24 Year Olds with Bachelor's Degree or Higher vs. Support For CO2 Limits On Power Plants



Proportion of 18-24 Year Olds with Bachelor's Degree or Higher vs. Percent Worried About Climate Change



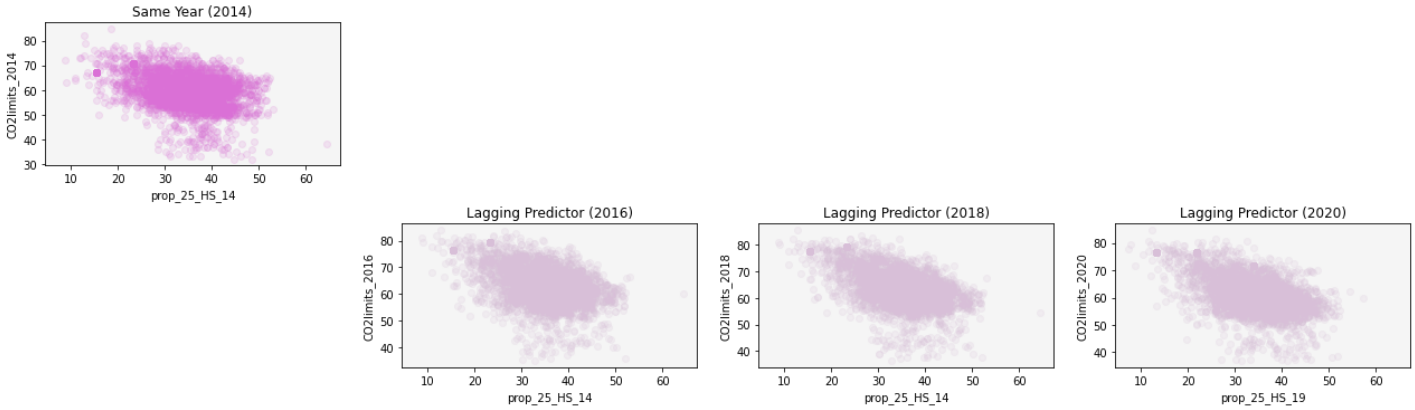
Proportion of 18-24 Year Olds with Bachelor's Degree or Higher vs. Percent That Think Climate Change Will Harm People In The US



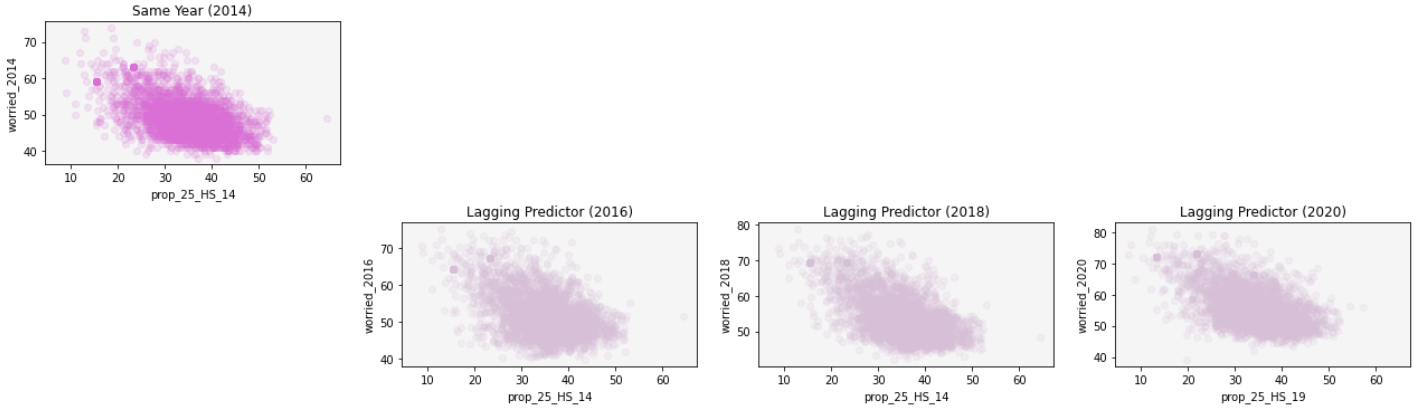
In [30]:

```
plot_all_edu_support("Proportion of 25 Year Olds and Older with Only High School Diploma v
plot_all_edu_support("Proportion of 25 Year Olds and Older with Only High School Diploma v
plot_all_edu_support("Proportion of 25 Year Olds and Older with Only High School Diploma v
```

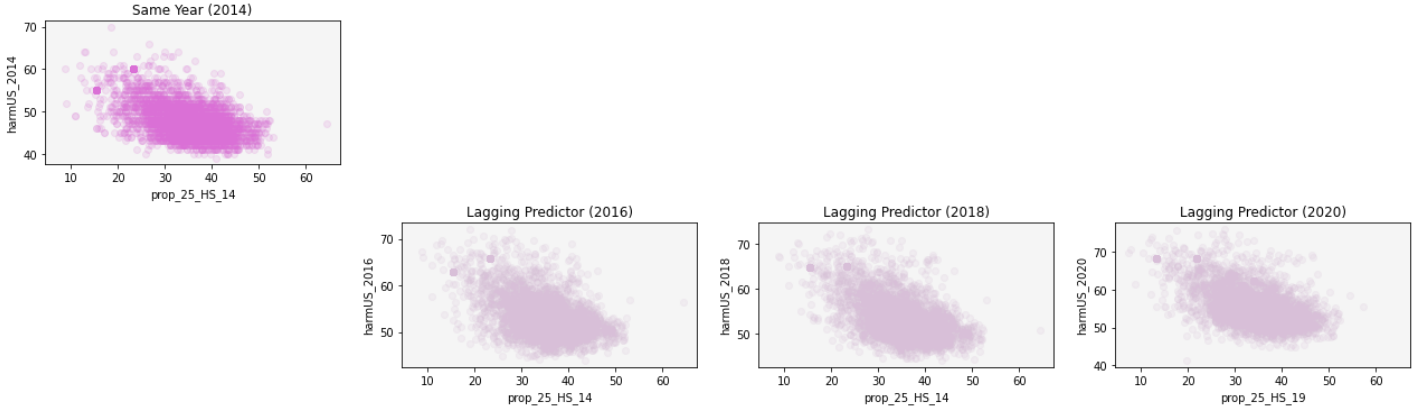
Proportion of 25 Year Olds and Older with Only High School Diploma vs. Support For CO2 Limits On Power Plants



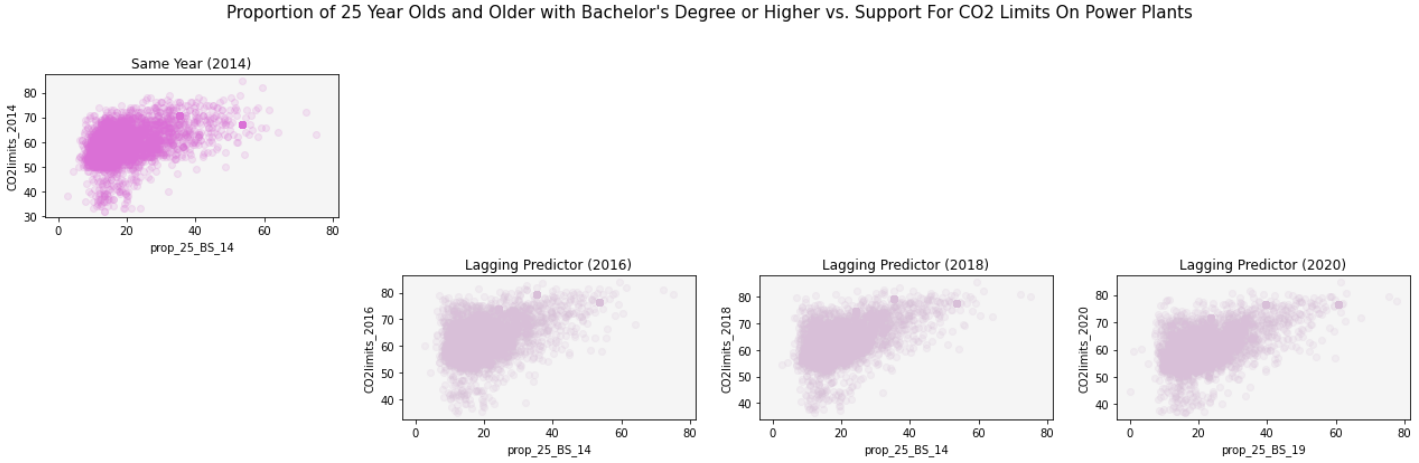
Proportion of 25 Year Olds and Older with Only High School Diploma vs. Percent Worried About Climate Change

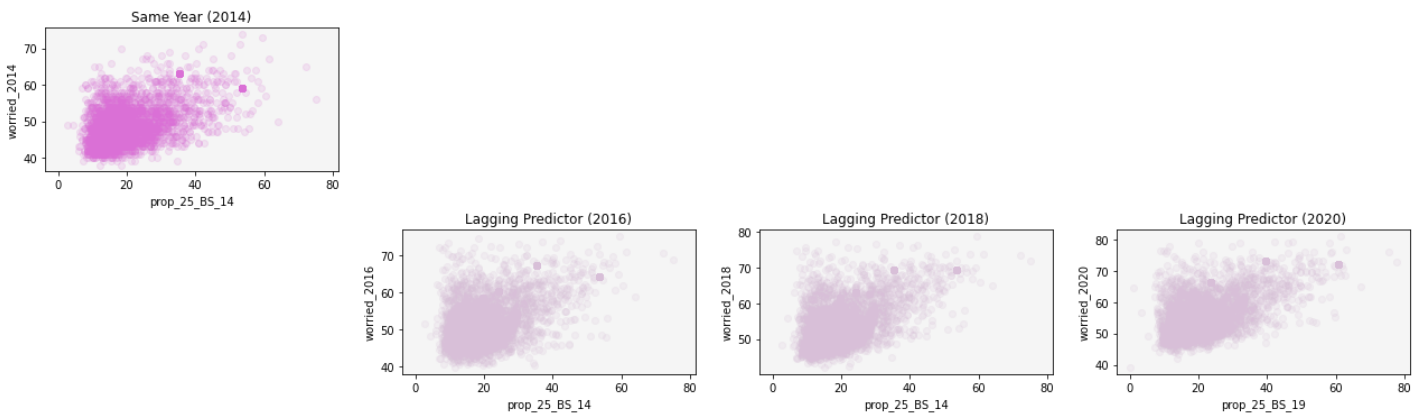


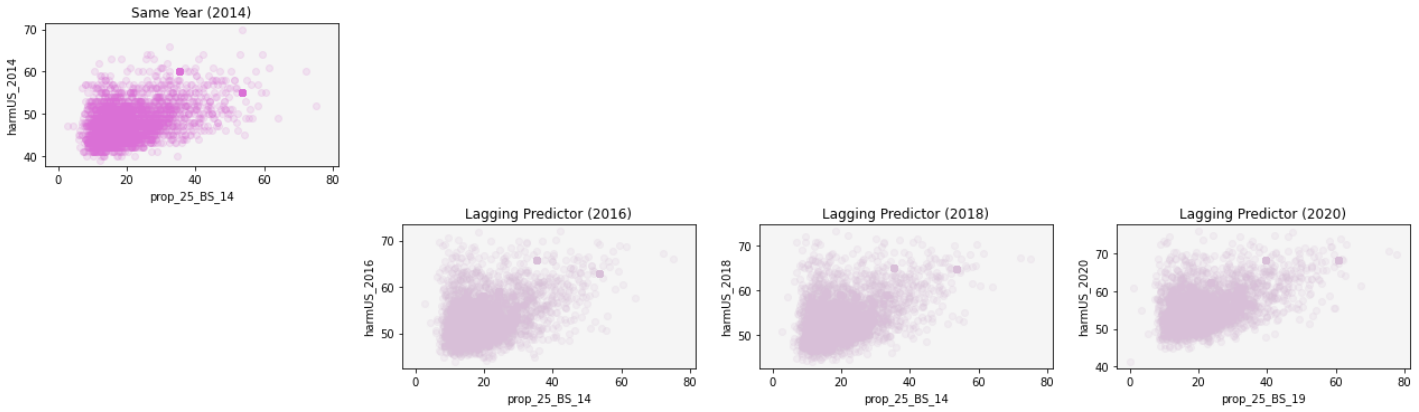
Proportion of 25 Year Olds and Older with Only High School Diploma vs. Percent That Think Climate Change Will Harm People In The US



In [31]:
```
plot_all_edu_support("Proportion of 25 Year Olds and Older with Bachelor's Degree or Highe
plot_all_edu_support("Proportion of 25 Year Olds and Older with Bachelor's Degree or Highe
plot_all_edu_support("Proportion of 25 Year Olds and Older with Bachelor's Degree or Highe
```

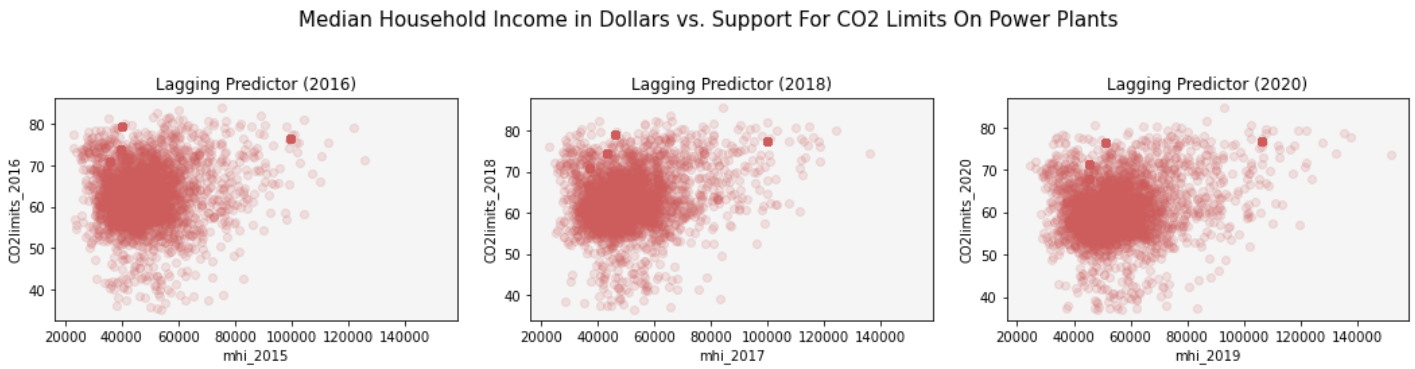


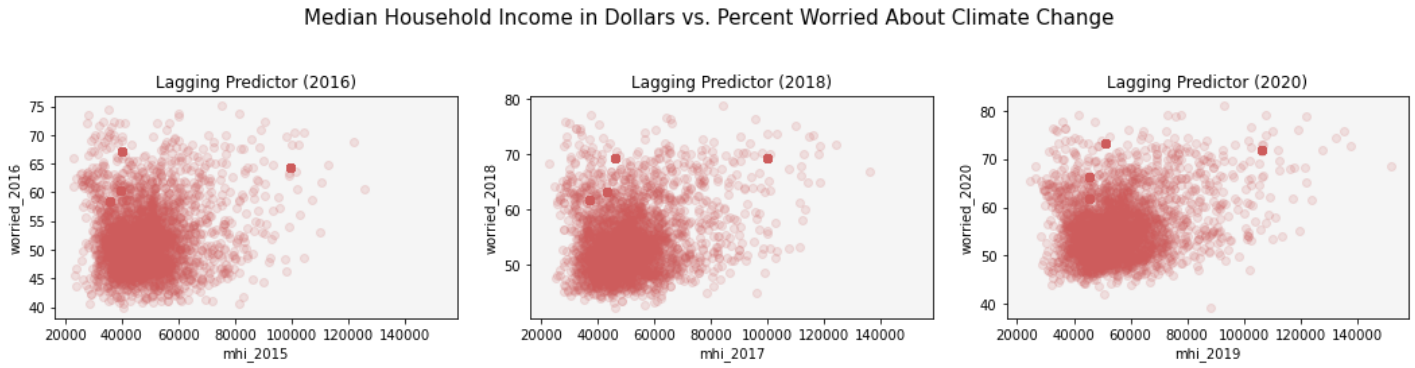


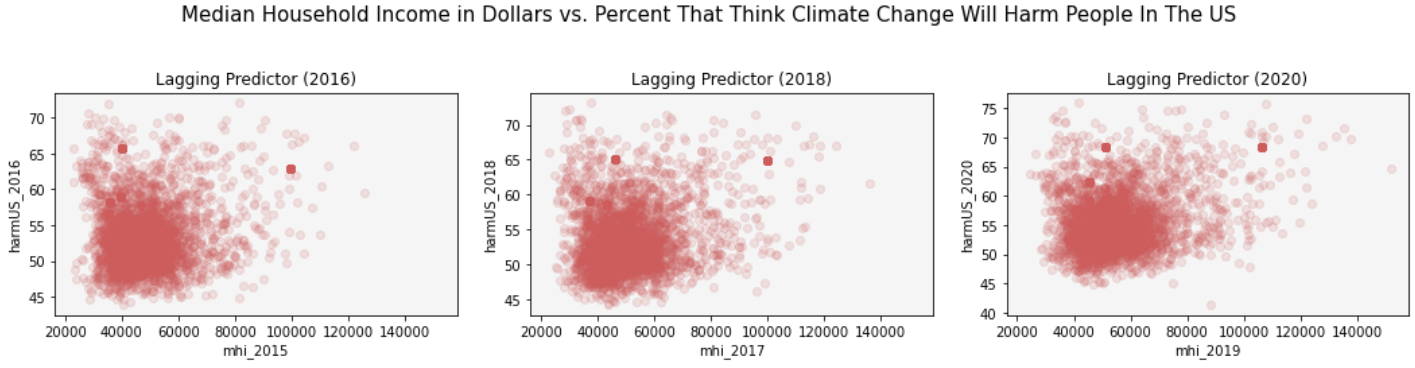


In [37]:
```
scatterplots_mhi1 = [
                "mhi_2017", 'CO2limits_2018',
                "mhi_2019", 'CO2limits_2020'
                ]

scatterplots_mhi2 = [
                "mhi_2017", 'worried_2018',
                "mhi_2019", 'worried_2020'
                ]

scatterplots_mhi3 = [
                "mhi_2017", 'harmUS_2018',
                "mhi_2019", 'harmUS_2020'
                ]
```

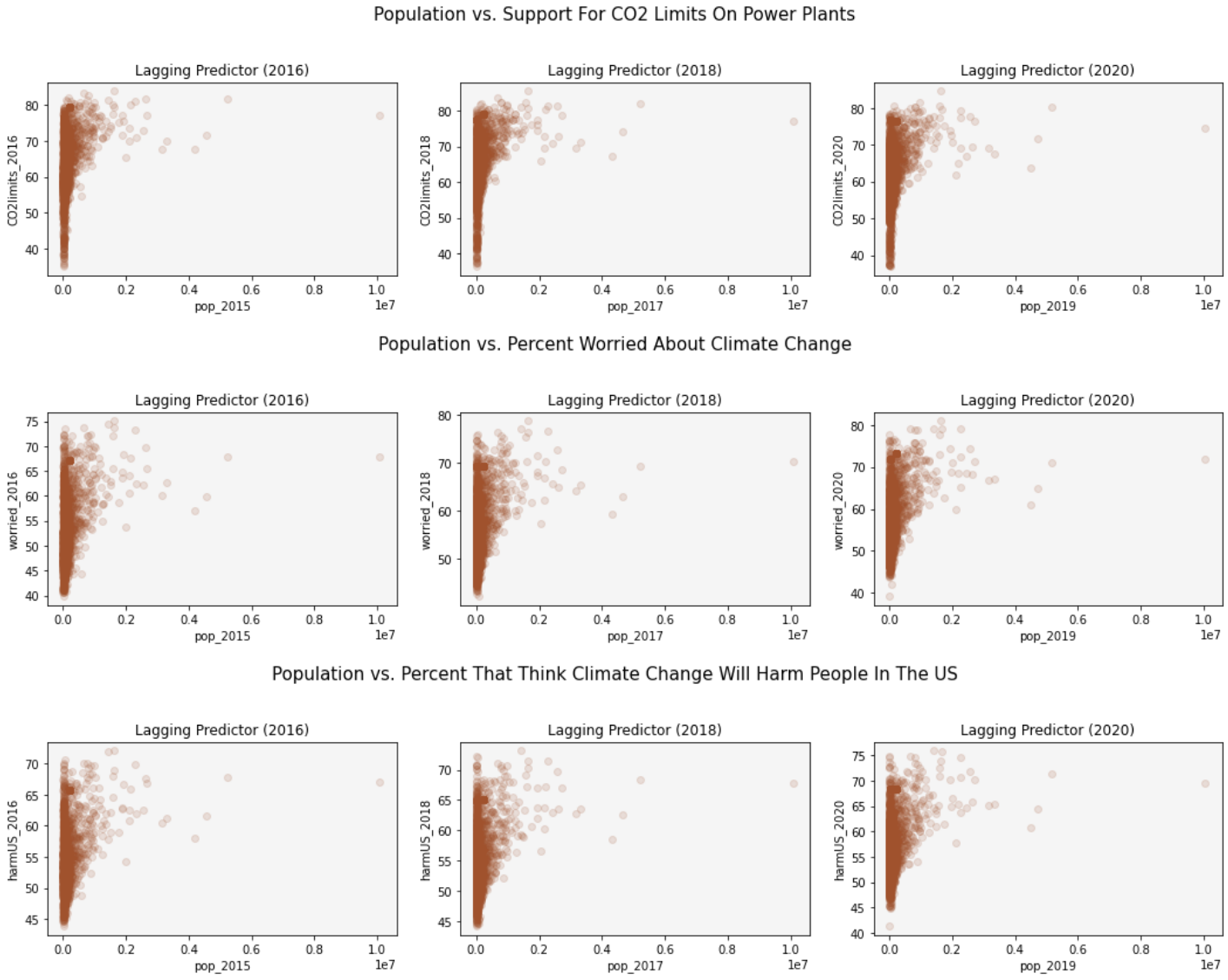
```
def plot_mhi_pop_pov(x_col, y_col, x_label, y_label, plot_num, plot_year, ax1, color):
    ax = plt.subplot(1, 3, plot_num, sharex=ax1)
    ax.scatter(final_huge[x_col], final_huge[y_col], c=color, alpha=0.15)
    plt.title(f"Lagging Predictor ({plot_year})")
    ax.set_facecolor("whitesmoke")
    plt.xlabel(x_label)
    plt.ylabel(y_label)

def plot_all_mhi_pop_pov(plot_title, x_col, y_col, scatterplots, color):
    plt.figure(figsize=(15, 4))
    ax1 = plt.subplot(1, 3, 1)
    ax1.scatter(final_huge[x_col], final_huge[y_col], c=color, alpha=0.15)
    ax1.set_facecolor("whitesmoke")
    plt.title('Lagging Predictor (2016)')
    plt.xlabel(x_col)
    plt.ylabel(y_col)
    plot_num = 2
    plot_year = 2018
    for i in range(0, 4, 2):
        plot_mhi_pop_pov(scatterplots[i], scatterplots[i + 1], scatterplots[i], scatterplo
        plot_num += 1
        plot_year += 2
    plt.suptitle(plot_title, fontsize = 15);
    plt.tight_layout(pad = 2)

plot_all_mhi_pop_pov("Median Household Income in Dollars vs. Support For CO2 Limits On Pow
plot_all_mhi_pop_pov("Median Household Income in Dollars vs. Percent Worried About Climate
plot_all_mhi_pop_pov("Median Household Income in Dollars vs. Percent That Think Climate Ch
```







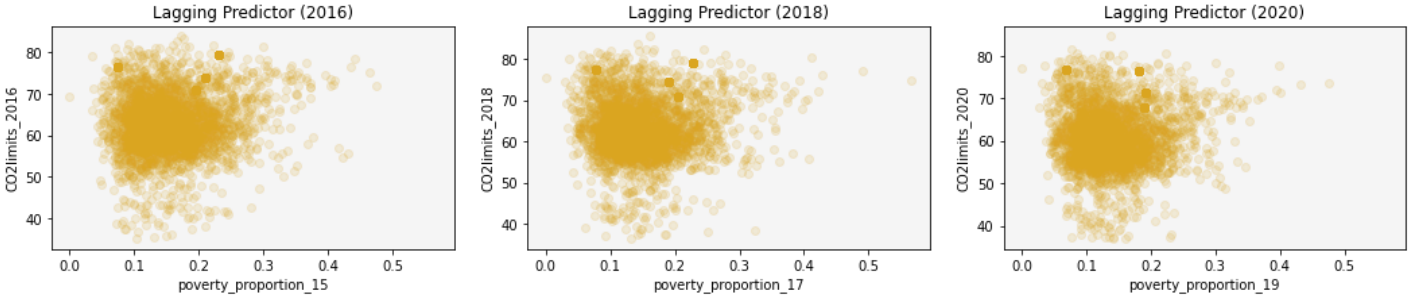
In [36]:
```
scatterplots_pop1 = [
                "pop_2017", 'CO2limits_2018',
                "pop_2019", 'CO2limits_2020'
                ]

scatterplots_pop2 = [
                "pop_2017", 'worried_2018',
                "pop_2019", 'worried_2020'
                ]

scatterplots_pop3 = [
                "pop_2017", 'harmUS_2018',
                "pop_2019", 'harmUS_2020'
                ]

plot_all_mhi_pop_pov("Population vs. Support For CO2 Limits On Power Plants", "pop_2015",
plot_all_mhi_pop_pov("Population vs. Percent Worried About Climate Change", "pop_2015", "w
plot_all_mhi_pop_pov("Population vs. Percent That Think Climate Change Will Harm People In
```



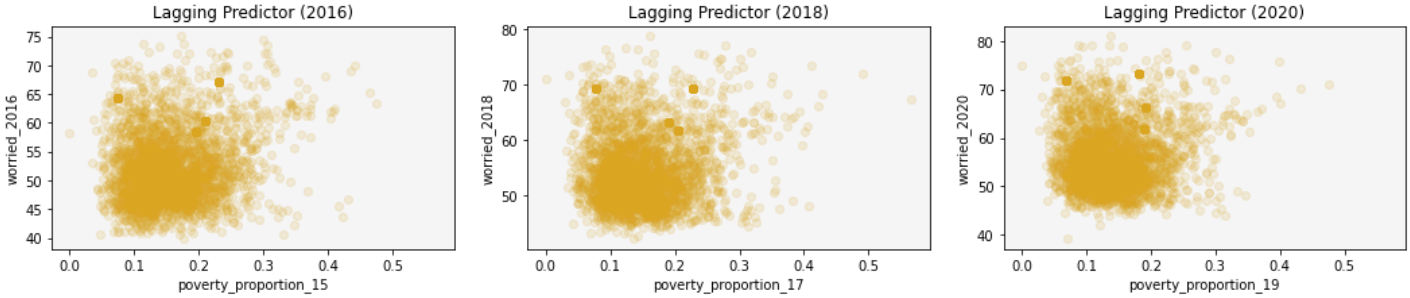
In [39]:
```
scatterplots_pov1 = [
                "poverty_proportion_17", 'CO2limits_2018',
                "poverty_proportion_19", 'CO2limits_2020'
                ]

scatterplots_pov2 = [
                "poverty_proportion_17", 'worried_2018',
                "poverty_proportion_19", 'worried_2020'
                ]
```

```
scatterplots_pov3 = [
                "poverty_proportion_17", 'harmUS_2018',
                "poverty_proportion_19", 'harmUS_2020'
                ]

plot_all_mhi_pop_pov("Proportion of Population Living Below the Poverty Line vs. Support F
plot_all_mhi_pop_pov("Proportion of Population Living Below the Poverty Line vs. Percent W
plot_all_mhi_pop_pov("Proportion of Population Living Below the Poverty Line vs. Percent T
```

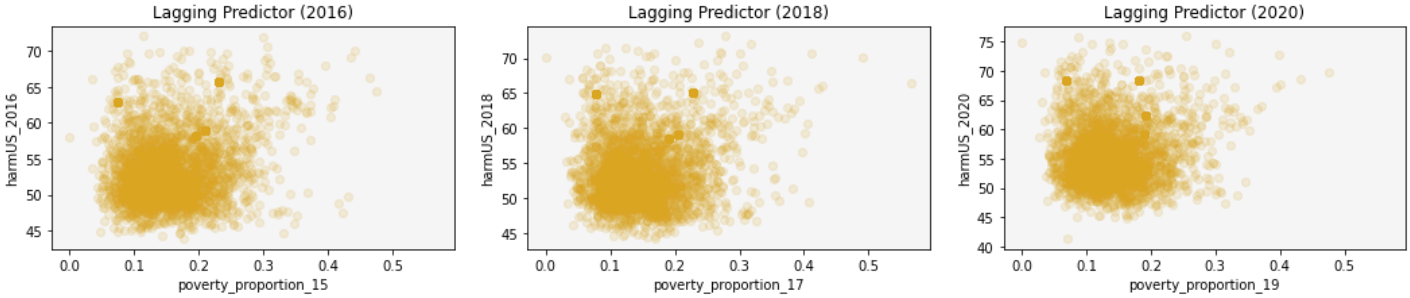
Proportion of Population Living Below the Poverty Line vs. Support For CO2 Limits On Power Plants



Proportion of Population Living Below the Poverty Line vs. Percent Worried About Climate Change



Proportion of Population Living Below the Poverty Line vs. Percent That Think Climate Change Will Harm People In The US

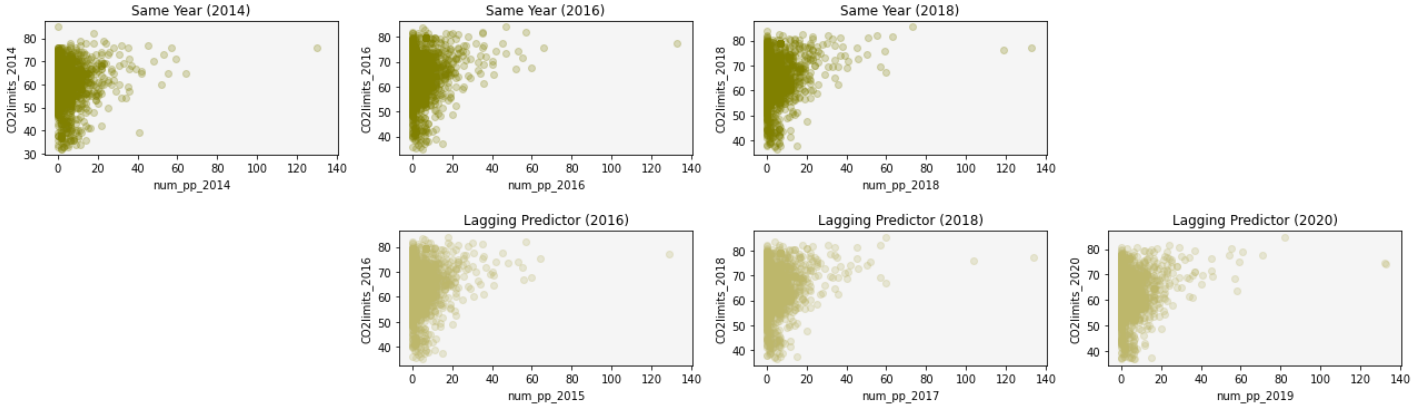


In [11]:

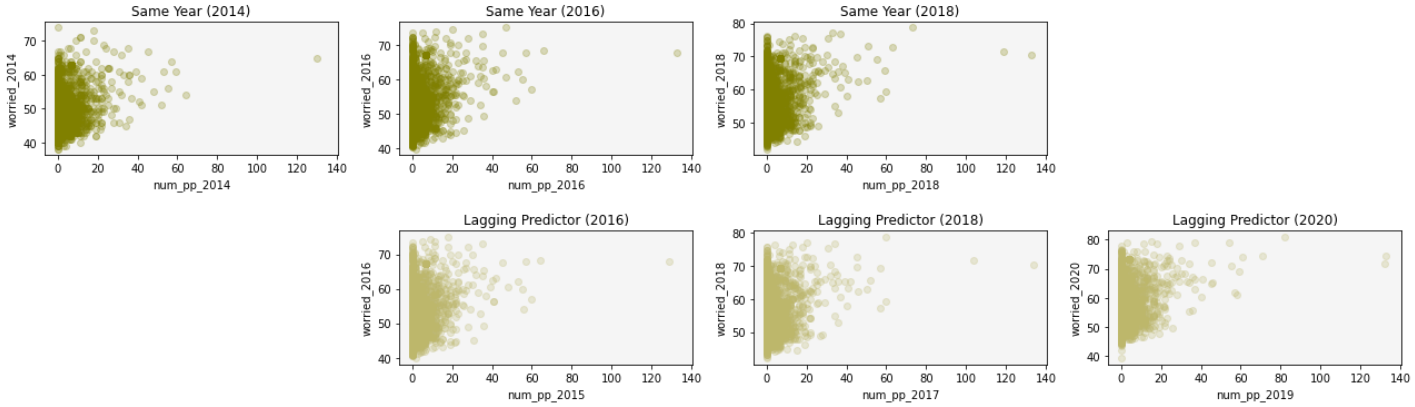
```
scatterplots_powerplants1 = [
                "num_pp_2016", 'CO2limits_2016',
                "num_pp_2018", 'CO2limits_2018',
                "num_pp_2015", 'CO2limits_2016',
                "num_pp_2017", 'CO2limits_2018',
                "num_pp_2019", 'CO2limits_2020'
                ]

scatterplots_powerplants2 = [
                "num_pp_2016", 'worried_2016',
                "num_pp_2018", 'worried_2018',
                "num_pp_2015", 'worried_2016',
                "num_pp_2017", 'worried_2018',
                "num_pp_2019", 'worried_2020'
                ]

scatterplots_powerplants3 = [
                "num_pp_2016", 'harmUS_2016',
```

```
                "num_pp_2018", 'harmUS_2018',
                "num_pp_2015", 'harmUS_2016',
                "num_pp_2017", 'harmUS_2018',
                "num_pp_2019", 'harmUS_2020'
                ]

plot_all_extraction_num_pp("Number of Fossil Fuel Power Plants vs. Support For CO2 Limits
plot_all_extraction_num_pp("Number of Fossil Fuel Power Plants vs. Percent Worried About C
plot_all_extraction_num_pp("Number of Fossil Fuel Power Plants vs. Percent That Think Clim
```

Number of Fossil Fuel Power Plants vs. Support For CO2 Limits On Power Plants



Number of Fossil Fuel Power Plants vs. Percent Worried About Climate Change



Number of Fossil Fuel Power Plants vs. Percent That Think Climate Change Will Harm People In The US