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Full Length Research

Impact of Economic Status, Religious Commitment, and Political Preferences on the Effectiveness of COVID-19 Social Distancing Policies: A Regression Analysis Study

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The present study examined the impact of economic status, religious commitment, and political preferences on the effectiveness of the COVID-19 social distancing policies using linear regression analysis. In the US, states with social distancing policies have been successful in controlling the spread of the novel coronavirus disease (COVID-19), while those without such policies have observed an increase in the spread of the virus. In Step 1, states were compared with reference to the number of social distancing measures implemented. In Step 2, the impact of the three factors on the number of confirmed cases of COVID-19 was examined. The coefficient of determination for economic factors and confirmed cases was 0.009, which suggested that the late implementation of social distancing considering economic factors led to higher disease incidence. Despite a positive relationship between religious commitment factor and confirmed cases, a regression of determination 0.008 suggested no statistically significant relationship. The regression of determination for political preferences and confirmed cases showed a negative relationship (-0.09), which could be attributed to the change in Republican supporters' perspective on social distancing. The relationship between political preferences and confirmed cases of COVID-19 could be an important finding for policymakers and researchers.

Keywords: COVID-19; health policy; pandemic; public health; public policy; social distancing; social justice.

INTRODUCTION

With the emergence of the novel coronavirus disease (COVID-19), social distancing has become one of the major policies and suggestions aimed at slowing the spread of the virus (Anderson, 2020; Courtemanche et al., 2020). Social distancing refers to the practice of maintaining a physical distance of at least 6 feet from others in public places, to prevent the transmission of this contagious disease (Wilder-Smith and Freedman, 2020). This led to the closure of several facilities, including schools and restaurants. Since social distancing entails physical restrictions, its feasibility has often been questioned

(Joint Centre for Bioethics Group, 2009). Due to the urgency of the situation, however, governments have actively implemented social distancing without much hesitation; at times, without sufficient discussion with community stakeholders. The hasty yet necessary implementation of social distancing was carried out because (a) there were no alternative methods to control the spread of the disease, such as vaccines, and (b) there were concerns about the exponential growth of COVID-19 infection (Sun et al., 2020). Regardless of its actual effects, social distancing has caused considerable anxiety in the general population. Several individuals who prioritize their sense of freedom have been strongly against such policies (Baum et al., 2009). Specifically, those who oppose social distancing firmly believe that even during a pandemic, public health policies should not limit personal freedom, which leads to not only ethical challenges but also behavioral resistance (Wilder-Smith and Freedman, 2020; Fong et al., 2020; Lewnard and Nathan, 2020). In fact, there have been several reports of individuals resisting or ignoring the guidelines established by states (Prosser et al., 2020). In Oregon, Ammon Bundy tried to gather more than 1,000 people, violating state social distancing orders and appealing to the constitutional right to assemble freely. Additionally, Michigan, Wisconsin, Texas, and several other states have seen a series of anti-social rallies (The New York Times, 2020). These cases are some examples of the conflict between two values: (1) public health (managed by the government and its institutions) and (2) privacy and liberty (Amy et al., 2020). In addition to ethical and freedom-related issues, social distancing appears to be an economically unviable practice, although not all economic problems could be attributed to the pandemic (Barnett-Howell and Mobarak, 2020). Empirical studies have found that individuals with a low socioeconomic status have been most strongly affected by the pandemic (Barnett and Ahmed, 2020; Martin et al., 2020). Part-time workers with customer-facing jobs are likely to lose their jobs during social distancing. Further, parents with a low income, who are unable to stay at home to take care of their children during daycare closures, are not only “economically fragile” but also “strongly affected” by the policy (Barnett-Howell and Mobarak, 2020).

Other factors related to the effectiveness of social distancing measures include religious concerns, distrust in the government, governor’s partisanship in each state, and the proportion of Trump voters in each state (Adolph et al., 2020). With the emergence of the pandemic, several scholars have conducted quantitative research on the relationship between different factors (Painter and Tian, 2020; Noh et al., 2020; Regmi and Cho, 2020). For instance, Adolph. et al. (2020) identified the relationship between several factors and the social distancing response time. According to the authors, states in the 25th percentile of the gross domestic product (GDP) showed an approximately one-day delay in the social distancing response compared with those in the 75th percentile. Additionally, states affected by the combined partisan effect (Republican governor + 58% Trump 2016 vote share) tended to have more than a 2.5-day delay in response (Adolph et al., 2020). Empirical evidence suggests that different factors, such as religion and political preferences, may have played a role in the response to the pandemic (Adolph et al., 2020); however, no study has examined how these factors have influenced the number of confirmed cases.

Accordingly, the current study attempted to provide clear quantitative evidence on the influence of economic status, religious commitment, and political preferences on the implementation of social distancing measures. First, 33 states (upon data availability) were grouped by population and number of social distancing measures implemented. Then, a linear regression analysis was conducted using the number of confirmed cases as the dependent variable. The results of this study can serve as a starting point for the evaluation of the effectiveness of social distancing measures.

MATERIALS AND METHODS

Data collection

Data were collected from four major sources of COVID-19 information: (1) Center for Disease Control and Prevention (CDC), (2) National Governors Association (NGA), (3) Statista, and (4) Pew Research Center. Data on the population and number of confirmed cases were collected from the CDC (2020). The National Governors Association data provided dates of policy announcements for each state (2019). Data on the GSP per capita of each state were collected from the 2019 survey result of Statista (Statista, 2019). All information related to religious commitment was collected and calculated by the Pew Research Center in their 2016 Religious

Table 1. Specific quantitative criteria of sample groups.

Group	Population	Number of measures
Group A	~2.1 million	≤ 3
Group B	~ 2.1 million	≥ 4
Group C	~6.1 million	≤ 3
Group D	~6.1 million	≥ 4
Group E	~6.1–20 million	≤ 3
Group F	~6.1 million–20 million	≥ 4

Landscape Study (Lipka and Benjamin, 2016). The infection rate, regression coefficient, and coefficient of determination were calculated using data collected from the respective references.

Data analysis

Linear regression was performed thrice, each with confirmed cases of COVID-19 as the dependent variable, and political, economic, or religious factors as the independent variable.

Step

Linear regression was performed three times, each with confirmed cases of COVID-19 as the dependent variable, and political, economic, or religious factors as the independent variable.

Population

Since the number of confirmed cases of COVID-19 can vary by population, infection rate was used in the analyses instead of the raw data on number of confirmed cases. Though the infection rate reduces the effect of the population by dividing confirmed cases by population, states with extremely different populations were included in a separate group to minimize the effect of population.

Number of social distancing measures implemented

Some social distancing measures are mandatory, whereas others are optional (Courtemanche et al., 2020). For instance, school closures and stay-at-home orders are mandatory measures that individuals can never break. However, gathering restrictions are “practically optional” because the government could not force every individual of the society to follow these measures. Such recommendations are made based on the assumption that majority of individuals would follow the measure. For instance, it was believed that a vast majority of citizens would practice social distancing. To reduce the difference between states with only practically optional measures and others that implemented mandatory measures, we grouped the states by the number of cumulative measures adopted. This would not only reduce error but would also ascertain the veracity of the assumption that the majority of the population would follow practically optional measures. The following five representative measures used in the study by Adolph et al. (2020) were utilized in the present study: gathering restrictions, mandated school closures, restaurant restrictions, non-essential business closures, and stay-at-home orders. Based on the above criteria, six groups, each consisting of four to seven states, were formed (Table 1).

Step 2

Population was a confounding variable in the study; therefore, the infection rate was set as a dependent variable rather than the raw data on the number of confirmed COVID-19 cases. The infection rate was calculated as the number of confirmed cases per 100 individuals. The regression coefficient (R) and coefficient of determination (R^2) were calculated for each group to quantify the correlation of each factor with the number of confirmed cases.

Table 2. Distribution of states by grouping.

Group	States
Group A	Alaska, Wyoming, North Dakota, Rhode Island, Montana, Nebraska
Group B	Hawaii, Delaware, West Virginia, New Mexico
Group C	Utah, Arkansas, Kansas, Kentucky, South Carolina, Wisconsin
Group D	Connecticut, Oregon, Nevada, Louisiana, Maryland
Group E	Missouri, Georgia, Tennessee, Arizona, Virginia
Group F	Indiana, Illinois, Michigan, New York, New Jersey, Pennsylvania, Ohio

For each group formed in Step 1, a regression analysis was performed to determine the strength of the relationship between each factor and the number of confirmed COVID-19 cases. Economic status, religious commitment, and political preferences were selected as independent variables based on previous qualitative studies on their effects on COVID-19 (Adolph et al., 2020; Painter and Tian, 2020; Noh et al., 2020; Regmi and Cho, 2020). Each factor was included in the regression analysis, as indicated below:

Economic status factor:

$$\frac{\text{GSP per capita (\$)}}{10^4\ (\$)}$$

Religious commitment factor:

Percentage of adults who were "highly religious"

The following criteria for determining "highly religious" outlined in the Pew Research Center's 2014 Religious Landscape Study (Lipka and Benjamin, 2016) were also used in the present study:

1. Proportion and strength of belief in God among adults in the state.
2. Importance of religion in one's life among adults in the state.
3. Attendance of religious services among adults in the state.
4. Frequency of participation in prayer, scripture study, or religious groups among adults in the state.

Political preferences factor:

$$\frac{\text{Number of Trump 2016 voters}}{\text{Population}}$$

Similar to Adolph et al. (2020), the proportion of Trump 2016 presidency voters was used to determine political preferences. According to Adolph et al. (2020), the political partisanship of the governor could not be interpreted by a continuous quantitative number (because two main parties exist in the United States, namely, Republican and Democratic). Additionally, a survey asking whether an individual is a Democrat or Republican is likely to be biased or to have errors due to non-response or not replying honestly. However, election results are a good reflection of voters' political preferences.

RESULTS

Step 1

Table 2 presents what US states are included in each group, as determined by population size, infection rate, and number of measures as outlined under Step 1 while Table 3 presents the data on the population, number of social-distancing measures, and types of measures implemented in each state by group. Table 4 presents confirmed cases and infection rate of each state.

Step 2

Economic status

Table 5 presents the economic status factor for each state, represented by per capita gross domestic product (GDP) for each state. The per capita GDP value was divided by 10000. There was a positive relationship between religious factors and the confirmed COVID-19 cases, with a coefficient of determination of 0.0089 (Figure 1). The coefficient of determination was -000498, 0.0372, -0.1536, - 0.0023, -0.3334, and 0.8081

Table 3. Population, number of social-distancing measures, and types of measures implemented in each state by group.

Group	State	Population (M)	Number of Social-distancing Measures Implemented	Types of Measures
Group A	Alaska	0.731545	2	Gather, School
	Wyoming	0.578759	3	Gather, School, Restaurant
	North Dakota	0.762062	3	Gather, School, Restaurant
	Rhode Island	1.059361	3	Gather, School, Restaurant
	Montana	1.068778	3	Gather, School, Restaurant
	Nebraska	1.934408	2	Gather, School
Group B	Hawaii	1.415872	5	Gather, School, Restaurant, Business, Stay-at-home
	Delaware	1.973764	5	Gather, School, Restaurant, Business, Stay-at-home
	West Virginia	1.792147	5	Gather, School, Restaurant, Business, Stay-at-home
	New Mexico	2.096829	4	Gather, School, Restaurant, Business
Group C	Utah	3.205958	3	Gather, School, Restaurant
	Arkansas	3.017804	3	Gather, School, Restaurant
	Kansas	2.913314	2	Gather, School
	Kentucky	4.467673	2	Gather, Restaurant
	South Carolina	5.148714	3	Gather, School, Restaurant
	Wisconsin	5.822434	3	Gather, School, Restaurant
Group D	Connecticut	3.565287	4	Gather, School, Restaurant, Business
	Oregon	4.217737	5	Gather, School, Restaurant, Business, Stay-at-home
	Nevada	3.080156	4	Gather, School, Restaurant, Business
	Louisiana	4.648794	5	Gather, School, Restaurant, Business, Stay-at-home
	Maryland	6.045680	4	Gather, School, Restaurant, Business

for Group A, B, C, D, E, and F, respectively (Figure 2).

Religious commitment

Using the criteria described in the methods section, the impact of religious commitment was assessed for each state (Table 6). The most religious states are (1) South Carolina, (2) Arkansas, (3) West Virginia, followed by (4) Utah. It appears that population density plays an influential role in terms of religious beliefs. There was a positive relationship between religious factors and the confirmed COVID-19 cases, with a coefficient of determination of 0.0081 (See Figure 3). A positive relationship was observed in Group A, C, and D, with coefficients of determination of 0.0415, 0.3088, and 0.4167, respectively. A negative relationship was observed in Group B, E, and F, with coefficients of determination of 0.0589, 0.1749, and 0.3557, respectively (Figure 4).

Table 3. Continue.

Group E	Missouri	6.137428	3	Gather, School, Restaurant
	Georgia	10.617423	2	Gather, School
	Tennessee	6.829174	2	Gather, Restaurant
	Arizona	7.278717	3	Gather, School, Restaurant
	Virginia	8.535519	3	Gather, School, Restaurant
Group F	Indiana	6.732219	5	Gather, School, Restaurant, Business, Stay-at-home
	Illinois	12.671821	5	Gather, School, Restaurant, Business, Stay-at-home
	Michigan	9.986857	5	Gather, School, Restaurant, Business Stay-at-home
	New York	19.453561	5	Gather, School, Restaurant, Business, Stay-at-home
	New Jersey	8.882190	5	Gather, School, Restaurant, Business, Stay-at-home
	Pennsylvania	12.801989	5	Gather, School, Restaurant, Business, Stay-at-home
	Ohio	11.689100	5	Gather, School, Restaurant, Business, Stay-at-home

Gather = gathering restrictions, school = mandated school closures, restaurant = restaurant restrictions, business = non-essential business closures, stay-at-home = stay-at-home orders.

Political preference

Political preferences were represented by data on the proportion of Trump voters in the 2016 presidential race, displayed in Table 7 by state and group. The states supporting the Trump administration the most are (1) Wyoming (70%), (2) West Virgina (69%), (3) North Dakota (64%), followed by (4) Kentucky (63%). Interestingly no metropolitan states or highly populated states tend to support Democrat. Also, the proportion of the Trump voters are proportionally matching with the states showing a strong religious belief. A positive relationship was observed in Group D, with a coefficient of determination of 0.3027. A negative relationship was observed in Group A, B, C, E, and F, with coefficients of determination of 0.3883, 0.0077, 0.0968, 0.0787, and 0.646, respectively (Figures 5 and 6).

CONCLUSION AND DISCUSSION

Contrary to previous findings and initial expectations, economic status was not significantly correlated with COVID-19 incidence. The coefficient of determination was 0.0089, which suggests that only 0.9% of the confirmed COVID-19 cases tended to be influenced by economic status. However, the aberrant positive relationship between economic status and confirmed cases in Group F suggests the presence of a significant negative relationship between these variables. As seen in Figure 7, the regression analysis excluding the states that belonged to Group F revealed a negative relationship between economic status and confirmed COVID-19 cases. Though the finding that only 2.5% of the confirmed COVID-19 cases tended to be influenced by economic status may conflict with previous findings, the results of the regression analysis on Group A, C, D, and E support the common assumption of a negative relationship between economic status and confirmed COVID-19 cases. This finding indicates that the lower the per capita GDP, the higher was the infection rate. Several studies that predicted this trend explain this finding (Barnett-Howell and Mobarak, 2020; Martin et al.,

Table 4. Confirmed cases and infection rate in each state.

State	Confirmed Cases*	Infection Rate
Arizona	2030	0.2775
Wyoming	2026	0.35001
North Dakota	4672	0.6131
Rhode Island	17711	1.672
Montana	2265	0.2119
Nebraska	22178	1.147
Hawaii	1290	0.0911
Delaware	13114	0.6640
West Virginia	4657	0.2599
New Mexico	16138	0.7696
Utah	31908	0.9953
Arkansas	31114	1.031
Kansas	21273	0.7302
Kentucky	21617	0.4839
South Carolina	64083	1.245
Wisconsin	43361	0.7447
Connecticut	47750	1.339
Oregon	13516	0.3205
Nevada	32024	1.040
Louisiana	86521	1.860
Maryland	76237	1.260
Missouri	32596	0.5311
Georgia	121000	1.140
Tennessee	69827	1.023
Arizona	135000	1.855
Virginia	74431	0.8720
Indiana	55413	0.8231
Illinois	160000	1.263
Michigan	79977	0.8008
New York	409000	2.103
New Jersey	178000	2.004
Pennsylvania	103000	0.8046
Ohio	70601	0.6040

2020).

According to Adolph et al. (2020), states in the 25th percentile for per capita GDP were on an average 0.8 days slower in implementing mandatory social distancing measures as compared with those in the 75th percentile. Late adoption of social distancing measures owing to these states' limited economic resources and economic hardships may have increased the population's chances of virus exposure in the community. Furthermore, a low per capita GDP may indicate a higher vulnerability of the population to emergent situations and a weaker healthcare system, which may in turn have led to an increase in confirmed cases.

These findings suggest that research on factors influencing the incidence of confirmed cases should

Table 5. Economic status factor for each state.

Group	State	Economic Status Factor* (in $)
Group A	Alaska	6.40
	Wyoming	5.88
	North Dakota	6.28
	Rhode Island	4.76
	Montana	3.94
	Nebraska	5.31
Group B	Hawaii	5.13
	Delaware	6.37
	West Virginia	3.63
	New Mexico	4.13
Group C	Utah	4.46
	Arkansas	3.64
	Kansas	4.70
	Kentucky	3.90
	South Carolina	3.70
	Wisconsin	4.73
Group D	Connecticut	6.45
	Oregon	5.06
	Nevada	4.38
	Louisiana	4.39
	Maryland	5.54
Group E	Missouri	4.33
	Georgia	4.47
	Tennessee	4.33
	Arizona	3.86
	Virginia	5.17
Group F	Indiana	4.53
	Illinois	5.41
	Michigan	4.34
	New York	6.46
	New Jersey	5.71
	Pennsylvania	5.10
	Ohio	4.76

Economic Status Factor = Per capita gross domestic product (in $) for each state (values divided by 10000).

consider not only the characteristics of socially vulnerable individuals but also how strictly individuals follow social distancing measures. When only “practically optional” social measures exist, factors influencing individuals who follow these optional measures tend to dominate this tendency. The trends observed in each group’s coefficient of determination supports this claim. The effect of individual behavior is evident from a comparison of the coefficient of determination of Group A, C, and E with that of Group B, D, and F. Unlike Group B, D, and F, the former three groups (A, C, and E) did not have a large

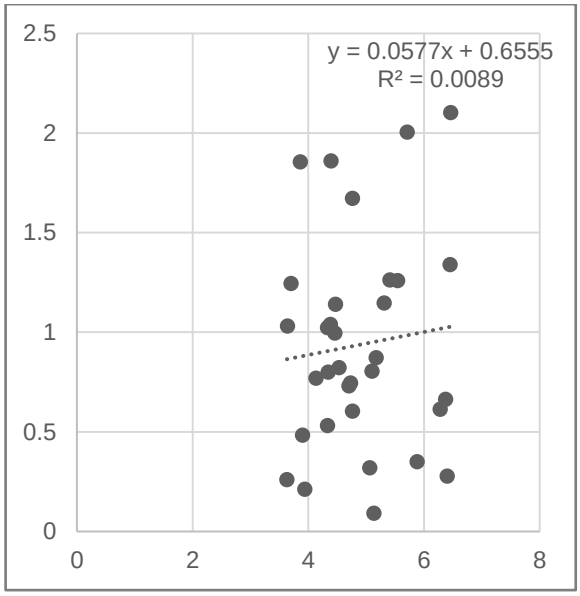

Figure 1. Coefficient of determination on economic status for the whole sample.

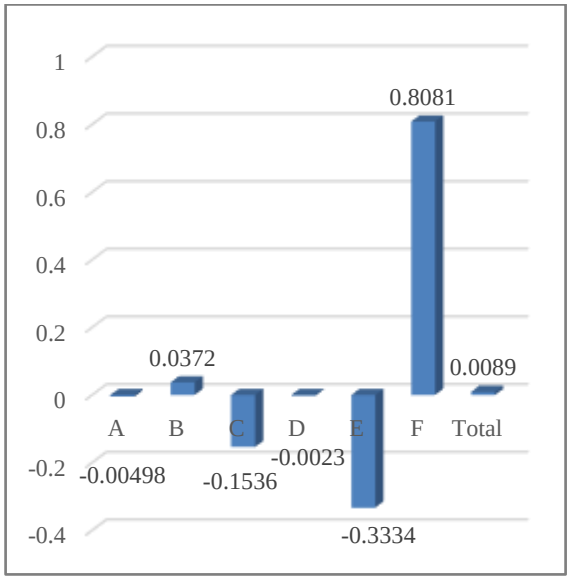

Figure 2. Coefficient of determination on economic status for individual state group.

number of compulsory social distancing measures and they relied entirely on practically optional social distancing measures (e.g., gathering restrictions). The findings suggest that the regression analysis on the three groups, all with only practically optional social distancing methods, confirmed the negative relationship between economic status and confirmed COVID-19 cases. The coefficient of determination of these groups had a greater absolute value than that of Group B and D. This finding indicates that, when social distancing measures were not strong, economic status had a relatively strong relationship

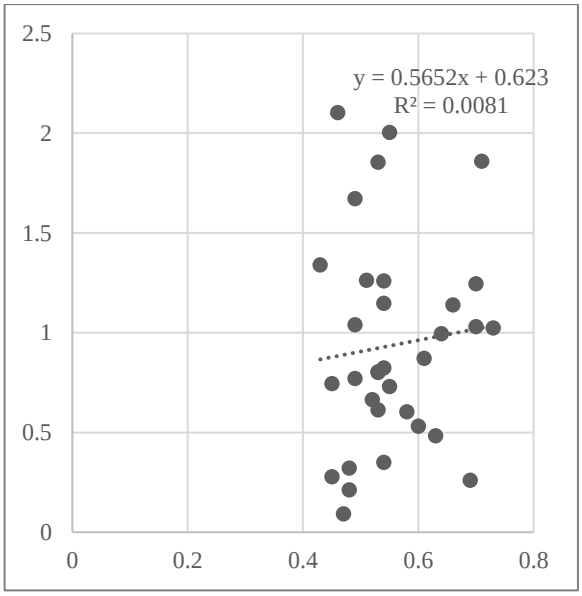

Figure 3. Coefficient of determination on the religious commitment for the whole sample.

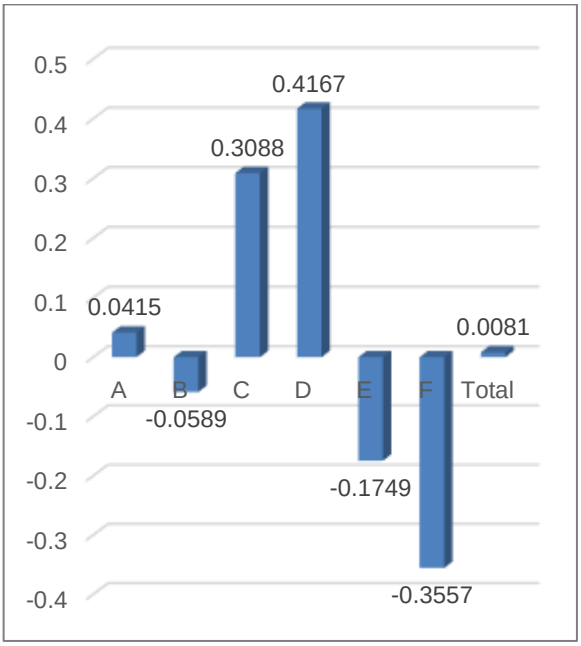

Figure 4. Coefficient of determination on the religious commitment for individual group.

with confirmed cases, suggesting that economic status was more dominant when the individuals were relatively free. It is worth noting that the social distancing measure of "non-essential business closures" distinguished Group A, C, and E from Group B, D, and F. Therefore, it may be inferred that

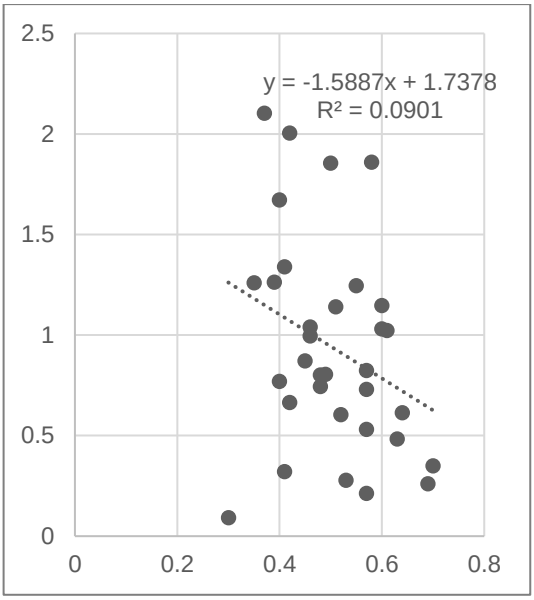

Figure 5. Coefficient of determination on the political preferences for the whole sample.

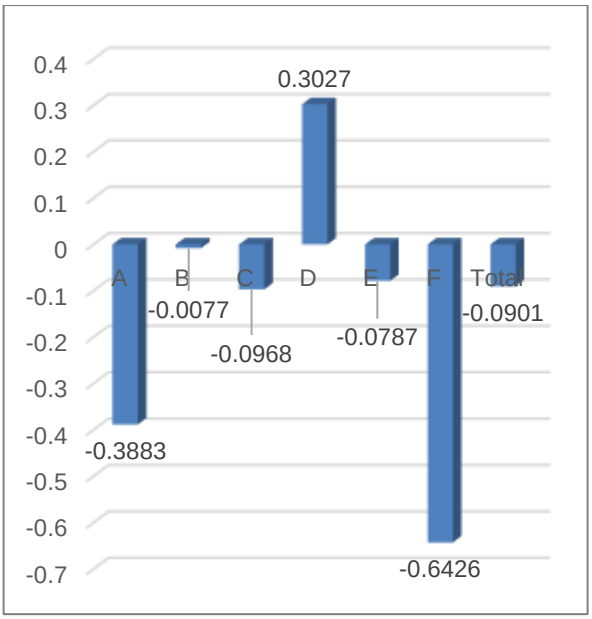

Figure 6. Coefficient of determination on the political preferences for individual group.

when the right to decide whether to engage in economic activity was offered to individuals rather than the state government, areas with low per capita GDP were usually more economically active than were other regions. Thus, the economic burden experienced by individuals in the former situation may have led to an increase in confirmed cases (Barnett-Howell and Mobarak, 2020).

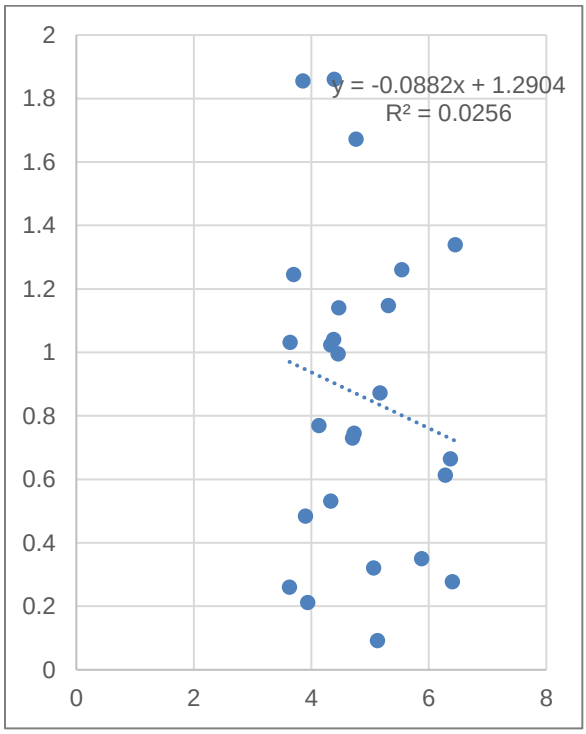

Figure 7. Economic status excluding Group F.

Implications

The most noteworthy result for policymakers and researchers could be the relationship between political preferences and confirmed COVID-19 cases. To ensure adherence to social distancing measures, it is important to implement policies that are mandatory but do not affect individual liberty. Furthermore, it is vital that policies and suggestions motivate individuals to accept that they are in an emergency. Without an individual's readiness to voluntarily practice social distancing and follow the state government's measures with a sense of emergency, no social distancing policy could be successful in controlling the spread of the virus. This implies that policy research related to human psychology during an emergency and that on individuals' readiness to accept more government authority is crucial for managing pandemics.

Regardless of the general trends observed in other groups, Group F exhibited a unique trend. The reasons for this tendency are evident from the present findings. Group F comprised New York, Chicago, Illinois, Pennsylvania, etc., which are economic hubs with a great deal of economic interaction with other states. Additionally, New York and nearby states (all included in Group F) comprised the first region in which the coronavirus began to spread widely in the US. Several confirmed cases had appeared here even before the implementation of appropriate social distancing methods. Considering the present findings, it is evident that, with more economic exchanges and higher status as an economic center, a greater number of confirmed cases would occur in these states.

Religious commitment seemed to have no significant relationship with confirmed COIVD-19 cases. The coefficient of determination for the positive relationship between religious commitment and confirmed cases was 0.0081. This suggests that only 0.8% of confirmed cases tended to be influenced by religious factors. The positive relationship between religious commitment and confirmed COVID-19 cases may be explained by the tendency of religious individuals to visit religious sites and gather together. However, gathering restrictions included religious sites, which weakens this explanation. Moreover, the negative relationship between this factor and confirmed cases cannot be explained. Thus, despite being significant, these results, suggest an indirect association rather than direct causality.

The most noteworthy results were obtained in the regression analysis on political preferences and confirmed cases. The present results showed that Trump supporters tended to have a lower number of confirmed cases, whereas Adolph et al. (2020) found that the stronger the political preferences, the more delayed was the implementation of social distancing measures. These findings refute the results of previous studies that suggested that Trump supporters resisted the implementation of social distancing measures. These results are not accidental and have a coefficient of determination large enough to have statistical significance. Group-based analyses revealed higher significance; five out of six groups showed a positive relationship, with a significantly high coefficient of determination (0.077–0.6426). If the timing of the policy itself influenced the incidence of confirmed cases, states with stronger political preferences (more Trump supporters) would have high numbers of confirmed cases. However, the relationship between political factors and confirmed cases may be better explained by the effect of the former variable on individuals who follow social distancing policies. Majority of the studies on confirmed cases assumed that individuals of the community are eager to follow social distancing

measures and they accept the official adoption of social distancing measures of the state government in an emergency (Andersen, 2020). However, there is no evidence supporting this assumption. Specifically, if Republicans tend to resist social distancing measures, it is less likely that they would follow such measures only because they are required to do so. Rather than the government's official implementation of social distancing, the rapid and visible increase in the number of confirmed cases would signals an emergency. Consequently, they would force themselves to socially distance when they fear being exposed to the virus. The individuals in Republican states that reported a vast increase in confirmed cases at the beginning of the spread of the virus due to the late adoption of social distancing measures may have experienced more fear than those in other states. This fear may have led individuals in Republican states to socially distance voluntarily and to exhibited strong adherence to the guidelines of the state government. This may have led to a lower incidence confirmed cases in Republican states as compared with other states.

Limitations

This study had several limitations. First, all regression analyses were performed with the assumption that population and confirmed cases would have a linear relationship. For a more accurate calculation, a model equation should first be computed to identify the exact relationship between these variables. Additionally, future studies should compare the coefficient of determination between various relationship models (logarithmic, exponential, linear, etc.).

Next, this study did not examine the importance of geography and timeline of the event (COVID-19). Since the starting point of a disease is the most important factor in epidemiologic and pandemic studies, the effect of the starting point and of interactions with nearby states are the crucial determinants of the spread of the pandemic. However, it is difficult to reflect these factors quantitatively. Future studies should identify methods to translate geographical and timeline-related factors into quantitative numbers objectively and accurately, as it would provide a more accurate picture of the relationships between various factors and confirmed cases.

Finally, simple linear regression merely provides information about the relationship between confirmed COVID-19 cases and socio-political factors. It does not provide a causal understanding of the effects. To identify causality, it is essential to identify subordinate factors within each factor, which would enable scrupulous examination of the relationship between each factor and confirmed cases. Thus, researchers can obtain a holistic understanding of the cause-and-effect relationship between government policies and the pace of the virus's spread.

In summary, for all factors, the regression analysis between economic factors and confirmed cases showed that low economic status in states led to an increase in confirmed cases (excluding the special case of Group F, where social distancing policies had not been implemented for long enough to reduce the spread of the virus). In other words, in states with low per capita GDP, compulsory measures, such as "stay-at-home" and "non-essential business closures," as well as practically optional measures, such as gathering restrictions, are important. Since these measures create an economic burden, especially for states with a low per capita GDP, it is important to identify and implement other measures that are compulsory but do not carry such economic effects.

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