The Analysis of Political Divisions in the United States, 1900-2020

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Abstract

This paper provides the conceptual analysis of the trends in political divisions in the United States using presidential elections over the 1900-2020 period as plausible indicators of political divisions or political unity. Political divisions and unity are inherent in political issues that compel voters to reveal their preferences in any presidential election. The notion is that presidential elections are political barometers that can measure political divisions or political unity in the United States. To reinforce this notion, we examine the 1900-2020 presidential elections by analyzing the total number of states won or loss by each President-elect. Based on the results of these presidential elections, we derive the political division coefficient (PDC), which ranges between zero and 0.50 and the political unity coefficient (PUC), which ranges between 0 and 1.Both measure the level of political divisions or political unity that existed prior to the election of the President-elect; and both may continue to reflect the level of political divisions or political unity during the tenure of any President while in office. Based on the calculated PDC, we observe less extreme or severe political divisions between 1900 and 1956. During the 1960-1976 period, the PDC showed a W-shaped pattern, which exceeded the upper bound. The PDC reached its lowest level in 1984, and began its upward trajectoriesin1988and it finally reached its upper bound in 2020, which implies extreme political divisions in the Unites States.

Keywords: Political Division, Polarization, Political Unity, Misinformation, Conspiracy Theories, Presidential Elections

1. Introduction

Some research scholars and political pundits consider political divisions and polarized politics in the United States as nothing new; therefore, the assertion that the United States has not been more politically divided is just not true – Sullivan (2019) and Barone (2020).This argument also aligns with the notion that political polarization is a historically common feature of politics in the United States because research scholars use political division and political polarization interchangeably. Whether research scholars use political division or political polarization to describe the political landscape in the United States, rational Americans are increasing disturbed by the recent upsurge in political divisions over the past three or more decades.

Either we agree or disagree that the United States is more politically divided now than it has been in the past three or more decades, the important research question is: What measurement do we have with which we can compare the magnitude of political divisions or political unity across different periods in American political landscape? This paper contributes to this debate by using conceptual analysis to highlight the trends in political divisions in the United States over the past 31 presidential elections covering the 1900-2020 period. The assertion is that presidential elections can help reveal the true position of voters on many public issues that are politically divisive or politically unifying; therefore, presidential elections are the additional barometers with which one can measure the political environment in the United States.

Over the years, important public issues have compelled and propelled American voters to the polling stations to support the presidential candidates, regardless of political party affiliation, that share their views, which could be politically divisive and/or politically unifying.

For example, during the 1932-1944 presidential elections, President Franklin D. Roosevelt won, on the average, more than 84 percent of the states, which we can consider as one of the most politically unifying periods in American political history.   Similarly, President Richard Nixon won 98 percent of the states in the 1972 presidential election, and President Ronald Reagan won 88 percent and 98 percent of the states in the 1980 and 1984 presidential elections, respectively.

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The Roosevelt's winning records during the 1932-1944 presidental elections along with the 1972, 1980, and 1984 presidential elections signaled periods of almost perfect political unity in the United States. The results from these presidential elections suggested that Republican and Democratic voters across the United States could overwhelmingly support the presidential candidates from the opposition party despite the differences in their political ideologies. In this regard therefore, this paper asserts that these presidential elections can enable research scholars and political pundits to gauge the degree of political divisions and/or political unity in the United States. To support this assertion, we analyze the total number of states won and/or loss by each Democratic or Republican President-elect during the sample period. In doing so, we use the results of the presidential elections covering the 1900-2020 period to derive the *political division coefficient* (*PDC*), which ranges between zero (*PDC*= 0: implies complete political unity) and 0.50(*PDC* = 0.50: means complete political division) to gauge the level of political divisions or polarization that may likely exist previously and during the tenure of the President-elect. Even though our focus in this paper is on *PDC*, we also derive the *political unity coefficient* (*PUC*) to show that political unity and political divisions are embedded in the political issues that compel and propel many voters to the polling stations to reveal their preferences in any presidential election.

Based on the calculated *PDC* covering the 1900-2020 period, we observe three distinct periods (1900-1956, 1960-1976, and 1980-2020) with respect to political divisions in the United States. The 1900-1956 period could be described as a period of slight moderation in political divisions in the United States except for the increase in 1948. During the 1948 presidential election, the *PDC* increased to 0.36 and then declined below 0.20 during two presidential election cycles thereafter. The 1960-1976 period showed W-shaped variations in the *PDC*. For instance, in 1960 and 1976, the *PDC* was 0.54, which exceeded the benchmark. In 1964, the *PDC* declined to 0.12 and increased to 0.36 in 1968, and then declined to its lowest level of 0.02 in 1972 and then back to 0.54 in 1976. For the 1980-2020 period, we observe that the *PDC* decreased back to its lowest level of 0.02 once again in 1984 presidential election, and since then, it has been increasing and it reached0.48 in the 2012 and then the benchmark of 0.50 in the2020 presidential election. More importantly, based on the upward trajectory of the *PDC* since the 1988 presidential election, this study therefore concludes that the United States is in the era of increasing political division, and that it was in the range of extreme political division in the first two decades of the 21st century.

The rest of this paper is organized as follows. Section 2 provides the literature review of some of the studies that examined political division or polarization in the United States. Section 3 discusses the role of vile conspiracy theories and cyber misinformation in political division. Section 4 is devoted to the derivation of the political division coefficient. Section 5 provides the concluding remarks with political implications.

2.   *Literature Review*

In a plethora of studies, political scientists and pundits continue to debate the fundamentals of political polarization or divisions in the United States. These studies identified the polarized electorate, gerrymandering, primary elections, economic inequality, money in politics, and media environment as some of the external factors. In addition, some of these studies also identified the rule changes, majority-party agenda control, party pressures, teamsmanship, and the breakdown of partisan norms as the internal factors that cause political polarization or divisions. According to Levendusky (2009), Gelman (2009), Bishop (2009), Bafumi and Herron (2010), Layman *et al*. (2010) Lenz (2012), Shaw (2012) and Fiorina (2013), the behaviors of legislators at all levels of government generally reflect the preferences of their *polarized electorates* or constituents.

In studies by Carson *et al*. (2007), Theriault (2008), and McCarty (2006, 2009), they argued that *gerrymandering* allowed state legislators to draw congressional districts that enabled Congressional Democrats and Republicans to remain in office rather than compete for votes at the political center during elections. According to Hirano *et al*. (2010), Bullock and Clinton (2011), and Masket *et al*. (2013), the movement from closed *primary elections* to open primaries, which now allowed the independents to participate in primaries contributed to political divisions. Gelman (2009), Garand (2010), and Gilen (2012) pointed out that increased *economic inequality* is highly correlated with political polarization. The studies by McCarty *et al*. (2006), Ensley (2009), Bafumi and Herron (2010), Stone and Simas (2010), Lessig (2011), Bonica (2013), and Barber (2013) argued that *money in politics* has compelled politicians to pursue the extreme policy objectives of their special-interest funders. According to Della Vigna and Kaplan (2007), Prior (2007), Gerber *et al*. (2009), and Snyder and Stromberg (2010), changes in the *media environment* since the Watergate scandal have played important role in political polarization/divisions.

Studies have also elaborated on the internal causal factors with respect to partisanship and political polarization in

the United States. Shor and McCarty (2011) pointed out that *rule changes*, which allowed for procedural changes now made it easier for amendments to be proposed when legislations are considered.

These procedural changes tend to force the opposition party to cast unpopular votes in order to move on, and this has further worsened the partisan differences and polarization in Congress. According to Cox and Cubbins (2005) and McCarty *et al*. (2006), leaders of the majority party in the House and Senate use their power to *control the majority party's legislative agenda*, and the objective is to build party loyalty thus the observed party-line votes and the increased political polarization. Similarly, Edwards (2012) pointed out that the power vested in the party leaders in both chambers of Congress has enabled these leaders to apply stronger *party pressures* on their members to vote party lines either by coercion or by rewarding members with committee membership.

According to Lee (2009), *teamsmanship* is another internal causal factor with respect to political polarization in the United States because the two parties are more competitive in seeking control of national agenda; and the desire to differentiate themselves has forced both parties to engage in strategies that are extremely confrontational in order to highlight their partisan differences. In a study by Eilperin (2007), the *breakdown of partisan norms* is another one of the causal factors in political polarization because today's members of Congress spend more time than ever before on fundraising within their districts. The result is that members of Congress spend less time in Washington, DC and are therefore unable to build bipartisan coalition, trust, and civility necessary for passing meaningful legislations.

Recent studies about political polarization/division in the United States have perspectives and/or explanations that are different from those studies that identified the external and internal causal factors of polarization. For instance, Owoye and Dabros (2017) provided a new dimension, different from the external and internal causal factors, with which research scholars can examine political polarization by considering the White House Occupant (WHO) or the President of the United States (POTUS) as an important causal factor. They argued that racial resentment or discrimination by Congressional Republicans against President Obama during the eight years as the WHO or POTUS probably compelled Congressional Democrats to take retaliatory stance against the Trump's presidency and the policy positions of his administration, and that this could exacerbate political polarization into the foreseeable future. Tyson (2018) attributed "the nation's growing partisan divide to the range of attitudes: from immigration, to the economy, to the views of the president." In another study, Ghosh (2019) provided a chart of political division over two decades of differences. Ghosh's study pointed out that the general public was more mixed in their allegiances in 1994 and that a significant divergence, which started in 2011 significantly shifted towards the two extremes of the consistently liberal/conservative scale in 2017. According to Ghosh (2019), the political division or divergence can be attributed to the absence of any meaningful "consensus on the nation's key priorities."

In summarizing the book by Kruze and Zelizer (2019) in which they asked when and how America became so polarized, Sullivan (2019) concluded that there is nothing new about political divisions and polarized politics in the United States. Barone (2020) shared the same view about political divisions. In contrast, Dimock and Wike (2020) pointed out that America is exceptional in the nature of its political divide based on the increasingly stark disagreement between Democrats and Republicans on a long list of issues dealing with the economy, racial justice, climate change, and international engagement. According to Dimock and Wike (2020), the presidential election in 2020 further highlighted the deep-seated divisions, and this prompted the President-elect to declare "his intention to bridge the deep and bitter divisions in American society" by looking beyond red and blue states and discarding the harsh rhetoric that has characterized American political debates over the past two decades.

In line with Dimock and Wike's views of the presidential election, Surendra Kumar (2020) also concluded that the 2020 presidential election was America's most divisive election given the repeated use of race, religion, ethnicity, and political ideology to scare and divide people thus questioned American exceptionalism. From Deane and Gramlich's (2020) perspectives, the 2020 presidential election also revealed the two broad voting coalitions, which are fundamentally different with respect to racial inequality, law enforcement, climate change, politics and policies, and the core American values and goals. According to Diamond and Hoffman (2020) and Reston (2020), Trump's dark and deeply divisive speeches further exacerbate the political divisions since 2017. Similarly, French (2020) pointed out that in this era of Trump, America has become extremely efficient at creating supercluster of like-minded citizens as reflected in the way they voted overwhelmingly for one candidate over the other in 2016 presidential election.

In a study based on the current state of polarization in America, Heltzel and Laurin (2020) asked two important questions: (a) Does polarization help or hurt democracies? (b) Is contemporary polarization helping or hurting American democracy? Based these two insightful questions, Heltzel and Laurin (2020) proposed two possible futures with respect to polarization in America. In their "Possible future #1," they considered polarization as a self-reinforcing cycle that will continue to increase because it could take many forms. For the "Possible future #2," they considered polarization as a pendulum that has reached its apex and may even begin its downward arc due to the growing resentment to polarization and its consequences.

These consequences include the choice of extreme policy alternatives and the deterioration in political discussions,

which now feature too many insults rather than factual debates and antagonistic behavior from both parties. Based on these two possible futures, they followed up with another insightful question: Which future is most likely?

They concluded that empirical findings provide mixed evidence as to which possible futures will emerge because some public polls showed flattened or even decreased rates of polarization, and at the same time, partisans' attitudes have grown further apart across on issues such as welfare, helping needy people, addressing inequalities for Black people, military strength, and environmental policy. In addition, Heltzel and Laurin (2020) suggested that the current COVID-19 pandemic could further exacerbate already high levels of affective polarization because infectious diseases usually "evoke prejudice against groups whose norms oppose one's own."

3. The Role of Conspiracy Theories and Disinformation in Political Divisions

Studies have not addressed the role of vile conspiracy theories[1] and the unchecked cyber misinformation via social media platforms or other outlets used to sow political divisions through the dissemination of false political narratives, which many vulnerable voters easily consume without verifications. The misinformation about the COVID-19 pandemic and the wearing of masks, which almost half of the voters still believe at their own peril, is perhaps the most important example of the devastation that misinformation can cause. We assert that the ability of political leaders, especially the President the United States and Congressional Republicans, in conjunction with various conspiracy groups to spread dangerous misinformation and outlandish conspiracy theories has further contributed to political divisions in the United States over the past two decades, more so, in the past four years. To put this assertion succinctly, we specify the political division (PD) in a simple functional form as:

$$PD = f[\textbf{X}, DIS(PL), CTs(PL,CGs), GV(CTs)] \tag{1}$$

where $\textbf{X}$ is a vector of all the determinants of PD that many studies have identified, DIS represents all types of disinformation, PL represents political leaders such as the POTUS, CTs represents the various conspiracy theories floated by the POTUS, CGs stands for the conspiracy groups, and GV is the group of voters who consume conspiracy theories regardless of the falsehood of these theories. The partial differentiation of equation (1) shows the magnitude of these variables:

$$\frac{\partial PD}{\partial \textbf{X}} > 0 \tag{2},$$

$$\frac{\partial PD}{\partial DIS} = \frac{\partial PD}{\partial MIS} \cdot \frac{\partial DIS}{\partial PL} >> 0 \tag{3},$$

$$\frac{\partial PD}{\partial CTs} = \frac{\partial PD}{\partial CTs} \cdot \frac{\partial CTs}{\partial PL} \leftrightarrow \frac{\partial PD}{\partial CTs} = \frac{\partial PD}{\partial CTs} \cdot \frac{\partial CTs}{\partial CGs} >> 0 \tag{4},$$

and

$$\frac{\partial PD}{\partial GV} = \frac{\partial PD}{\partial GV} \cdot \frac{\partial GV}{\partial CTs} >> 0 \tag{5}.$$

Equation (2) confirms the positive contributions of all the external and internal causal factors identified in the previous section. Equation (3) shows the higher positive effects on political division in the United States when political leaders, such as the 45th POTUS, peddle misinformation. Equation (4) shows that the peddling of outlandish conspiracy theories is bidirectional between our political leaders, especially the 45th POTUS, and various conspiracy groups. Simply put, the 45th POTUS and the conspiracy groups feed each other with outrageous conspiracy theories through various social media outlets. Equation (5) shows that many voters within the electorate believe and willfully consume, without verifications, the outlandish conspiracy theories floated by the 45th POTUS and the various conspiracy groups.

It is important to note that equations (1)-(5) do not capture the adverse consequences of political polarization or divisions as well as the implicit signals that misinformation and conspiracy theories send to certain groups of voters who are willing to engage in political violence. In the current political environment, research scholars cannot underestimate the upsurge in hate crimes in the United States over the past four years because many hate groups belong to the conspiracy groups (CGs) explained in equations (1) and (4). Arguably, many hate groups are now emboldened to reveal their true preferences. In essence, the outlandish conspiracy theories and misinformation peddled by political leaders in the Republican Party have worked to achieve political chaos and violence as manifested by the August 2017 "Unite the Right" rally in Charlottesville, Virginia.

4. The Derivation of Political Divisions Coefficient

The consensus is that political divisions or political polarization is nothing new in the United States and that

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[1]For the list of conspiracy theories floated by Donald Trump, see Zeballos-Roig et al. (2019).

Americans are concerned. This led research scholars to ask whether contemporary polarization is helping or hurting American democracy and some of them concluded that polarization has reached its apex and may begin to decline because Americans are now resentful of polarization due to its consequences.

The appropriate research question is: How do we know the apex of political divisions in the United States? So far, the DW Nominate Scores developed by Poole and Rosenthal in the 1980s was the instrument by which one can measure the roll calls voting behaviors of Congressional legislators in both the House and the Senate.

Given the political landscape in the United States, which Deane and Gramlich (2020), Diamond and Hoffman (2020), Reston (2020), and French (2020) laid out in their studies, we can deduce that there are groups of voters (*GV*) that are influenced by the amount of misinformation and conspiracy theories they consumed during the tenure of any president before the presidential election. At the polling stations, all voters reveal their preferences based on the misinformation and conspiracy theories they consumed, and this can indicate the level of political divisions that the country would experience during the tenure of the incoming president. In essence, the results of presidential elections can indicate the level of political divisions in the United States. To determine whether political division is at its lowest or upper bounds, or exceeds the upper bounds, we derive the *political division coefficient* (*PDC*). The idea of deriving the *PDC* in this paper is deeply motivated by Abramowitz and Saunders' (2008) study that used data from the American National Election Studies and national exit polls to test the five major claims made by Fiorina *et al.* (2006), especially the assertion that ideological polarization to the American voters is a myth.

The *PDC* derived in this paper to analyze political divisions is a more robust instrument to measure political divisions in the United States because it is rooted in the concept of the Gini coefficient used worldwide to measure income inequality. The *PDC* can be construed as the opposite of the Gini coefficient equation normally expressed as $\frac{A}{A+B}$. We express the *PDC* in simple algebraic form as:

$$PDC = \frac{SW}{SW+SL}, 0 \leq PDC \leq 1 \tag{6},$$

$$PDC|_{\text{Extreme}} = \frac{SL}{SW+SL} \gg 0.50 \tag{7},$$

$$PUC|_{\text{Preferred}} = \frac{SW}{SW+SL} \gg 0.50 \tag{8},$$

and

$$PDC + PUC = 1 \text{ or } PUC = 1 - PDC, 0 \leq PUC \leq 1 \tag{9},$$

Where *SW* and *SL* capture the number of states won and loss by the President-elect, thus *SW + SL* are the total number of states[2] in each presidential election, and *PUC* represents the *political unity coefficient* with the lower and upper bounds set between 0 and 1.

It is important to point out that the *PDC* derived from equation (6) is different from the political division index, which Van Rens and Krasodomski-Jones (2019) developed based on the results of the opinion surveys[3] about how the Brexit referendum divided the United Kingdom in into two opposing camps and divisive politics. We use the total number of states won and/or loss by any President-elect because there is no need to classify the voters into scales or groups on the basis of political issues, religious, knowledge, and education, which would require percentage weights that could be subject to measurement errors. One can reasonably argue that political divisions or political unity can be instrumental in energizing the electorate and thus contribute to the dramatic increase in voting, political participations, and the unprecedented turnout experienced in the 2020 presidential election to express either their political unity or political divisions.

Interpretatively, $0 \leq PDC \leq 1$ in equation (6) indicates the lower and upper bounds, which means we have complete political unity when *PDC* = 0 and *PUC* = 1 or complete political division when *PDC = PUC* = 0.50. Simply put, the political divisions would be at the extreme levels whenever *PDC* exceeded 0.50 and the *PUC* reached the lower levels, respectively. Equation (7) shows that there are cases of extreme political divisions when the *PDC* exceed the benchmark of political divisions, that is, *PDC* > 0.50, which means *PUC* < 0.50. This occurred in cases where the President-elect loss more states but still managed to win more popular votes and the Electoral College votes.

This is possible in the United States because the Electoral College system enables presidential candidates to engage

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[2] There were 45 states in 1900 and 1904 and then 46 states in 1908, and then increased to 48 states as of February 14, 1912 and finally reached 50 states on August 21, 1959.

[3] Opinion surveys are subject to errors, as survey respondents may not actually reveal their true intensions when they respond to survey questions. At the polling stations, voters reveal their true preferences when they vote.
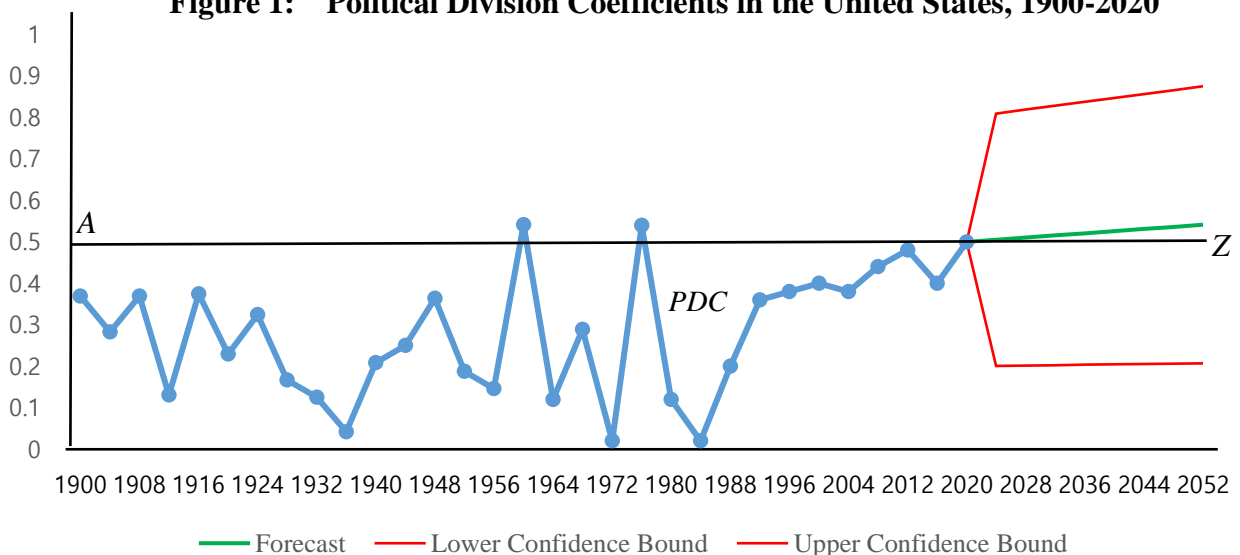
in strategic "states targeting,"[4] which they consider as the most effective pathway to achieve the required Electoral College votes needed to win the presidency. Equation (8) shows that political unity, which is preferred, is part of any political structure; therefore, it is useful to know both *PUC* and *PDC* because all countries experience political unity or political divisions at different periods depending on the political circumstances. Equation (9) shows that both *PDC* and *PUC* sum to 1, and that *PUC* could be approximately equal to 1, which is almost complete unity, if a presidential candidate wins nearly all the contested states.

There are some pertinent researches questions that we need to answer or analyze, given that equation (6) outlined the lower and upper bounds of the *PDC* while equation (7) showed that there could be extreme cases in which *PDC*>> 0.50. Has the United States ever achieved perfect political unity (*PUC*= 1 and *PDC* = 0) or almost perfect unity (*PU*≈1and*PDC*≈0) where voters from both parties voted overwhelmingly to support one presidential candidate over the opponent such that the President-elect nearly won all the contested states? Have there been cases of complete political division where President-elect won half of the contested states and the losing presidential candidate loss half of the contested states over the 1900-2020 period? Are there times during the 1900-2020 presidential elections in which the losing presidential candidates won more states than the President-elect such that the *PDC* exceeded the upper bound, that is, *PDC*> 0.50 as specified in equation (7)?

To answer these three questions, we use the estimated *PDC* to plot Figure 1 intended to show the trajectories of the *PDC* covering 31 presidential elections from 1900 to the recently concluded 2020 presidential election. For the entire 20th century, we observe the lowest *PDC* to be 0.04 in 1936 and then 0.02 in 1972 and 1984.In addition, the *PDC* was below 0.20 in seven presidential election cycles (1912, 1928, 1932, 1952, 1956, 1964, and 1980); and it exceeded its upper bound (i.e. *PDC* = 0.54 >*PDC* ≤ 0.50) in 1960 and 1976. These are two important periods in the sample that statisticians and econometricians could consider as outliers, and the political events that preceded the 1960 and 1976 presidential elections could explain both outliers.

The extreme political division that manifested itself in the 1960 presidential election, which the *PDC* showed to be 0.54, could be attributed to what Ezra Klein (2020, Chapter 2) termed "The Dixiecrat Dilemma," which the late Senator Strum Thurmond of South Carolina displayed in what was considered as the most famous filibuster on the Senate floor on August 27, 1957 with respect to the watered-down version of the civil rights bill. In addition, the 1960 presidential election was divisive on religious grounds because it marked the first time a Catholic (John F. Kennedy) became the President of the United States. Next, the desire for political unity after the assassination of President John F. Kennedy on November 22, 1963, prior to the 1964 presidential election could explain the remarkable decline in the *PDC* from 0.54 (and *PUC* = 0.46) in 1960 to 0.12 (and *PUC* = 0.88) in 1964. One could easily deduce that the sad political assassination probably compelled American voters to unite politically in support of President Lyndon B. Johnson's candidacy during the 1964 presidential election, which may have toned down the political division that exceeded the upper bound (*PDC* = 0.54) in 1960in the United States.

Figure 1:   Political Division Coefficients in the United States, 1900-2020

The increase in *PDC* from 0.12 in 1964 to 0.29 in 1968 could be attributed to the political turbulence and civil unrests and/or riots sparked by the assassinations of Martin Luther King Jr. on April 4, 1968 and Senator Robert F. Kennedy on June 5, 1968. Both assassinations, which created political division within the Democratic Party, destructions in cities across the United States, racial tensions, and the law-and-order presidential campaign exacerbate the political

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division. These events worsened the political division in 1968, a period, which political scientists referred to as one of the most tumultuous years in American history. Similarly, the *PDC* exceeding the upper bound in 1976 also aligned with Kruse and Zelizer's (2019) book in which they attributed the extreme political division, which began in 1974 in the United States, to the Watergate crisis, the OPEC oil embargo, desegregation riots in Boston, and the wind-down of the Vietnam War.

The *PDC* declined from 0.54 in 1976 to 0.12 in 1980, and this could be attributed to the Iran hostage crisis in which a group of militarized Iranian college students held hostage 52 American diplomats and citizens for 444 days (November 4, 1979 to January 20, 1981). This diplomatic standoff between the United States and Iran may have compelled Americans to unite politically and vote in support of Ronald Reagan's candidacy over Jimmy Carter who was then the incumbent POTUS. Arguably, there are domestic and/or international *political shocks*, which can mitigate or exacerbate the extent of political divisions in the United States.

In the first two decades of the 21st century, the *PDC* was 0.44 in 2008, 0.48 in 2012, and then reached the upper bound of 0.50 in 2020 – complete political division. Overall, the *PDCs* in the first two decades of the 21stcentury are much higher than those obtained in the first two decades of the 20th century. More importantly, we noticed that the *PDC* has been on the upward trajectories since 1984. Based on the projection instrument used in the estimation, we expect the future *PDC* to go in three directions. First, the *PDC* could continue to exceed the 0.50 benchmark, which could be in the range of 0.80 and 0.90between 2024 and 2052. Second, between 2024 and 2052, the *PDC* could range moderately between 0.50 and 0.54. Third, the *PDC* could fall between0.20 and 0.21during the forecast period (see the forecast lines with the lower and upper confidence bounds for 2024 to 2052 in Figure 1). Given the extremely divisive and chaotic political landscape, the United States may not be able to achieve the lowest *PDC*, which occurred only three times (1936, 1972, and 1984) during the entire sample period.

The upward trajectory in political divisions over the past four years was instrumental in President Biden's public declaration that the reduction in political division in the United States would continue to be one of the major goals of his administration The ability to achieve this goal will depend on the composition of Congress now that the *PDC* reached the upper bound (*PDC* = 0.50) in 2020. The 2020 presidential election was the first time in the history of the United States that both presidential candidates won and loss equal number of states in all presidential elections– a unique episode of political division. This means that when the political division in United States is at its highest level for the second time in eight years, reducing political division will be a herculean task for President Biden and his administration. This is an important point because the *PDC* almost plateaued during the Obama-Biden's administration as the Affordable Care Act of 2010. This was the major achievement of their administration, which barely passed by a partisan Democratic vote in the Senate.

In essence, it is too early to tell whether the call for political unity would be successful under the Biden's administration because the conspiracy theories and disinformation consumed by many voters would not evaporate soon, especially given the ease with which the 45th POTUS, the Republican Party, and the various conspiracy groups could continue to disseminate outrageous conspiracy theories and disinformation through the unregulated social media platforms post-January 20, 2021. The spreading of propagandas could be the strategic political calculation aimed at maintaining the allegiance of the 74 million voters who voted for 45th POTUS in the 2020 presidential election. Many pundits expect the 45th POTUS to create what could easily be dubbed the *retention news media outlet* where the unwavering 74 million voters could become subscribers and therefore continue their unabated consumption of disinformation and outlandish conspiracy theories in preparation for any anticipated candidacy for the 2024 presidential election. Whether or not the creation of the retention news media outlet comes to fruition, the ease with which political leaders and conspiracy groups can continue to propagate disinformation and conspiracy theories would have lingering multiplier effects not only on political divisions but also on hate crimes and political violence for many years to come in a 50-50 divided United States.

Finally, Table 1 provides a summary of the *SW*, *SL*, and *PDC* under each elected president for 1900-2020 period. As we can see in Table 1, the lowest *PDC* (0.02) during the re-elections of President Richard Nixon in 1972 and President Ronald Reagan in 1984. In other words, the United States almost achieved a *PUC* = 1.0 (*PUC* = 0.98) in both election periods. Figure 2 provides the visual trajectories of *PUC* and *PDC* under each elected president reported in Table 1 in order to see the trends in *PUC* and *PDC* over the past 31 presidential election cycles. For comprehension, we classify *PUC* into three categories: (a) high political unity if $0.84 \leq PUC \leq 1$, (b) moderate political unity if $0.67 \leq PUC \leq 0.83$, and (c) lowest political unity if $0.50 \leq PUC \leq 0.66$. Based on the computed coefficients, we observed that high *PUC* occurred in 1912, 1928, 1932, 1936, 1964, 1972, 1980, and 1984 while moderate *PUC* occurred in 1904, 1920, 1924, 1940, 1944, 1952, and 1988.

Table 1:   Political Division Coefficients in the United States, 1900-2020

Election Year	President	SW by Elected President	SL by Elected President	PDC
1900	W. McKinney	28	17	0.37
1904	T. Roosevelt	32	13	0.29
1908	W. H. Taft	29	17	0.37
1912	W. Wilson	40	8	0.17
1916	W. Wilson	30	18	0.38
1920	W. G. Harding	37	11	0.23
1924	C. Coolidge	35	13	0.32
1928	H. Hoover	40	8	0.17
1932	F. D. Roosevelt	42	6	0.13
1936	F. D. Roosevelt	46	2	0.04
1940	F. D. Roosevelt	38	10	0.21
1944	F. D. Roosevelt	36	12	0.25
1948	H. S. Truman	28	20	0.36
1952	D. D. Eisenhower	39	9	0.19
1956	D. D. Eisenhower	41	7	0.15
1960*	J. F. Kennedy	22	26	0.54
1964	L. B. Johnson	44	6	0.12
1968	R. Nixon	32	18	0.29
1972	R. Nixon	49	1	0.02
1976	J. Carter	23	27	0.54
1980	R. Reagan	44	6	0.12
1984	R. Reagan	49	1	0.02
1988	G. H. W. Bush, Sr.	40	10	0.20
1992	B. Clinton	32	18	0.36
1996	B. Clinton	31	19	0.38
2000	G. W. Bush, Jr.	30	20	0.40
2004	G. W. Bush, Jr.	31	19	0.38
2008	B. Obama	28	22	0.44
2012	B. Obama	26	24	0.48
2016	D. J. Trump	30	20	0.40
2020	J. R. Biden	25	25	0.50

Source: PDC computed by the authors from data compiled from Wikipedia and other sources:
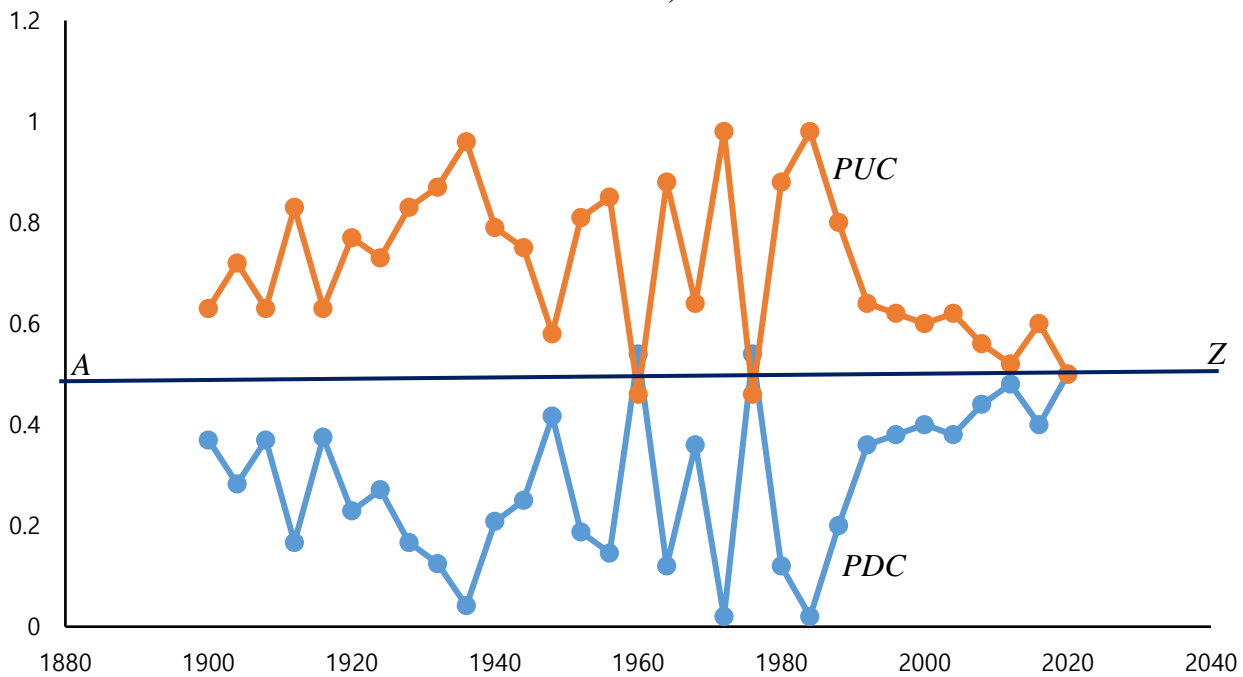https://en.wikipedia.org/wiki/1960_United_States_presidential_election#Unpledged_Democratic_elect
or https://en.wikipedia.org/wiki/List_of_United_States_presidential_election_results_by_state.
Note: SW = States Won, SL = States Loss, and * denotes the first presidential election with 50 states in which two states cast their electors differently.

In contrast, low *PUC* occurred in 1900, 1908, 1916, 1948, 1968, 1992 1996, 2000, 2004, 2008, 2012, 2016, and 2020. More importantly, for the first time ever in presidential elections, *PUC* and *PDC* converged in 2020 when *PUC* and *PDC* are equal (*PUC* = *PDC* = 0.50).

In addition, we consider 1960 and 1976 as the two outliers in the presidential election years because *PUC* of 0.46 fell below the benchmark of 0.50; and as one can see in Figure 2 above, the last eight presidential elections (1992-2020) fall into the low *PUC* category ($0.50 \leq PUC \leq 0.66$) while the *PDC* surged upward. In other words, the upward trajectories of the *PDC* and the downward trajectories of the *PUC* started in 1988. Both coefficients almost converged in 2012 during President Obama's re-election, and both actually converged in the 2020 presidential election, which epitomized a divided United States (50-50).

Figure 2: Political Unity Coefficients (*PUC*) and Political Division Coefficients *(PDC)* in the United States, 1900-2020

Note: Horizontal line *AZ* is the lower bound for *PUC* and the upper bound for *PDC*

5. *Concluding Remarks and Political Implications*

Based on the computed *PDC* for the United States between 1900 and 2020, this study concurs with those studies that pointed out the notion that political division is nothing new, but more importantly, political unity or political division is not a myth, which Abramowitz and Saunders (2008) also confirmed. With this study, we now know the trajectories of political divisions during the1900 and 2020 period; and this is true for political unity. For instance, in the first half of the 20th century, political divisions showed downward trajectories that are indicative of political unity than political divisions. In addition, the unique downward and upward variations (W-shaped) in *PDC* observed during the 1960 and 1976 presidential election cycles captured different periods in American political environment. One can reasonably argue that political events that preceded and/or occurred during presidential elections tended to motivate voters' turnout to reveal their preferences for political unity or political divisions.

The *PDC* data since 1984, unlike any period before then, showed and confirmed why people are concerned about political divisions in the United States. The presidential elections since 1984showed the upsurge in political divisions in the United States, which experienced only two downward trajectories in the*PDC*to0.38 in 2004 and 0.40 in 2016. In essence, the *PDC* did not show any significant reduction in political divisions since 2000; and as the estimated *PDC* showed, it reached the upper bound (0.50) in the recently concluded 2020 presidential election. This is particularly important for what it signals regarding political divisions in the United States, especially given that this was the first presidential election, in which both presidential candidates won-loss equal (25-25) number of states, which means that the *PDC* and *PUC* converged at 0.50.This convergence is very important because more than 74 million voters, the second highest popular votes in presidential election, who voted for the 45thPOTUS are easily susceptible to false narratives that will continue to nurture political divisions in the United States. Furthermore, the voters' participation in the presidential elections in the past two decades of the 20th century contradict Fiorina's assertion that polarization turns off voters and depresses turnout.

On the basis of the calculated *PDC* and the knowledge of the political environments and/or many events preceding presidential elections, we deduce that political leaders at all levels of government, especially the POTUS, can mitigate or exacerbate political divisions in the United States through the way they behave with respect to how they handle economic and socio-politically divisive issues while in office. Based on these observations, one can conclude that many of these voters are willful consumers of misinformation and conspiracy theories floated by the 45th POTUS and the vocal conspiracy groups. From the peddling of unsubstantiated voters' fraud regarding the outcome of the 2020 presidential election, there could be more political division between now and the 2024 presidential election due to the lingering multiplier effects of reepeated conspiracy theories and misinformation, which are easily disseminated through different social media platforms. The voters definitely reveal/register their opinions/preferences for political unity or political division at the ballot box stations during the presidential elections; therefore, we strongly believe

that the *PDC* is a robust instrument with which to gauge the degree of political divisions in the United States for different socio-political events. These are events that occurred during the periods before presidential elections and during the tenure of any POTUS.

Given the level of the political divisions in the United States at this crucial moment, political scientists and pundits should not underestimate the political implications of political events that occurred before and during the presidential elections that could dictate how voters would react at the ballot polling stations. This also holds true when political leaders such as the 45th POTUS and many conspiracy groups spoon-feed each other with disgraceful conspiracy theories and misinformation, which many voters willfully consume or believe without verifications. Many voters who voted for the losing 45th POTUS would continue to believe in misinformation and the shameful conspiracy theories; therefore, the impact could last several presidential elections, and as a result, political division will continue into the foreseeable future in the United States. The ability of political leaders and conspiracy groups to cause political chaos and political divisions may explain why we have not observed any significant downward trajectory in the *PDC* over the past four decades, especially in the first two decades of the 21st century.

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