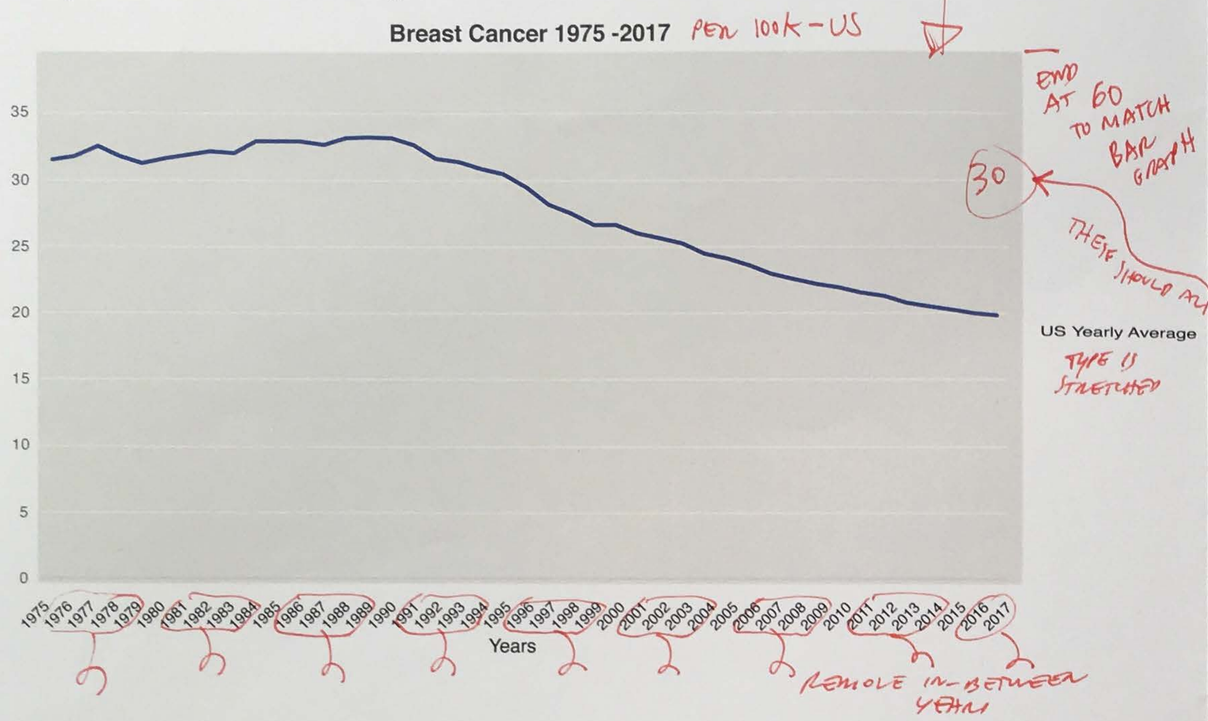
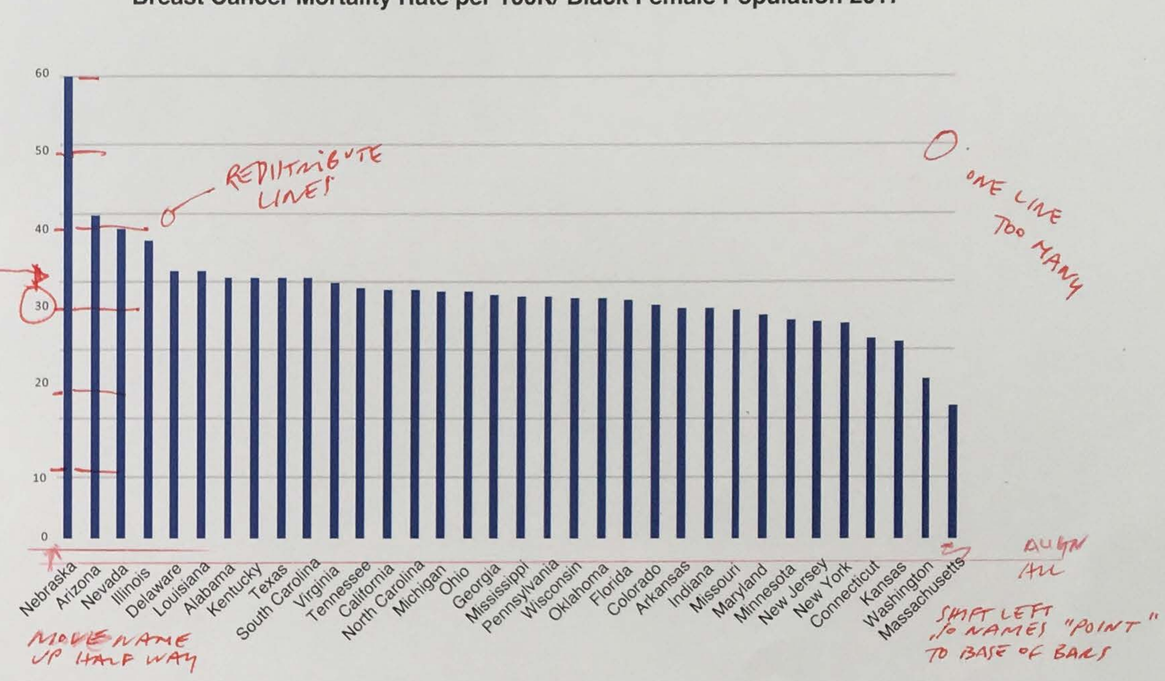
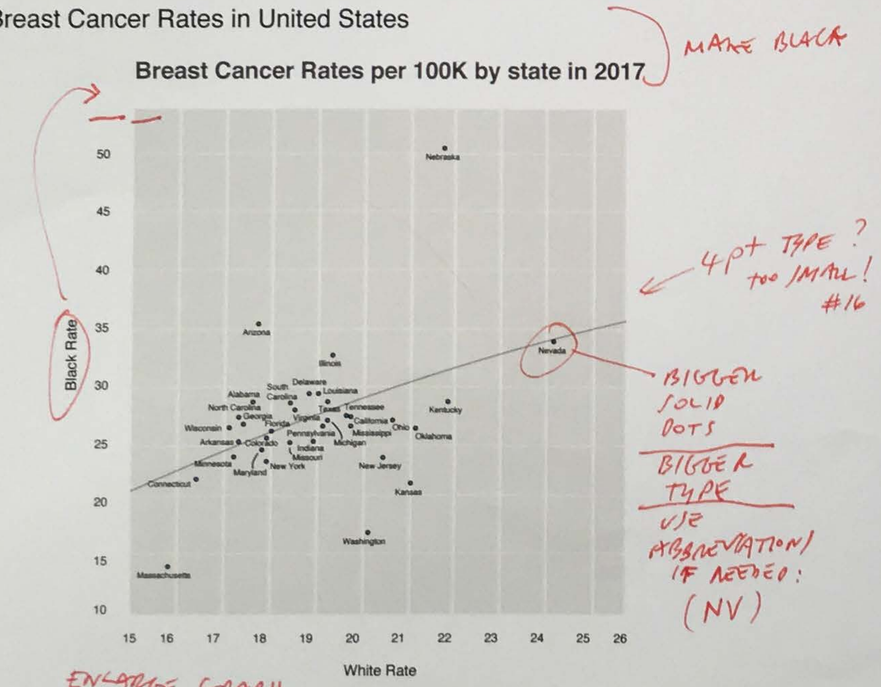
1. Graph 1: All Races Female All Ages



2. Single Bar Chart (Black - US 2017)



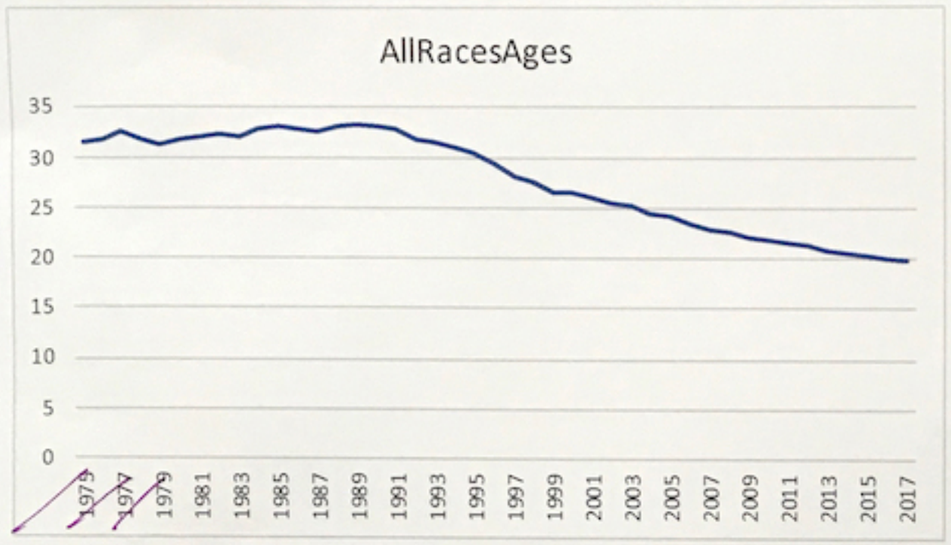
3. Scatterplot Breast Cancer Rates in United States



Notes:

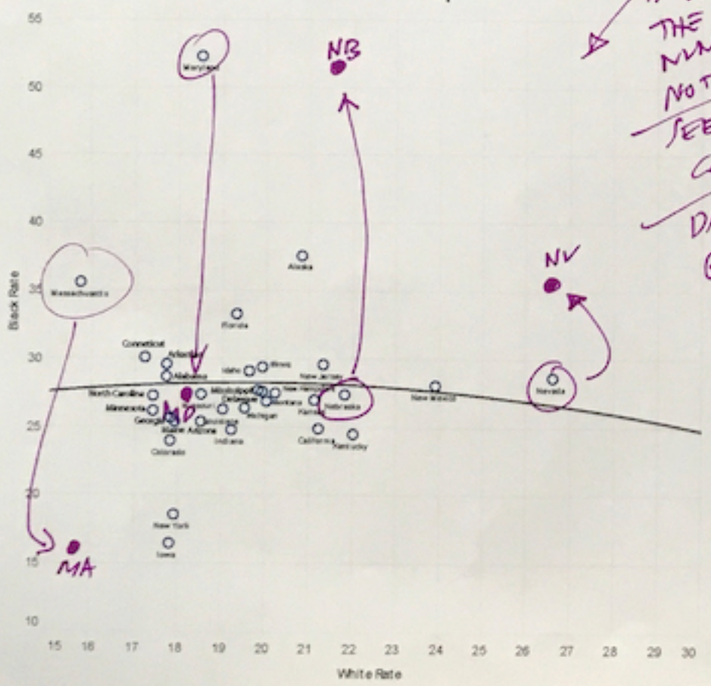
- These graphs discuss the breast cancer mortality rates ranging from years and states.
- The main elements being compared are the White and Black populations over the years.
- For all races and females of all ages, the yearly average of breast cancer rates has a descending graph, displaying that the yearly average deaths have been decreasing over the years.
- Although some may say this graph carries positive outcomes from less deaths from breast cancer. The different rates in race and locations are present.
- The bar graph signifiles te high mortality rates from breast cancer in different states in our contemporary times.
- Nebraska has the large number of mortality rates from the Black population.
- The breast cancer rates are seen in 2017 by both Blacks and Whites on the scatterplot, signifying that the state with the growing number of mortality rates by both populations is Nevada.

1. All Races Breast Cancer Rate Line graph



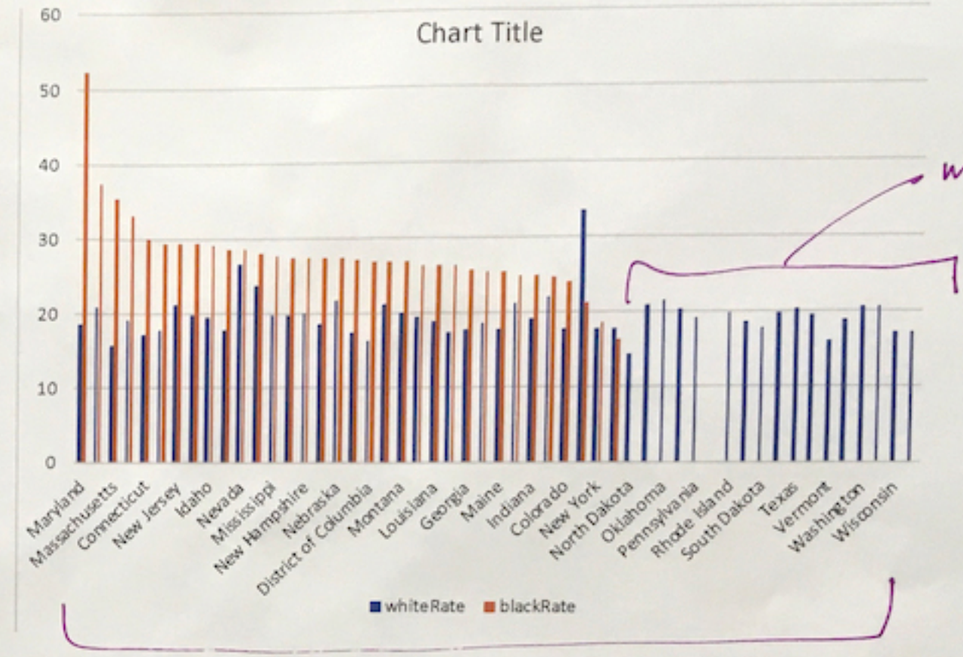
45° LABELS

2. Black and White Rate Breast Cancer Scatterplot



THIS SCATTERPLOT IS SCRAMBLED. THE BLACK RATE NUMBERS ARE NOT CORRECT. SEE SAMPLES CORRECTED. DATASET MUST HAVE GOTTEN SCRAMBLED.

3. White and Black Breast Cancer Bar Chart



missing BLK bars

NOT 35 states
state names missing

1. The line graph displays the start of the breast cancer rates starting from 1975 to 2017. The line starts around the 30 to 35 range then slowly decrases over time and eventually reaching 20 at 2017.

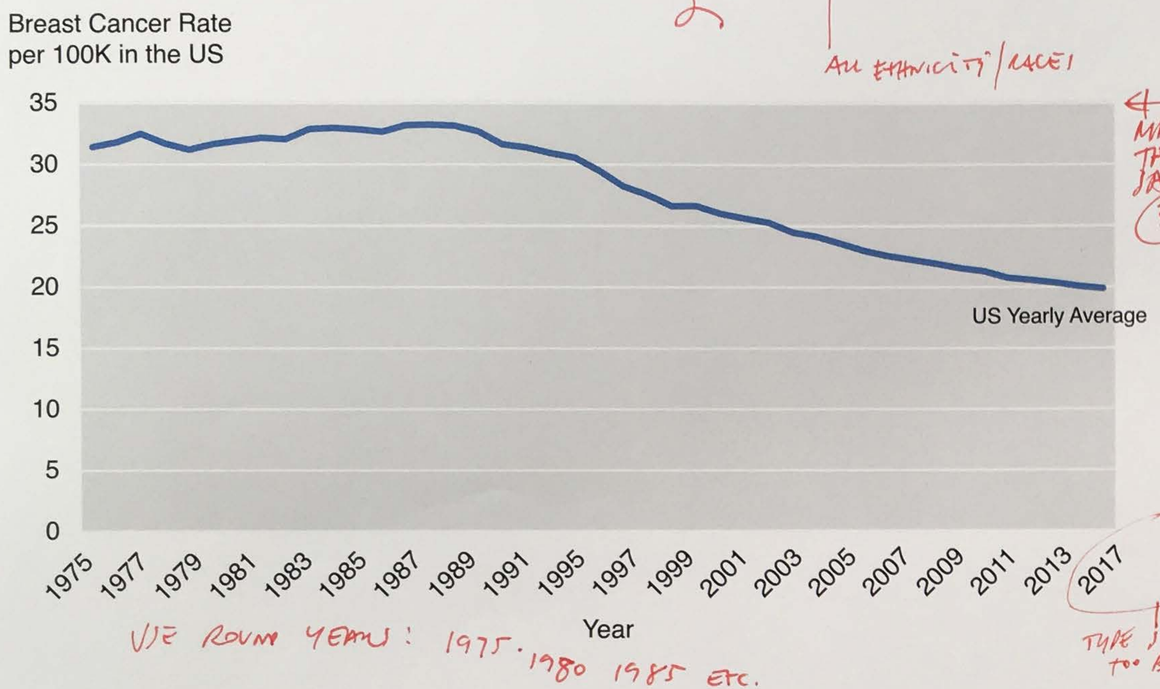
2. The scatterplot dipicts the various states placed around the different breast cancer rates centered around Black and White people.

3. The bar chart shows the various states lined but along with the the different rates. The blue bar represents the White rates and the Orange represents Black rates of breast cancer

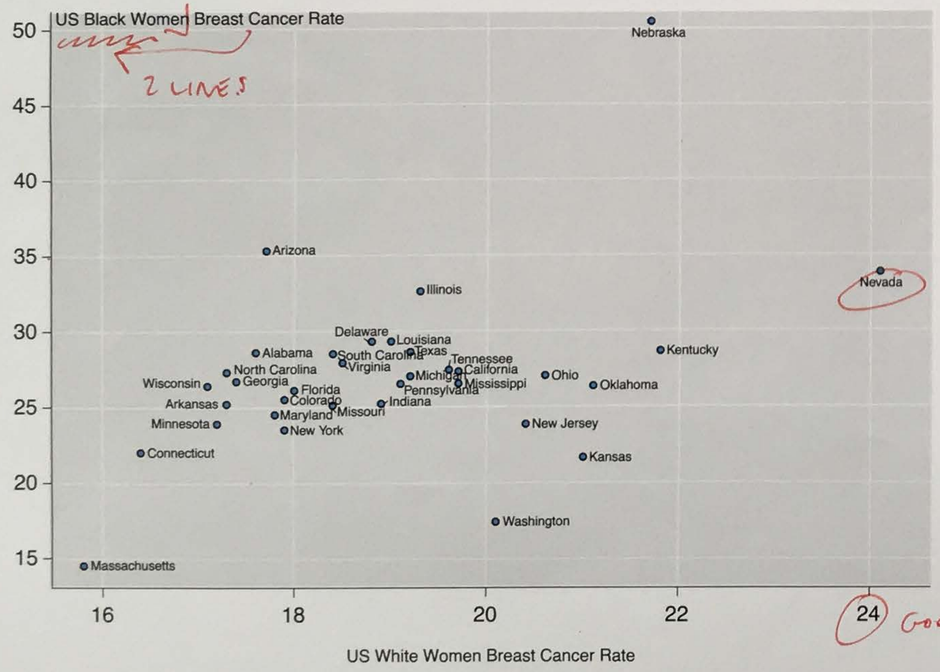
NONE OF THESE GRAPHS WERE IMPROVED OR CLEANED UP IN ILLUSTRATOR. THEY ARE THE SAME AS THOSE IN 1.2.

76/100 C+

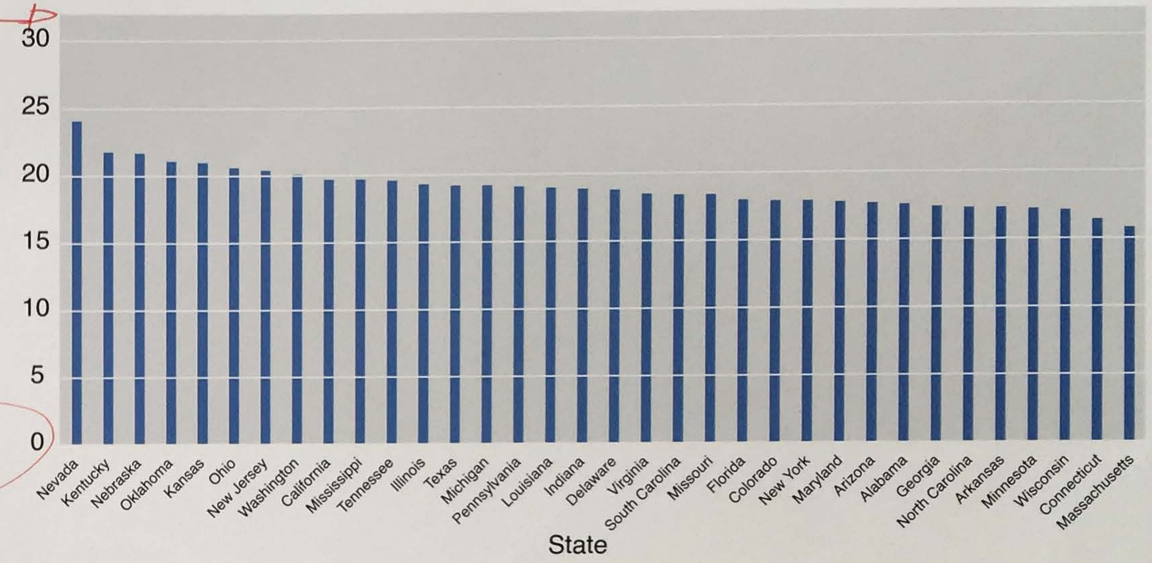
1. Female Breast Cancer Death Rates For All US White and Black Women (1975–2017)



2. Breast Cancer Death Rates For All US White and Black Women, by State (2019)



3. Breast Cancer Death Rates For All US White Women, by State (2019)



Notes: (MOVE THIS TITLE TO QUADRANT ON LEFT IF THIS QUADRANT IS USED FOR A GRAPH)

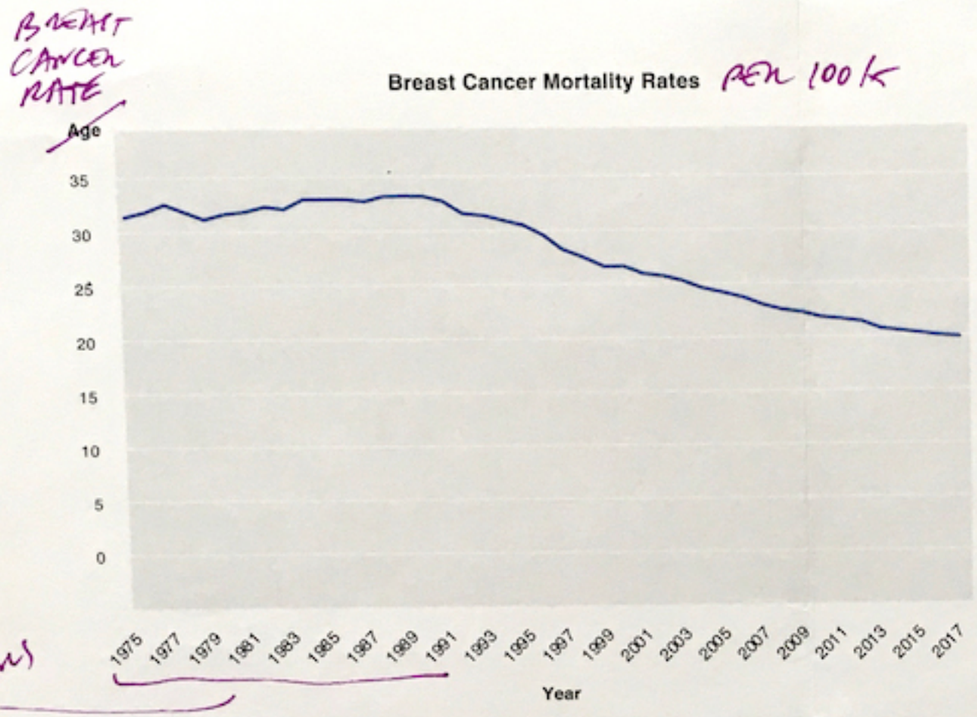
Insert your description here. If necessary, the text will run into a second column...

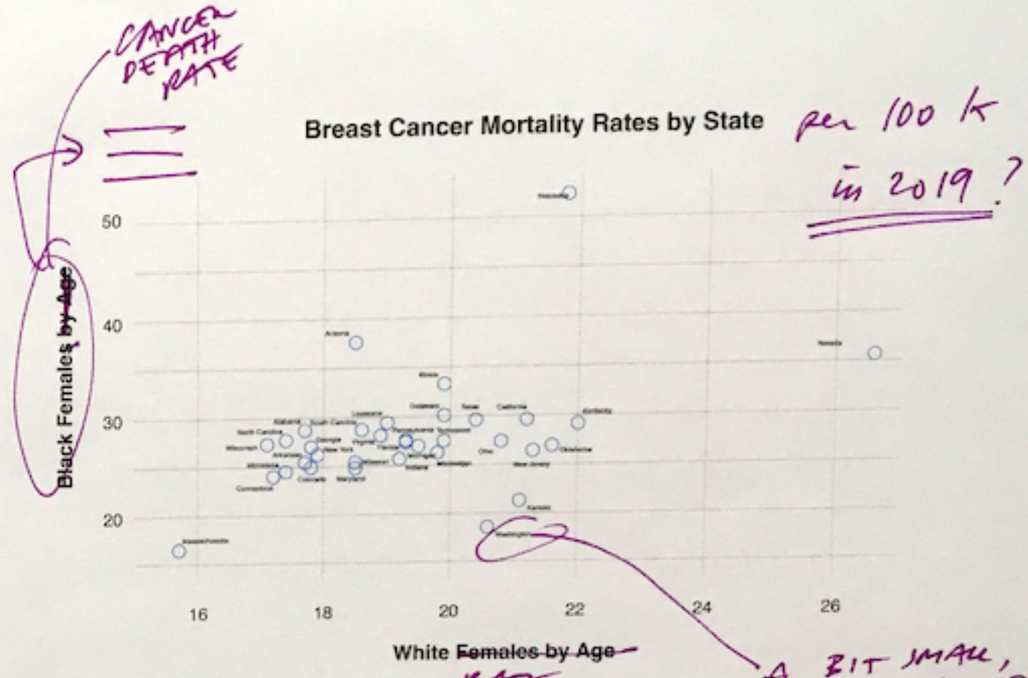
DELETE THIS TEXT BLOCK IF THIS QUADRANT IS USED FOR A GRAPH.

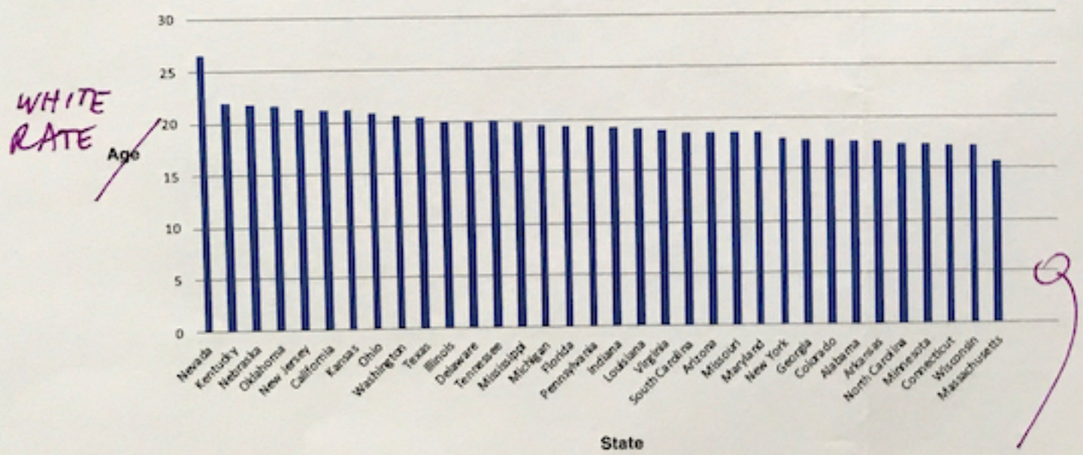
These graphs show the breast cancer death rates for ~~the~~ white and black women in the U.S. from 1975 to 2017. They also show the death rates by states during the year 2019. A gray background was added to better show the results. Data is colored in blue to stand out against the background.

Grid lines are also added to to accurately see what the data says.

138/150 (A-)

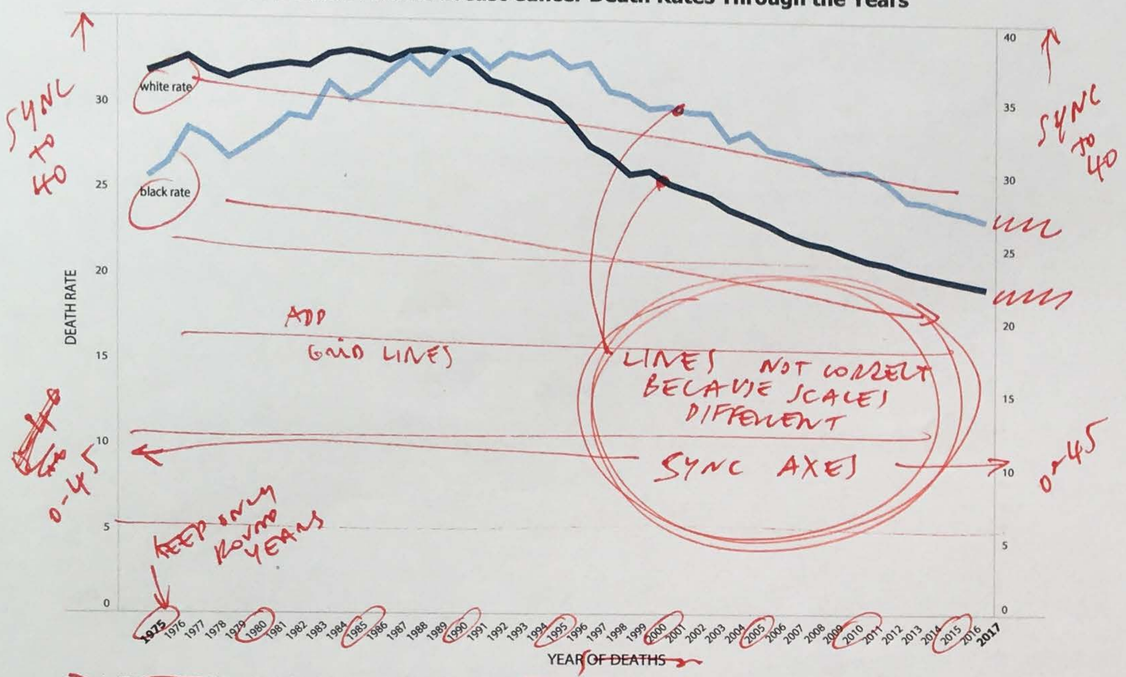


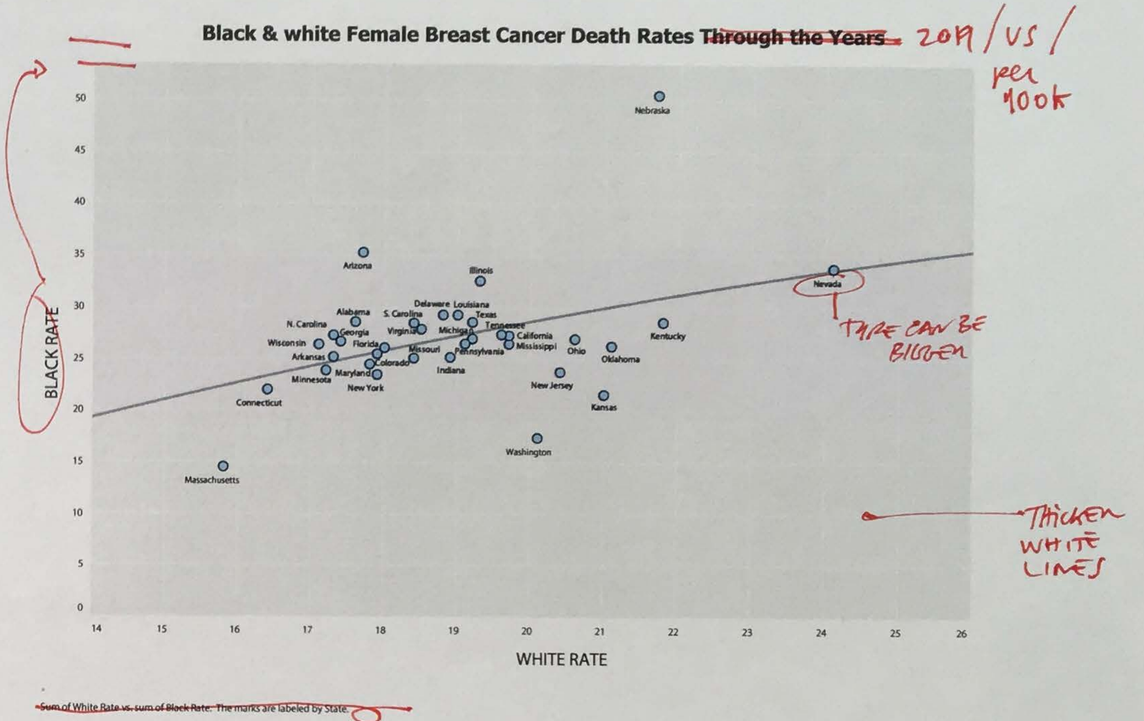


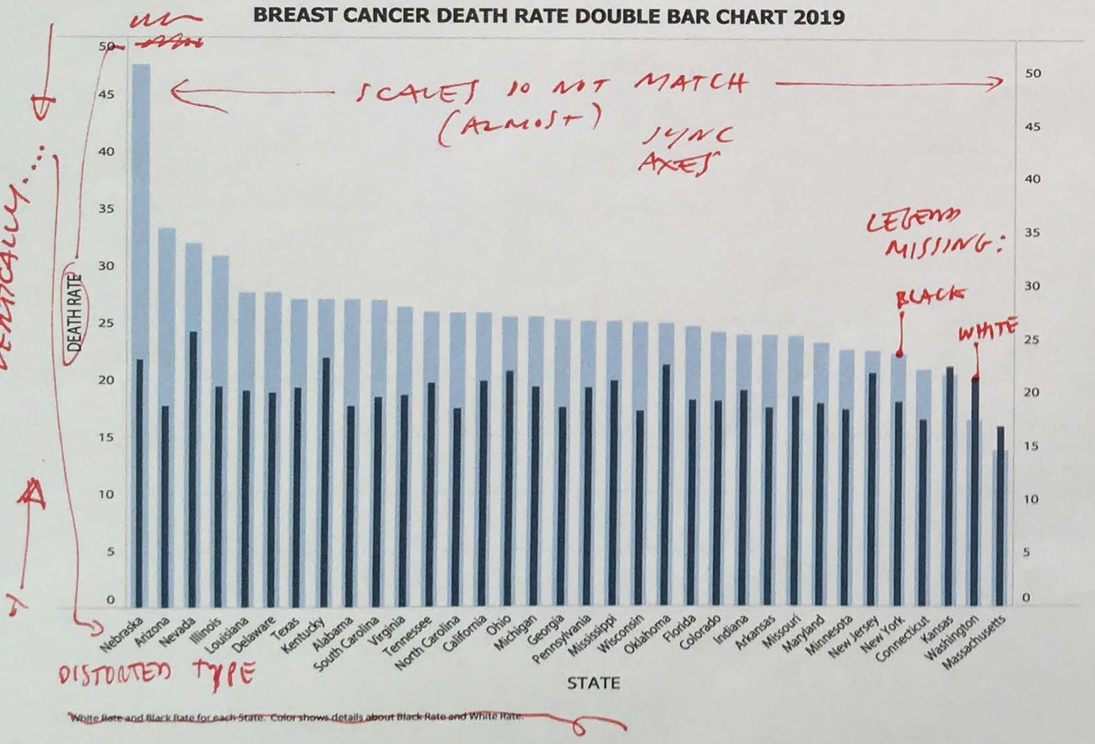


To improve the appearance of graphs overall, I changed all the typeface to the font Helvetica. I alternated from Helvetica Regular and Helvetica Bold. Helvetica Regular was used for the specific data text while Helvetica Bold was used for the graph titles and axes labels.
In line graph Breast Cancer Mortality Rates, a gray background was added to provide contrast. I changed the grid lines to white to further the contrash and put focus on the data.
Scatterplot chart Breast Cancer Mortality Rates by State is on a white backgroud with light gray grid lines. By changing the overall background and the dots to blue, it puts a better focus on the specfic data points.
Finally, bar graph White Female Breast Cancer

98/100 (A)







Graph Descriptions

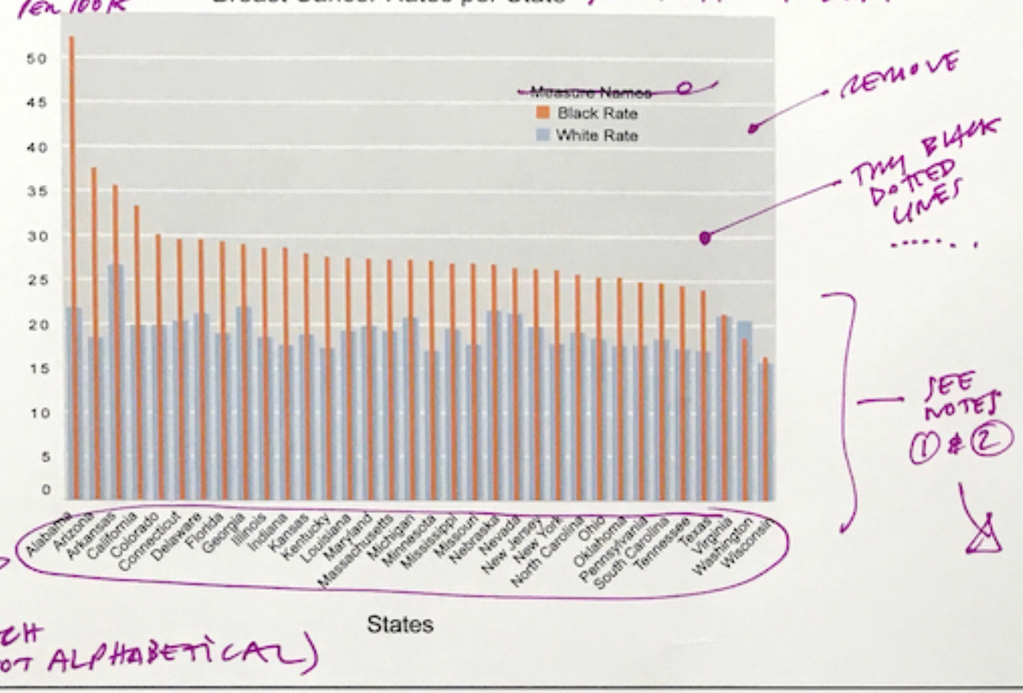
For all of the graphs, the main changes I made included, to first change the two colors to just create one lighter and one darker value of the same hue. (in order for the graph data to be more accessible for people who are colorblind to be able to differentiate between the two data sets, and also so if it was printed in B&W it wouldn't be an issue as well). I also changed the titles, because they didn't describe the actual data's context. The last change I made to all of them was to use the same font for the titles so all three graphs would match, and made sure the font of the labels all matched in a sans serif font.

For the Line Graph, I made the plot line thicker for better legibility, rotated the labels to 45º so they would fit easier, and added labels to each of the "rate"plot lines.

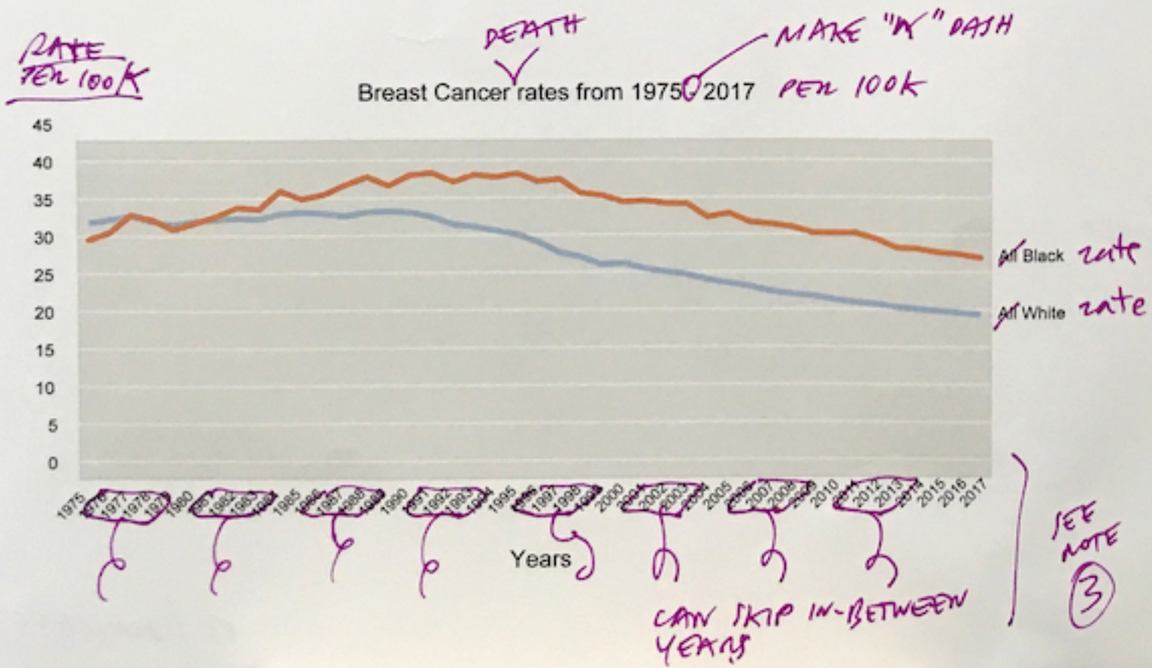
For the Bar Graph, I first switched the thickness of the bars, so that the smaller amounts of the white rate would fit into the larger amounts of data from the Black rates. I also rotated the labels 45º.

For the scatterplot, I first added a grey background so that the data would stand out better, then I made the data dots the same colors as the other data sets. I also had to manually add labels to some of the other data points, because tableau didn't label all of the points.

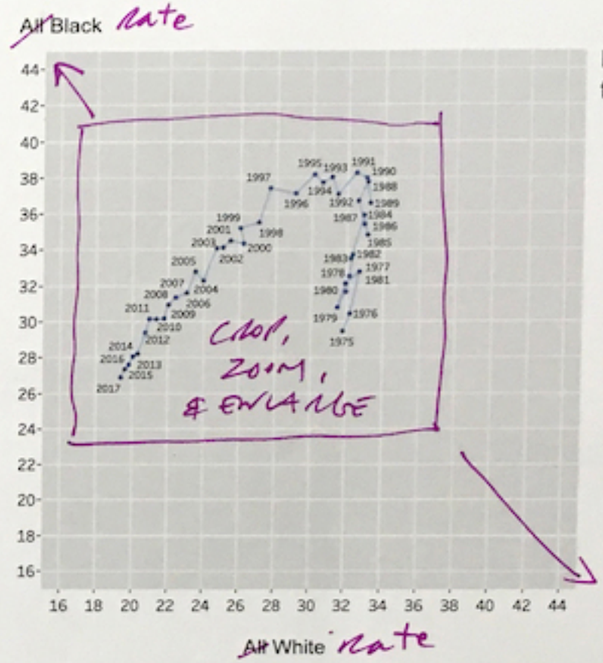
1.Black and White Breast Cancer Rates per State



2.Breast Cancer Rates in the US from 1975 - 2017 per 100k



3.Sum of All Black vs. White Breast Cancer Rates per 100k from 1975 - 2017



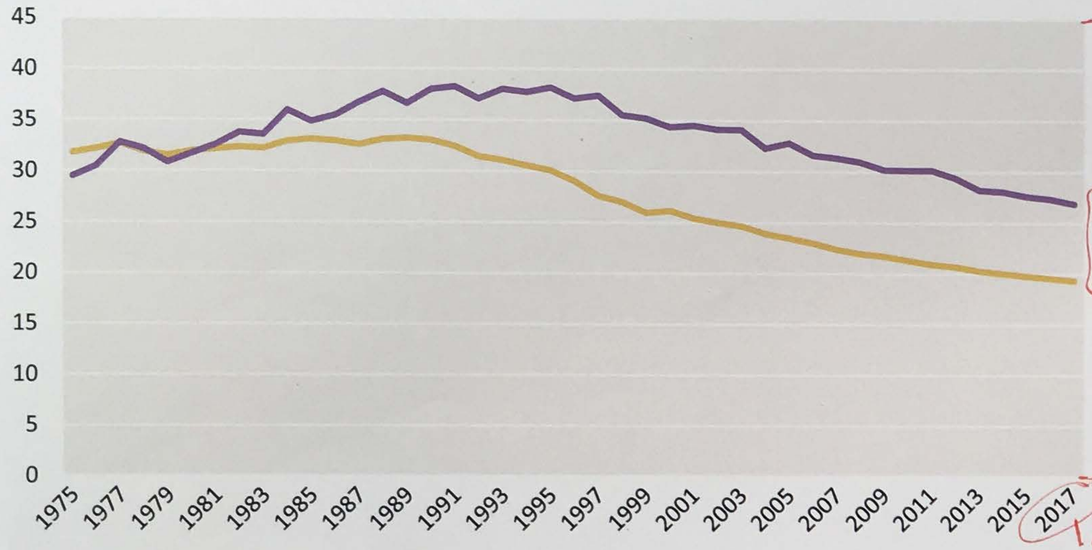
Notes

In the bar chart graph, the X-axis was changed so that the text could sit at a 45° degree angle. The original shortened text on the X-Axis was also swapped to show all the states rather than just a few. The graph was given a light grey background to better emphasize the charts being displayed. The colors of the bar chart were switched to orange and light blue in order to create contrast. Unnecessary or repetitive information was removed to not distract from the content.

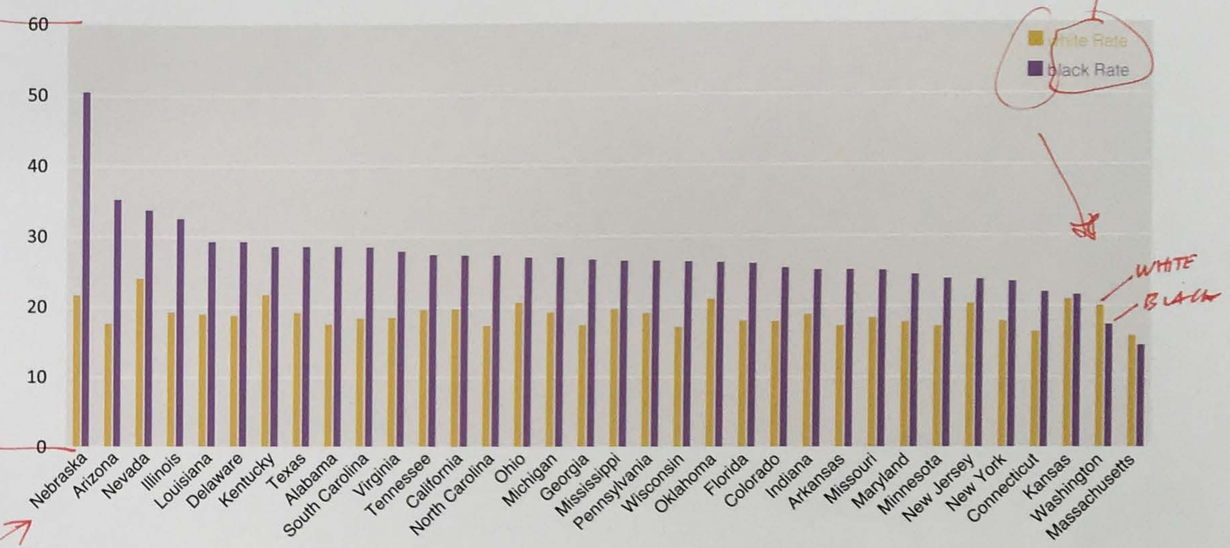
In the scatter plot, the years were moved and spread apart in order for all the years to be properly displayed so that the chart will be easier to read. The label on the Y-axis was moved to ensure that there is no sideways text that can make be hard to read. The chart was given a more concise title that better explained the contents. The connected scatter plot was switched to a lighter color that can be both consistent with the other charts, and make the individual points pop out more. The graph was also given a lighter grey background so that the content can have better contrast.

To reduce unnecessary information, the double line graph's color legend was replaced with text indicating what each line represented. The colors of the lines were also switched to orange and light blue for better contrast and consistency with the other charts. The X-Axis was moved to sit at a 45-degree angle and the content was changed to ensure that all the years were displayed instead of just a few. The graph was given a shortened title that better explained the graph. A light grey background was placed to create better contrast.

Breast Cancer death rate of
Black and White women in the US from 1975 to 2017



Breast cancer death rate of
Black and White Women from States in 2019



Graphs Descriptions and Analysis

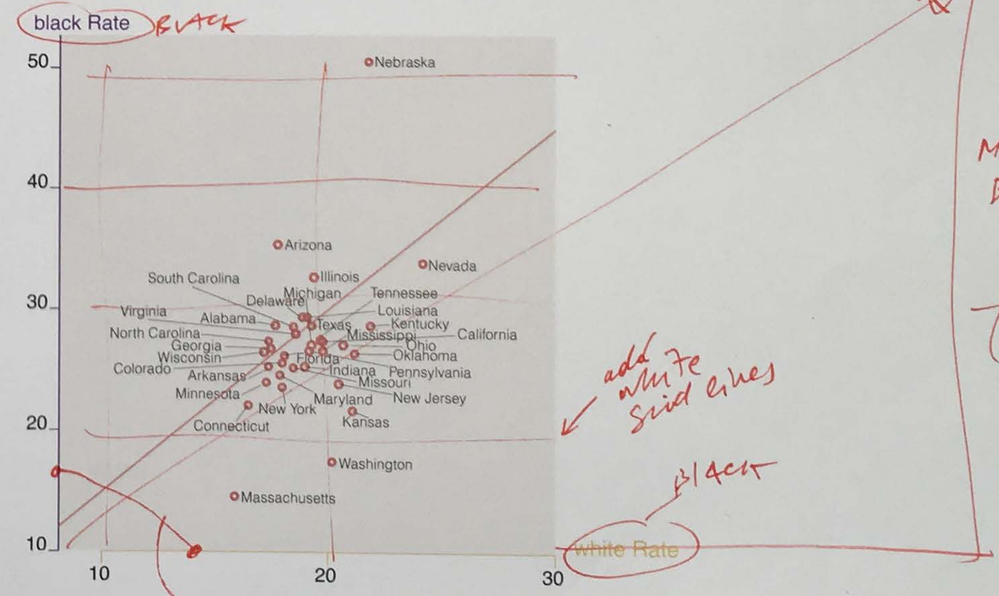
The line chart compares the death rate of black and white women in the US from 1975 to 2017. This is a powerful graph that shows the death rate gap between black women and white women has increased significantly since the early 1980s.

The double bar chart of the death rate of black and white women in each State in 2019 continues to show the pattern of the gap in the death rate between black and white women due to breast cancer. The graph shows that in most states, the death rate of black women is compellingly higher than white women (about one third higher,) especially in Nebraska, the death rate of black women is more than double the death rate of white women in the same state. Only in Washington and Massachusetts where the death rate of black women is slightly lower than the death rate of white women.

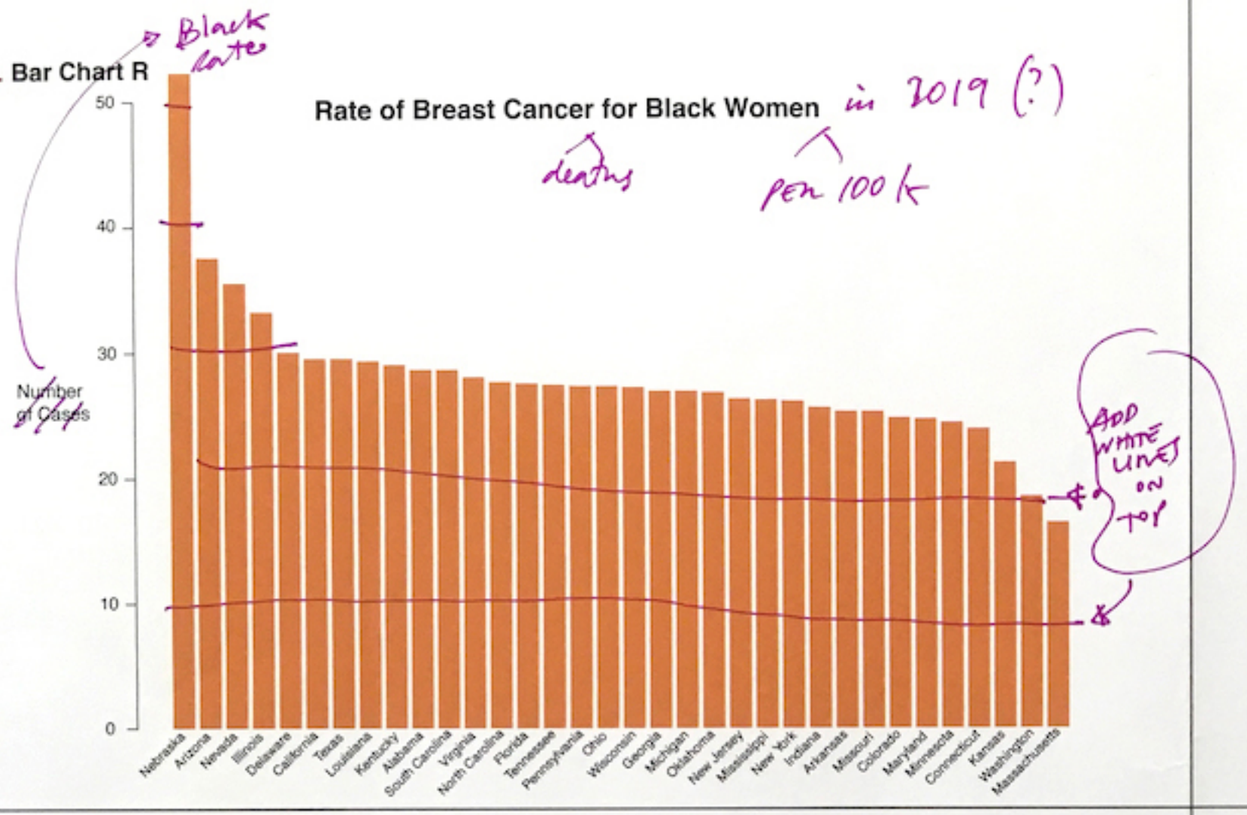
With the same data in 2019, the scatterplot graph of the breast cancer death rate of black and white women from each State is represented with a trend line. This is a dynamic graph that shows the significantly higher death rate of black women in which the value of the y-axis goes up to 50 whereas the value of the x-axis that represents the white rate is about less than 25. On the graph, the dots cluster around (20, 30). This shows that the death rate trend for the white rate is about 20 while the death rate for black is around 30, accordingly. This once again shows that the death rate for black is ~~one third~~ higher compared to the white rate.

Overall, each graph is a powerful statement as well as strong evidence to show the gap in breast cancer death rate between black and white women has become bigger over the 40years. The graphs also show a pattern, a trend that the death rate of black women is approximately one-third higher than the white rate throughout states in the US. This strong evidence raises the question of why such a gap and trend happens between the two races.

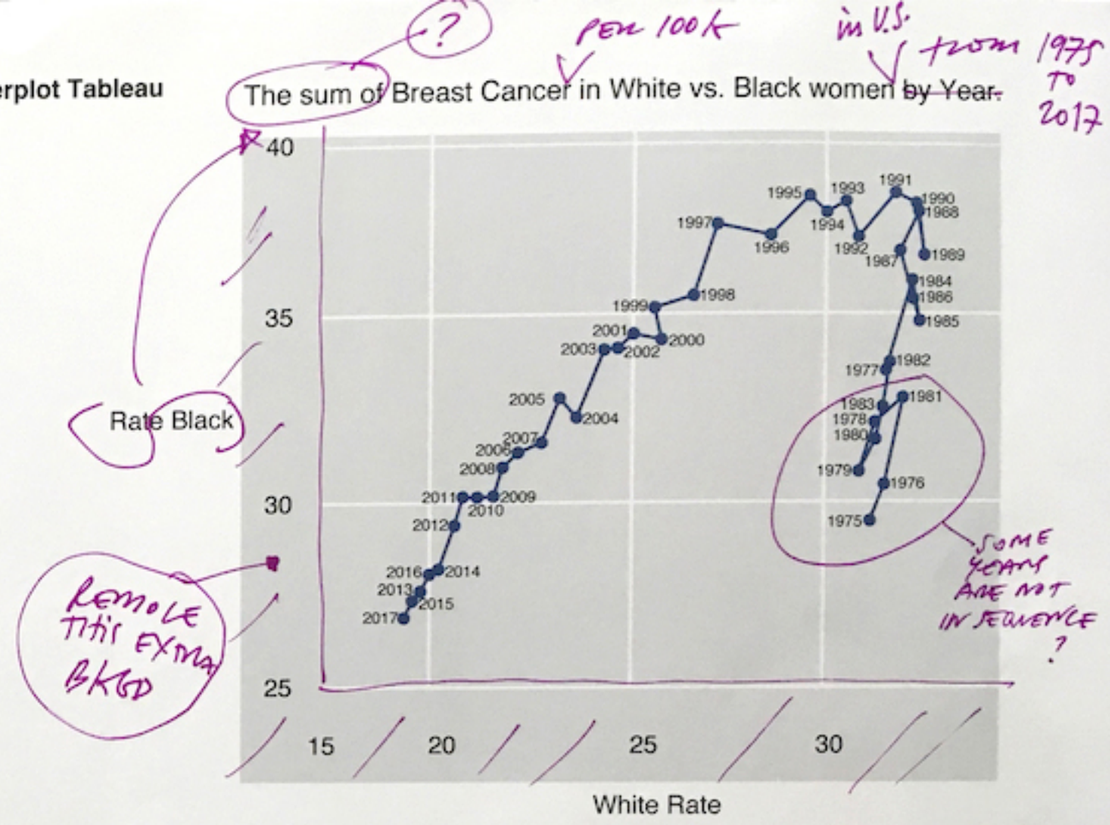
Scatterplot graph of Breast Cancer Death Rate of
Black And White Women from States in 2019



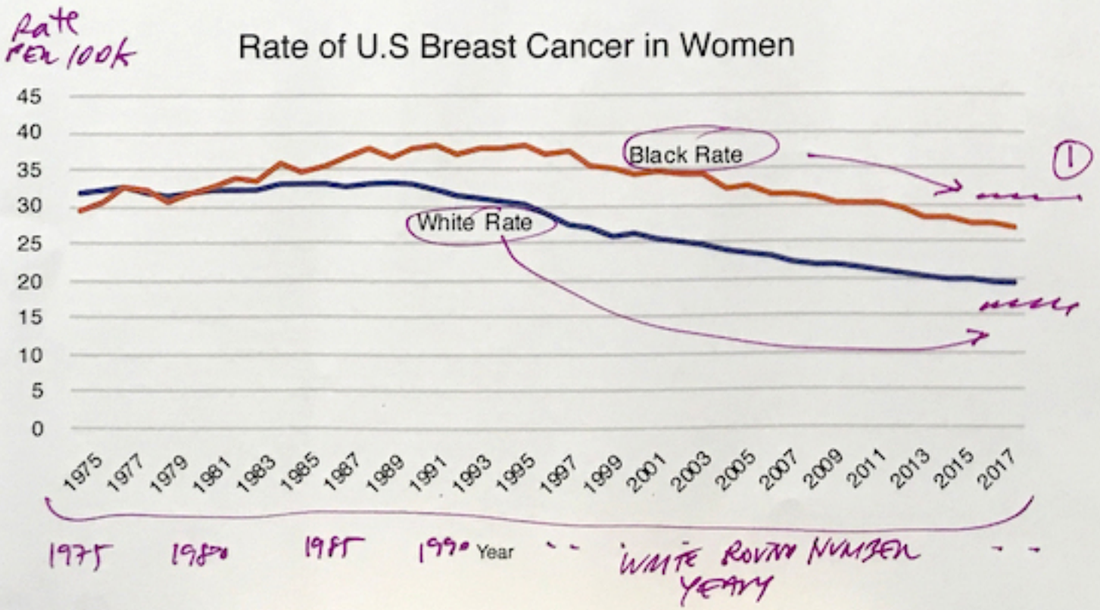
1. Bar Chart R



3.Scatterplot Tableau



2. Double Line Graph Excel



Notes:

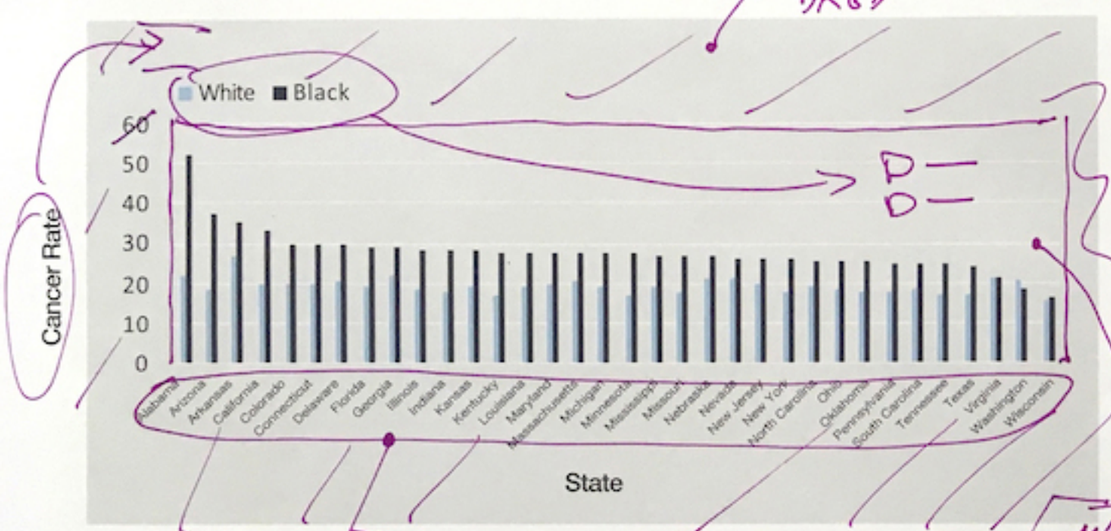
I applied the typeface "Helvetica" all around, which is a widely recongnizable and easy to read typeface. I also chose one graph from each software we used throughtout this project; R, Tablaeu, and Excel. And the smallest type point size you'll see is 6.5pt.

In the first graph- Bar Chart R: I changed the typeface to:Helvetica. And changed the bar color to match the same orange you see in graph 2. The orange indicates Black Women Data.

In the second graph- Double Line Graph Excel: I rotated the left horizontal x- axis numbers to display vertically.

I also got rid of the color legend at the bottom and added "White Rate" and "Black Rate" with arrows pointing to which line they correspond to.
In the third graph- Connected Scatterplot Tableau: I moved and downsized the size of the years to better match the dots on the line. I also made the grid line color white and added a light opacity black background.

1. Comparison of Black and White cancer rate for each state in the US. IN 2019.



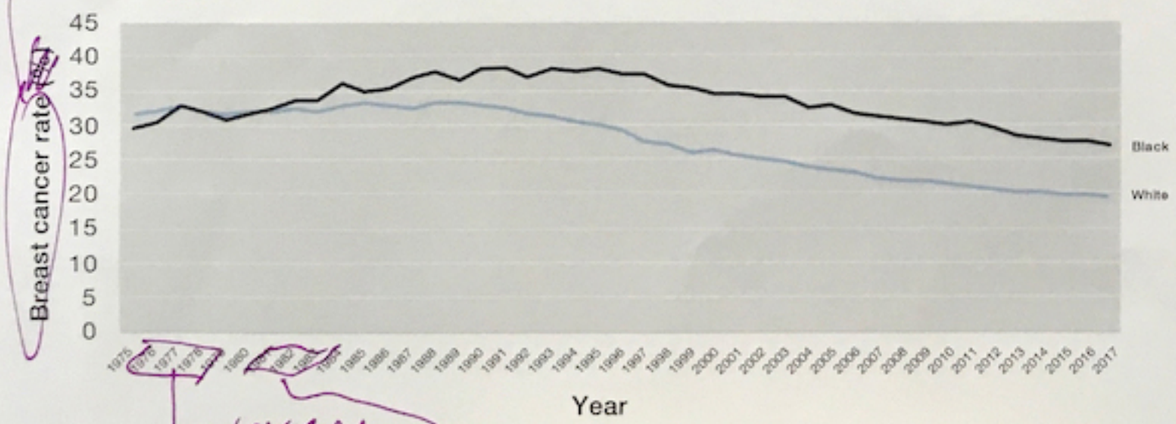
REMOVE EXTRA BKGD

D=
D=

LABELS ARE INCORRECT THEY MUST MATCH THE SORTING OF DATE (NOW THEY ARE ALPHABETICAL)

MAKE LINES SAME COLOR OF BKGD AND PLACE ON TOP OF BARS

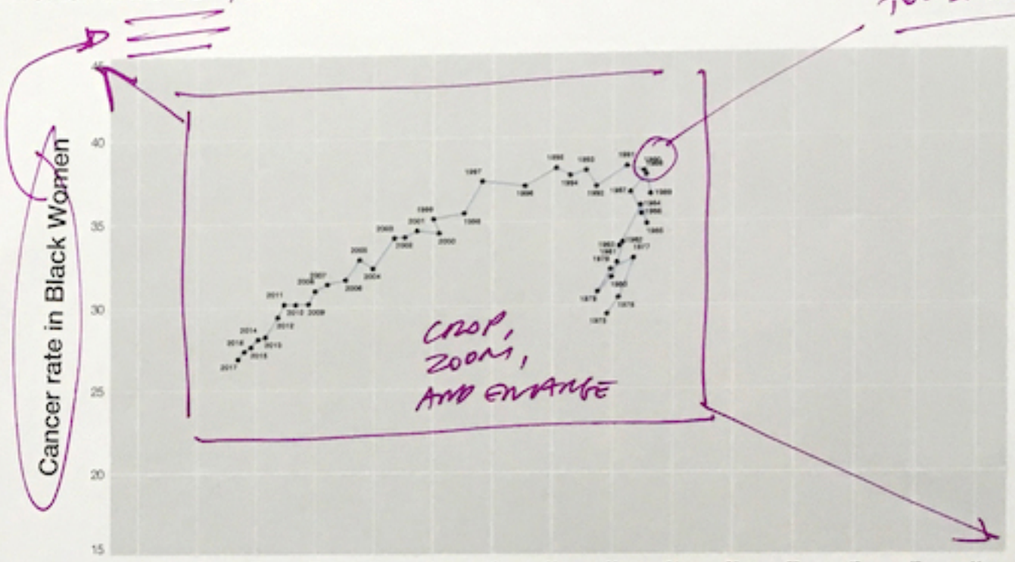
2. Cancer rate per 100k in the US between Black and White women in the US from 1975 to 2017



PER 100K

CAN SKIP AN IN-BETWEEN YEARS

3. Yearly cancer rates of Black and White women in the US (PER 100K) FROM 1975 TO 2017



TOO SMALL!

CROP, ZOOM, AND ENLARGE

Notes:

The bar graph shows that in every state except Washington, the cancer rate is higher in Black women than White women. Where the difference is most apparent are largerly rural states. The connected scatterplot further reveals that though though cancer rate between both groups would eventually lower. Cancer rate in Black women increased more often.

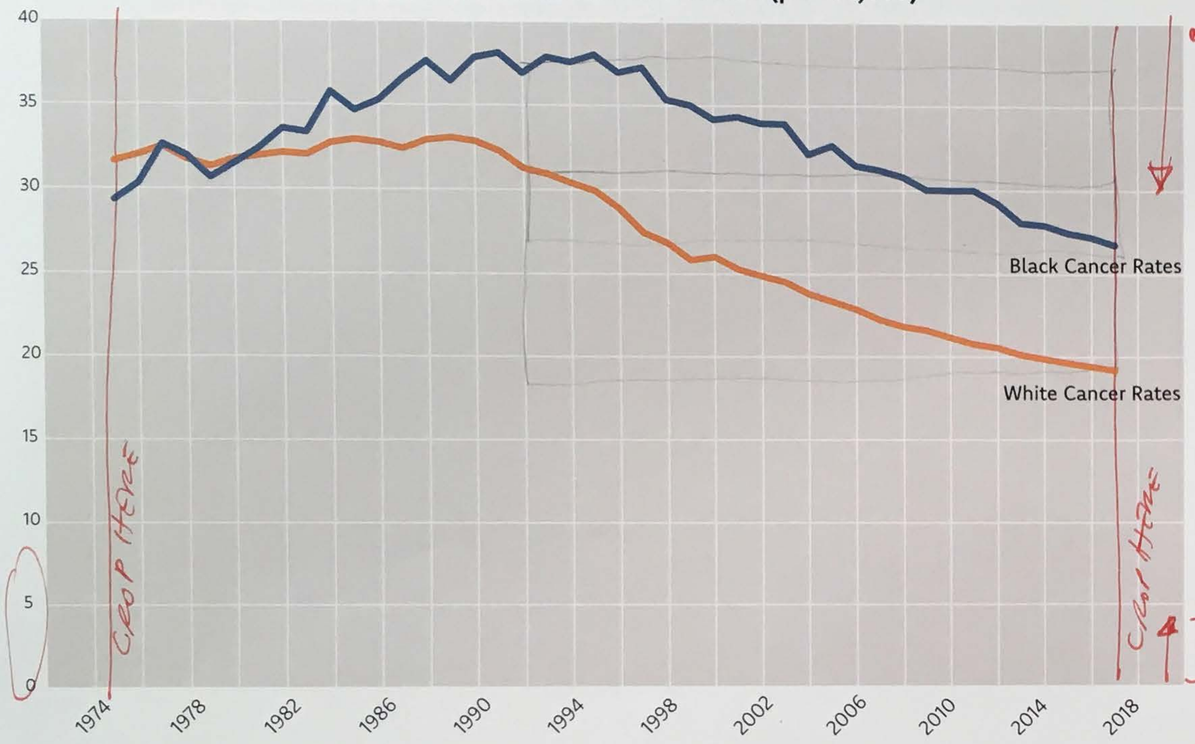
The second line graph indicates that cancer rate rose gradually from 1979 to 1990 by 3%. Onward, the overall cancer rate decreased significantly. Going from ~~35%~~ in 1995, to ~~20%~~ in 2017. Though cancer rate between white and black women were similar from 1975 to around 1981; The cancer rate in Black women steadily rose in comparison to White women. Showing about a 7% difference by 2017.

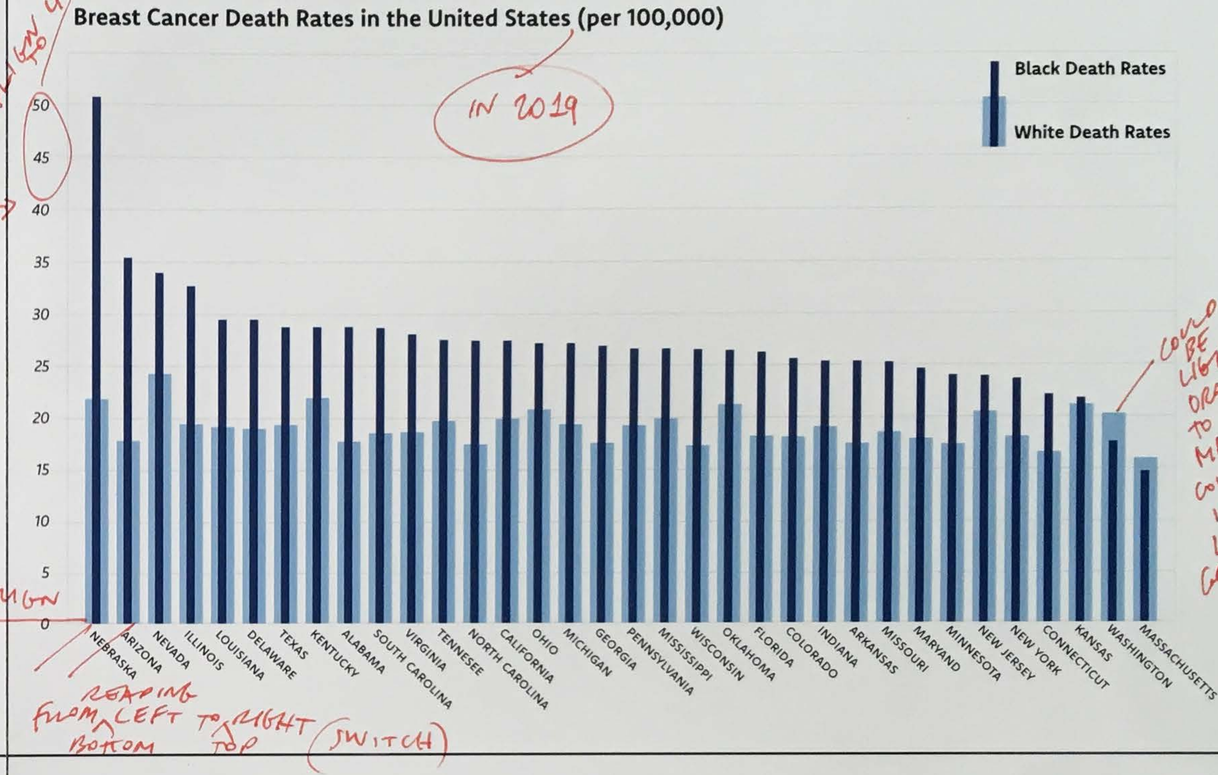
It's likely in these areas, the pesticides from farms and pollution from factories could be the culprit to the difference in cancer rates. It's been known that poverty is associated to worse cancer outcomes. These states are also where poverty and wage inequality is prevalent.

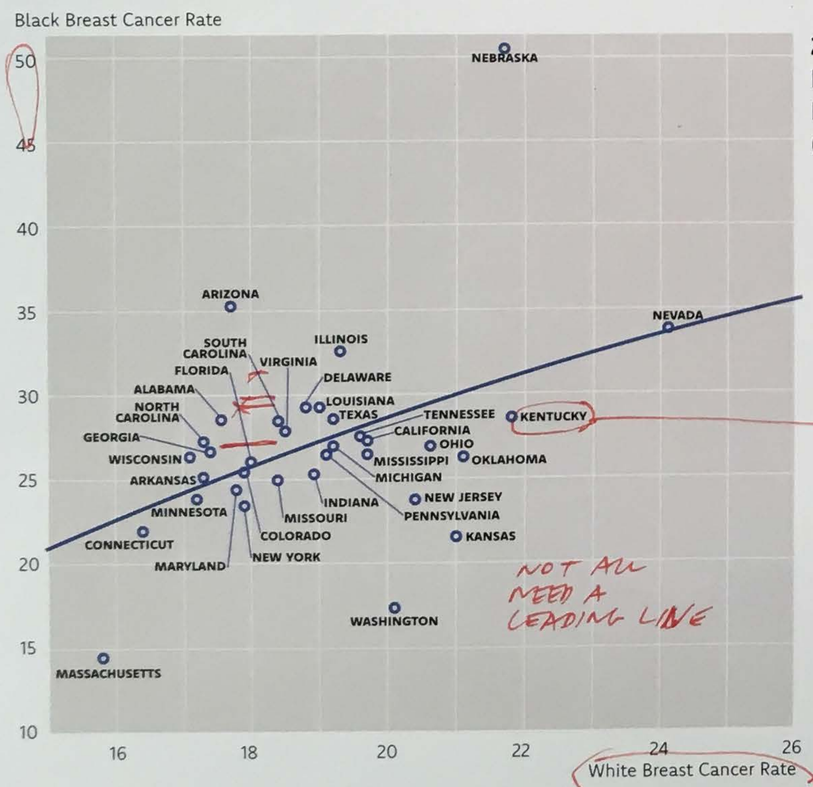
NOT PERCENTAGES (IN THE STRICT SENSE) RATE PER 100K
ex: 20/100K (0.0002 PERCENT)

95/100

A+







2019 White vs Black Breast Cancer Death Rates by U.S. State (per 100,000)

The first graph shows the Black and White breast cancer death rates from 1975 to 2017. The only years when the breast cancer death rates in the United States have been lower for Black Americans then for White Americans are 1975, 1976, 1979, and 1980. Since about 1992, the rates for all groups have been declining, with the rates for White Americans declining faster than the rates for Black Americans. (CORRECT?)

In the second graph we see the breast cancer death rates in the United States for each individual state in 2019. Black Nebraskans have an abnormally high breast cancer death rate at just above 50 per 100,000. Washington and Massachusetts are the only states where the breast cancer death rate for White residents is higher than the rate for Black residents

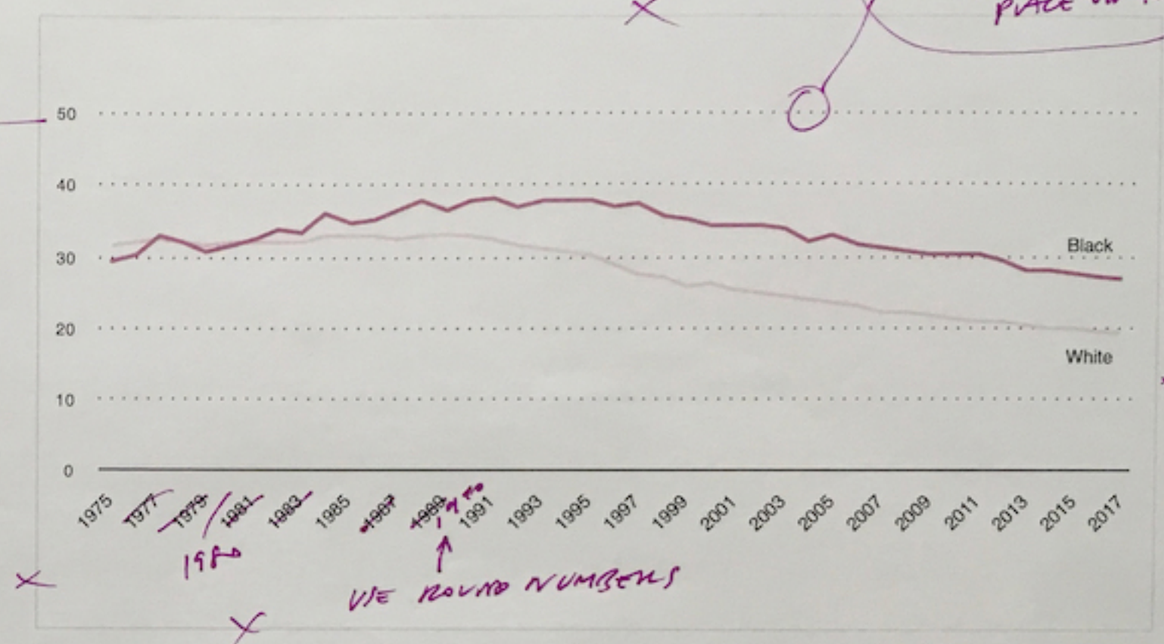
The final graph shows the breast cancer rates for White Americans plotted against the rates for Black Americans. The main outliers of the data set are Nebraska, Massachusetts and Washington, with Nebraska being the largest outlier. The trend line for this graph shows that the average breast cancer death rate for Black Americans is roughly 140% higher than the death rate for White Americans.

2 (40%)

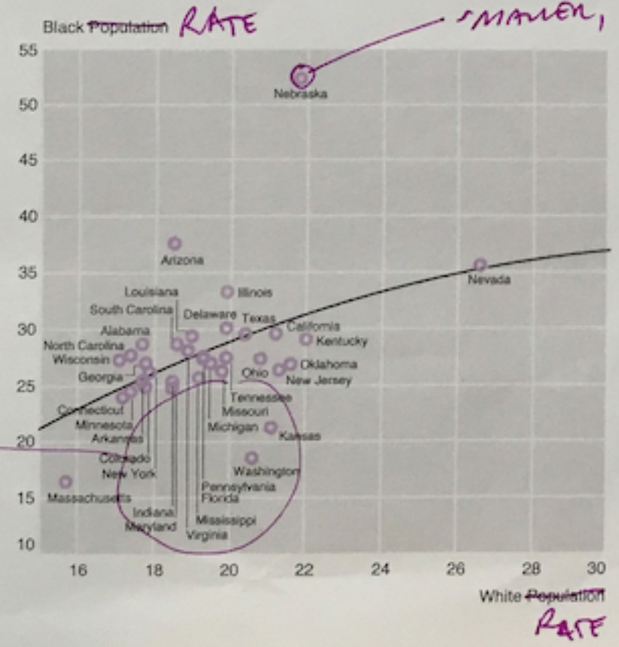
145/150 (A)

1. Rate of Female Breast Cancer Deaths in the United States (2019)
All Ages, Black and White Population (per 100,000 women)

3. Female Breast Cancer (1975-2017)
U.S. Death Rates by Year and Race



2. Rate of Female Breast Cancer Deaths in the United States (2019)
All Ages, Black and White Population (per 100,000 women)



Notes:

To improve the raw graphs, I decided to change the system-given colors to colors that are less saturated and therefore easier to read. The titles and labels from each graph had to be rewritten to be more explicit, because we simplified them in our raw datasets. I also had to adjust the type in terms of readability in all graphs. In order to do that I had to make the type larger, optimize the spacing in the 45 degree placed type and make it a 100% black. As recommended, I changed the font to Helvetica in all graphs.

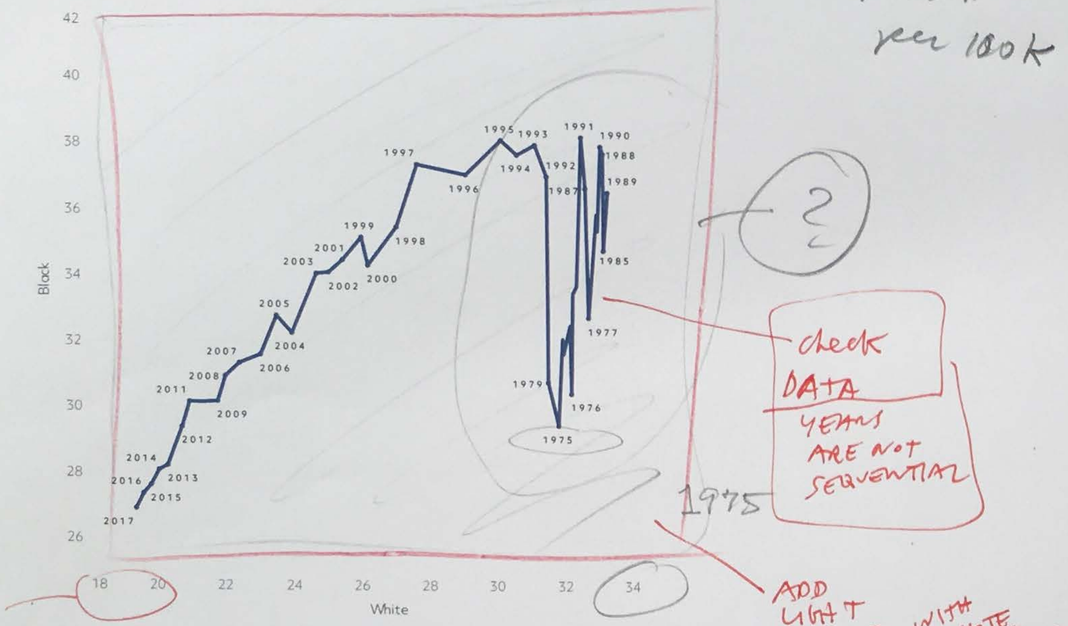
For the first and third graph, I aligned the y-axis and equalized the values to maintain a consistent appearance. In the first graph, I also had to correct the spacing between each column and used white grid lines above the columns.

In the third graph, I replaced the legend to be directly on the graph, right next to each line, so you can immediately see which line belongs to which race when you look at the graph. I decided to use black dots for the grid in this line graph.

For the second graph, I also improved the readability by enlarging the circles of each state and changing their color. I replaced the white background of the graph to a gray background with white grid lines. Type that was vertically aligned was changed to horizontal alignment. The hardest part here was to assign each state to each dot. At parts where the dots get too crowded, I used additional lines to clarify which state belongs to which dot.

US

1. Black Womens Rate of Breast Cancer vs White Womens Rate of Breast Cancer
1975-2017



~~Rate~~ per 100k

?

check DATA
YEARS ARE NOT SEQUENTIAL

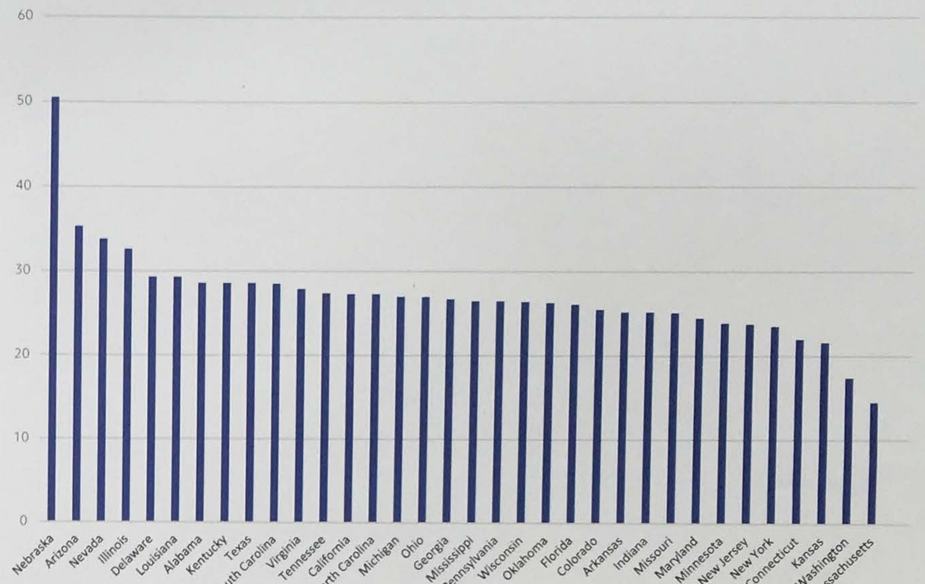
1975

ADD LIGHT BKGD WITH WHITE GRID LINES

NO GRAY TYPE

3. Black Females Rate of Breast Cancer in the USA
By State

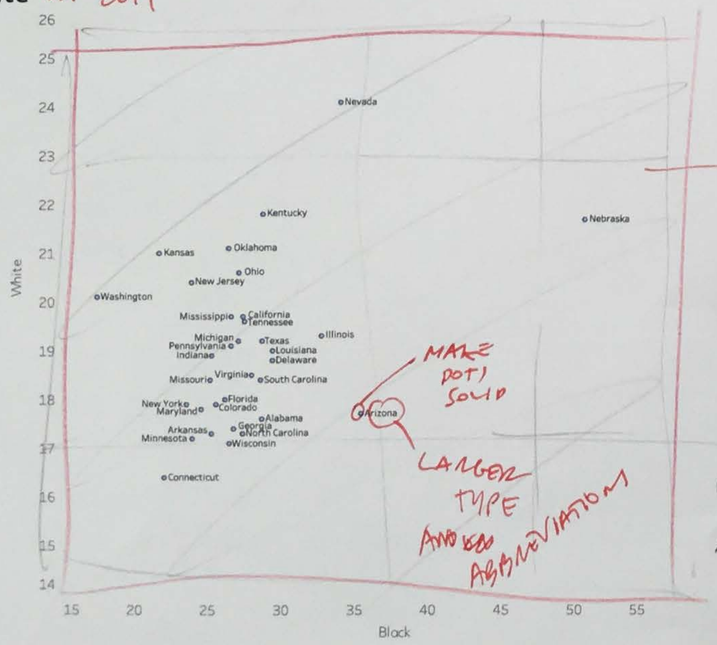
per 100k IN 2019



vs White

2. ~~Black Womens Rate of Breast Cancer vs. White Womens rate of Breast Cancer~~
By State in 2019

per 100k



add BKGD & WHITE GRID LINES

AVOID

↳ Symbol

↳ circle

MAKE DOT SOLID

LARGER TYPE AND LESS ABBREVIATIONS

TL

Az

Notes:

This exercise I've tried to clean up my graphs in Illustrator.

The first correction to my process was uncheck-ing the "links" box when placing the PDF's into Illustrator. This solved most of my issues and enabled me to edit my format.

I had some issues with Graph 2 when checking the document with "ctrl Y". The trend curve would show up as an image instead of PDF, and blocked access to most of the state labels. I could not figure out how to solve this, but I did what I could to the surrounding areas.

After my first iteration I had to make corrections to all of my graphs, as I had made an error on my datasets. Once I came up with the graphs containing the correct data I went back and cleaned them up once again.

PS. Based on feedback I got in class I ended up generating Graph 2 without the trend curve, as this was the only way to solve the image issue.

let's fix this together if you want.

06

136/150 B+

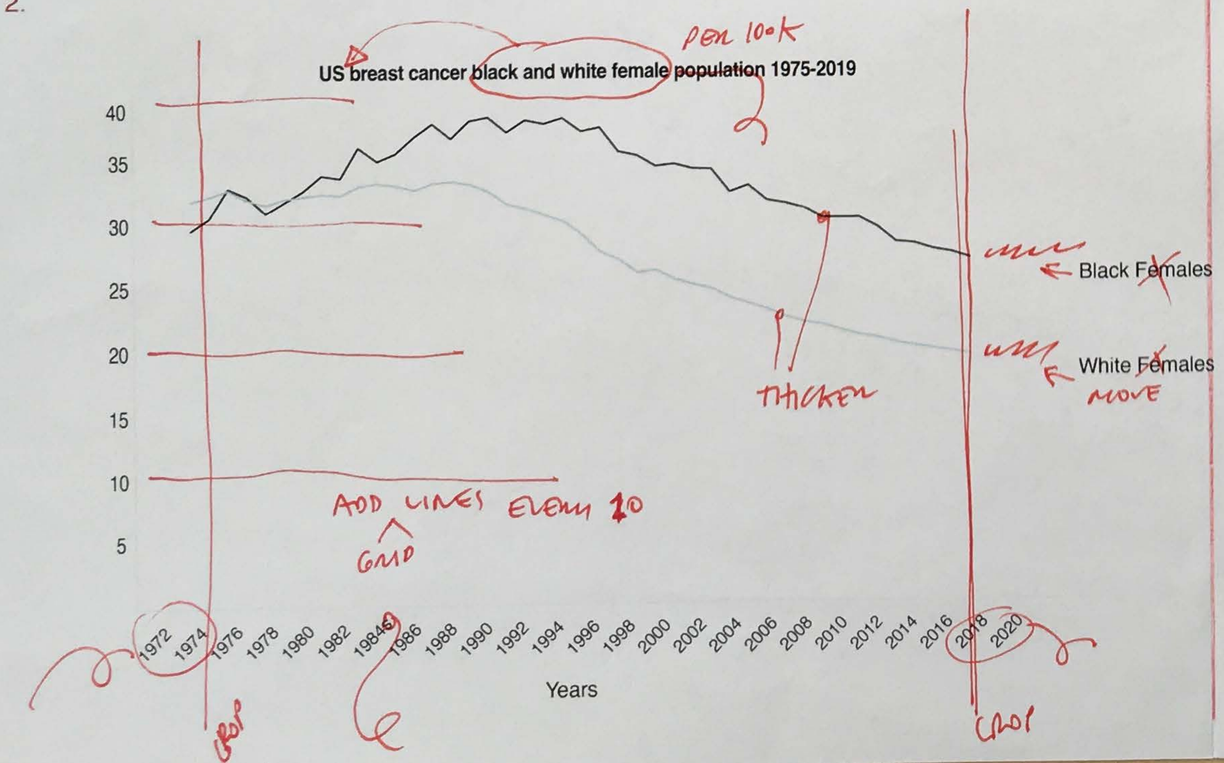
1.


Breast cancer mortality rate per 100K / black female population 2019
60
50
40
30
20
10
Nevada
Kentucky
Nebraska
Oklahoma
Kansas
Ohio
New Jersey
Washington
California
Mississippi
Tennessee
Illinois
Texas
Michigan
Pennsylvania
Louisiana
Indiana
Delaware
Virginia
South Carolina
Missouri
Florida
Colorado
New York
Maryland
Arizona
Alabama
Georgia
North Carolina
Arkansas
Minnesota
Wisconsin
Connecticut

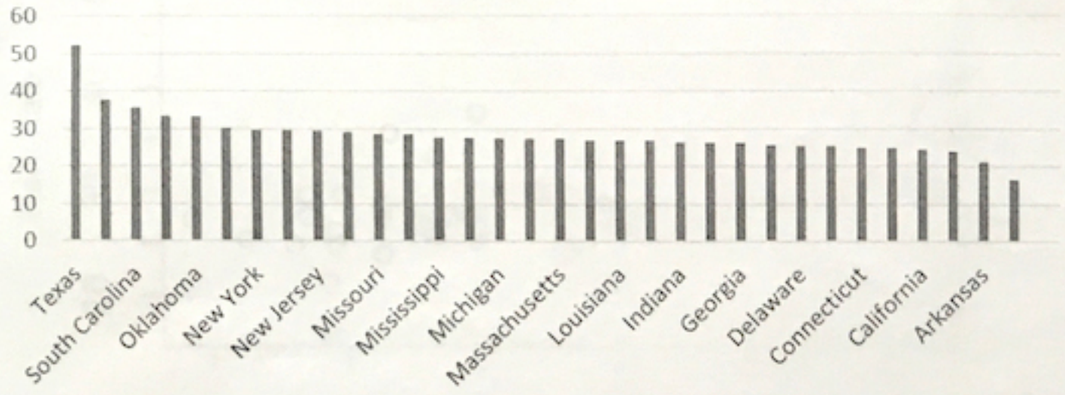
3.


Breast cancer mortality rate per 100K by US States in 2019
Black Rate
White Rate
50
45
40
35
30
25
20
15
10
15
16
17
18
19
20
21
22
23
24
25
26
Nebraska
Arizona
Illinois
Nevada
Delaware
Louisina
Alabama
South Carolina
Michigan
Virginia
California
Kentucky
North Carolina
Georgia
Texas
Tennessee
Ohio
Wisconsin
Colorado
Florida
Pennsylvania
Mississppi
Arkansas
Indiana
Oklahoma
Maryland
Missouri
Minnesota
New York
New Jersey
Connecticut
Kansas
Washington
Massachusetts

2.


US breast cancer black and white female population 1975-2019
40
35
30
25
20
15
10
5
Black Females
White Females
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
Years

1. Black Rate for Breast Cancer Deaths



2. Black & White Rate for Breast Cancer Deaths

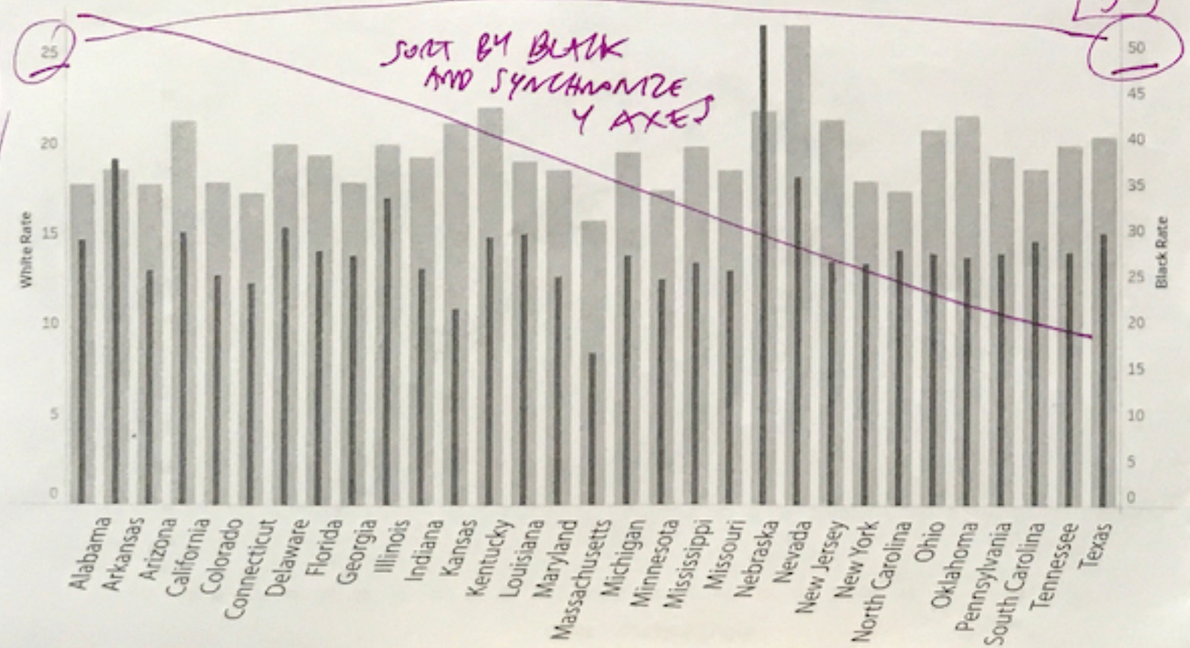
NO 3D EFFECTS

TOP: 50

3. Black & White Rate for Breast Cancer Deaths

TOP: 50

SORT BY BLACK AND SYNCHRONIZE Y AXES



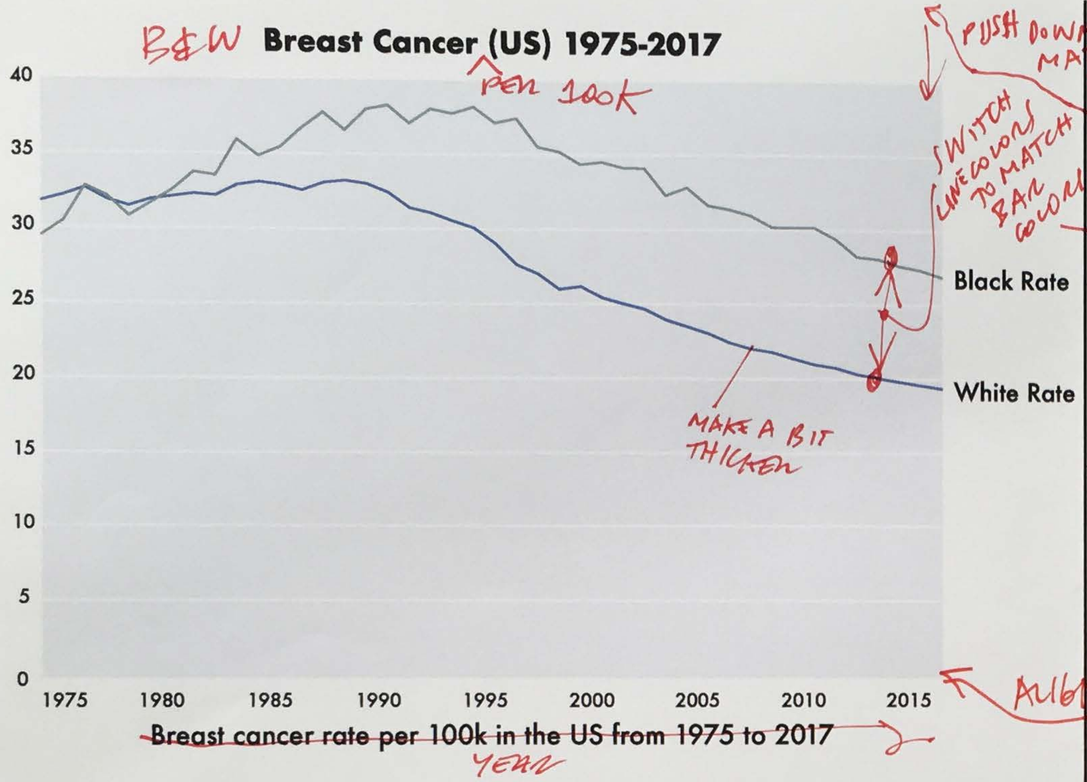
A graph was doubled by accident so I updated that on the final graphs. The names of the state were also placed a 45 degree angle as well, and not straight. I moved the graphs around based on their axis so it was more cohesive. Lastly I added in the title for each graph, so that it was labeled.

PLEASE SUBMIT JUST ONE PAGE WITH 3 REFINED GRAPHS (THESE ARE STILL (MOSTLY) RAW) PRINT IN COLOR.

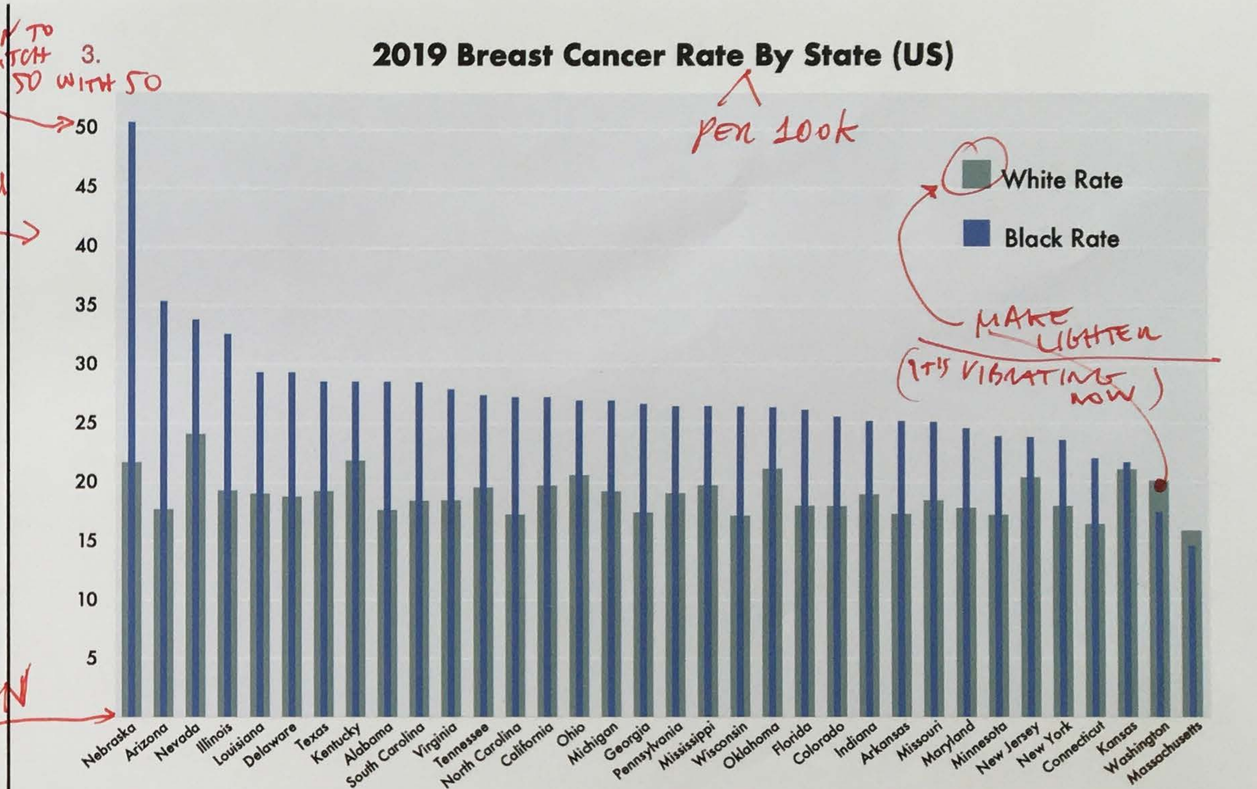
RESUBMIT FOR PAPER GRADING

78/100 C+

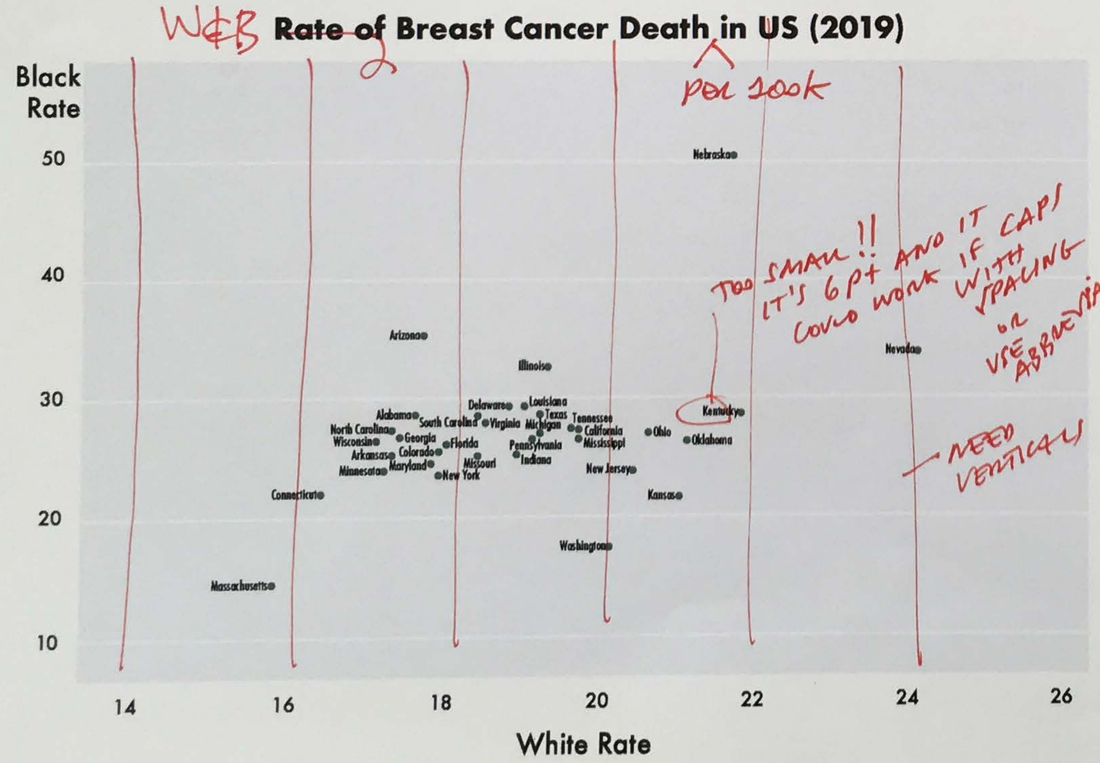
1.



3.



2.



The challenge for this assignment was to clean up the graphs and adjust any text that needed to be included. For the bars, lines, and dots my decision was to use cool colors like blue and green. I felt that blues and greens allowed for the eyes to rest and able to read the information. The darker blue contrasted very well agains the paler green on the double bar graph. A light blue background was also used to bring out the line which were white. The light blue was good enough to bring out the white lines but not overpowering behind the rest of the information.

For the text I experimented with different san-serif typefaces and decided to use Futura because of its geometric elements. It also contained various font styles that were helpful when developing the information hiearchy. Overall I used the medium and bold font styles for most of the text.

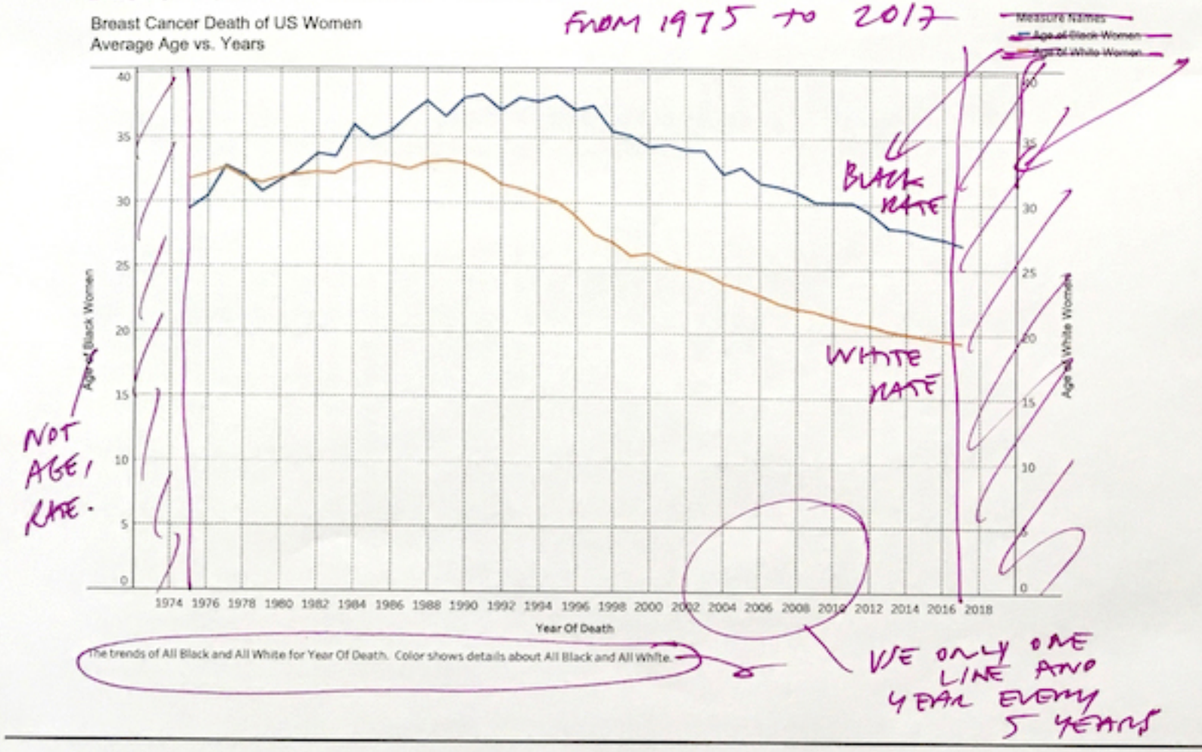
ACTUALLY NOT, IF YOU SQUINT YOUR EYES THEY BLUR TOGETHER (BRIGHTNESS VALUE IS ALMOST THE SAME — HENCE NO CONTRAST — OF COURSE ON THE COMPUTER IT MIGHT HAVE LOOKED OK.)

BETTER IF TYPE IS MORE ANONYMOUS.

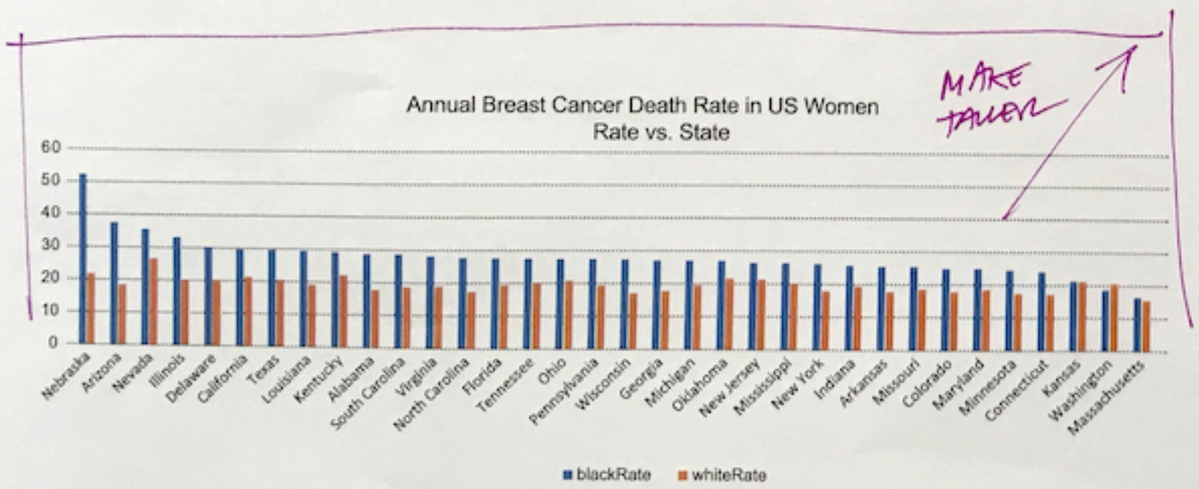
IT'S STILL TOO THICK

142/150 (A-)

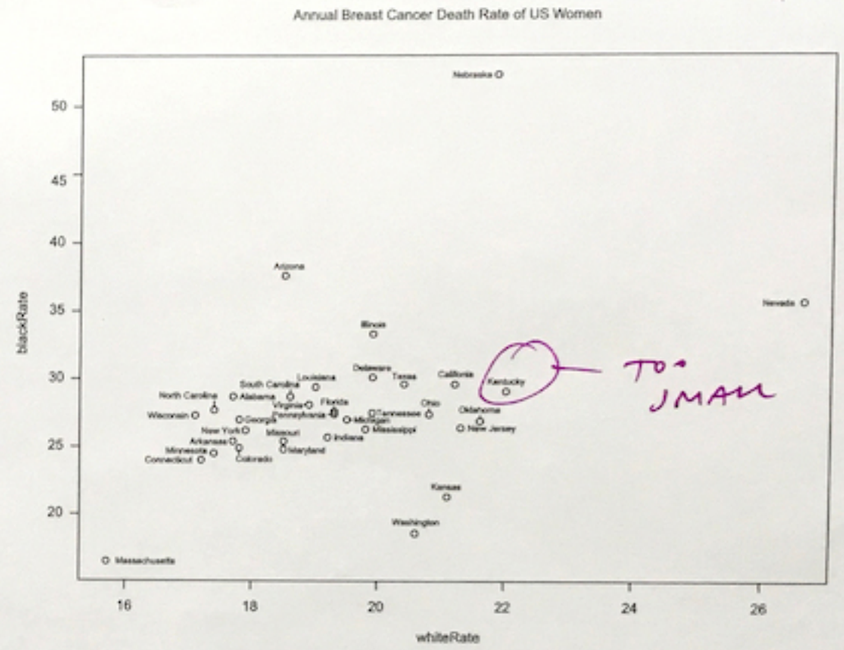
1. ~~Average Age of~~ Breast Cancer Death in US Women



2. Annual Breast Cancer Death of US Women (Rate per 100k vs. State)



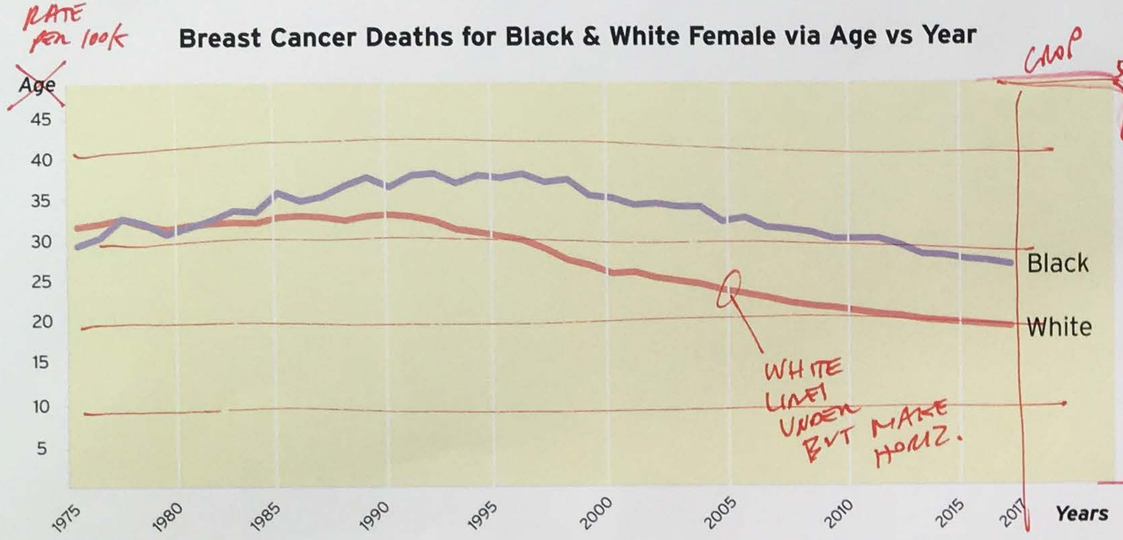
3. Annual Breast Cancer Death of US Women



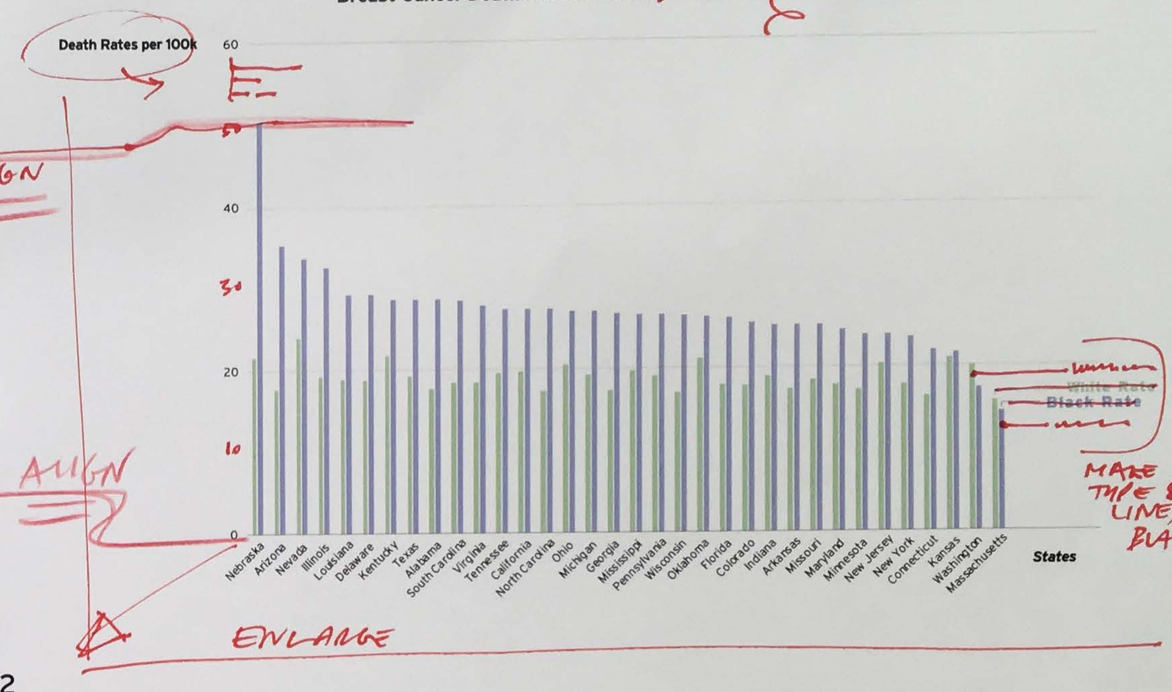
Notes:

X, y, z ...

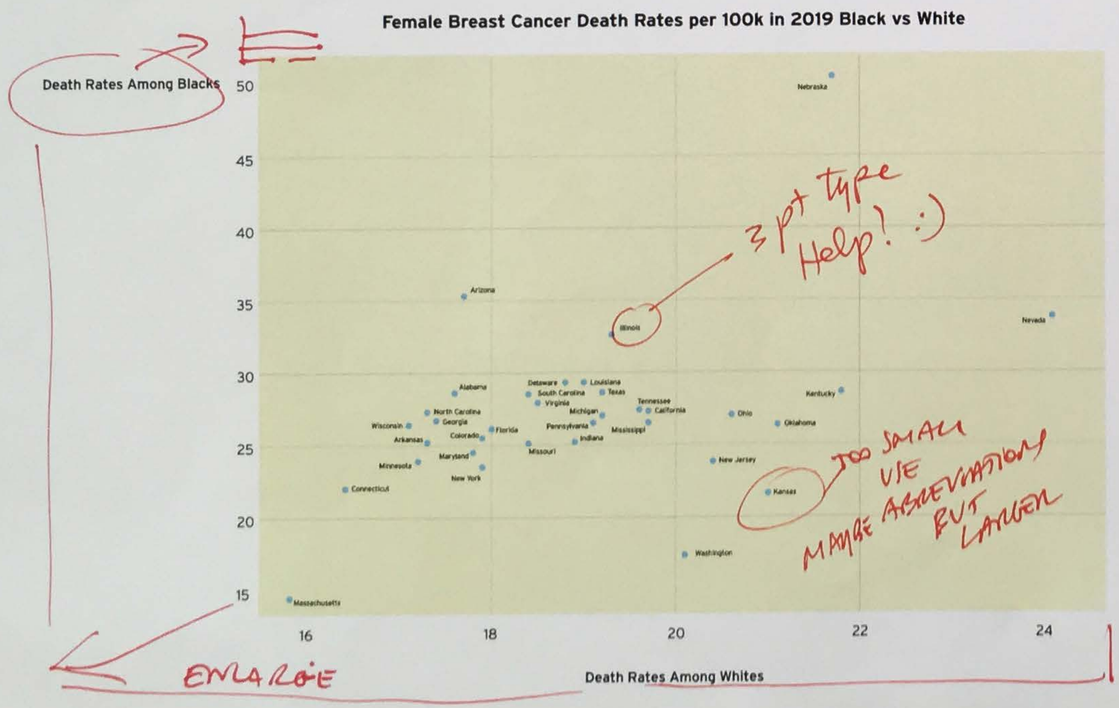
1



2



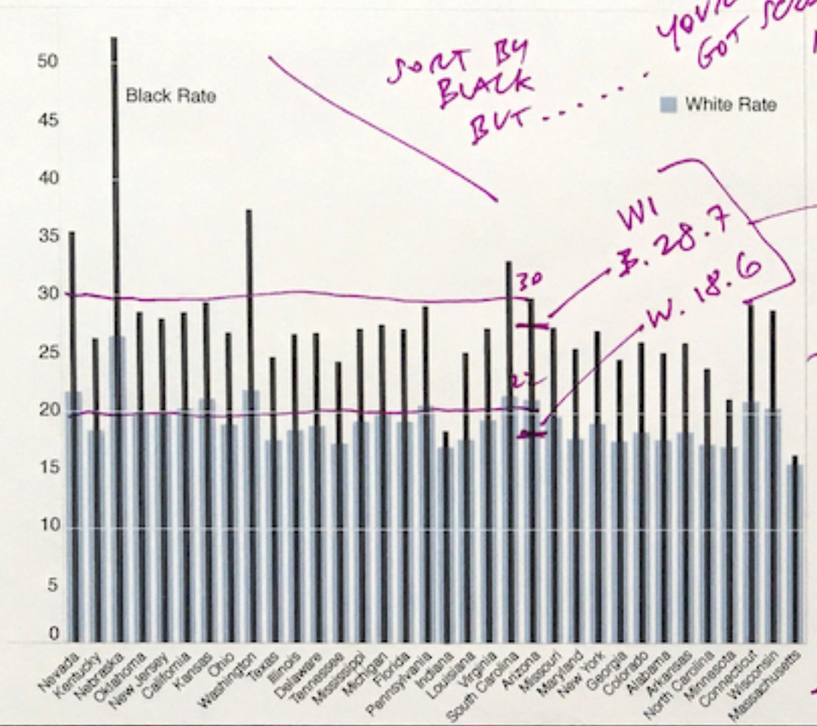
3



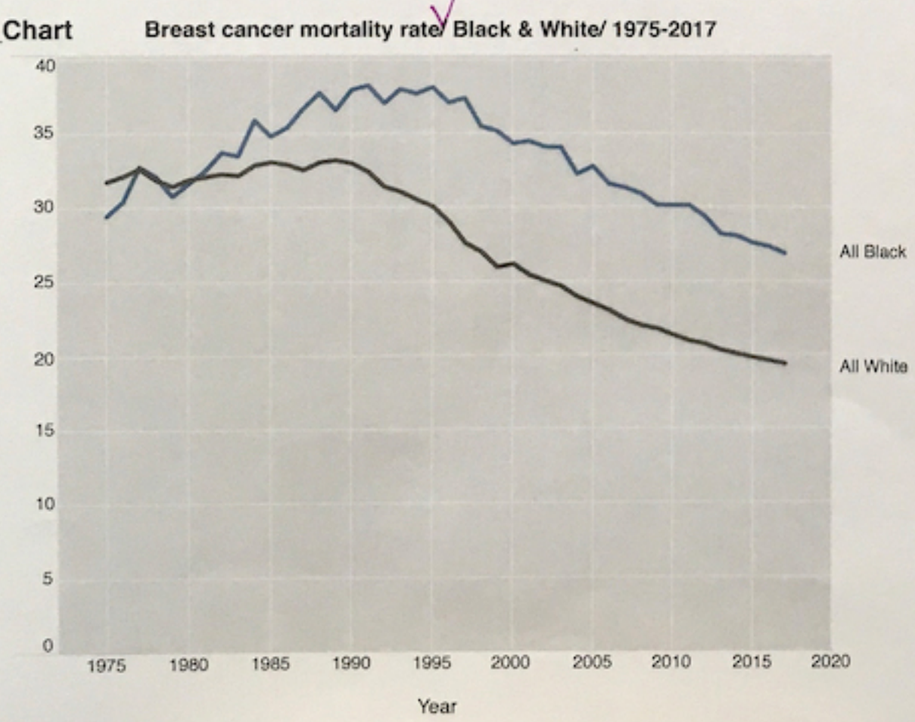
4

This project analyzes the correlation between breast cancer deaths amongst white and black women across the United States. The design implemented throughout the different graph curates towards the emotion of calmness. By using gentle colors through the graph it suggests that breast cancer death rates decreases as technology gets better. The usage of mellow yellow as a background acts as an transitional background which allows the users to read the graph better without fatiguing their eyes. White lines were added in the line graph to accurately guide readers to correct numbers, while a faint grey line was added to the scatter plot to provide users a better experience for analysis. Blue dots were chosen to represent states to have a "pop" effect while still keeping the eyes at ease. The the bar chart a combination of purple and green was used to exhibit both the Black and White demographics. Those specific colors were chosen additionally ease the eyes while viewing as well as minimize the vibration of the bar chart. Lastly, the typeface Interstate was used throughout to signally that the graphs are infographics for future use plastered near a well lit area for viewing.

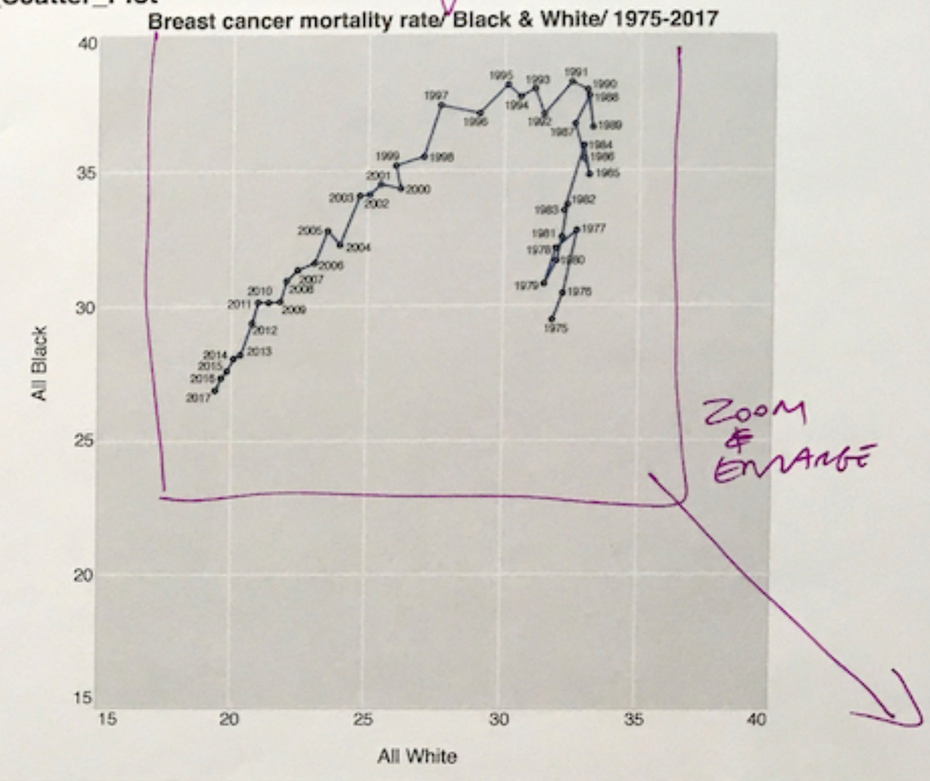
1. Double_Bar_Chart



2.Double_Line_Chart



3.Connected_Scatter_Plot

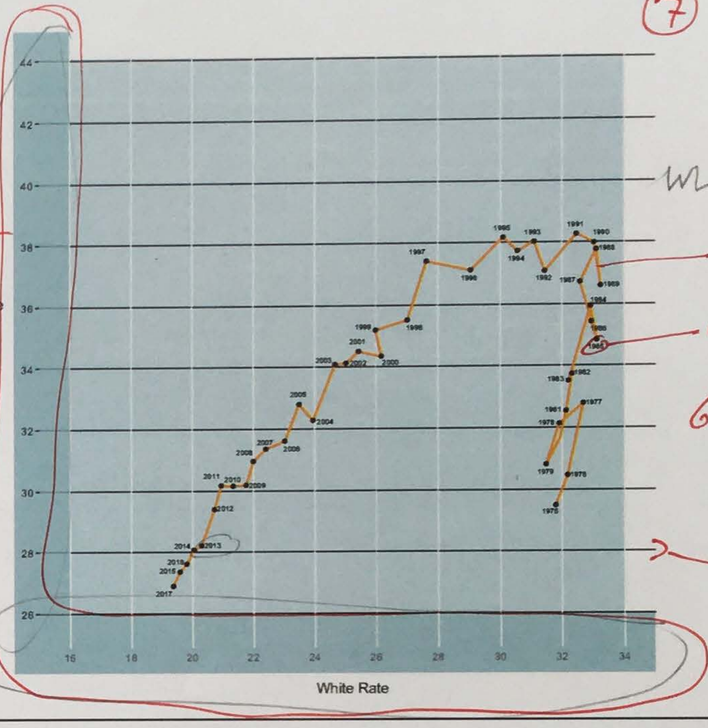


Notes: (MOVE THIS TITLE TO QUADRANT ON LEFT IF THIS QUADRANT IS USED FOR A GRAPH)

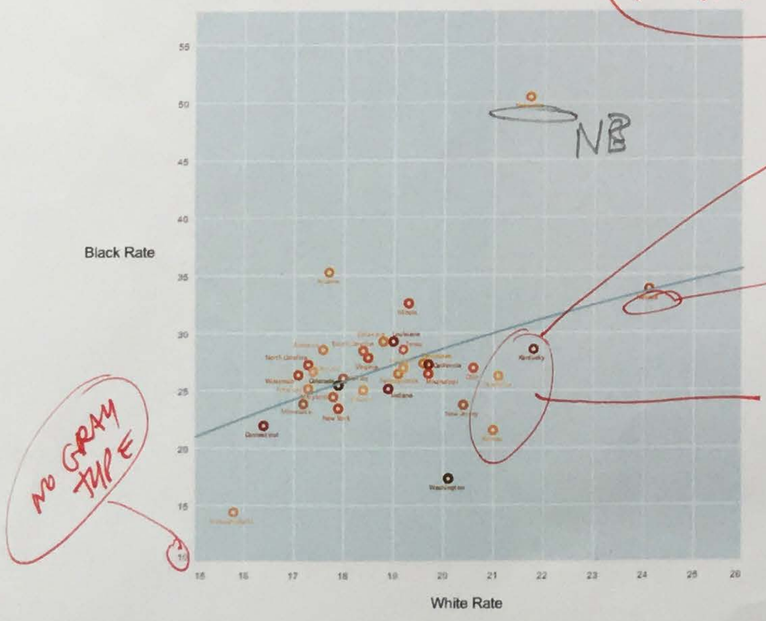
1. For first graph, I visualize data into a bar graph. This shows the rate of breast cancer incedence rate in each state. We can see that black rate is much higher than white rate at once in the graph. Bar color chosen into a grey color for color blind viewers.
2. For the second graph, I used double line graph. This graph shows overall rate change through the year. Black rate is higher than white rate.Through 1990-1995, they have highest rate of breast cancer and the rate is gradually decrease. Grey and blue colors are used in the graph for the color blind viewers.
3. Third graph is connected scatter plot graph. In this graph, back rate and white rate is marked at the same time. This graph shows the ratio between too. change of both of rate at the same time. You can observe breast cancer mortality is decrease as the time passses.

1. Black Breast Cancer Rates by State 1975-2019

3.Black Breast Cancer Rate Vs White Breast Cancer Rate by Year 1975-2019

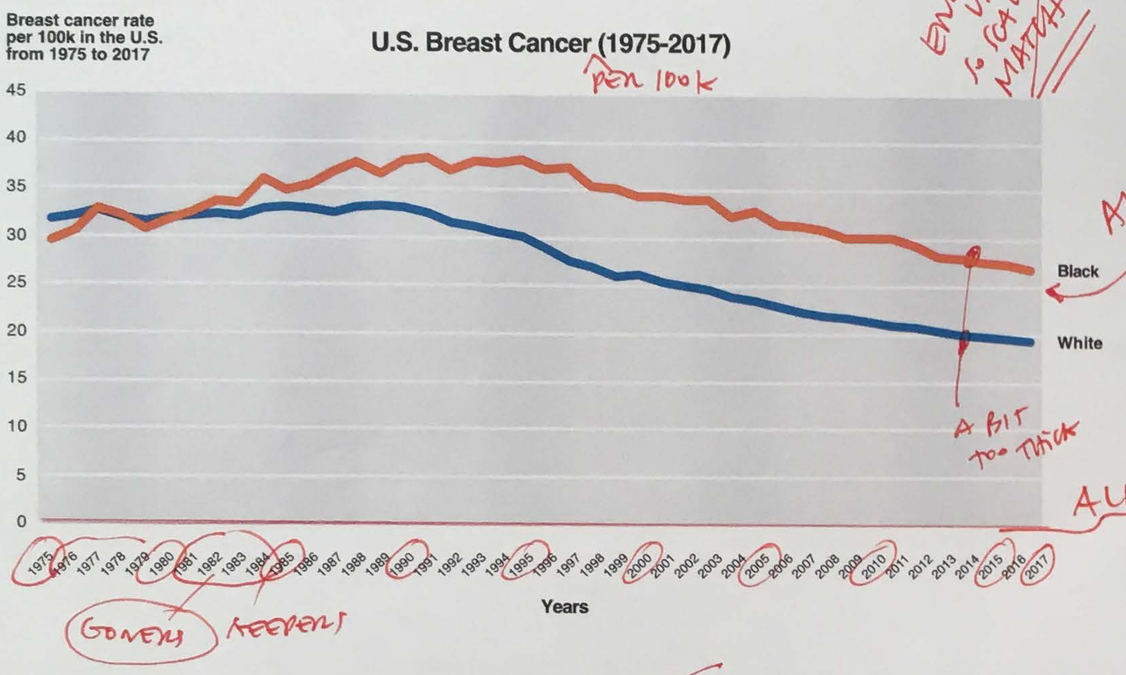


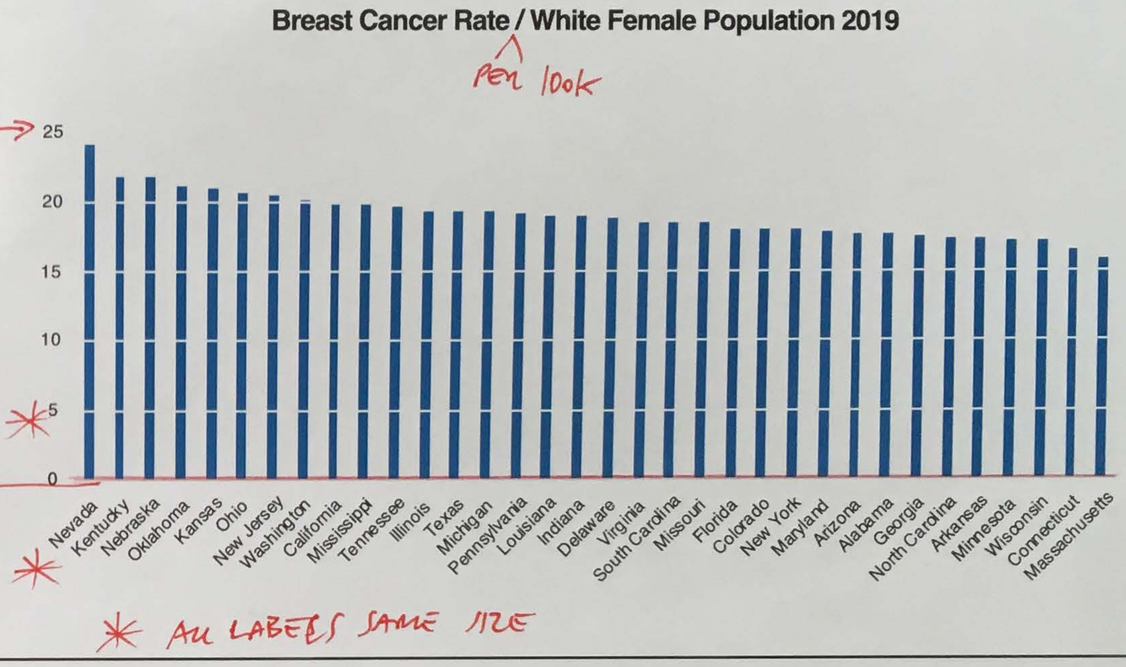
2. Black Breast Cancer Rate VS White Breast Cancer Rate by State ~~Scatterplot~~

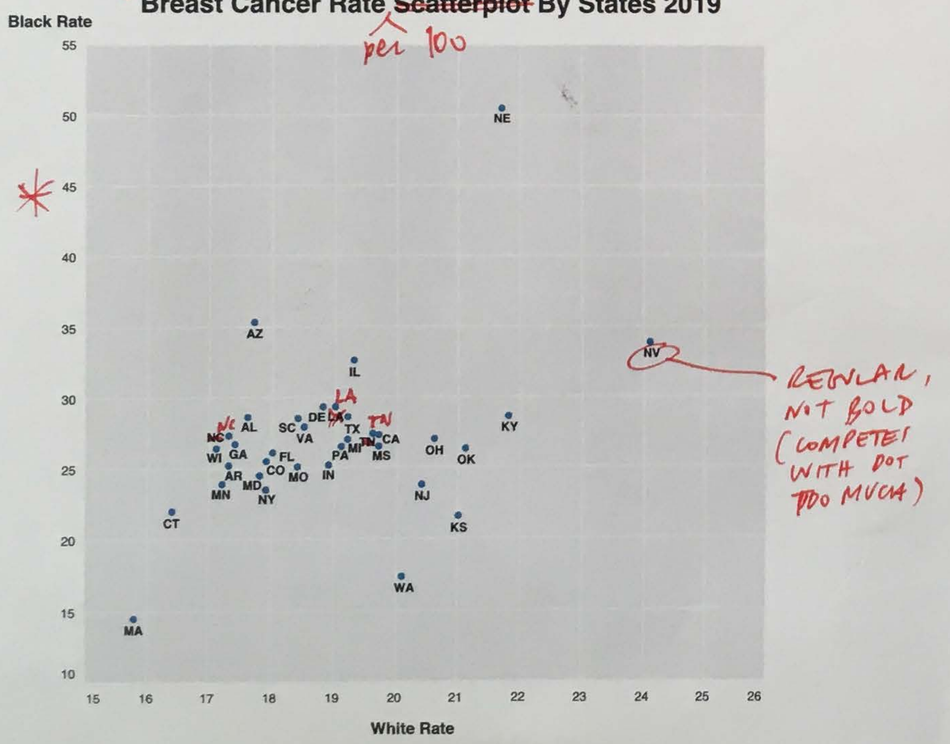


Graphs description

These three graphs analyze breast cancer deaths amongst white and black women in the United States. The color pallet used, tones of blue and orange, evoke emotions of calmness. The use of blue and orange shows contrast as well as quickly draws attention. The white line contrasting with black lines are help guide the reader. The matching colors of different shades of orange are meant for easy identifications of different states. The use of the Typeface Arial is meant to draw familiarity as well as simplicity. It is there to help the reader process the material quicker.

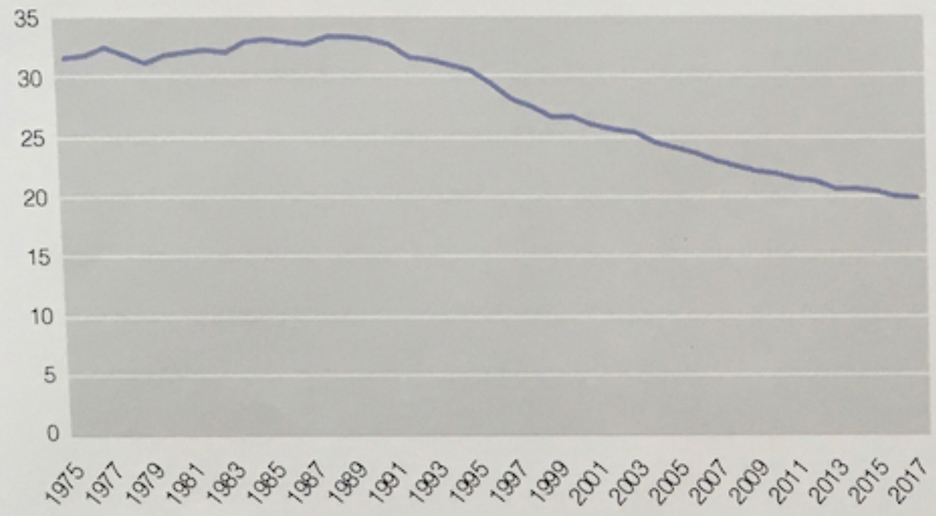






The three graphs shown depict female breast cancer rates ranging from 1975 to 2019. Each graph was adjusted and formatted in order to improve the visibilty of information being shown. When looking at the "U.S. Breast Cancer (1975-2017)" graph, the data lines were thickened and a grey background was added. Doing this improved the legibility of the graph and enhanced the overall presentation. For the bar chart showcasing breast cancer rate amongst the white female population in 2019, thin white horizontal gridlines were added to aid the viewing experience. Additionally, each state name showcased on the graph is slanted to a 45 degree angle to make it more legible. As for the "Breast Cancer Rate Scatterplot By States 2019" graph, each state name was changed to its respective abbreviation. This was done to reduce clutter on the graph also to simply the information.
A grey background was also applied to this graph to improve the visibility of each data point on the scatterplot.

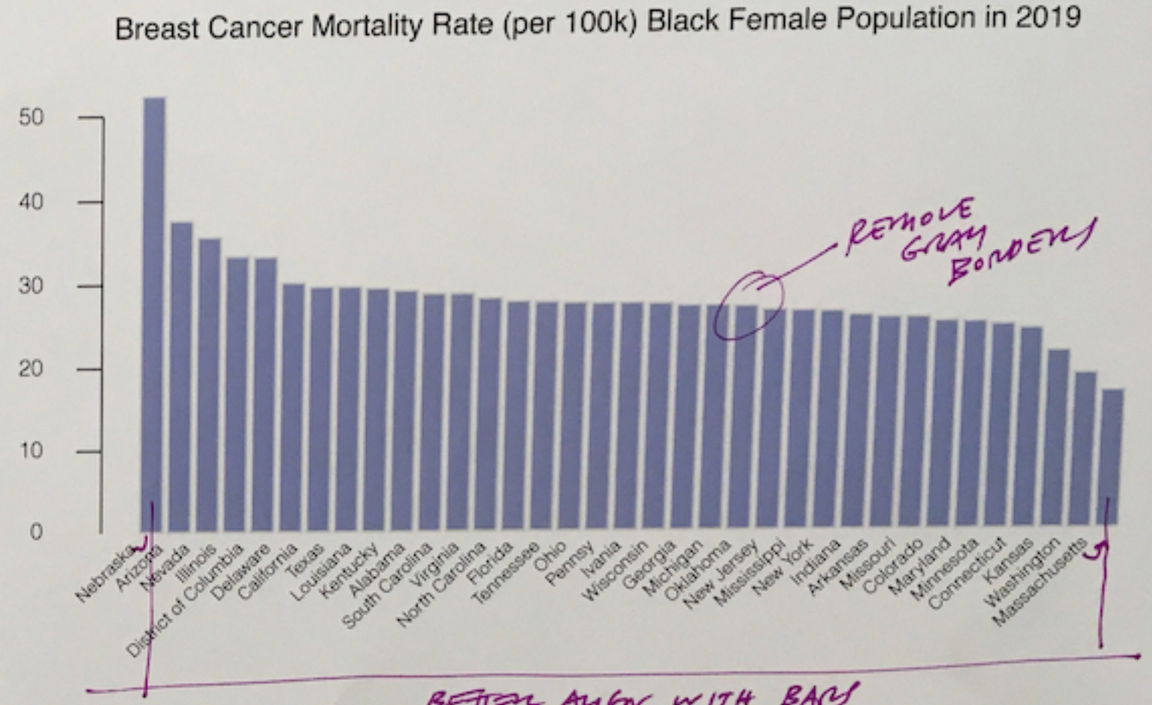
146/150 (A)



1975 1980 1985 1990 1995 - - -

USE ONLY EVERY FIVE YEARS

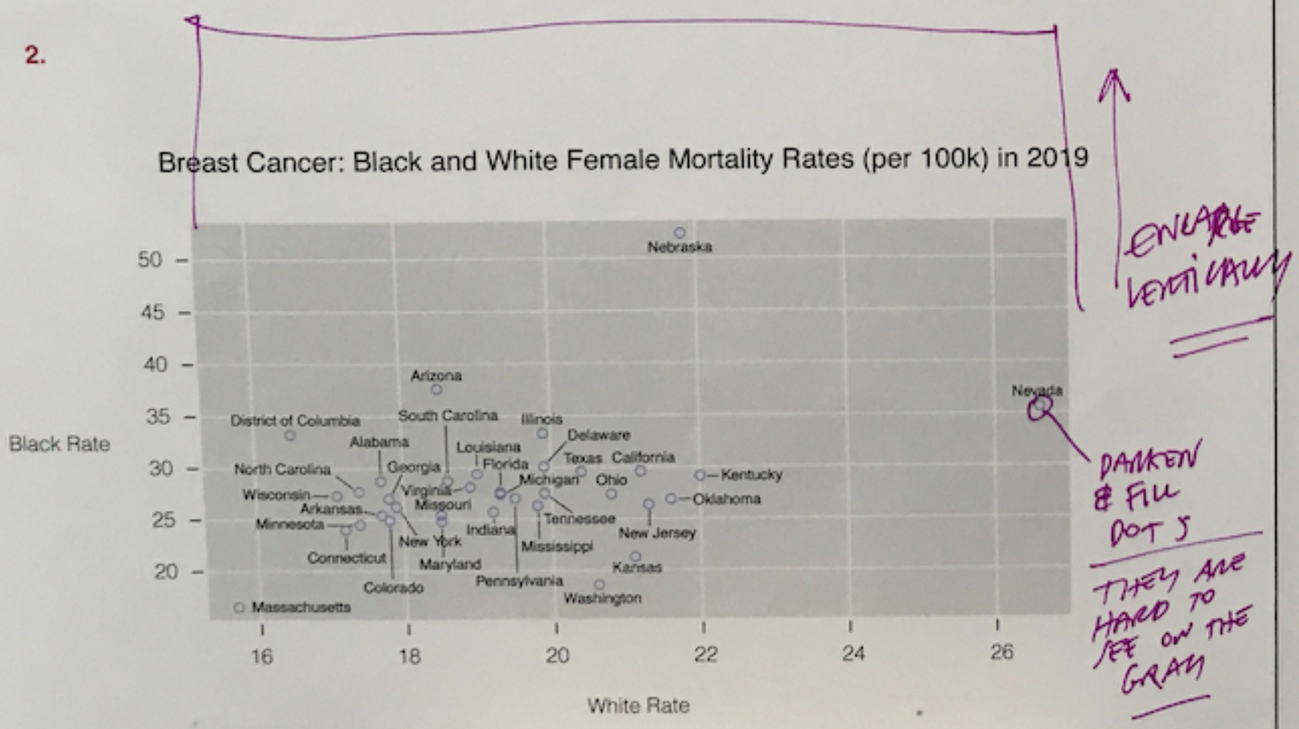
3.



REMOVE GRAY BORDERS

BETTER ALIGN WITH BARS

2.



ENLARGE VERTICALLY

DARKEN & FILL DOTS

THEY ARE HARD TO SEE ON THE GRAY

For the first graph, I fix the type setting for the labels. The numbers were all seperated and the spacings were off. What I did was I copy the text into another box so I can have more control over all the text in one text box. I fix the kerning and the adjusted the leading. Then I add text wrap to be able to have a 45 degree angle timeline. I also desaturated the blue line beacuse the original blue was too dark. I finally added 10% black background and added white lines within the graph.

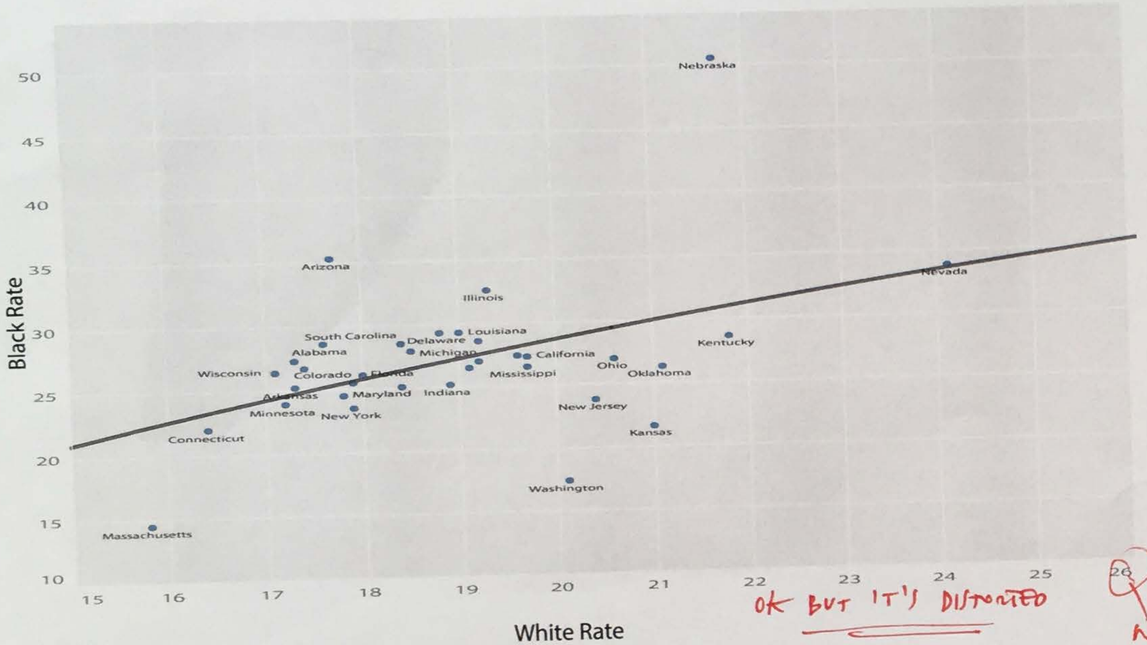
For the second graph, I adjusted the states label to pair up with the left corner of each bar. I also rotated the side labes around to be legible. And I did the same labels adjust as I did for first graph. Where I use text wrap to have 45 degree states. Finally change the color of the bar to have same color blue as the first graph.

For the third graph, I had to reorganize the states labels because it was overlapping with each other. I had to seperate them but I had to add line to redirect them to their original pairs. I use a 70% black line to pair the dot and state together. Then I add a 10% background and added a white line to help guide the viewer see what states falls under what rate. Finally I use the eye dropper tool to get the same blue from the other two graphs.

98/100

A

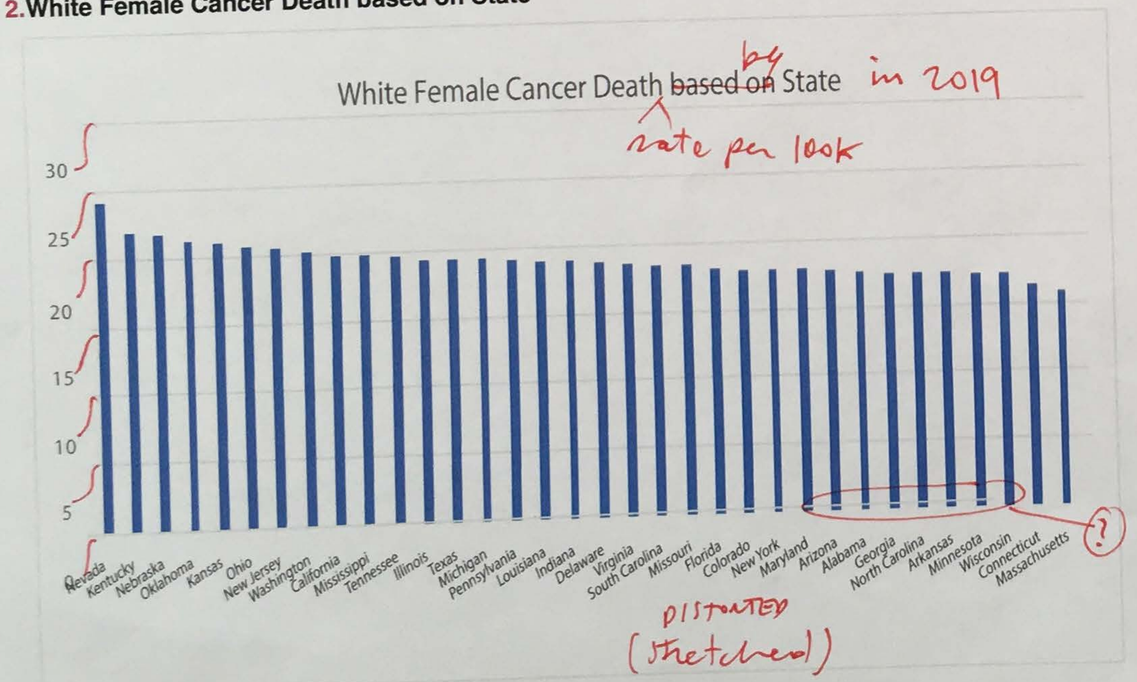
1. White and Black Female Cancer Death based on State



OK BUT IT'S DISTORTED

NO GRAPH TYPE

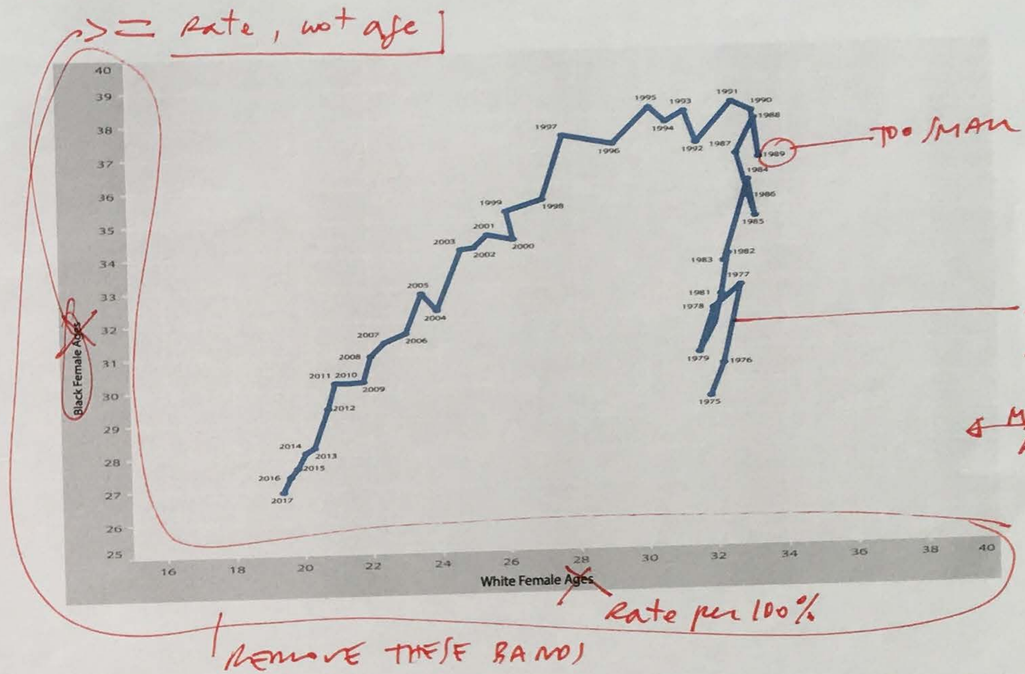
2. White Female Cancer Death based on State



by
in 2019
rate per 100k

DISTORTED (stretched)

3. White and Black Female Cancer Death based on Age and State



>= Rate, not age

TOO SMALL

A BIT THINNER SO THE SWITCH BACKS CAN STILL BE SEEN

MAKE A BIT DARKER BKGD

Rate per 100%

REMOVE THESE BANDS

I didn't know you had to have converted these specifically to adobe pdf's so these are all converted to adobe pdfs.
For the scatterplot graph I changed the background to light gray, to better show the points on the graph. I also changed the labeling font to be more visible.
For the line graph I changed the background, and outer labeling background to give more emphasize to the labels and to contrast the main graph background.
Lastly forthe bar graph I changed the state labelling to better fit and correspond with the bars.

SMALLER SIZE
MORE LINE SPACING

All the graphs are stretched and distorted +

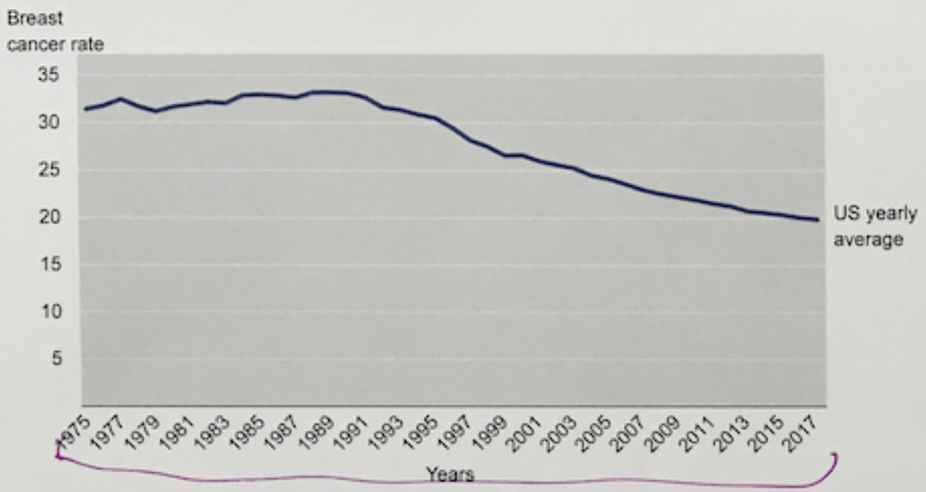
Helvetica 10 pt
Myriad Pro 16 pt
Myriad Variable Concept 6 pt
Satu 11pt

ONE FONT ONLY!

13

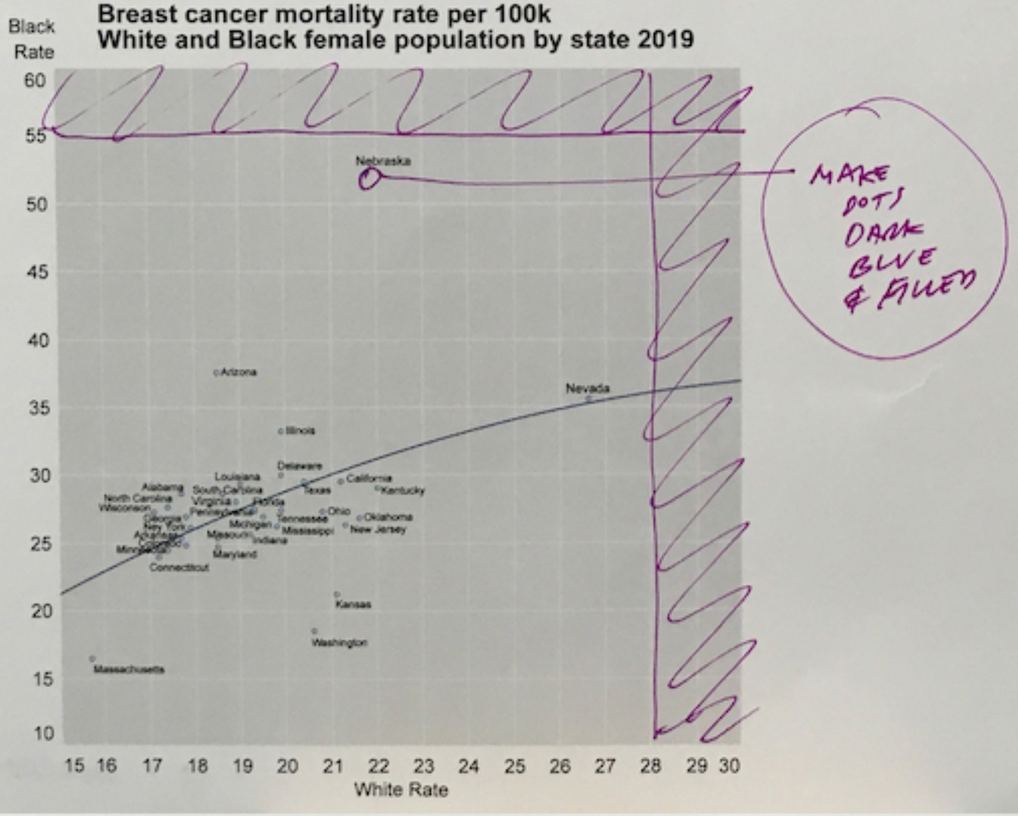
134/150 B+

1.



2.

3.



Notes:

For graph number 1 the background color was adjusted to a 10% black and the lines were made white in order to make the graph more clear. The years on the x axis were adjusted to a 45 degree angle for better readability. A proper descriptive title for the graph was added and the x and y axis also had titles added. A descriptor for the line was added at the end. For added readiblity the typeface was changed from the raw graph to Arial in various point sizes for each label.

The typeface was changed to Arial for each of the graphs with various pont sizes for the labels.

For the second graph the graph lines were also made white and moved to the front of a 10% black background so the bars were broken up at some intervals. A descriptive title and y axis label were added. The state names on the x axis were changed to a 45 degree angle and placed below their respective bar to improve readability.

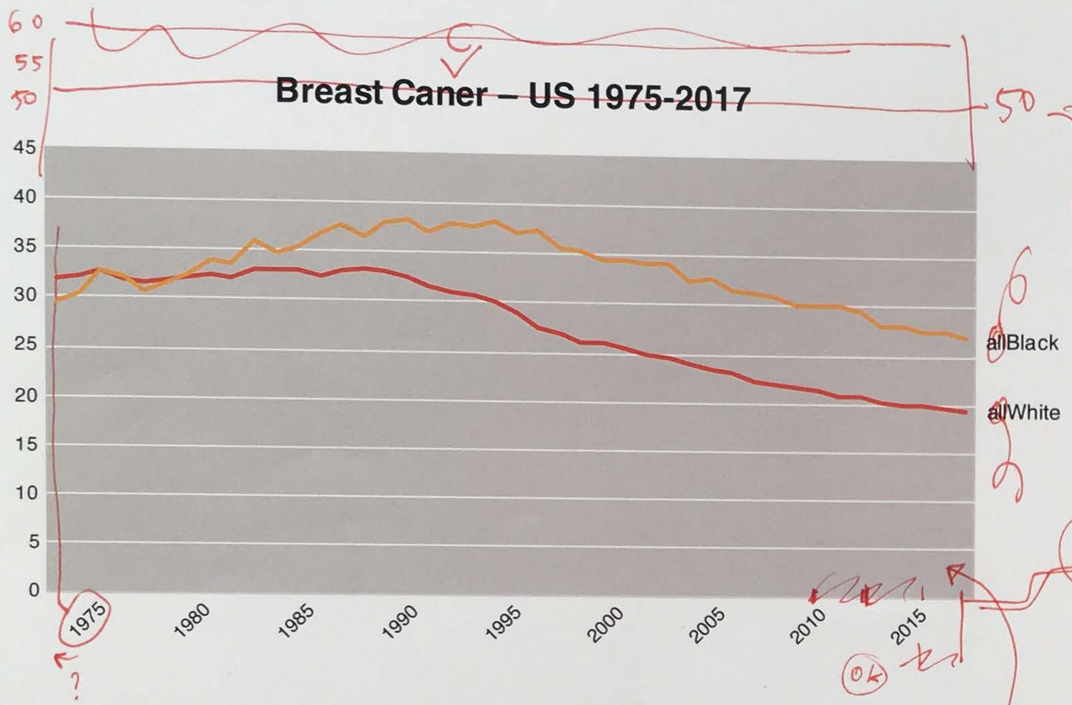
ALIGN

The third graph involved simlar changes as the others. A descriptive title was added along with labels for the x and y axis. A background of 10% black was added and the grid lines were made white so they could be easier to make out. The data points were filled with a desaturated color to destinguish them from the background. The trend line was made a desaturated color as well to help differentiate it from the labels.The text labels for the data points were moved around so they would not overlap and would line up with their respective point.

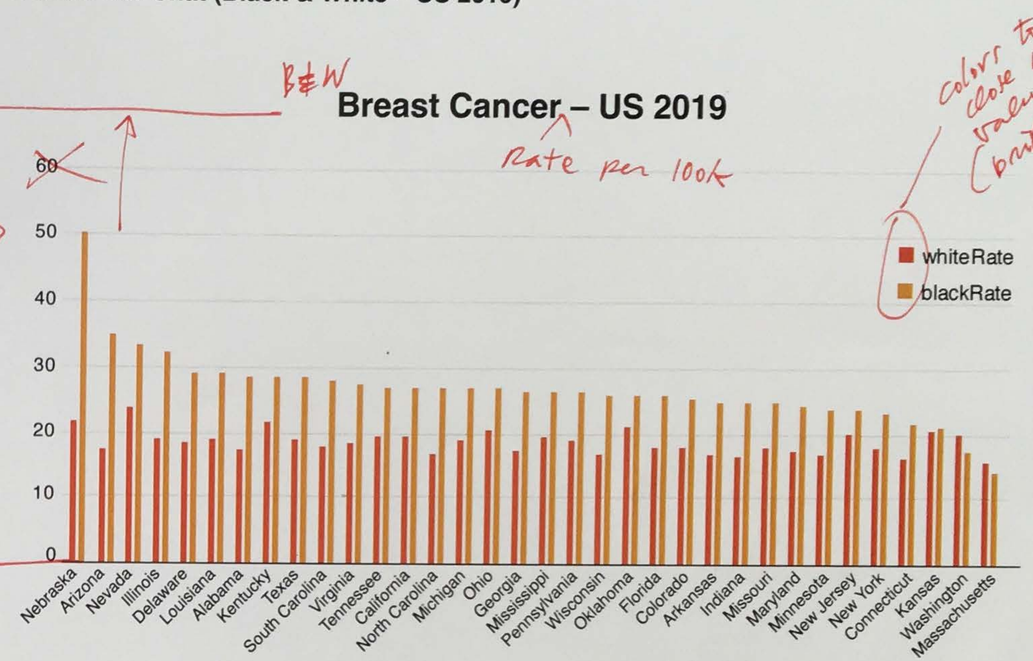
NOT ENOUGH BECAUSE TOO SMALL. JUST MAKE DARK

99/100 A

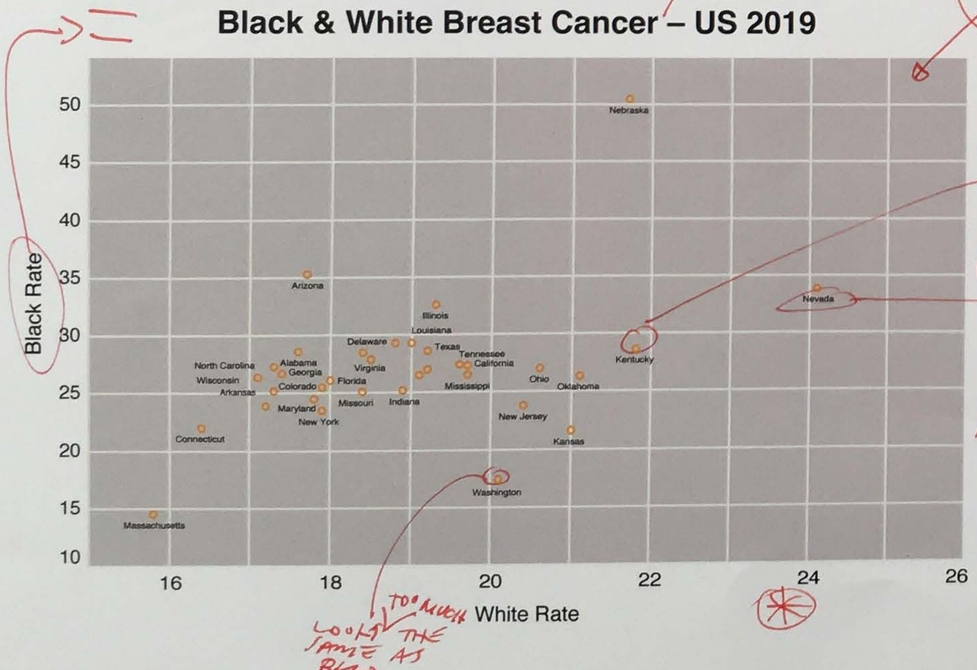
1. Double Line Graph (Black & White – US 1975-2017)



2. Double Bar Chat (Black & White – US 2019)



3. Scatterplot (Black & White – US 2019)

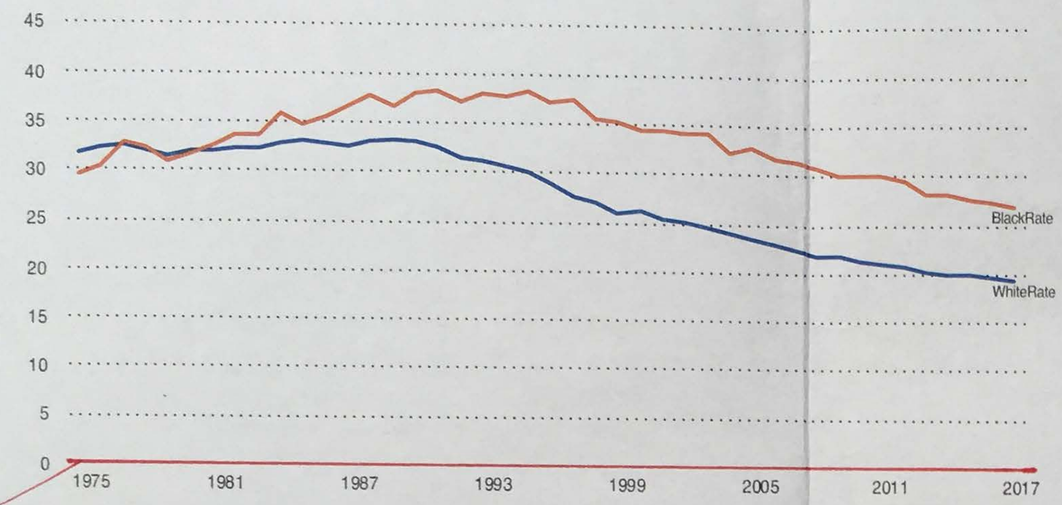


Notes:

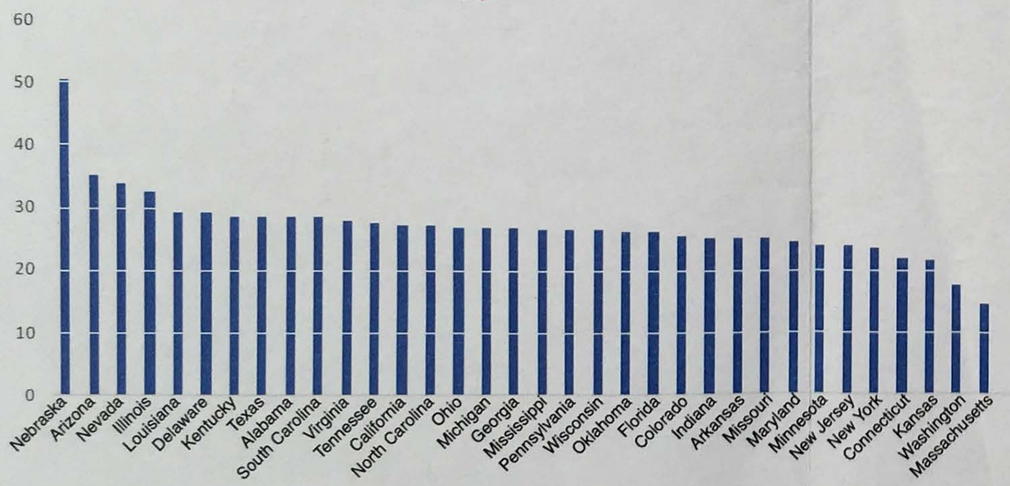
After selecting three different graphics for the Female Breast Cancer Rate (1975 –2017 US) and two Female Breast Cancer Rate (2019 US), cleaning up the selected tables will improve the overall data's professionalism, clarity, and organization. In this process, I made some appropriate changes. I rotated the names and numbers of the horizontal axis of One Line Graph and One Bar Chart 45 degrees to replace the original vertical text, which could improve the readability, and accurately adjusted the name, leading, and position size in each graphic. I added 10% opacity to the background for the double line and scatterplot to make them more active and clear to highlight the data information of States' lines and points. I also added white grid lines to support Axis number representation. I omitted the default small color square in the line chart and placed the label on the right end to mark each line. I converted to outline mode in Illustrator to check and remove any borders/boundaries which were not data around the entire chart or individual items that did not change the integrity of the data and graphics. I used the most popular Helvetica font Due to its Legibility and neutrality.

To make the data information and points in the scatter plot easier to read and clear, I enlarged the points and names a little bit, placed those names below the respective points, and ensured there was no overlap between them. I also filled the points with orange. Additionally, I used red and orange to represent whiteRate and blackRate in the line and bar of the other two graphics to make the three graphic corrections consistent. The numbers(variables) are removed from the X-axis of the scatterplot to give the space a straightforward visual effect, and white vertical lines fall on each sequential label. Since Bar Chart displays longitudinal data sets at black and white rates, changing the grid to gray dashed lines and resizing the dots will give good contrast, balance, and focus on the rate of dataset and the following graphic structure for readability.

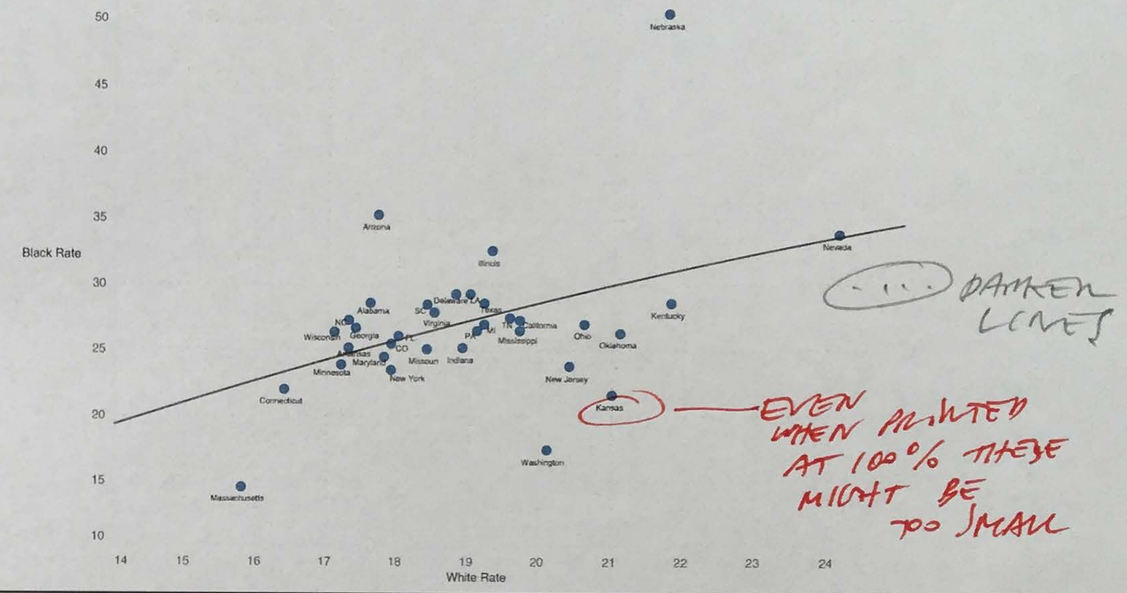
1. Double Line Graph (Black and White Rate, 1975-2017)



2. Single Bar Chart (Black Rate, United States)

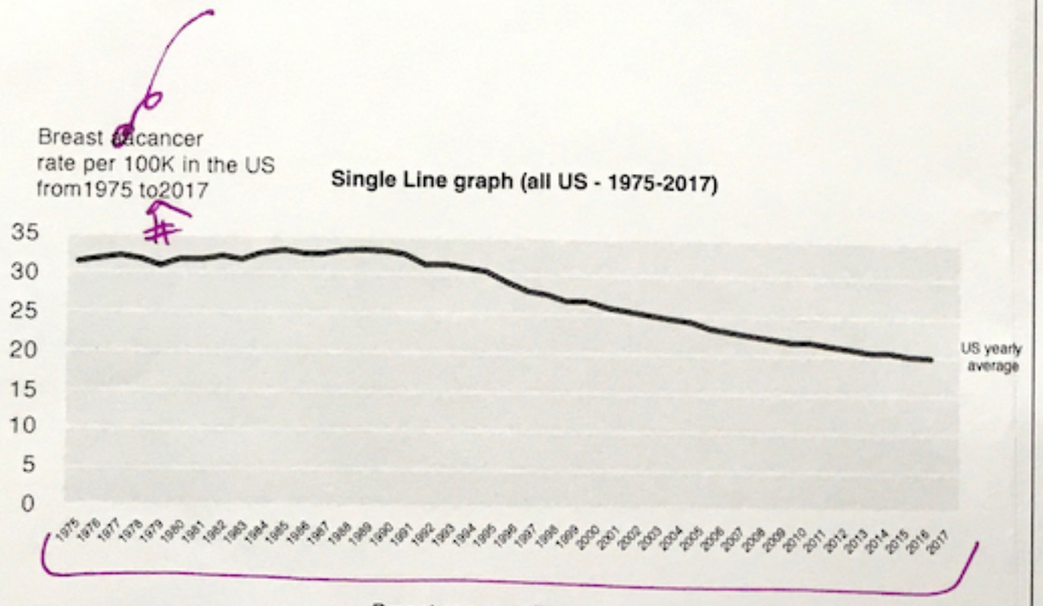


3. Scatterplot Graph (Black and White Rate, 1975-2017)



Notes: (MOVE THIS TITLE TO QUADRANT ON LEFT IF THIS QUADRANT IS USED FOR A GRAPH)

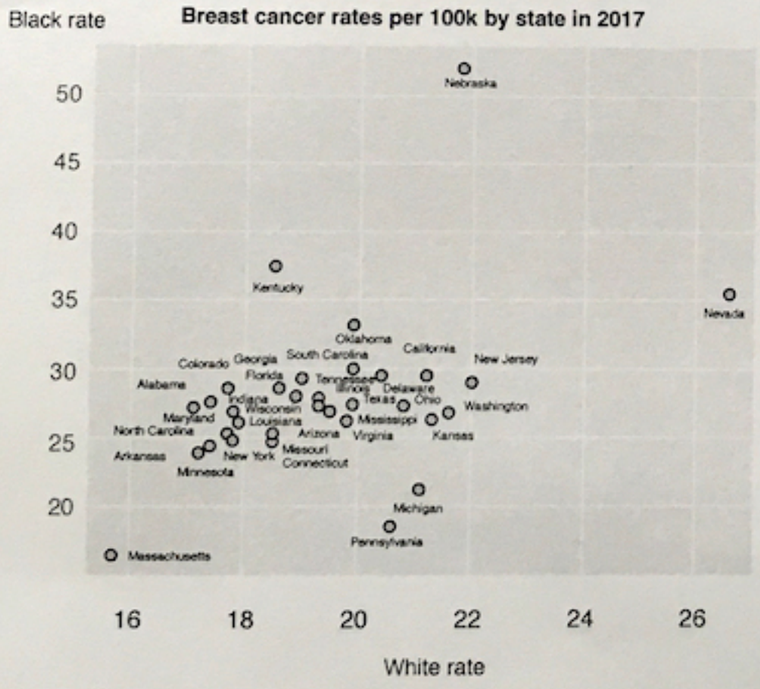
Edits made for the double line graph shown in space one were changing the background from the light gray tint that was applied in the program and deleting the background for better legibility. The lines running behind the graph for identifying the numbers on the Y axis was changed from solid lines to dotted lines to also support legibility of the graph. The dates on the X axis of the double line graph was changed and edited, to avoid over crowding the x-axis, dates were deleted and change to every 6 years to have better legibility while maintaining the reference of date/data. Other small elements, like the boarder, box, extra lines were also deleted to support legibility and the overal appearance of the graph. For the single bar chart in space two, edits like removing the gray tint background and changing the lines going through the graph from dark gray shade to white, arranging and moved it from behind the bars to in front the bars for better legibility of the data itself. The names of the states of the x-axis was changed from sitting in a upright, 90 degree position to a 45 degree postion to support the legibility of the graph and data itself. Similar changes were also made for the scatterplot graph in space three. The graph itself was zoomed in and enlarged to support the reading of the graph, extra lines and boarders that were originally around the graph was deleted, and the circles identifying the postion of the states were changed from an outline to a solid dot to avoid over-lapping of data and better legibility. Some States names were also changed from fully spelled out to the initials of the States to also help with identifying the data information while avoiding overlapping of dots, names, and position, increasing the legibility and understanding of the graphs.



USE ONLY 1975 1980 1985 ETC YEARS ....

ALIGN UNDER BARS

EXPAND BOX



Graphs description

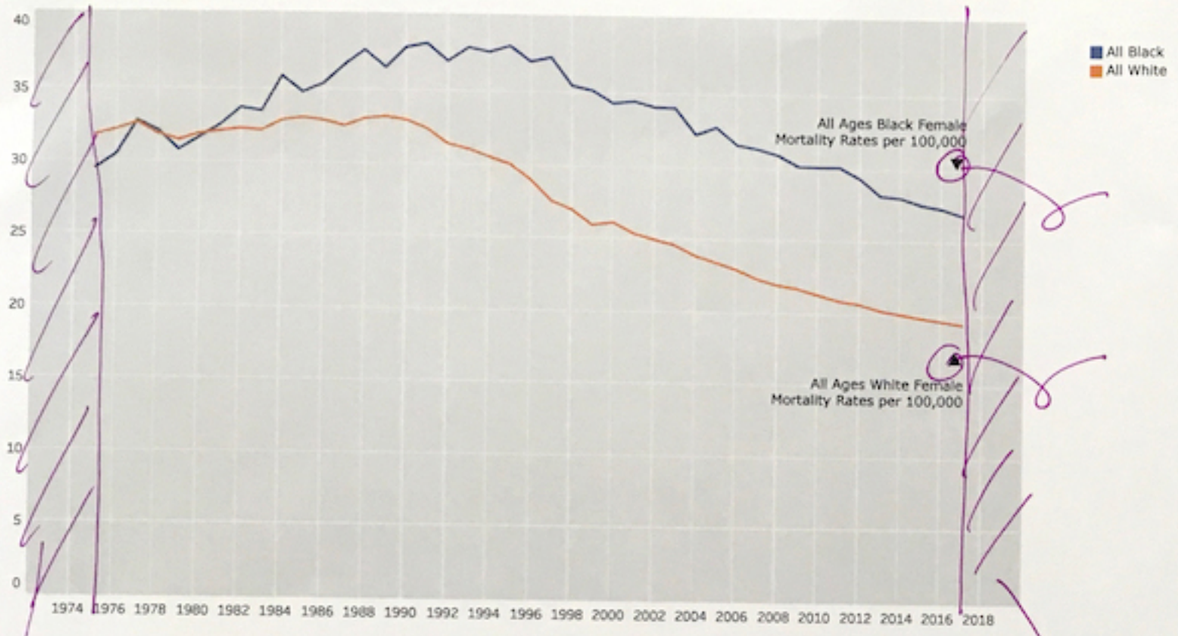
I learned a lot from this project. First, when designing the graph in the illustration, I found that the graph can be edited only by exporting it into a pdf file instead of a jpg file. This is a basic but I think it is the most important point. Second, it was designed based on guidelines to place better graphs. I found that in order for all graphs and letters to be neatly positioned, it must be placed consistently based on guidelines. Also, after loading the graphs, I found that instead of just use original graph, I redesign them with new colors and forms to make them look better to the user. And finally, while comparing the previous graph with the current graph, I learned more by thinking about what design should I create and arrange the graph to make it easier for users to see and use.

95/100

A-

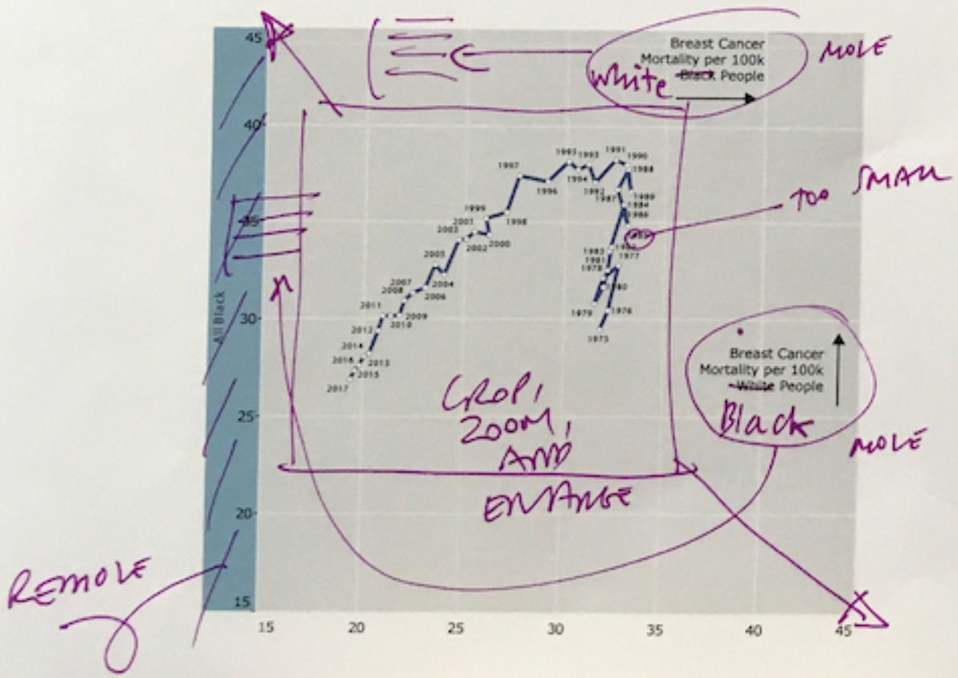
PLEASE PRINT IN COLOR AT FULL SIZE FOR BETTER GRADE

1. Adjusted Female Breast Cancer Death Rates by Year (All US Black v. White 1975 - 2017)



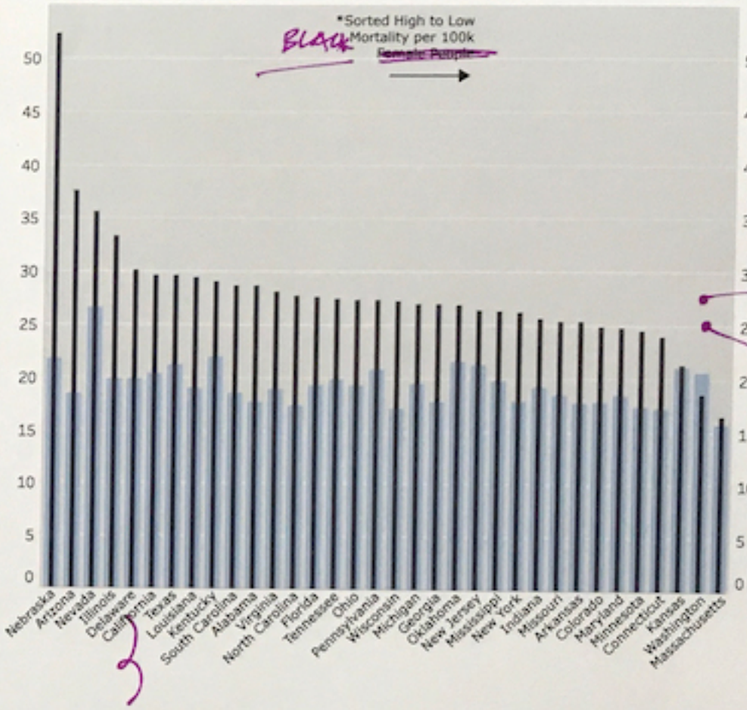
REMOVE USE ONLY 1975 1980 1985 ETC. ETC. REMOVE

2. Correlated Female Breast Cancer Death Rates by Year (All US Black & White)



MOLE TOO SMALL CROP, ZOOM, AND ENLARGE MOLE REMOVE

3. Adjusted Female Breast Cancer Death Rates by State (All US Black & White) IN 2019



REMOVE BKGD

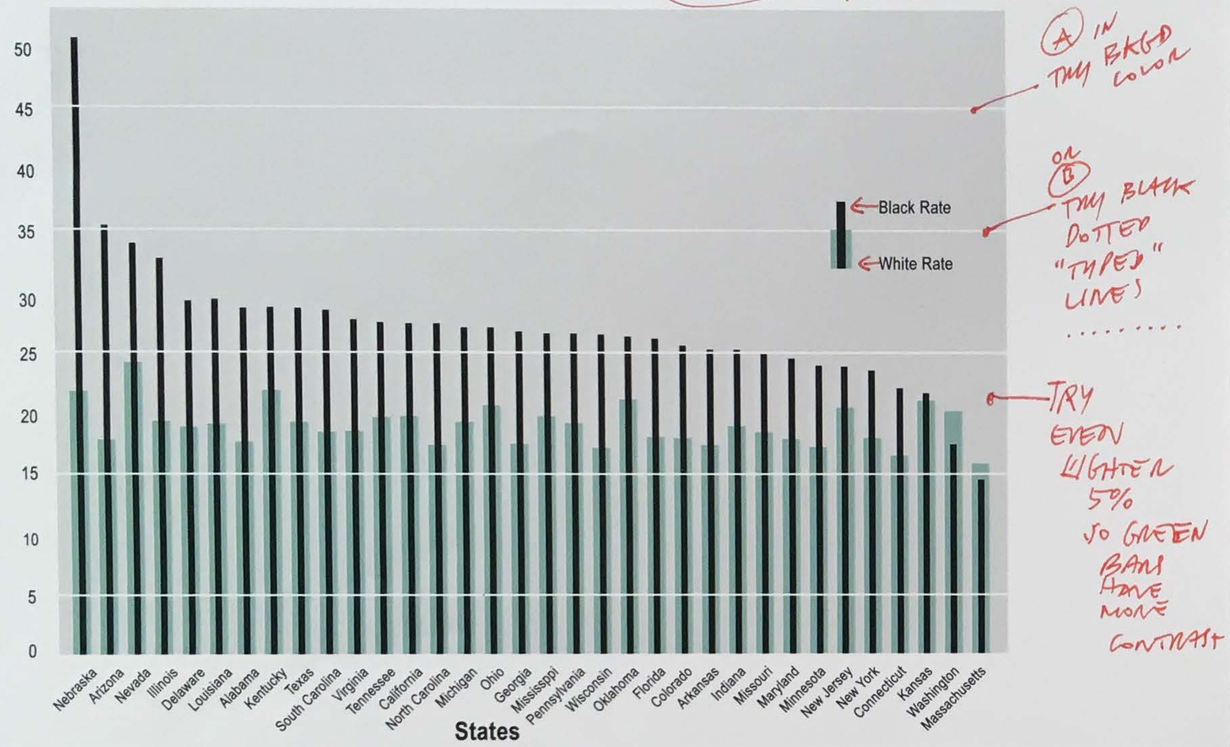
place white lines on top of Bars.

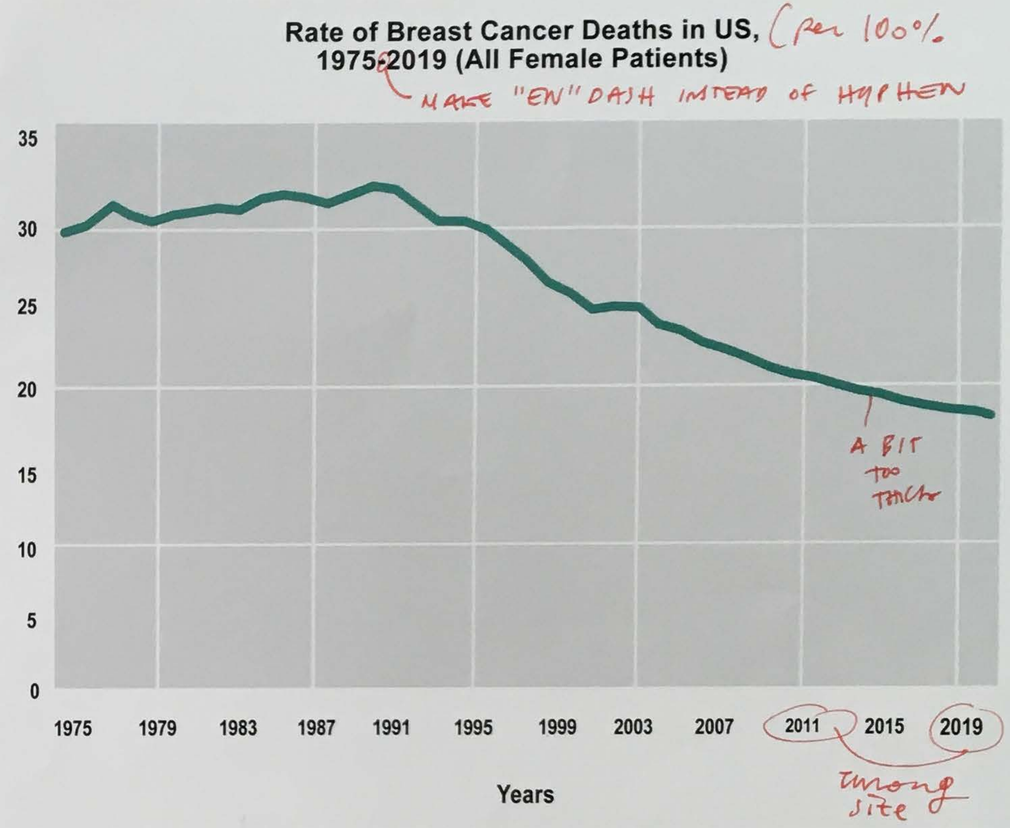
Breast cancer is the second leading cause of cancer death in women. According to the American Cancer Society the chance that a woman will die from breast cancer is about 1 in 39 (about 2.5%). The age effect on female breast cancer mortiality intially increased since the 1970s, before steadily drecreasing since the 1997. This decrease in death rates is believed to be attributed through earlier screenings and and increased awareness. However, the decline has shown to have only slight declined in the recent years. From the data shown, breast cancer mainly seems to occurs in middle-aged and older women. The median age at the time seems to be females ages 50 and above in the United States. With a small number of women diagnosed with breast cancer who are younger than 50.

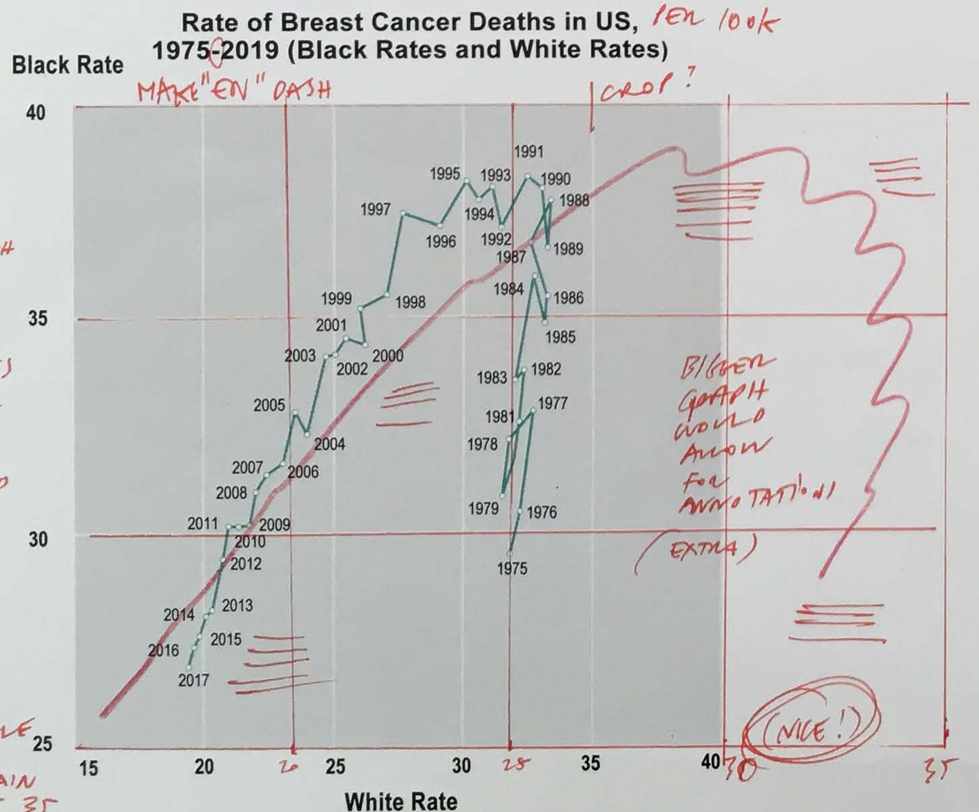
There are strong evidences showing that major disparities exist in breast cancer. Data shown that breast cancer mortality rate among Black / non-Hispanic Black women is slightly close to White/non-Hispanic White women. However, Black women the mortality percetange among Black women is higher compared to White women. Breast cancer survival rate since the 1980s has still remained lower among White woman and had only increased over time for Black women. This high mortality disparity can be attributed to barriers to health care, genetic differences, or outlying stark differences in living conditions.

OK, BUT YOU NEED TO WRITE ~~ABOUT WHAT~~ YOU DID TO IMPROVE THE GRAPHS VISUALLY.

95/100
A-







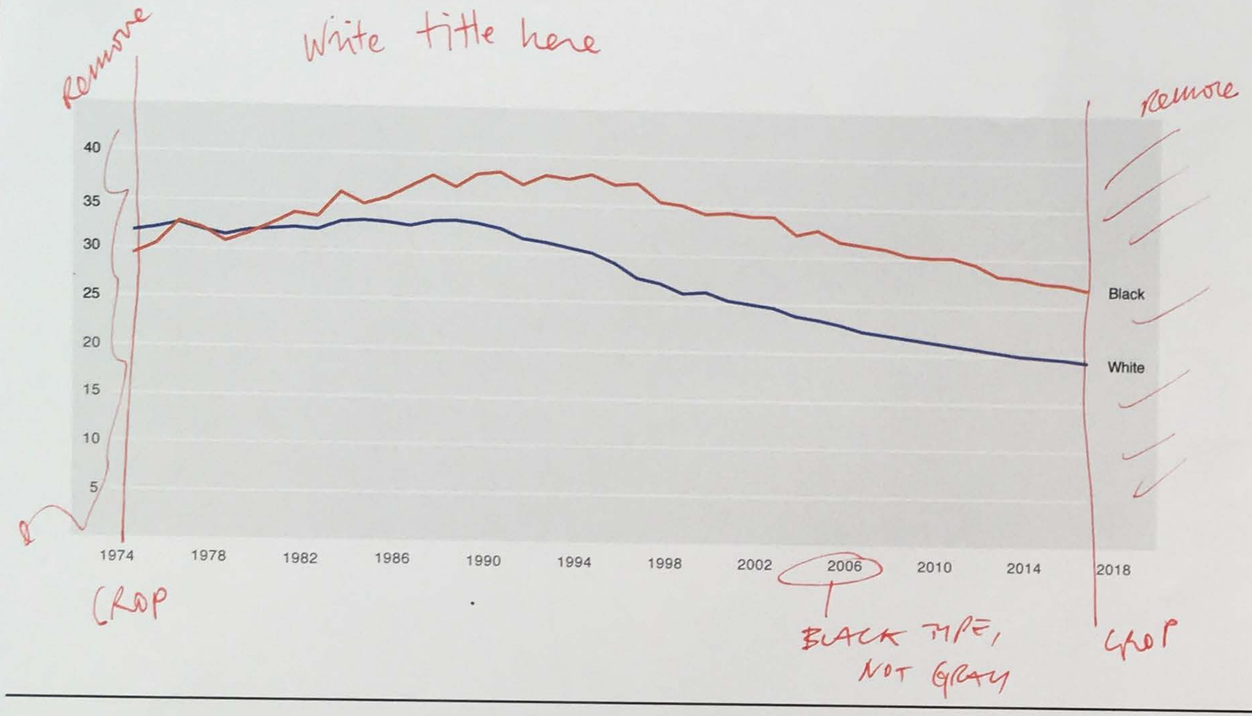
The first graph I refined was the double clustered column graph created in Tableau. I started off by removing unnecessary features such as extra borders lines and the y-axis located on the right side of the graph. This was to assure that the graph looked as clean and simple as possible. I then gave the columns new colors that I thought contributed more towards their legibility and contrast. With these changes, I also made sure to adjust the color legend I also made sure to add in a light gray background (10% black/K) to make the graph appear more engaging and white horizontal lines placed above the columns to make them appear more evenly distributed. I decided to make the light gray background a recurring feature within all three graphs just to keep them consistent from one another and to make them appear less barren. Lastly, I also followed the technique provided to the class that shows students how to create 45 degree labels thanks to the text wrap tool.

For the line graph, I split the spread with the use of grid lines. I intended for these grid lines to be distinct enough to accurately pinpoint the values found on the line, but not too intrusive to the overall form of the graph itself. As such, I used a 2 pt. stroke, which seemed to be the most ideal visual solution in the long run. I also made sure the Y values came in intervals of 5 just so that they remain consistent to the Y value intervals of the first graph.

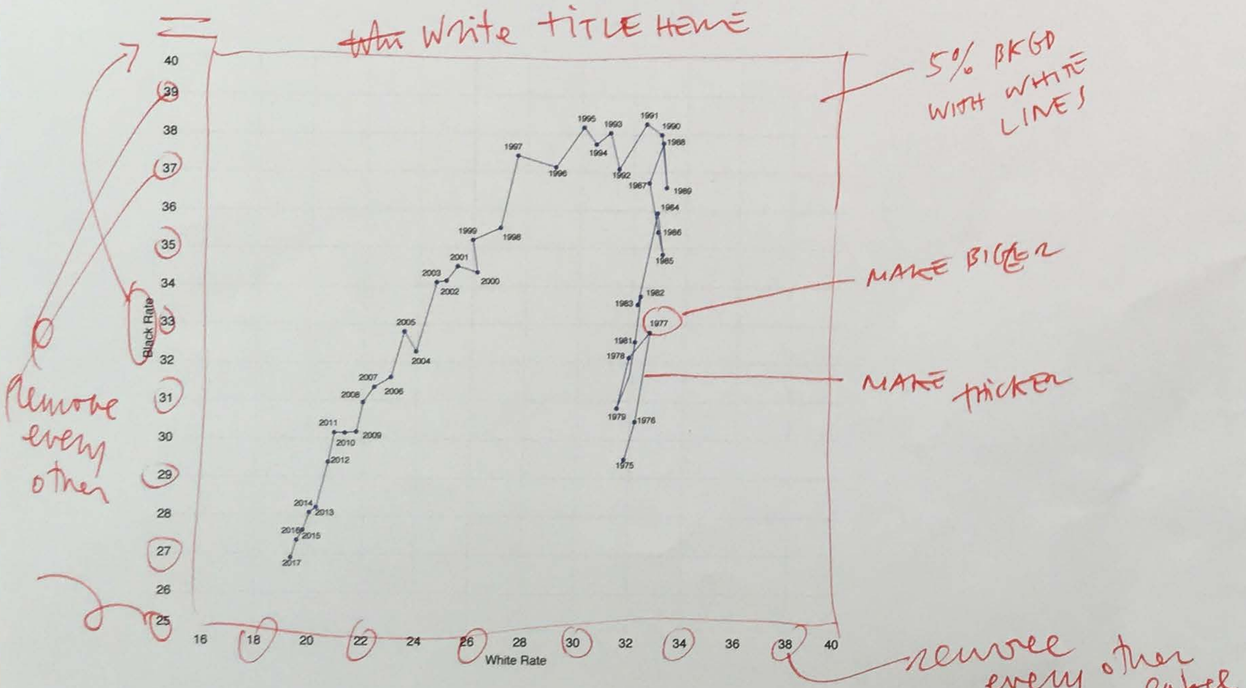
The scatterplot graph was a matter of changing the min and max X and Y values in Tableau. My original graph consisted of X and Y values counted in intervals of 2, but I decided that increasing the intervals to 5 allows the scatterplot to be displayed in a more expansive and accurate form. Aside from that, I proceeded to import into Illustrator where I made some very slight adjustments to the scatterplot's shape so that the values appear less cluttered than before. I also made sure to distinguish the plot points by adding circles with a white fill and a teal stroke. This allows the points to stand out from the rest of the scatterplot line just for the sake of legibility.

149/150 (A)

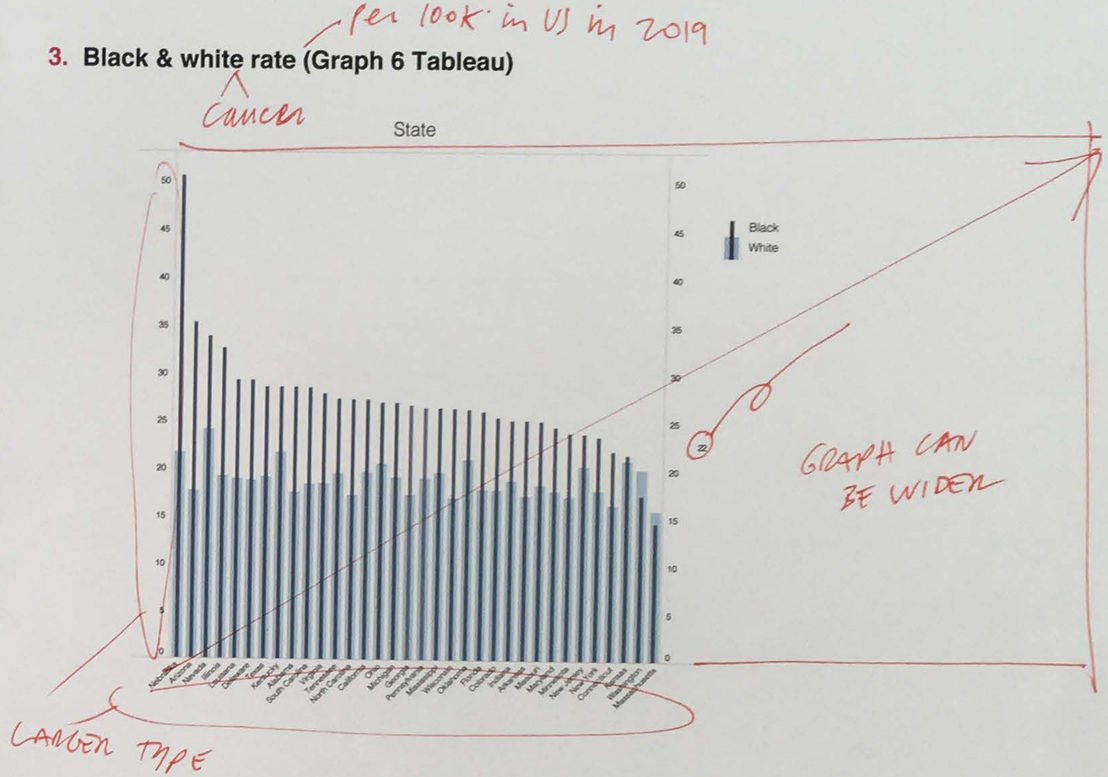
1. Double line graph (U.S. Black & White 1975-2017) (Graph 2 Excel)



2.Connected scatterplot 1975-2017 (Graph 3 Tableau)



3. Black & white rate (Graph 6 Tableau)

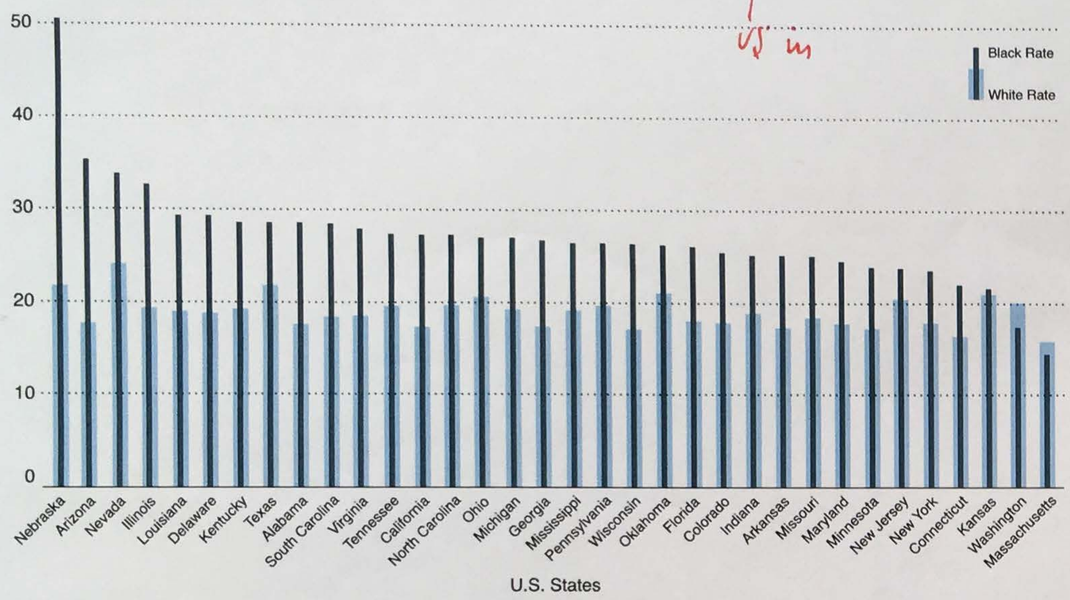


Notes:

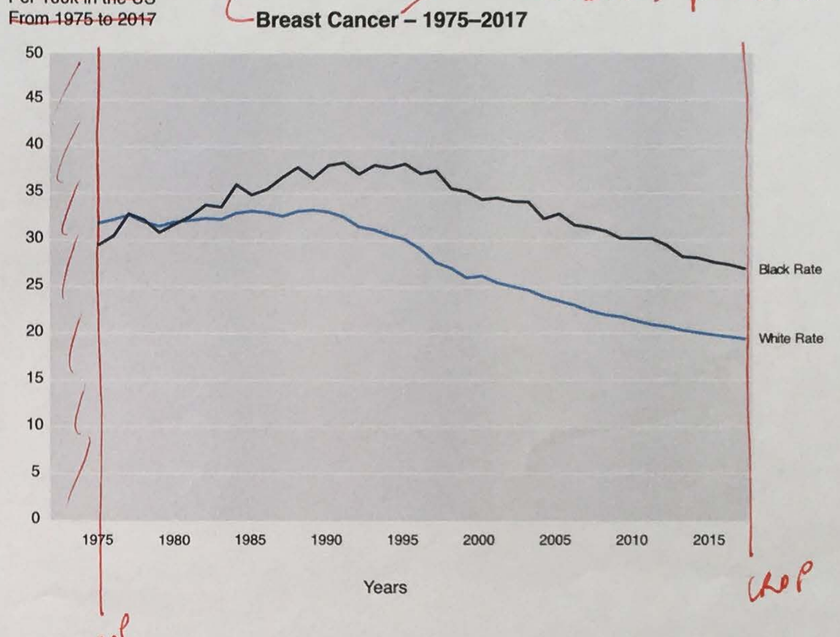
These three graphs were generated in Excel and Tableau. They show and compare the annual death rate between black and white women from 1975 to 2017. Graph 3 organizes the data by state with Nebraska having the highest death rate for black women. Overall the data shows that black women have a significantly higher death rate than white women.

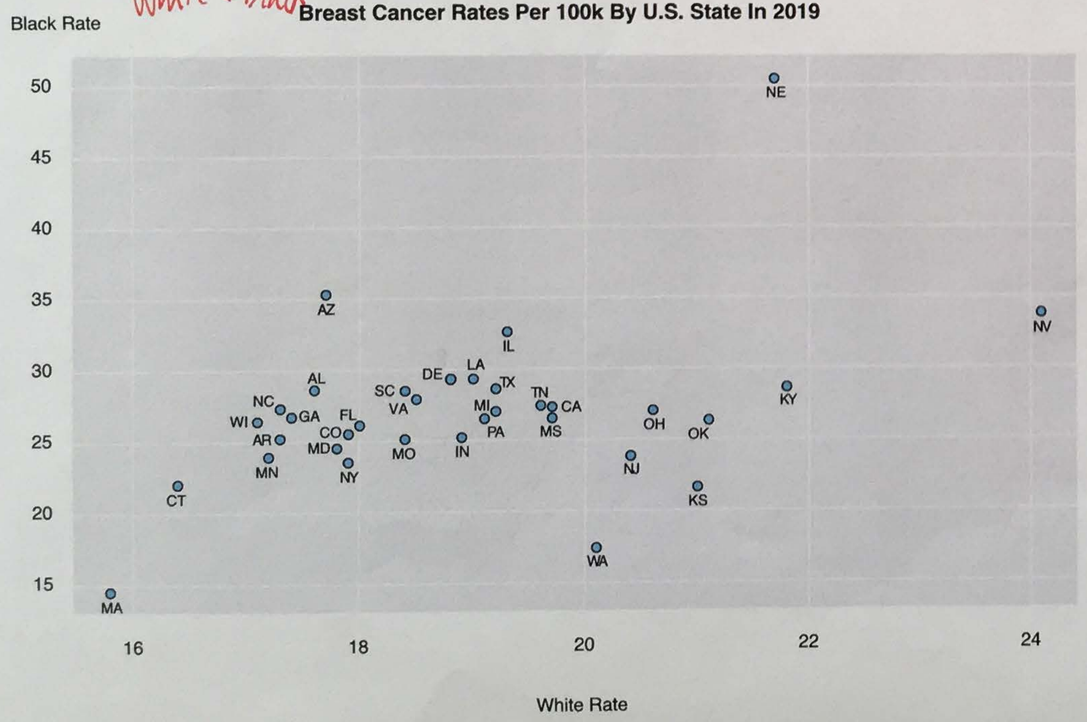
140/150 A-

~~Breast Cancer~~
Rate Per 100k ~~By U.S. State In 2019~~



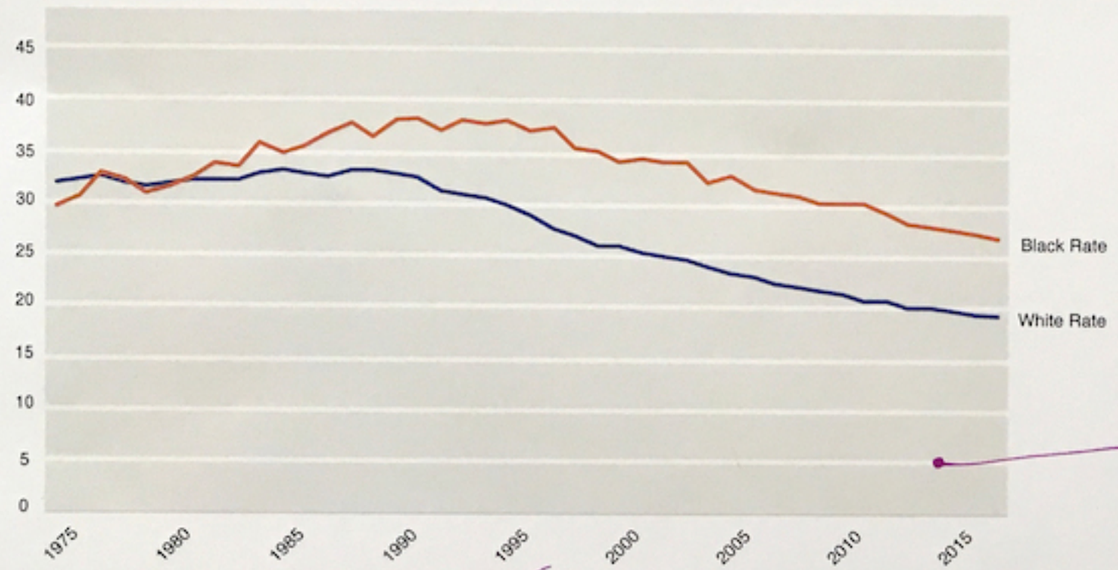
Breast ~~Cancer~~ Rate
~~Per 100k in the US From 1975 to 2017~~



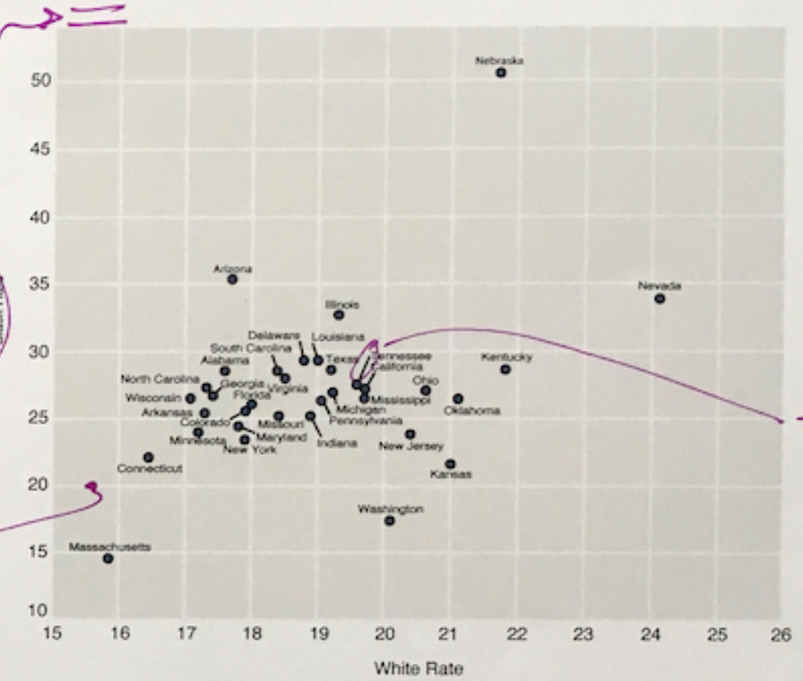


Throughout the process of cleaning up the selected graphs, I made changes that I believe were appropriate in helping to make the graphs appear more professional and organized such as making names along the x-axis rotating 45 degrees rather than having them vertical because of readability issues and using a tint and shade of two contrasting colors to separate information. For the scatter plot and double line graph, I added a 10% opacity background for the purpose of making the graphs less dull and more active as well as making the plots and lines pop out more. In addition to the new background, I also made the grid lines white in order to blend in. When looking at the scatter plot, I made the dots slightly bigger, from 0.075 to 0.085, and added light blue filling just to make it more legible. Grid lines were added to better pinpoint ranges, the names were moved down, abbreviated and organized to their respective dots all while making sure none of them were overlapping one another. Finally, the numbers along the y-axis were rotated so that they weren't being displayed vertically, but rather upright for better readability. Next, the double line graph also underwent the same treatment; however, you will notice that a few dates along the x-axis have been removed due to spacing issues and too much unnecessary information. The extra spacing between each year allowed me to place the years horizontally rather than rotating them 45 degrees. As a result, this allowed the graph to be simplified and made easier to navigate, follow and understand. The thickness of the lines were too reduced from 2.5 to 1 for better spacing in the areas where the two lines overlap eachother. Finally, the double graph chart went in a slightly different direction. Instead of removing some information on the x-axis, I instead removed information on the y-axis (numbers now increase by 5). The reason for this was because of the horizontal grid lines. Having too many of these lines for a bar graph would have been repetitive and unlike scatter plots and line graphs, bar graphs sit along the x-axis so it would have made sense to split the bars into horizontal segments similar to that of the line graph. Also, the horizontal grid lines were changed to dotted lines with spacing/kerning applied just to make it more interesting and move away from boring lines. No low opacity background was applied due to there being too much going on within the graph, but the lines were brought to the front of the graphs instead of being placed in the back to make the dotted lines noticeable and easier to compare the different sets of data(black and white rate). I added the color code/legend inside rather than it being outside the graph for the purpose of making the graph whole, balanced, and concentrated within a set area instead of having 2 pieces of information separate. Last but not least, I provided spacing (6 clicks to the right) between each bar for breathing room.

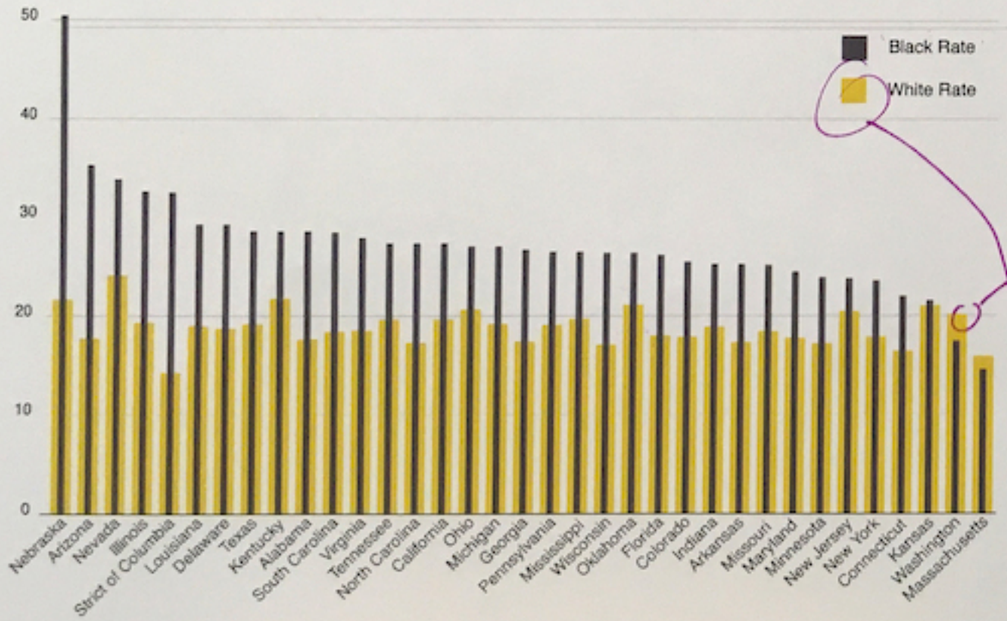
Breast Cancer Death Rate of Black and White female from 1975 to 2017



Breast Cancer Death Rate of Black and White in 2019



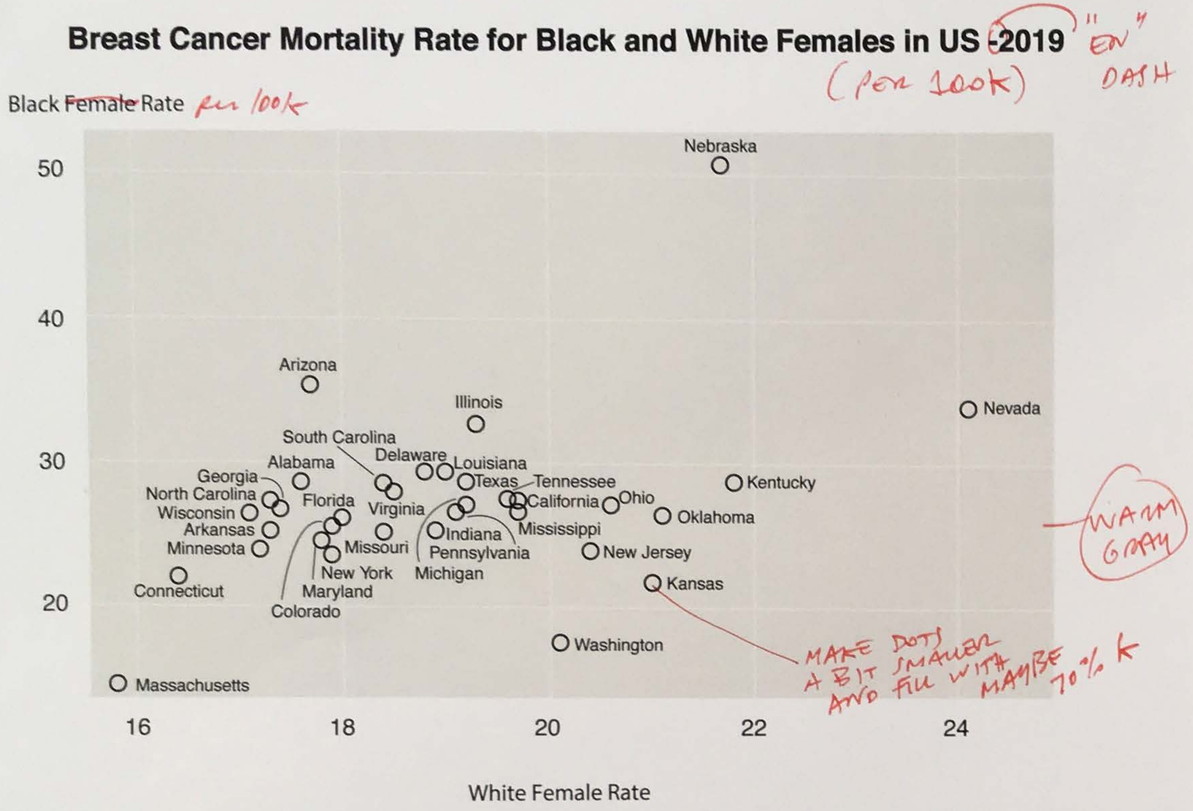
Population Mortality Rate of Black and White female in US State in 2019

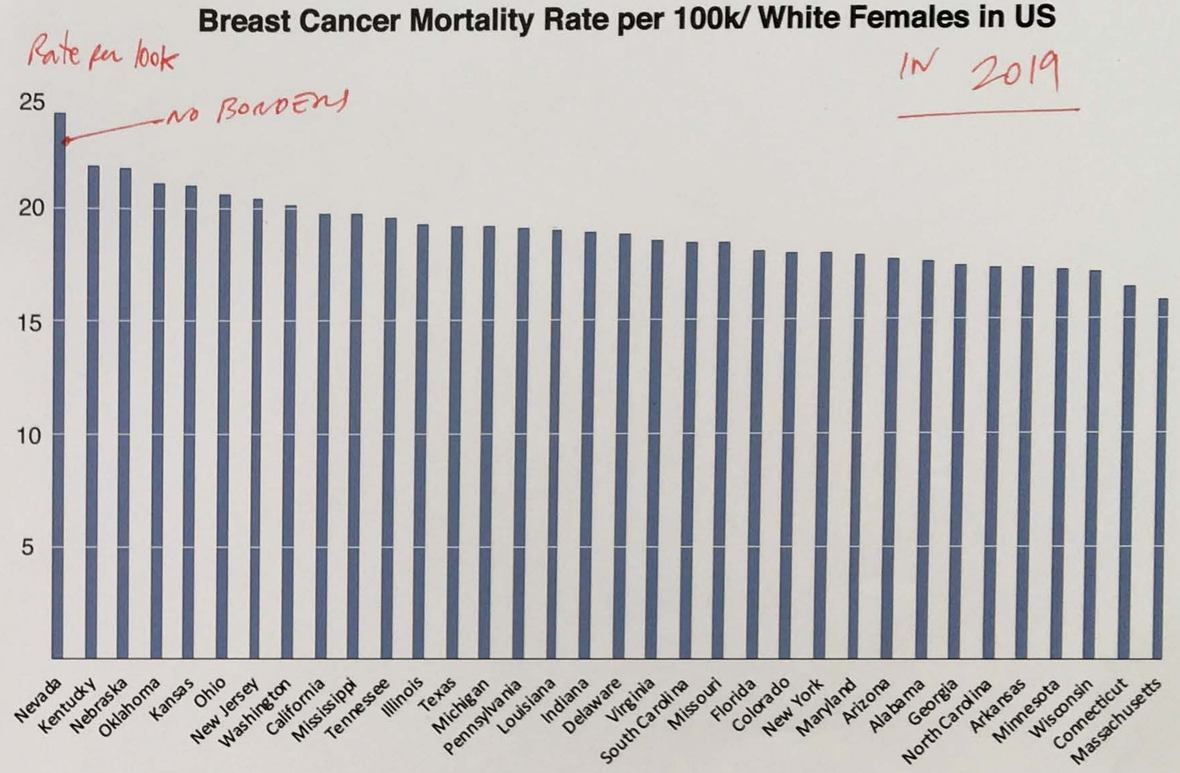


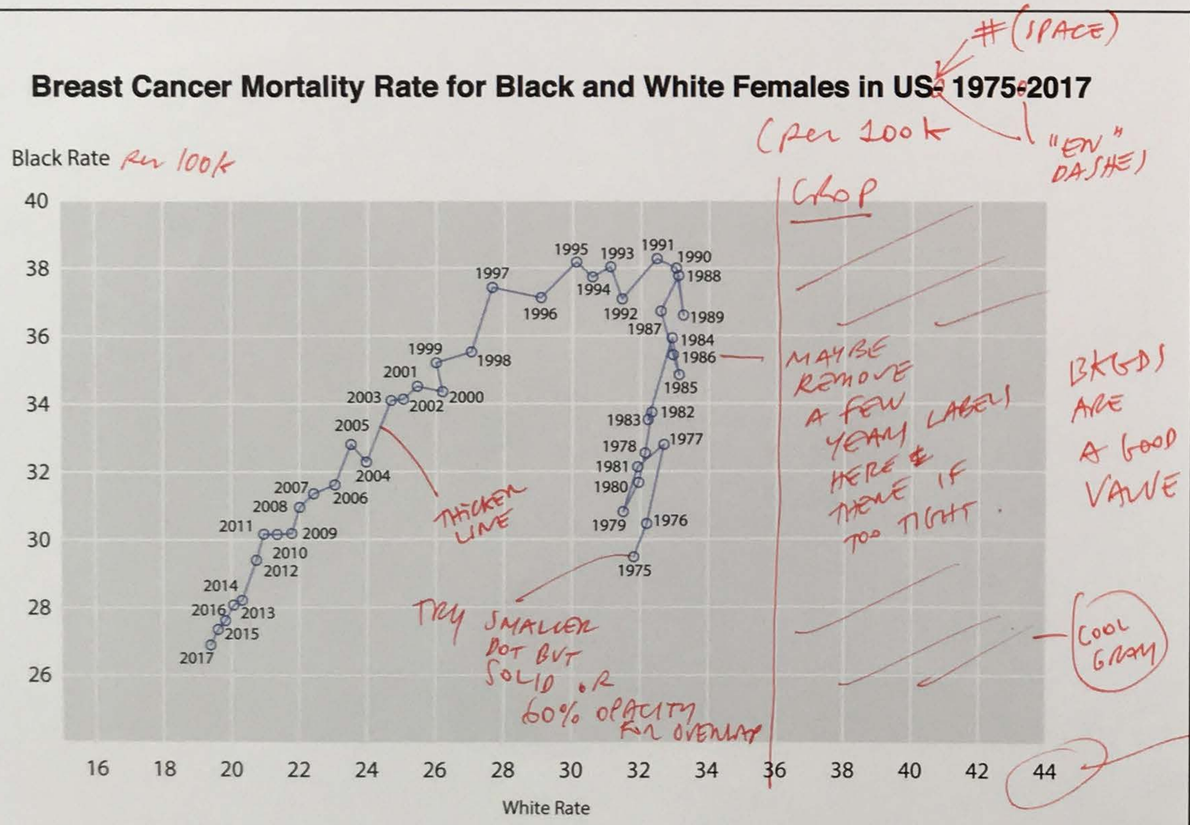
The top left corner is a line chart depicting the Breast cancer death rate of black and white females from 1975 to 2017. I added a light gray background and standardized the explanatory text to 8pt for consistency. The colors of the two lines have not been changed.

The image in the top right corner is a scatter plot depicting the Breast Cancer Death Rate of Black and White females in 2019. To prevent state names from being overlapped, I relocated some of them and added line segments to connect them with their respective data points.

The bottom left image is a bar chart. I cleaned up the original data and changed the colors to yellow and black to make the comparison more striking.



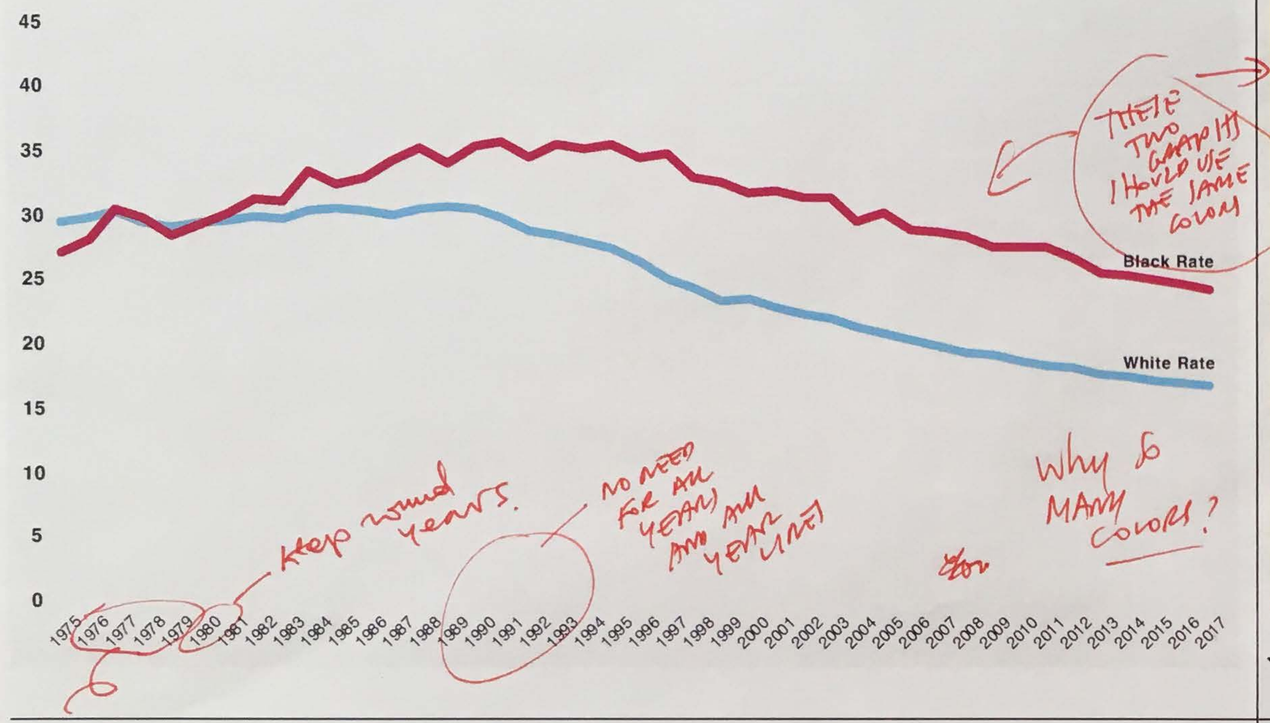




Notes:

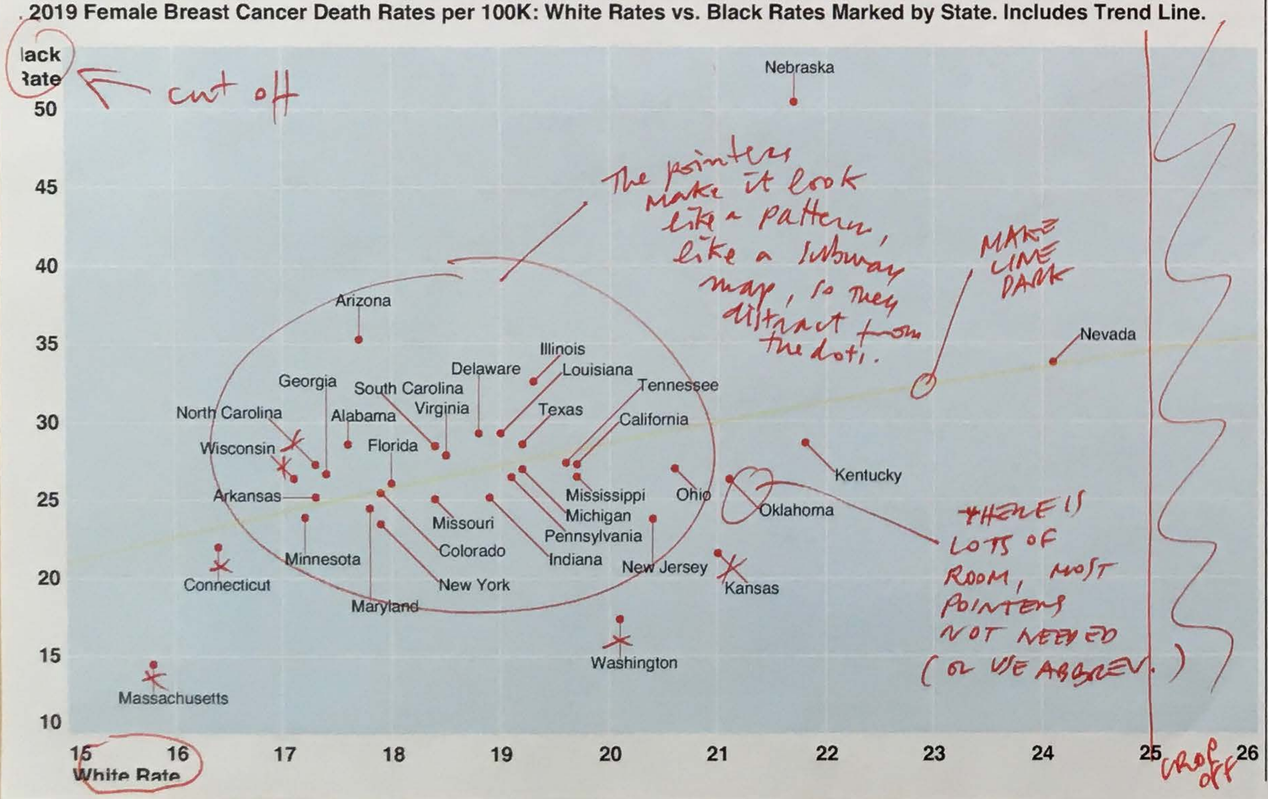
- Included a background in grey and moved it back; Also changed the grid colour to white and brought it to the front to make the grid more visible.
- Changed the font color of all text to absolute black from grey to avoid pixelation for print.
- Used a standard font: Helvetica for all graphs and also standardised font to 11pt.
- Removed certain redundant values from the original graphs.
- Changed the colour of the bars and lines to a less bright blue.
- Reduced the stroke weight of the ~~line~~ in the ~~line graph~~ to make the year dots more visible and removed the colour-fill from the year dots to make overlapping dots visible.
- Rearranged the text on both ~~line graph~~ and scatter plot to make it more legible since the text (years/states) was overlapping.
- The Y axis labels were moved to the top of the axis wherever applicable, to enable easier reading. Eliminated labels where necessary because the title of the main graph was sufficient.

1. White Female and Black Female Breast Cancer Death Rates per 100,000 from 1975 to 2017



2. 2019 Female Breast Cancer Rates per 100K for each State. Color shows details about White Rate & Black Rate.

3. 2019 Female Breast Cancer Death Rates per 100K: White Rates vs. Black Rates Marked by State. Includes Trend Line.



NOTES

GRAPH 1. For this graph I created grid lines for the years to meet with the death rate per 100K lines. This makes it easier to determine more accurately what death rate correlates to what year. I also angled the years to be more easily read. For the design in general, I felt like the lines would be more visible as vibrant saturated colors on a light, muted background. The Black Rate is the red line while the White Rate is marked by the blue line.

I TRIED TO SUGGEST THE OPPOSITE: ALSO FOR THE ~~NEEDED~~ BARS

GRAPH 2. For this graph I angled all of the states to be more easily read, and made the death rates per 100K bold as to be more visible. The colors were the most difficult to determine, but ultimately I decided to choose colors that were more pastel as to not create too much contrast between the lines that correlated to the states. The color for the Black Rate is marked at the top left gold column, and the White Rate is marked at the top of right of the teal column.

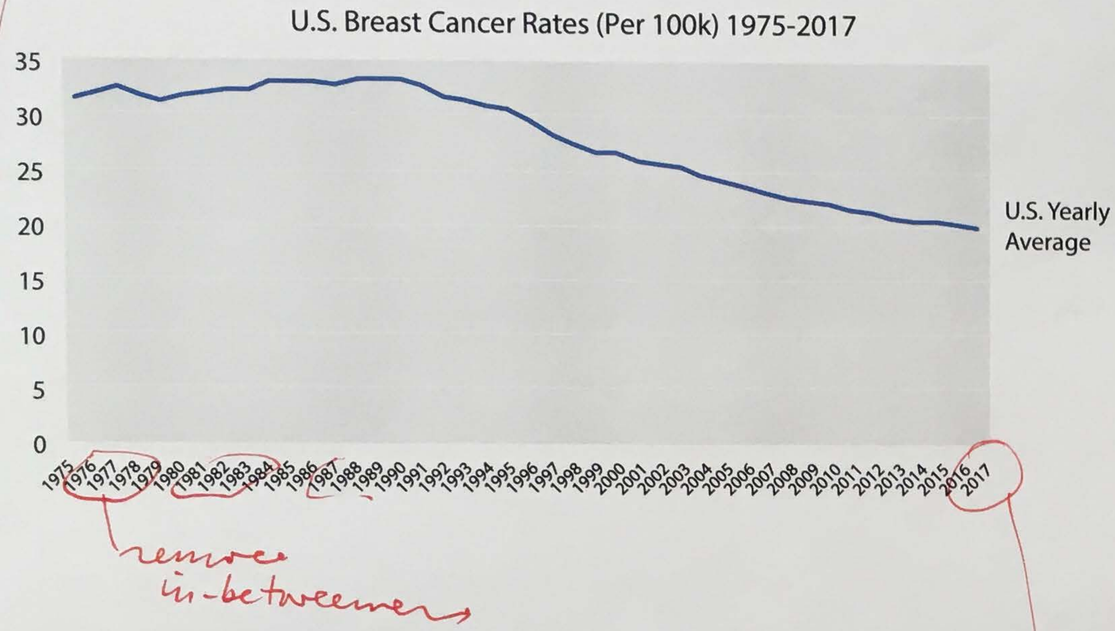
USE ONLY IF/WHEN NEEDED.

GRAPH 3. For this graph I wanted to keep the elements dark in front of a lighter background in order for them to be more visible. I created lines that are all at even 45 degree angles to follow the state name to the correlating dot on the scatterplot. The trend line is also visible but doesn't overpower the other details. I left the numbers correlating to the death rates simply outside of the colors of the graph to be more easy to read.

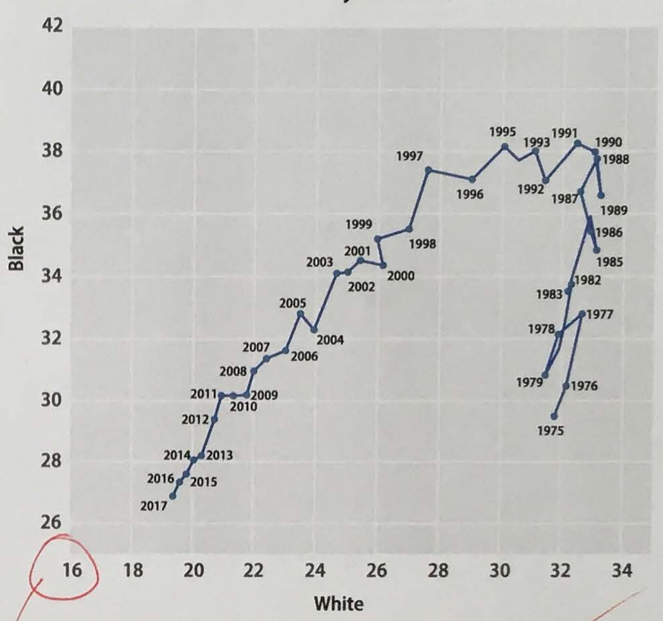
IT'S NOT UNFORTUNATELY

132/150 (B+)

1.

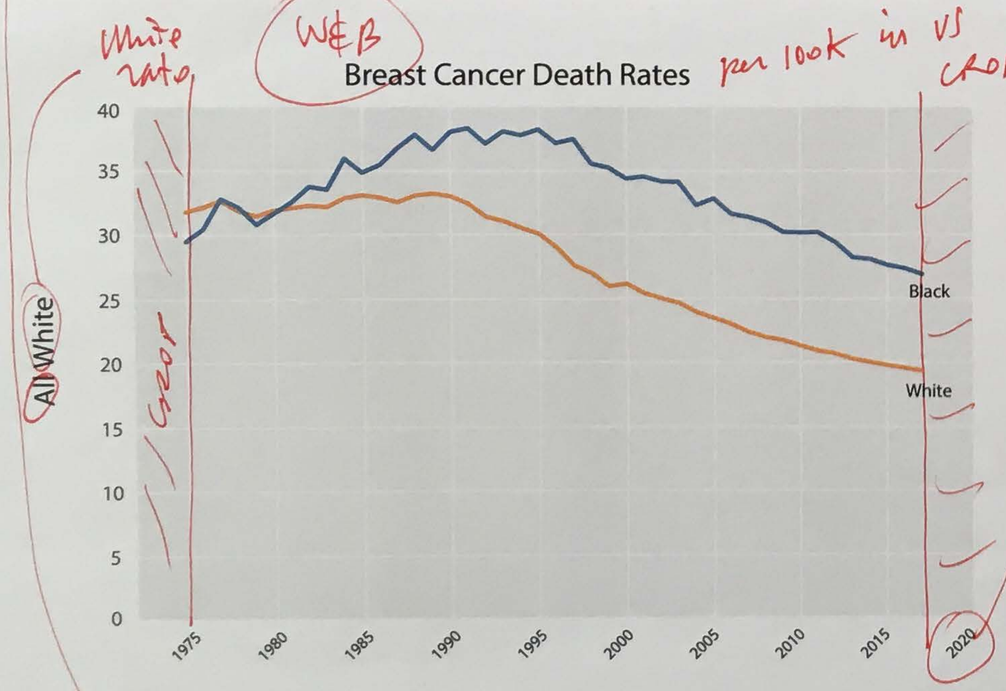


3.

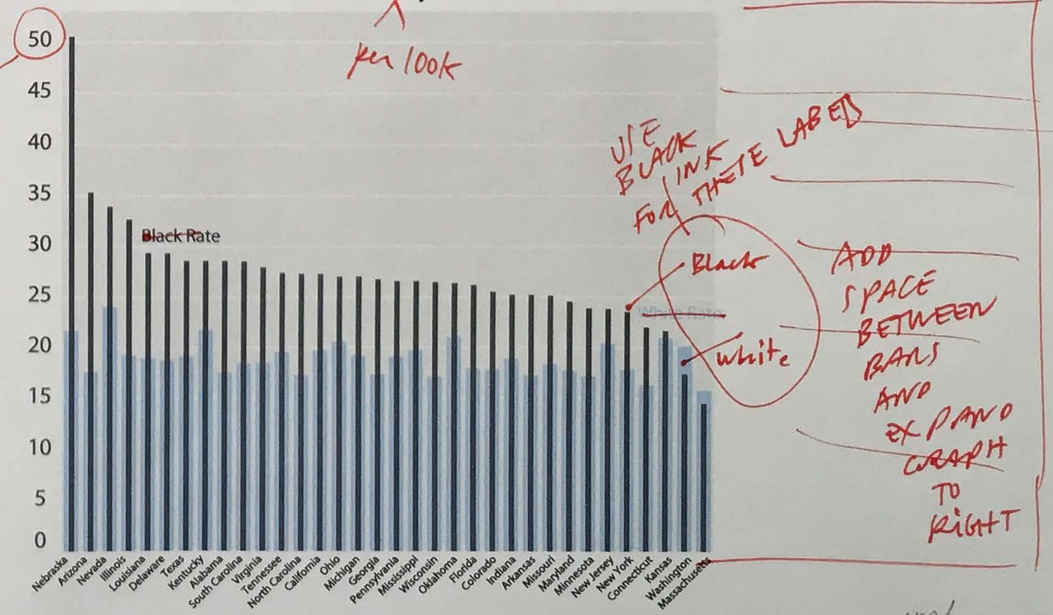


After looking at the data in these four graphs we can see the rate of breast cancer diagnosis has gone down in the united states over the past 40 years but when looking at the comparison of mortality rates between black and white populations (i.e. graphs 2-3) we can see a significant inflation of black mortality from breast cancer. When looking at a state by state basis (I.e. graph 4) we can see the drastic difference between the rate of breast cancer diagnosis as well. There is insufficient evidence to state why this is the case but things like access to healthcare could play a significant role in mortality rates.

2.

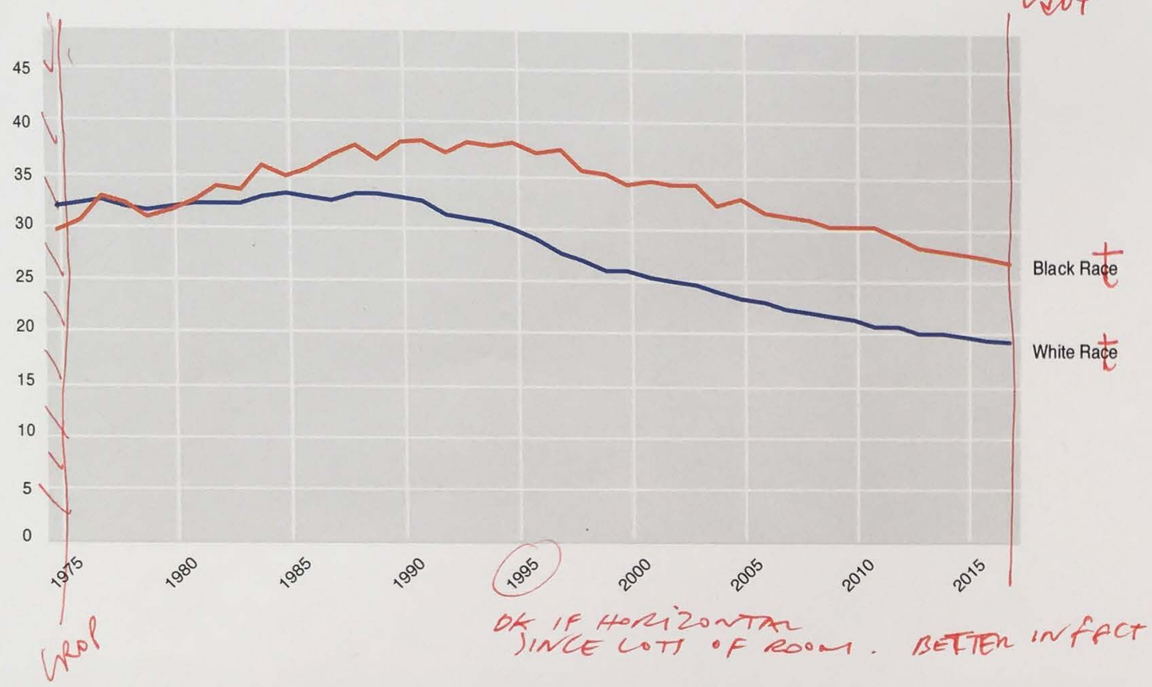


4.



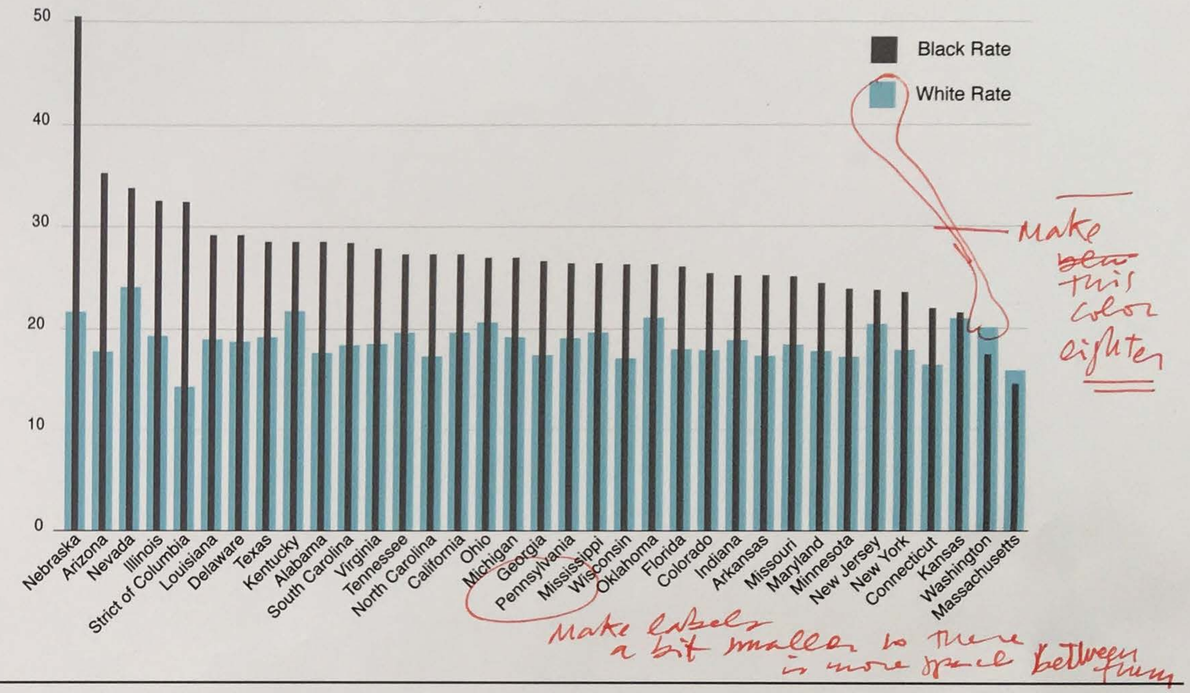
U.S. **Breast Cancer Death Rate of Black and White female from 1975 to 2017**

(per 100k)



OK IF HORIZONTAL SINCE LOTS OF ROOM. BETTER IN FACT.

Population Mortality Rate of Black and White female in US State in 2019



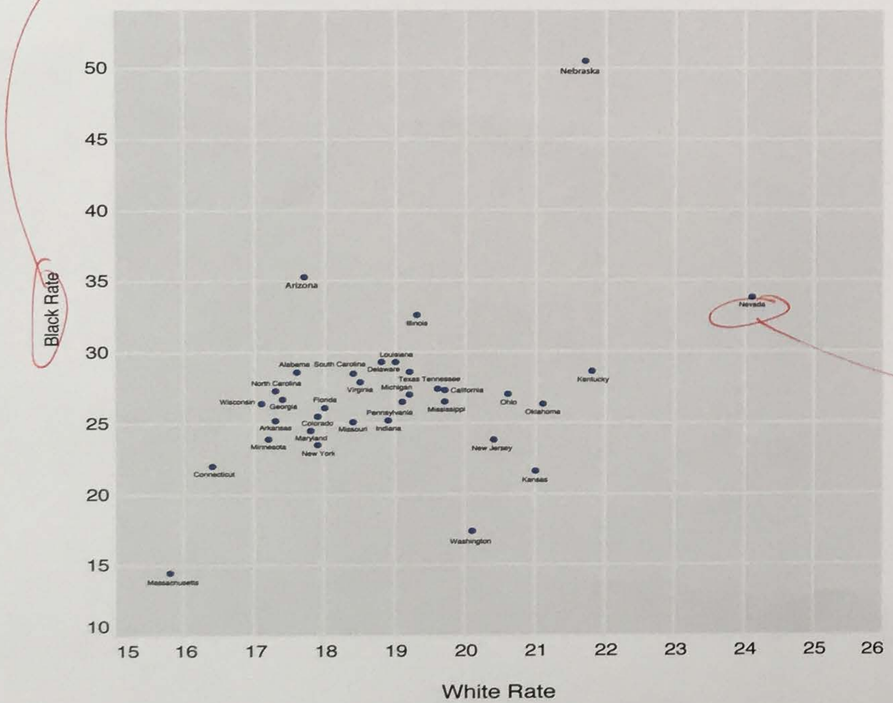
Make ~~new~~ this color different

Make labels a bit smaller so there is more space between them

U.S.

Breast Cancer Death Rate of Black and White in 2019

Female (per 100k)



This chart is distorted (squished vertically) so now dots are oval.

Bigger type

USE STATE ABBREVIATIONS IF NEEDED

The first graph is a line graph containing two pieces of data, which was generated directly in an excel file. Then I first differentiated the colors of the two lines to make them distinctly different and easy to identify. I removed the small logos of the two color lines and added ~~an informative~~ the explanation of the lines at the end of the line. I also added a gray background and a white grid to make it easier to distinguish the corresponding x or y coordinates. The font of choice is sans-serif helvetica, 9pt in size, and the text of the title is bolded and enlarged. x-axis names are rotated 45 degrees instead of vertical or horizontal, which makes the diagram look more professional.

labels

(IF ROOM, HORIZ. OK) to

The second chart is a bar chart containing two types of information, and the font chosen is also sans serif helvetica, 9pt in size. Again the names of the regions along the x-axis are rotated 45 degrees, not vertically or horizontally, which ensures that a large number of labels do not overlap, makes it easier to read, and makes the graph more professional. To make it easier to compare the differences in data between black women and white women, I chose to make the bars for Black women thinner and use gray, in the middle of the White women's bars. The white women's bars are separated by a light blue color, which makes it easy to compare the differences between the two types of data, and makes it easier to read the data. The bars for black women are arranged from high to low, and the dates on the y-axis are partially removed, leaving increments of 10 to make the graph easier to read. The date labels along the y-axis each have a light gray extension line underneath the bars, which better corresponds to the x- and y-axis data.

data

The third scatter chart uses the same font and size as the first two charts, and also adds a gray background and white grid to increase the readability of the icons and make them look more professional. Each ~~scatter is~~ a solid blue circle instead of a hollow one, which makes the diagram look neater. Each ~~scatter~~ has a corresponding name label next to it, they are also in helvetica font, but only 3pt in size, the reason for this is to save space and prevent the chart from becoming confusing with too large a font.

icons? dots!

if anything, they are "symbols" not "icons."

don't use expanded font

dot

dot is 3pt TOO SMALL!!!

SEE #16 IN ASSIGNMENT

142/150 (A-)

#