CSE 519: DSF COURSE PROJECT POLITICAL POLARIZATION AND MARRIAGE

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***Abstract*—Given a dataset of voter registration data from different states in the USA, we seek to identify people co-habitating i.e living with each other and with a fair degree of probability ascertain whether they are married. Looking at the political party affiliation of the members in a couple, we then look at those couples with the same or different political party affiliation. Given the datasets over successive years, we then try to identify whether these same couples are still cohabitating (i.e whether they are married) and try to identify whether their political party affiliation played a role in staying married or getting divorced.**

I. Introduction

ONE of the key components for a successful marriage happens to be the degree to which couples agree with each other. While most people in marriages or relationships agree of wide variety of issues, spanning from which TV show is the best or which songwriter or singer is most influential no matter is more sensitive than their individual political beliefs.

There hasn't been a greater divide amongst the conservatives and liberals more so than our current time. While most Republicans are anti-choice (opposed to a pregnant woman's choice of a medically induced abortion), don't largely agree with feminist views and disagree that climate change is a real threat, Democracts on the other hand tend to be more leaned towards Pro-choice, pro-feminism and vehemently support the need to reduce greenhouse emissions in order to curb the climate change. Thus, it is only natural that couples that belong to different political party affiliation will tend to disagree more on these same points and these same topics of disagreement will affect their lives more than say Queen being more influential in their lives than Abba.

Over the years Americans have become increasingly contemptuous of partners holding different political viewpoints, and contempt is single handedly destructive for any long term relationship argue say psychologists[1]. The 2016 presidential campaign was a political season that sparked debates in public, in family meetings and slowly found its way creeping into personal lives, behind closed doors where couples would argue on issues such as wage-gap or gender equality, slowly tearing themselves away from each other[2].When one member of a couple would argue stating they would for a candidate other than what the other chooses, it would be met with an excoriating ultimatum for a divorce, or a threat to move to Canada thereafter.

Differences in political viewpoints alone do not contribute to a heated debate amongst couples, rather it is the the type of viewpoint coupled with the political atmosphere of the time that largely contributes to such heated exchanges. The years from 2010 to 2019 were some of fiercest difference in public opinion. While Republicans were against immigration and claiming how illegal immigrants took advantage of the social system without paying for it, or the fact that Feminism has no ground to stand on, Democrats felt sympathetic on a large scale to immigration, and viewed Feminism as true step towards growth of women in society. These topics rarely used to create a problem before, false rape-accusations, the metoo movement along with the incident of James Damore being fired[5] for stating a counterpoint for women's equality in the workplace led to some heated issues amongst couples in their day-to-day lives.

This disagreement boiled over into the Russian interference into United States Presidential elections of 2016, with couples at odds with each other more than at any other time in history. Some even claiming why the other supported Trump when their was clear indication that he was not of a credible stature.

Given this wide disagreement between couples for different with political leanings and such differences boiling over into their marriages, we expect to see such couples to be divorced with a higher percentage than those couples with the same political leanings. We want to perform data analysis on data-sets for couples for the state of and New York whose voter registration data is publicly available and filter out the data to identify those couples who are staying with each other.

We specifically would like to identify couples from this dataset and then lookout for couples with the same and different political leanings, this is done by identifying whether two people of different gender are living together with the same last name and whether the differences in their age is not very large. We then move on to seek those same couples in the next election cycle or year and verify if they have been co-habitating or not. We expect that those couples with different political leanings will cease to co-habitate at a higher percentage that those with the same political leaning, and this percentage difference would be even higher when analysing couples from the 2016/2017 election cycle, when the campaigning and election for President Donald Trump and Hillary Clinton were in progress.

II. DATASETS

The state of Florida makes its Voter registration data public, and is available on their website [http://flvoters.com/downloads.html] for download. It contains data monthwise for each of the election cycles from the year of 2012 - 2019. We downloaded data for a specific month of each year and used it for our analysis of cohabitation and divorce rates.

Most of the data for the state of Florida was present in text files split county-wise per year per month. We only collected data from those months for a year that were prior to any major election event or after any major election event. This would give us a time buffer within which we could predict separation of couples.

In order to scrape this data we utilized the Free software WinHTTrack to help us scrape though the entire records database, a total of 32GB worth of data.

Professor Jason Jones from the Department of Sociology of Stony Brook was kind enough to provide us with datasets for the State of New York, these data sets were for the years 2016 and 2017 in single txt files per year.

We collected the First Name, Last Name, Birth Date, Address(City, house number, street), Party affiliation from this datasets to help us narrow couples and their party affiliation.

III. PREPROCESSING

We loaded our data with the help of the Python Pandas module. We first loaded data for each of the counties for the state of Florida and combined them into a single Pandas Dataframe, for our county-wise divorce rate analysis we kept our datframes separate. This was done for each year for which the data was provided.

Our first step before utilizing the data was to filter out those fields that were empty and would not contribute to our analysis. All the rows where the Birth Date, Address, Gender or Party Affiliation values were empty were dropped with the help of Pandas.

There were many address and names columns that had an asterisk possible to conceal the identity of voters, these columns had to be dropped as well.

The following were the names of the columns that we loaded :

State of New York	State of Florida
Name Last	Name Last
Name First	Name First
Name Middle	Name Middle
Residence House Number	Residence Address Line 1
Residence Street Name	Residence Address Line 2
Residence City	Residence City (USPS)
Residence Zip Code 5	Residence Zipcode
Gender	Gender
Birth Date	Birth
Registration Date	Registration
Party Affiliation	Party

Name of the fields used per state

IV. METHODS

Our objective was to identify those couples who were cohabitating and to verify if they were still cohabitating in the next election cycle, thus we resorted to sorting couples into groups where each group would be an indicator of there cohabitation.

The fields relevant to us in our filtering process are the lastnames, firstnames and the address of people. While the Python Pandas module helped us load the the data, processing with Pandas became extremely time consuming and we resorted to using simple hashmaps; key:value pairs that would store the information of couples so that they can be easily retrieved for processing.

For each person in our dataset we concatenated their address fields into a single string and removed any spaces or special characters, which gave us a unique key of their address, this key was further contaneted with their last name. Thus all people whos shared the same value of the address key concatenated with their lastname were grouped together. This enabled us to cluster those people who were staying together in a common house.

Next we had to identify whether there were couples in this group, we expected that the eldest two people in a group should have an age difference of less than 15 years and be of a separate gender, else they filtered out.It was harder to identify Gay couples. Also if there were more than two people in a household we expected the age difference between the 2^{nd} 3^{rd} eldest people in a group to be at least 18, else the group was removed as well. With all these groups were created, with the top two members in a group being the couple.

Next we checked in each group whether the party affiliation of the couple was the same or different, and we further grouped them into groups of couples with same or different affiliation. We then localized our analysis to these two sets of data.

While the dataframe for the entire state of Florida was concatenated for a single file, the county-wise data further broken up into individual datasets county-wise to analyse divorce rates per county.

A. Identifying Divorced Couples

We have two datasets with us, the first with couples with same political party affiliation, and the other with different political party affiliation. These datasets are further grouped based on the unique key of their address concatenated with the lastname giving us unique pair of couples residing at a particular location.

We created such type of datasets for each of the years for which the data was available. For the state of New York it was limited to 2016 and 2017 only.

We took a dataset for couples with the same party affiliation for a particular year and then tried to identify based on the unique key of their address and lastname whether the key was to be found in the next election cycle.We used their firstname to check whether the same people were to be found in the next cycle at the same address key. Thus it gave us an indicator whether the couples were divorved or not.

This was done for both sets of couples with same and different party affiliations, and while this processing was done for the entire state it was also done county wise to get even more granular results.

We also tried to factor in other effects such as age-difference of couples, which generation they belong to (baby boomer, millenial, etc), and whether an overall couty's political leaning (majority Democrat or Republican) affected the divorce rate in anyway.

V. Need for Statistical significance test

One challenge we consistently faced while working was how to ascertain whether the numbers we are crunching mean anything significant. This is especially true for our project as we are getting widely different numbers of couples with same political party affiliation (PPA) and those with different PPA across any subset of the data. For instance, for the county of Okaloosa, we found 15850 couples with same PPA and only 5209 couples with different PPA, which is roughly 33%. Same was the case with any other county or for the entire state of Florida. So, we decided to do a statistical significance testing for each subset of the data that we are analyzing.

We researched about various kinds of statistical tests available and found that Chi-Squared Test fits excellently well for our project. A generally acceptable p-value threshold for the results to be significant is 0.05. That means if we get a p-value of 0.05 or lower, our results are significant. The lower the better. We performed this test for all our data and found that the p-value we got was extremely close to zero. This helped us in strengthening our conclusion about the role of PPA on the success of a marriage.

A. Chi-Squared Test

Here, we show how we computed the p-value for the county of Okaloosa. The degree of freedom for our data will be 1 as we are having two rows and two columns.

	Same PPA	Different PPA
Not Divorced	13228	3910
Divorced	2622	1299

TABLE I: Number of couples divorced and not divorced for same and different PPA

	Same PPA	Different PPA
Not Divorced	12898.9	4239.13
Divorced	2951.13	969.87

TABLE II: Expected Number of couples divorced and not divorced for same and different PPA

	Same PPA	Different PPA
Not Divorced	8.39815	25.554
Divorced	36.7068	111.692

TABLE III: Chi-squared values of the above table

Chi-Square = 182.351 Degrees of Freedom = 1
p = 0
Our p-value is very small. This tells us that our result is very significant. For all the data subsets on which we performed our analysis.

VI. Legends

Here, we have compiled a list of legends which we have used to represent data throughout the report. Next parts would be much easier to read by having a quick glance at them.

1) Abbreviations
   a) PPA: Political Party Affiliation
   b) R/REP: Republicans
   c) D/DEM: Democrats
   d) O: Other PPA
2) Couples are represented as Male-Female For instance, a married couple with a Democrat husband and a Republican wife would be DEM-REP or D-R.

VII. Results

We found many interesting insights through our data analysis which helped us strengthen our hypotheses that political polarization does play an important role in determining the future direction of relationship among a couple.

Primarily, we focused on finding the rate of divorce among couples with the same and different political party affiliations and to bolster our claim further, we drilled down on other factors such as age difference among individuals in a couple, local and federal political climate, and the generation to the which the couple belongs. We also calculated the divorce rate among the couples across several years to ascertain whether

recent evident rise in political factionalism across the States has played in worsening personal relationships.

We start by presenting the results for the state of Florida.

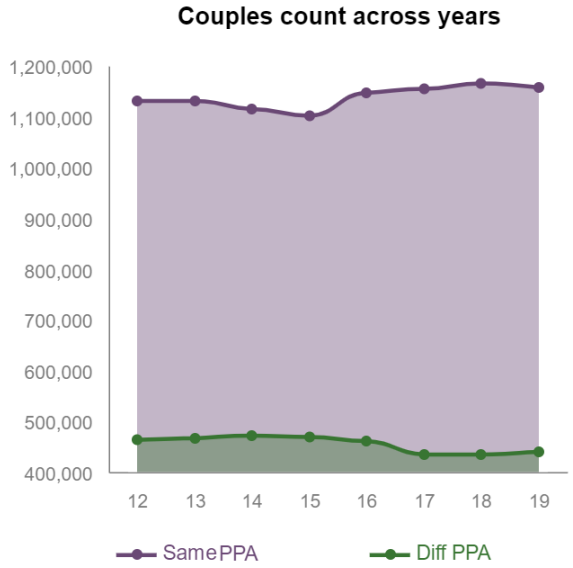

Fig. 1: Number of couples with same and different PPA in Florida from 2012 to 2019.

In Figure 1, first of all, let's take a moment to appreciate the fact that the number of couples with different PPA is relatively very low (approx. 30-35%) in comparison to those with same PPA. That is a challenge we faced across all the datasets. The comparison is harder for datasets of significantly different sizes. But that's what it is and we can't change the ground reality and that's why we conduct a statistical significance test, **Chi-Squared Test** (described in detail later in section III).

We can see that that the gap between the number of couples starts widening from 2016 onward. This tells us that probably people are converting to their partner's PPA or the fact that people marry into same PPA.

By plotting the above figures, we wanted to check whether the election of Trump played any part in people changing their PPA. As we can see above in Figures 2 & 3, for both the years 2016 (the year in which Trump got elected) and 2017, the distribution of couples against their PPA did not change much. The majority of couples are R-R, followed by D-D & the number of couples with different PPA are much less.

In Figure 4, we observe that the gap between between the divorce rates among couples with same and different PPA is the **highest for the year of 2017**. This was the year after Trump got elected in Nov. 2016. The same PPA divorce rate is around 23% vs. 15% for different PPA. The rates were the highest for 2016, which was the campaigning year and many heated debates and discussions took place in that year.

There is a drop in divorce rates in 2017 from 2016 for both same & different PPA couples. But, the interesting thing here is that the drop is much steeper for the same PPA. This is explained by the fact that majority couples in the state

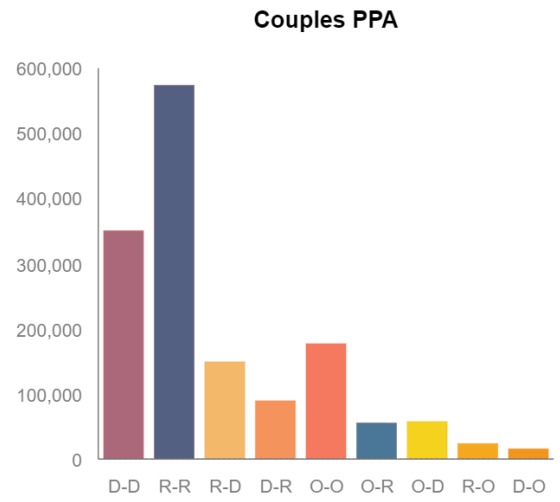

Fig. 2: Number of couples against PPA for 2016 in Florida.

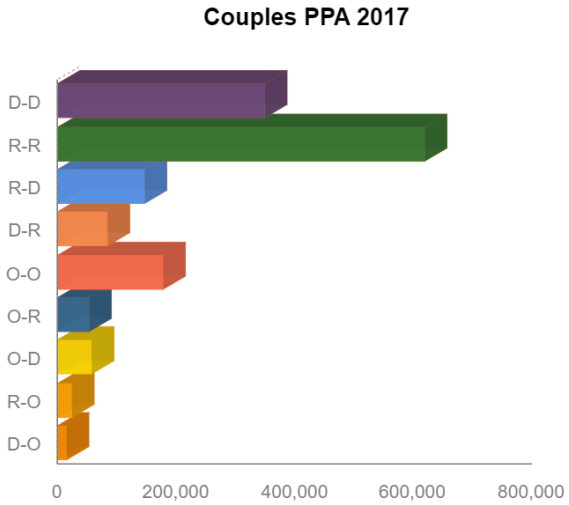

Fig. 3: Number of couples against PPA for 2017 in Florida.

are Republicans, who would agree with most of the Federal policies by Trump and hence, more cohesiveness among them. The drop for different PPA is explained by the fact that many of the couples in this segment were probably about get divorced due to other factors in the same year or in the future, it just so happened that those couples got divorced in the earlier year due to the heated political differences of 2016 election cycle . The gap starts decreasing sharply after 2017. This again proves the previous hypotheses, couples who were likely to get divorced either in 2017 or later, got divorced much earlier i.e the end of the marriage was expedited due to the hostile political climate, hence fewer couples remained who were to get divorced in 2017 and beyond had the election cycle not been so charged with passionate differences.

One interesting thing to be noted here is that both the divorce rates and the gap between same & different PPA reduced in 2013-14. We could say the following; given the US economy was pulling out a recession and doing better

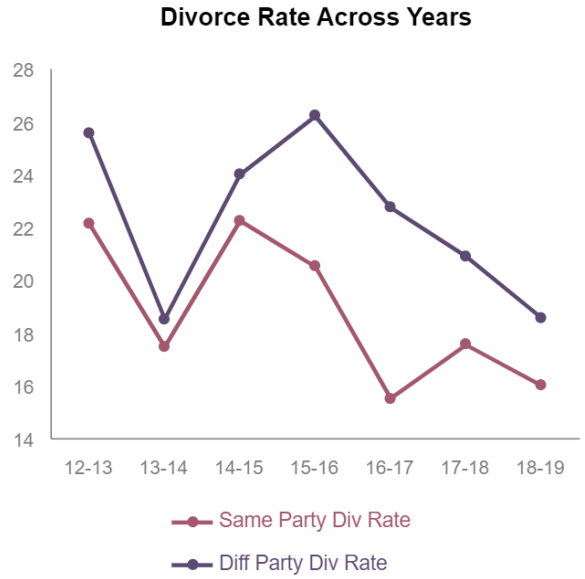

Fig. 4: Divorce rate across the years 2013 to 2019 in Florida.

along with members from both political leanings agreeing that the presidency of George W Bush was taxing for the entire country, increasing the federal debt, it seemed members from both sides agreed that the Presidency of Barack Obama was much better and a necessary measure to ensure the growth of the nation i.e their political viewpoints were same despite supporting different political parties.

Getting divorced was also a financially risky proposition for mere difference in once political beliefs given the economy was just starting to recover.

A. *Divorce rate w.r.t. generation*

It is often said that people belonging to same generation think alike. Hence, it would be fascinating to get the answers to the questions like:

1) Would a millenial couple belonging to the category of different PPA divorce more often than a Baby Boomer couple having different PPA?
2) How important is PPA in determining the future of marriage in millenials vs GenX vs GenY?

In Figure 5, we can see that the new generation of couples i.e. **GenZ** have the highest divorce rate among them, both for same and different PPA. The interesting thing to note here is that the **older people are less likely to get divorced and the divorce rate keeps on increasing as the couples get younger and younger**, the exception here being the **Boomers**.

One other very important thing which can be inferred from Figure 5 is that **PPA plays a more important role for older people** as the gap between same and different PPA is highest for **Silent Generation** and keeps on decreasing as we approach **GenZ**, again with the exception being the **Boomers**.

*1) **The Baby Boomer Exception**:* A simple Google search would yield the fact that the current average age in politics in the US is 57 years. That is the current age of boomers and they are active participants in today's politics and hence, people in that age group would naturally be more affected. This is true even for people in that age group not involved in politics, as it is often said people belonging to same generation think alike.

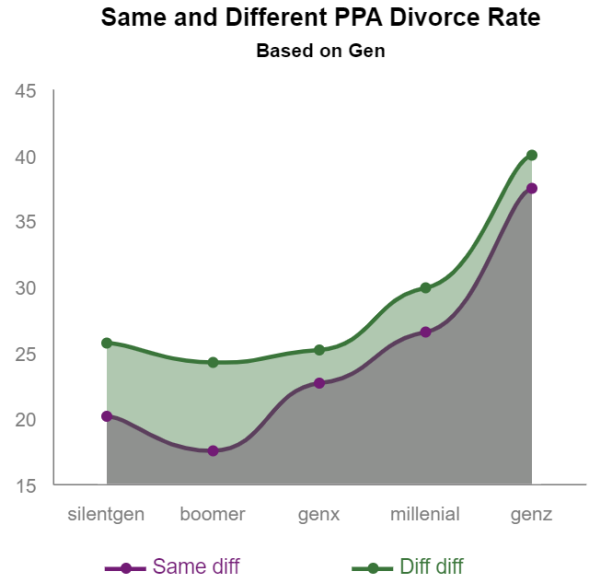

Fig. 5: Divorce rate of couples with same & different PPA against generation for 2017.

In Figure 6, we show divorce rates among same PPA couples against generation of the couples. Observations from this plot:

1) The couples with other PPA are more likely to get divorced across generations. It starts with around 26% for Silent Generation and goes way up to 41% for GenZ
2) The Republican couples are the least likely to get divorced across generations. This is due to the **election of Trump** in 2016.
3) The gap reduces as we approach **GenZ**, strengthening the hypotheses that **young couples are not much affected by PPA**.

If we compare Figure 6 with Figure 7, it tells us that couples with different PPA (R-D & D-R) are, on average, **5-6% more likely to get divorced than couples with same PPA** across generations, which again tells us the part of PPA in determining the future of relationships. To be sure, we conducted **Chi-Squared Test** and found that this 5-6% difference was indeed significant.

Figure 8 tells us the story of the divorce rates of different PPA couples other than D-R and R-D. So, we have the remaining categories(**O-R, R-O, D-O, O-D**). Observations:

1) The O-D & D-O couples have a wide gap in between them. The O-D category has the lowest rates, while the D-O has the highest among all. This may be because Florida is a Red state and Democrats are constantly frustrated by the policy decisions taken by the Republicans and the partner belonging to other PPA may support the Republican policy decision.
2) The R-O & O-R do not have a significant gap between them. This is because a REP partner in the relationship

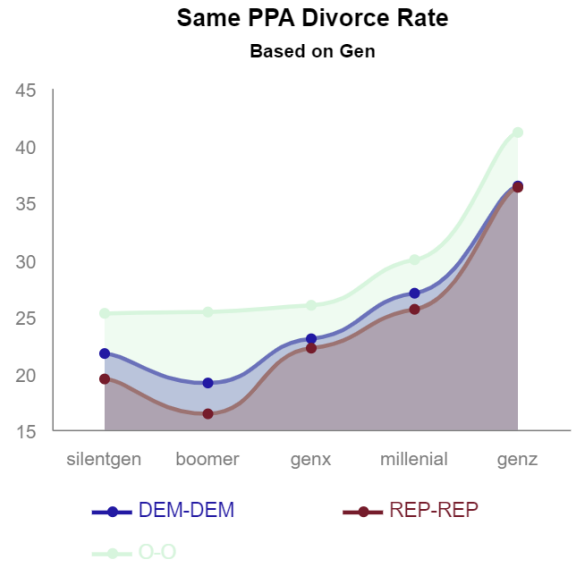

Fig. 6: Divorce rate of couples with same PPA against generation for the year of 2017.

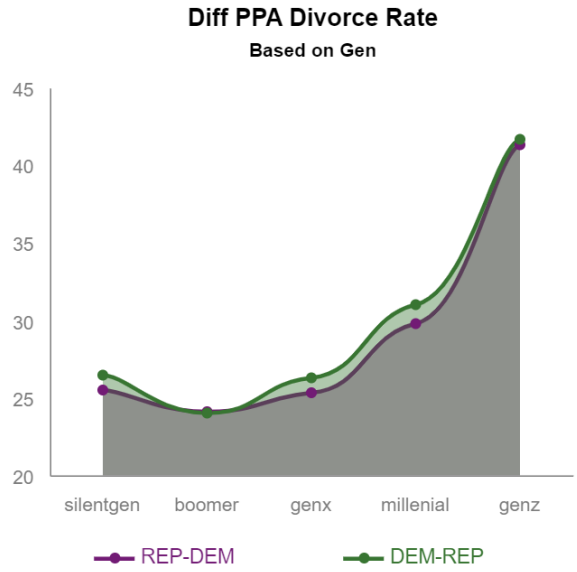

Fig. 7: Divorce rate of couples with different PPA against generation for the year of 2017.

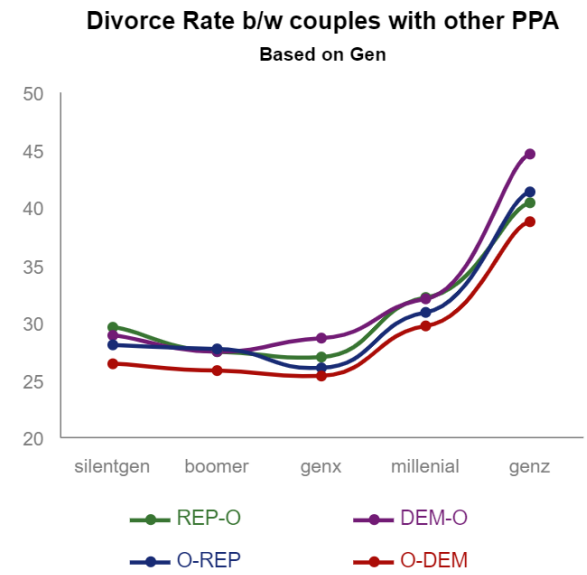

Fig. 8: Divorce rate of couples with other than Democrat or Republican PPA against generation for the year of 2017.

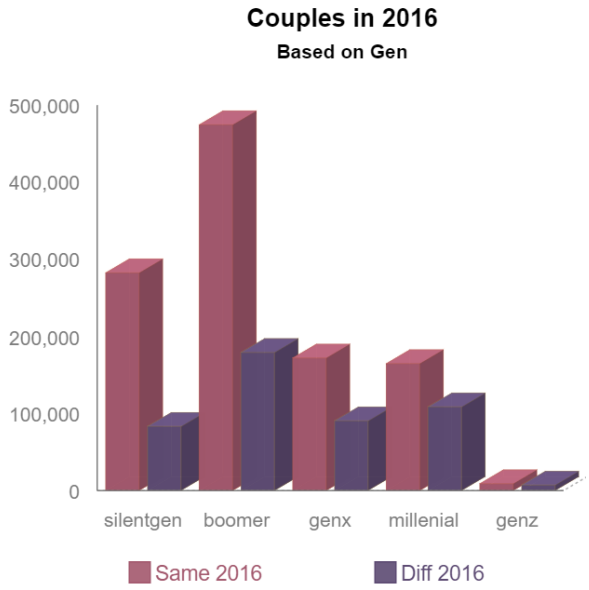

Fig. 9: Number of couples against generations in 2016.

may be able to pacify the situation in case a heated argument takes place between the couple.

3) The divorce rates are again rising as we go from the **Silent Generation to the GenZ**, with the exception of **Baby Boomers**.
4) Last but not the least, the divorce rates across generations are again **5-6 %** higher than those with same PPA in Figure 6

Figure 9 shows the number of couples against generation with same and different PPA. We observe that highest number of couples are in the **Boomer** category, with approx. **5,00,000** couples with same PPA and around **2,00,000** couples with different PPA. At second place is the **Silent Generation** with **3,00,000** couples in the same PPA category and around **90,000** in the different one. **GenZ comes the last as they are the youngest ones and most of the people in that age group are, possibly, yet to be married.**

Figure 10 shows the number of couples against generations for the year of **2017**. We did not notice much difference here as compared to **2016**, except for some minor observations.

1) The number of couples in **SilentGen** has reduced slightly, which can be explained by natural deaths of people in that age group.
2) The number of couples in **GenZ** has increased as new people would have got married in a year.
3) One interesting thing to note here is that the number of **Boomer & GenX** couples with same PPA has

increased **Boomer & GenX** couples with different PPA has decreased. This is the result of **increasing political polarization after the election of Trump**.

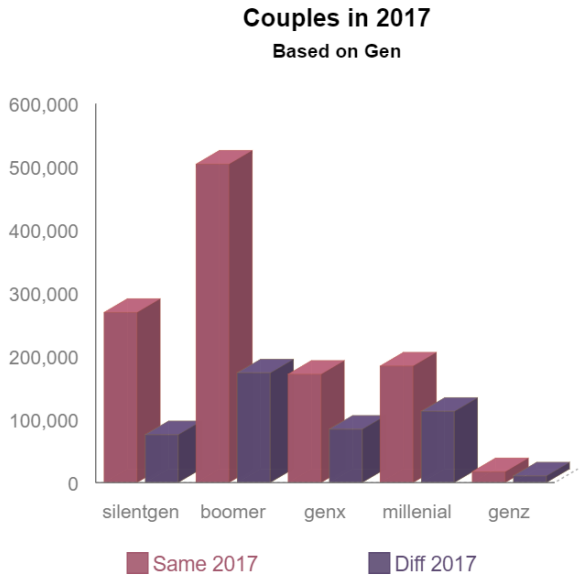

Fig. 10: Number of couples against generations in 2017.

B. *Divorce rate w.r.t. age difference*

We generally observe that age difference plays an important part in developing chemistry between couples. This is proven by the statistic that there are highest number of couples with the same age and the **number goes on decreasing** as the **age gap increases**. Here, we try to assess whether age difference plays any determining factor among couples with same and different PPA. Are the trends same for the same PPA and different PPA? What is the likelihood of a couple, having an age difference of 7 among them and having same PPA, getting divorced? We should be able to answer such questions after the completion of this section.

Figure 11 shows the number of couples with same and different PPA against age difference among the couple. Here, we observe that the number of couples is the highest with an age difference of zero and goes on decreasing as the age difference goes on increasing. Both the couples with same and different PPA observe this trend.

In Figure 12, we show the divorce rates among couples with same and different PPA against age difference among the couple. We observe **a consistent difference in divorce rates** between couples with same and different PPA. We see that generally, divorce rates increase as the age difference increases, both for same and different PPA couples. Further, we can see that the gap starts to decrease as the age difference increases from the age difference of 4 and then around the age difference of 11, it again starts to increase.

Figure 13, we plot the divorce rates for couples with the same PPA against the age difference among the couple. We observe the following:

1) The divorce rate among **O-O couples is the highest across age difference**.

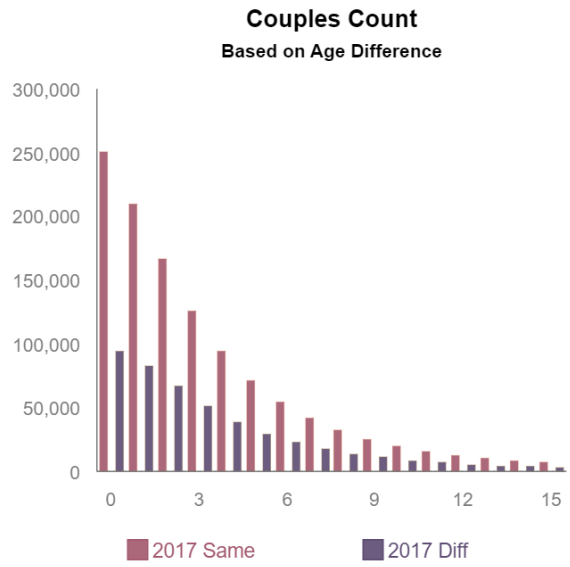

Fig. 11: Number of couples with same and different PPA against age difference among them in 2017.

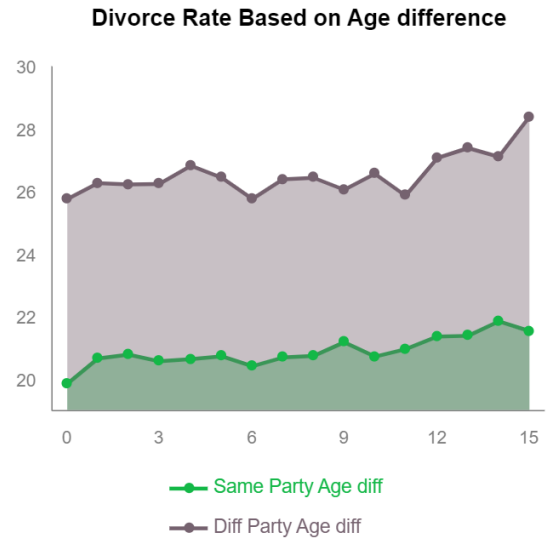

Fig. 12: Divorce rates among couples with same and different PPA against age difference between them.

2) The divorce rate among **R-R couples is the lowest among all 3 categories and D-D couples lie somewhere in between** again indicating the effect of polarization after the election of Trump.

Next, in Figure 14, we explore couples with different PPA **(DEM-REP & REP-DEM)** against age difference. We observe many interesting things here.

1) If we compare these results with the ones in Figure 13, we generally see higher divorce (4-6%) rates across all age difference couples. This helps us further in claiming that **political polarization does have an effect in determining the success of a marriage**.

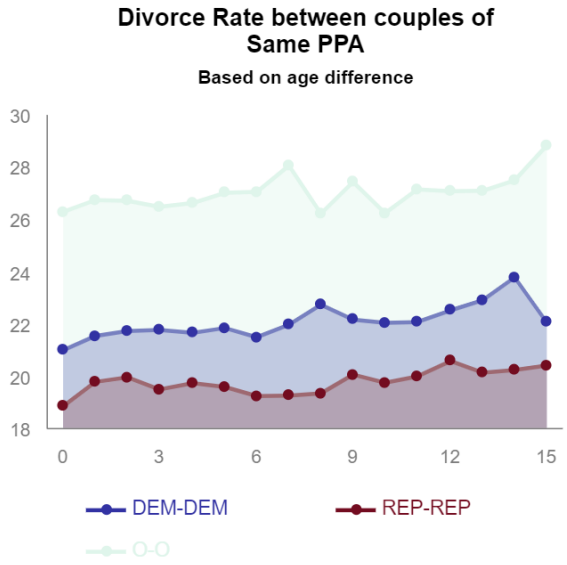

Fig. 13: Divorce rates among couples with same PPA against age difference between them in 2017 .

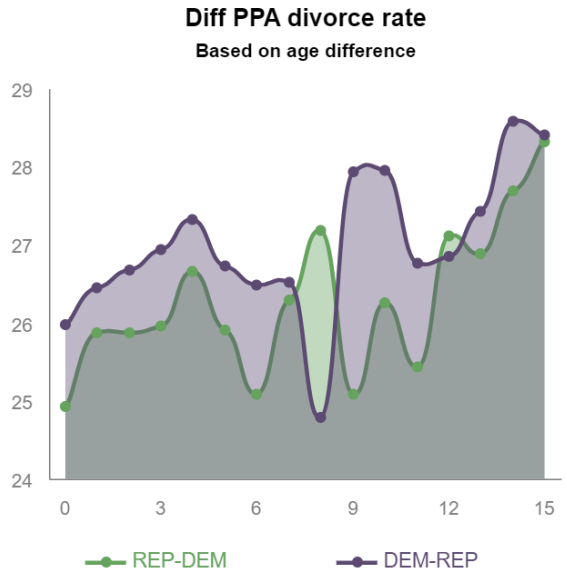

Fig. 14: Divorce rates among couples with different PPA against age difference between them in 2017 .

2) Next, we see that generally, DEM-REP marriages failing more than REP-DEM marriages. This maybe because Democrats are considered to be more liberal than Republicans and within Democrats, men are believed to be more liberal than women and within Republicans, women are believed to more conservative. Hence, there is a wider gap in the **libertarianism-conservatism spectrum** in DEM-REP couples.
3) Age difference does play a part in separating couples as for higher age difference, we see a higher divorce rate. But, the gap reduces as the age difference increases. Hence, political views seem to play a less important role in couples with higher age difference.

C. *County-wise divorce rates*

Federal political climate is definitely an important factor in the United States politics. People often engage in heated debates about federal policy issues. But, people here often underestimate the influence that the local political climate has on personal lives. It is often local politics which shape up the federal political scene.

Here, we analyse divorce rates of couples in a county for the entire state of Florida.

First, we show what is the political climate in a county. Is it a Red county, or a Blue county? If red, then how much red and if blue, how much?

After analyzing the political climate, we go on to analyze divorce rates in a county and see how much of a factor the **Redness or the Blueness** of the county is for establishing those rates.

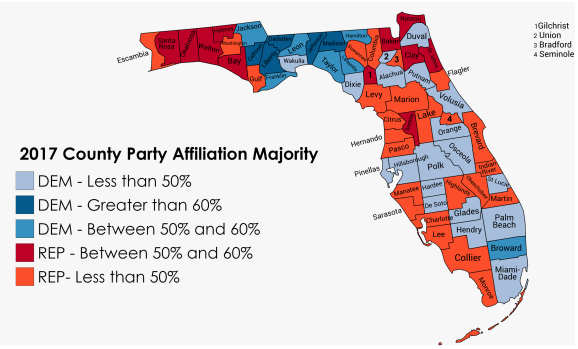

Fig. 15: County-wise political party affiliation majority.

Figure 15 shows a color-coded map of Florida along with the county-wise view of majority political party affiliations. Here, we can easily observe that there are **more number of Republican-heavy (where there are between 50-60% REPs) counties than Democratic-heavy (where there are more than 60% DEMs) counties**. There are **35** REP counties and **32** DEM counties.

Next, we analyze the divorce rates among couples with same PPA per county.

Figure 16 shows the color-coded map of Florida presenting the divorce rates among couples with same PPA.Observations & Inference:

1) By comparing Figure 15with Figure 16, we observe that the lowest divorce rates are in the counties dominated by DEMs. We can observe the counties of **Liberty, Franklin, Jefferson, Lafayette and Madison** have the lowest divorce rates (5-10 %)among all and they are all DEM-dominated. There are also low divorce rates among REP-dominated counties but they are an **exception** rather than the rule.
2) Other very interesting inference is that, **generally neighboring counties have similar divorce rates.**. For instance, if you look down south, the counties of **Collier, Monroe, Miami-Dade, Broward, Palm Beach,**

Hendry have similar divorce rates from 15-20 %. Similar **neighborhood clusters** can be observed in Figure 16 across the state.

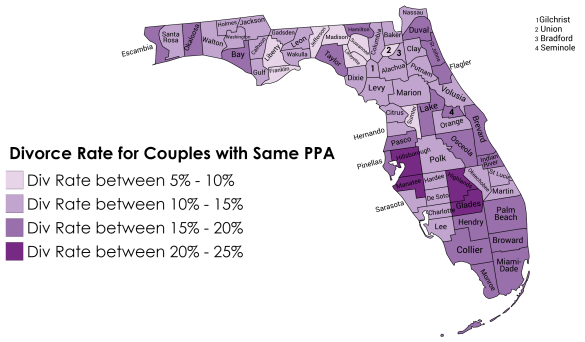

Fig. 16: County-wise divorce rates among couples with same PPA in 2017.

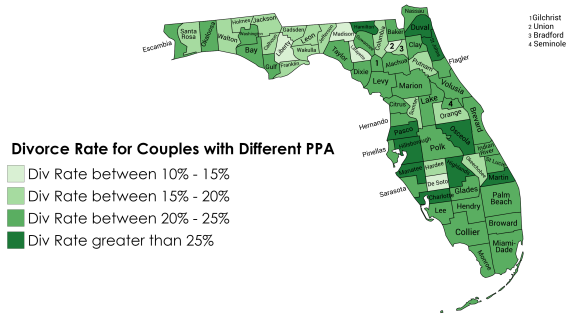

Fig. 17: County-wise divorce rates among couples with different PPA in 2017.

In Figure 17, we present **couples with different PPA** county-wise in the color-coded map of Florida. We observe similar trends as we observed in Figure 16. But, one noticeable change here is that the scale of divorce rates has changed from **(5-10, 10-15, 15-20 & 20-25 %** in Figure 16 to **(10-15, 15-20, 20-25 & more than 25 %)** in Figure 17. This itself is a big indicator of how the **political polarization has affected the success of marriages**.

All other numbers are largely similar to Figure 16. Figure 15 & Figure 17 can be compared to extract deeper trends. Even here, **neighborhood clusters are formed, which tells us the importance of political climate in the success of a marriage.**

D. Analysing New York state data

We have done our extensive analysis for the state of Florida, in which we are successful in validating our claim through various **granular breakdown of couples against counties, age difference of couples and generation of couples.**

We would like to validate our claim further by analysing New York state data. We could only get our hands on 2016 and 2017 NY voter registration data and hence, did our best to extract meaningful inferences out of that dataset.

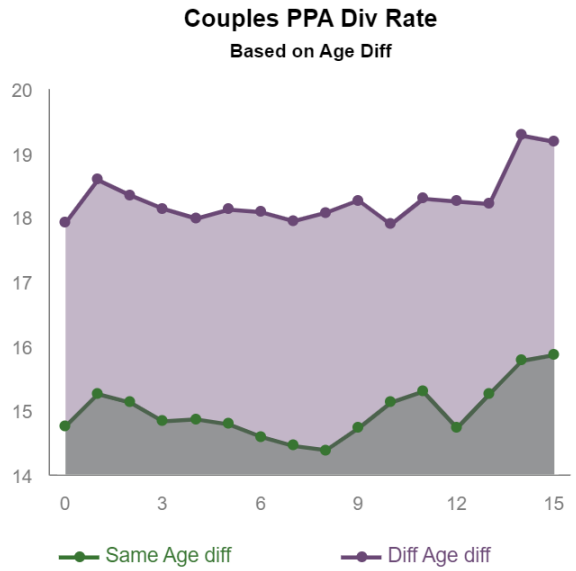

Fig. 18: Divorce rates among couples with same and different PPA for New York state in 2017.

*1) **Divorce rate w.r.t. Age Difference among a couple**:* In Figure 18, we observe a consistent gap of **4-5%** in divorce rates between couples with same and different PPA, which is very similar to what we observed in Florida. We tested this data again for statistical significance using **Chi-Squared Test** and found that it was **very highly significant**.

Next, we would like to compare the divorce rates of same and different PPA couples against the generation of the couples.

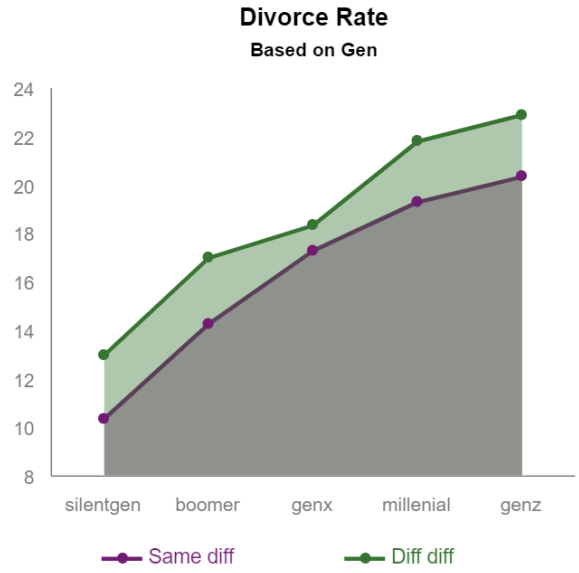

Fig. 19: Divorce rates among couples with same and different PPA for New York state in 2017.

*2) **Divorce rate w.r.t. generation of the couple**:* In Figure 19, although we see that the **gap between couples with same**

and different PPA is not that high as we get to see in Florida in Figure 5, it is still statistically significant, as measured by Chi-Squared Test. . The fact that **the gap between couples with same and different PPA is not high** can be explained by the fact that **New York is a Blue state and DEM people are generally considered more liberal and tolerant**.

We also observe that the divorce rates increase as the we go from older couples, represented by SilentGen to younger couples, represented by GenZ. The gap between the same and different PPA couples remains consistent, **saying that PPA affects SilentGen in the same way as it does a Millenial or a Boomer or a GenZ**.

*3) **County-wise Divorce rate**:* Here, we analyse divorce rates among couples county-wise.

In Figure 20, we see that there are very few counties with very high divorce rates. We have **Hamilton, Herkimer, Oneida, Oswega, Schuyler and Orleans** that have a divorce rate greater 20-25%.

Again, we have **neighboring clusters** which have the same divorce rates.

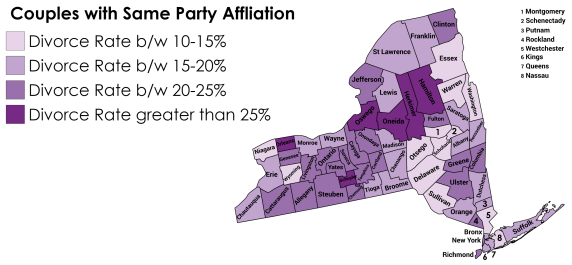

Fig. 20: County-wise map of NY state showing divorce rates for couples with same PPA for 2017.

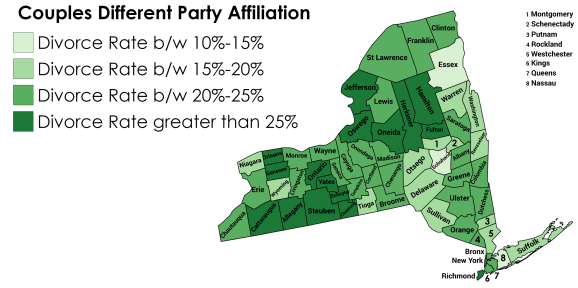

Fig. 21: County-wise map of NY state showing divorce rates for couples with different PPA for 2017.

In Figures 21 & 20, we find that the scale of data starts from **(10-15%)** for both the color-coded maps and if you compare the two maps, you will find that the **intensity of the colors has not changed for almost all counties**. This is because the gap between the same and different PPA couples divorce rates is less than **5%**. We have **already established this fact in Figure 19**. This is because of the fact that New York is a Blue state. But again, this difference proved to be **quite significant once we significance-tested it**.

VIII. Conclusion

In our comprehensive analysis of the couples for the state of Florida and New York, we indeed found that political party affiliation affects the success of a marriage. We found that **couples with differences in political party affiliations are much likely to get a divorce even more so when the political climate is hostile**. We managed to prove this with the divorce rates statistics **before and after the 2016 presidential elections**. This was evident through the divorce rates spanning various election cycles and when **it spiked during the 2015/2016 election cycle**.

We also found that **generation type is a factor when predicting how successful marriages are going to be**. Couples with different political party affiliation tend to have a higher divorce rate as the generation gets younger as compared to those who have the same political party affiliation.

With respect to **age differences** in a marriage, we found that couples that have **different political party affiliation** tend to get divorced with a **higher percentage** as the age differences gets larger, as opposed to those with the same political party affiliation.

In all, we conclude that the **individual political leanings of a couples along with the political atmosphere of the time play a significant role in determining the success of marriage**.

IX. References

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