How are Society's Conditions and Demographics Related to the Popularity of Chief Executive Carrie Lam and the Hong Kong Government? [1]

Peter To [2]

University of California, Berkeley

Economics Undergraduate Honors Thesis

Advisor: Gerard Roland

December 11, 2020

Abstract

The popularity of the current Chief Executive Carrie Lam and the Hong Kong government has hit historically low levels since mid-2019. It is important to investigate the potential cause of this low popularity. This paper examines how the three society's conditions (political, economic, and livelihood) and demographics are related to and potentially affect the popularity of Chief Executive Carrie Lam and the HKSAR Government based on multiple surveys since July 2017. The results show that only a better perception of political and livelihood, not economic, conditions leads to a significantly higher level of satisfaction with the government on average. Political orientation and age are also significant factors in determining the popularity of the government.

---

1   Introduction

The appointment of Carrie Lam as the Chief Executive (CE) of Hong Kong on 1 July 2017 seemed to be a normal change to the leader position of the city once in five years. During the first two years of CE Carrie Lam's tenure, the society had remained relatively stable, and the popularity of CE Carrie Lam and the HKSAR Government were similar to those of previous CEs. However, things turned downhill beginning in mid-2019. Over the period from June 2019 to today (December 2020 as of publication date), it has been one of the most chaotic times in the history of Hong Kong. Conditions of society have been negatively impacted by many events. CE Carrie Lam and the government have also been heavily criticized, and their popularity dropped significantly lower than that of previous CEs as shown in Figure 1.[3]

Figure 1. Comparison between Ratings of Chief Executives of Hong Kong
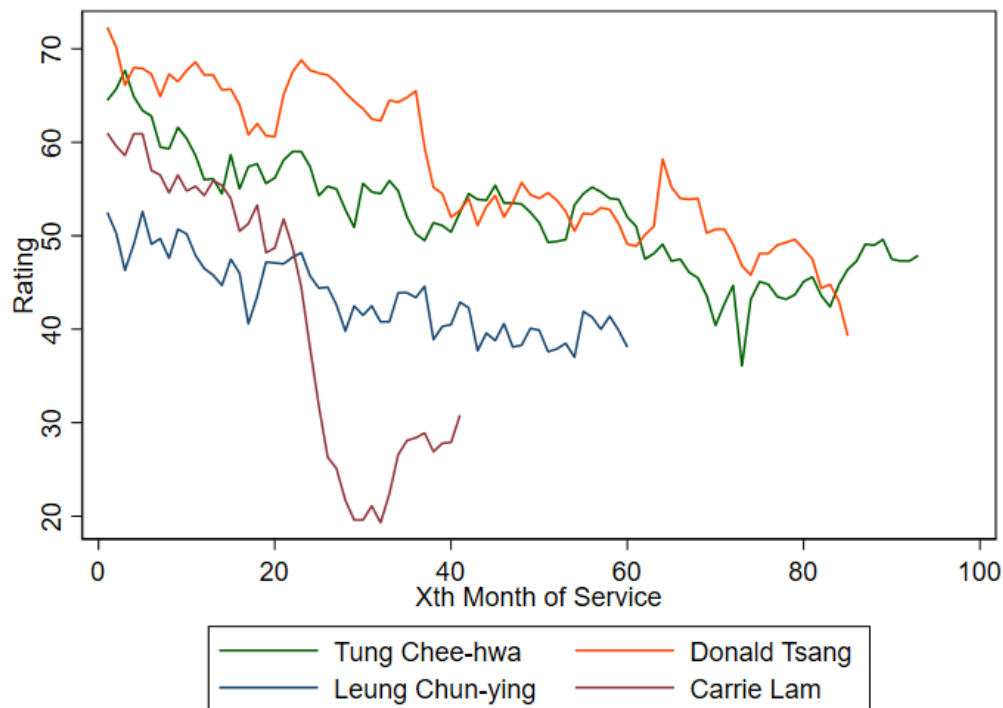
Source: Hong Kong Public Opinion Research Institute (PORI)

---

[3] Data can be found at https://www.pori.hk/pop-poll/chief-executive/combined/rating.

Politically, beginning in June 2019, there were numerous protests demanding the full withdrawal of the controversial extradition bill and calling for five demands, including calling for universal suffrage for the Legislative Council and the Chief Executive elections ("The Hong Kong Protests" 2019). Although the extradition bill was withdrawn in October 2019, the government decided to ban people from wearing masks to discourage protests. However, this only led to further public dissatisfaction and tensions with the government. The passing of the national security law in late June 2020 gives the government power to "criminalize any act of secession, subversion, terrorism, and collusion with foreign or external forces" (Tsoi and Lam 2020). This fuelled a lot of controversies among the public and internationally as people fear the loss of freedom of voicing their oppression against Hong Kong and Chinese governments.

Economically, the ongoing trade war between the United States and China has greatly impacted Hong Kong's trading industry. Exports dropped "5.7 per cent in July (2019) year on year" (Tsang 2019). Because of the ongoing protests, fewer tourists were coming to Hong Kong. Stores and malls were also closing early to avoid clashing with protests. Things got worse in March 2020 as COVID-19 forced many businesses to trim down operations or shut down. As a result, The economy shrank 9.1% in the first quarter of 2020, which is the steepest decline in Hong Kong's history (Tsang 2020).

In the livelihood aspect, Hong Kong is rated as the most unaffordable place to live in the world. The city was ranked number 1 in the most expensive place to purchase a property in 2020 ("Hong Kong Holds" 2020). The government has been criticized for not having effective policies to make housing more affordable to the public. Amid COVID-19 in 2020, the government has imposed controversial public restrictions, including a temporary all-day ban on dining-in services

which forced people to eat on the street (Cheng 2020). The public was angry about how the inconsistent measures of the government affected people's daily lives and business operations.

The popularity of CE Carrie Lam and the government has been low since mid-2019 and does not appear to go back up to previous ratings any time soon. Some of the conditions in society seem to be associated with this low popularity of the government. The background characteristic of people might also reflect their extent of support for the government. However, this is a relatively recent issue, and there is a lack of research on what affects public opinion towards the government in Hong Kong. Therefore, I decided to conduct research on this issue and believe that my research will provide valuable analysis on what has a significant impact on the popularity of CE Carrie Lam and the Hong Kong government.

In this research paper, I will examine how the three society's conditions (political, economic, and livelihood) and demographics are related to the popularity of Chief Executive Carrie Lam and the Hong Kong government after mid-2019. This issue is extremely relevant and important today since the government's popularity among the public has hit a historical low point, and they do not seem to find the right cause of the result and implement appropriate measures to reverse the problem. It is difficult for the government to govern the society effectively if they do not regain people's trust. Therefore, it is crucial for the government to understand the demographics and what the public cares about, so the government can in turn implement appropriate policies that can regain people's satisfaction with CE Carrie Lam and the government. My hypothesis is that the public perception of the political, economic, and livelihood conditions are all significantly associated with the popularity of CE Carrie Lam and the Hong Kong government after mid-2019. The better the public perception of the three

society's conditions, the higher the popularity of the government. I also hypothesize that age, education, and political orientation are significantly associated with the popularity of the government.

To test the hypothesis and answer my research question, I used a dataset provided by the Hong Kong Public Opinion Research Institute (PORI).[4] The dataset includes surveys from several periods from July 2017 up to August 2020. Doing analysis in different periods allows me to compare the differences in the results as time changed. Each survey in a period consists of around 1,000 respondents chosen with a random telephone sample. The survey includes questions of respondents' rating of support with CE Carrie Lam and satisfaction with the HKSAR Government, and whether the respondents were satisfied with the political, economic, and livelihood conditions respectively in Hong Kong. The dataset also includes demographic variables such as gender, age, educational attainment, and political orientation of the respondents.

I ran several Ordinary Least Squares (OLS) regressions, taking into account the probability weights. The outcome variables are the measures of people's rating of support with CE Carrie Lam and satisfaction with the government. The explanatory variables are the measures of people's satisfaction with political, economic, and livelihood conditions and demographics.

With robustness checks, my results show that only political and livelihood conditions are significantly associated with the popularity of CE Carrie Lam and the HKSAR Government after mid-2019. With a better perception of these two conditions, the popularity of the government is higher on average. In particular, the effect of political conditions has increased significantly after

---

[4] PORI: https://www.pori.hk/. The particular dataset is provided by the organization directly.

mid-2019. On the other hand, the economic condition loses significance after mid-2019. People in pro-democracy and localist groups are significantly associated with the popularity of the government and have huge impacts in terms of magnitude. Age also became a significant factor after mid-2019.

The rest of the paper continues as follows. Section 2 reviews relevant literature and explains how my research fills the gap of existing work. Section 3 describes the data and displays descriptive statistics of the data. Section 4 describes the empirical methods used to answer the research question. Section 5 presents the results and discusses the comparison and implications of the results. Section 6 provides concluding remarks to the research. The figures and tables section includes the description, analysis, and visual representation for the data and results. The appendix section includes additional figures and tables.

2   Literature Review

The research question, which is the relationship of the three society's conditions (political, economic, livelihood) and demographics with the popularity of the Chief Executive Carrie Lam and the Hong Kong government, is quite novel and specific in context. My question focuses on Hong Kong and at a present period (mid-2019 - today), so there is not much existing literature directly addressing the question I am trying to answer. Nonetheless, there is a handful of literature researching relevant topics that motivate and provide extra insights and background information to my research.

2.1   Previous Research

I have previously conducted a research paper on the relationship between the levels of economic freedom and democracy of a country and Hong Kong people's opinions towards that country's government (To 2020). The dataset is a panel with governments in 10 countries (including Hong Kong, mainland China, Taiwan, etc.) in the period from 1997 to 2020. Each observation consists of the measures of economic freedom and democracy levels in a country and the average opinion level of Hong Kong people towards that country's government in a particular period. I conducted regressions with both country- and time-fixed effects on the measures of Hong Kong people's opinions level against the levels of economic freedom and democracy. The result shows that a higher level of democracy in a country is associated with a better opinion level of Hong Kong people towards that country's government. However, interestingly, the level of economic freedom does not have a clear effect on the opinion level.

2.2   Other Literature

Some works have studied similar determinants of political trust of the Hong Kong government. A relevant work is Wong, Hsiao, and Wan (2009). This paper examines the major determinants of political trust in Hong Kong and Taiwan using a dataset from the 2006 AsiaBarometer survey. The variables include indicators of political trust, evaluations of government performance, life satisfaction, satisfaction with democracy and freedom, and cultural orientation. The authors conducted ordinary least square (OLS) regressions with political trust against the other variables mentioned above and demographic attributes. The result shows that evaluations of government performance, satisfaction with democracy, and life satisfaction only

have an insignificant to moderate effect on the trust in the Hong Kong government. Interestingly, gender has a significant impact on the trust in the government, with males having a higher trust rating on average than females.

Wong, Wan, and Hsiao (2011) is a very similar research using the same survey as above but instead examines the determinants of trust in the government in six countries: China, Hong Kong, Singapore, Taiwan, South Korea, and Japan. The variables are trust in the government, economic performance, political performance, life satisfaction, and cultural orientations. The authors also conducted OLS regressions with trust in government against other variables. The results show that out of six countries, only in Hong Kong economic performance does not have a significant effect on the public's trust in the government. On the other hand, higher levels of political and life satisfaction are associated with a higher level of trust in government in Hong Kong. Out of the six countries, only in Hong Kong gender has a significant effect on political trust, with males having a higher level on average.

Zhang and Ip (2019) examines the relationship between public trust in the Hong Kong government and the government's performance in public services. The measure of the government's performance in public services is the ratio of public expenditure, which is the proportion of government budget over categories such as education, social welfare, and health care. The authors used a combined dataset of these variables from 1993 - 2015 and conducted OLS regressions with trust in government against the ratio of public expenditure and control variables. The results show that with a higher ratio of public expenditure and a higher GDP per capita, there is a higher level of trust in the government. A higher level of unemployment is associated with a lower level of trust in the government.

He and Ma (2020) is a research on the relationship between public trust in the Hong Kong government and citizen participation in health policy. The authors conducted OLS regressions with citizen participation as the independent variable and public trust in government as the dependent variable with controls. The results show that allowing greater citizen participation in health policy reform would not only increase public trust in the health care system but also in turn create greater trust in the Hong Kong government. Gender, age, and income are also significant factors of political trust, with males, older people, and higher-income earners associating with a lower trust of the government.

2.3   Relationships Between Existing Literature and Current Research

My previous research and other literature above serve as a motivation and starting point for my current topic. For the previous research, economic freedom and democracy is a part of economic and political condition respectively. Understanding the results in the previous research should give me some insights and expectations for my current research for the relationship between the popularity of the government and the current economic and political conditions.

The two research papers from Wong et al. help guide my research in several ways. First, the variables in Wong's research are similar to my research. Trust in the Hong Kong government is similar to the popularity of the government. Moreover, some variables such as economic performance, political performance, life satisfaction, and controls are closely related to the society's conditions (economic, political, livelihood) and demographics (gender, age, education, income) variables in my research. Therefore, understanding the results in Wong's paper gives insights into the prediction for my research's results. In particular, the insignificant effect of

economic performance on trust in the government is unexpected to me, given that Hong Kong is known for being an international financial hub. Second, the research design guides me in approaching my research. Wong's research also uses survey data which has similar survey methods to my dataset. Therefore, I can reference and conduct similar regression analyses for my data as well.

In Zhang and Ip (2019), the ratio of public expenditure can be viewed as a measure of livelihood condition. Therefore, this paper gives some insights into the relationship between the livelihood condition and the popularity of the government.

He and Ma (2020) also provides context to the livelihood condition in Hong Kong by analyzing citizen participation in health policy. Moreover, control variables of gender, age, and income are also significant factors in determining political trust. This leads me to also hypothesize that gender and age are associated with the popularity of CE Carrie Lam and the Hong Kong government.

2.4   Limitations of Existing Literatures

Although my previous research and existing literature above are very insightful, they have limitations that cannot answer my current research question. All of the existing research's dataset is either too old in time or includes a very long-time period. This makes the previous research results not as relevant and useful to analyze the current situation in Hong Kong, which has dramatically changed over the past year. I would like to focus on the present time (mid-2019 to today) only so that the results would be more relevant to the current situation in Hong Kong and provide better insights into current public policy.

Second, the survey questions and variables in the previous research are not the same as my research question. I would like to see how the three areas of society's conditions (political, economic, livelihood) affect the popularity of CE Carrie Lam and the government. The existing literature examines some variations of my variables such as economic freedom, democracy, and the ratio of public expenditure, which are different enough to create some changes to the results.

In my research, I will fill in the gaps and extend the existing literature. I will separate the potential determinants into three main categories: political, economic, and livelihood conditions in Hong Kong. This categorization is not too specific but is enough to make clear interpretations of the results and the government can propose appropriate actions with further investigations. Analyzing demographic variables such as age, education, and political orientation also gives extra insights into how background characteristics the popularity of the government. Moreover, I will analyze survey results from different periods since July 2017. They are not only relevant in time, but I can analyze and compare the results to see if there are any significant differences between periods. The results would provide insights to the public of what matters in the popularity of the government, and to the Hong Kong and mainland China governments to propose public policy accordingly.

3   Data

3.1   Data Sources and Descriptions

The data source is provided by the Hong Kong Public Opinion Research Institute (PORI), the leading institution researching public opinions in Hong Kong. The dataset includes four survey results from July 2017, April 2019, February 2020, and August 2020. Using surveys from

different periods allows comparison of results between periods and draws useful insights with

the differences in results. Each survey result consists of around 1,000 Cantonese speaking Hong

Kong residents aged 18 or above using a random telephone survey conducted by real

interviewers in a 3 to 4 day period within the months mentioned ("POP" 2020).

Some questions are primary to my research. Two questions are related to the popularity

of Chief Executive Carrie Lam and the Hong Kong government. One asked the respondents to

rate the extent of support to CE Carrie Lam (*CE_rating*). The other asked for respondents'

satisfaction level with the performance of the HKSAR Government (*government_rating*). Three

questions are related to the conditions of society. The three questions asked for respondents'

satisfaction levels with the current political (*political*), economic (*economic*), and livelihood

(*livelihood*) conditions in Hong Kong respectively. There are also demographic questions such as

gender, age, education, and political orientation. Table 1 and 2 display the definitions for the

main variables and demographic control variables respectively.

There are a few complications and shortcomings with the dataset. First, I was only able to

obtain survey results from four periods, which might be too few to conclude a consistent result. It

would be better to have surveys from more periods to conclude a more accurate result.

Nonetheless, the surveys from the four selected periods were carefully chosen to be

representative of periods before and after mid-2019. Second, the original data is in Chinese, and

there are a few differences in the measures of demographic variables between surveys of

different periods. To tackle the issue, I translated the dataset to English and standardized a set of

measures for each variable in all surveys. Third, the measure for popularity of CE Carrie Lam

and the HKSAR Government is different. The popularity of CE Carrie Lam was measured on a 0

- 100 scale but that of the HKSAR Government was measured on a 5-point Likert scale. Nonetheless, this should not constitute a huge issue as we do not focus on the magnitude of coefficients of regressions. As long as both methods measure the popularity of the government, the results are reliable.

3.2   Descriptive Statistics

Table 3A displays the frequency table of support of CE Carrie Lam (*CE_rating*) and the public's satisfaction with the HKSAR Government (*government_rating*). Before mid-2019, we can see that the average ratings for both CE Carrie Lam and the government were quite high. Especially for CE Carrie Lam, there were more than 50% of the respondents giving a rating above 60 during this period. However, after mid-2019, the average ratings dropped to an extremely low point, with over 65% of respondents giving a rating of between 0 to 20 to CE Carrie Lam, and nearly 80% being dissatisfied with the Hong Kong government. The histograms and summary statistics in Figure 2 show the distributions and changes in *CE_rating* visually.

Table 3B displays the frequency table for satisfaction level with the current political (*political)*, economic (*economic*), and livelihood (*livelihood*) conditions in Hong Kong. We can see a similar pattern to the frequency table for *CE_rating* and *government_rating*. There is a significant increase in the percentage of respondents who were very or quite dissatisfied with the three society's conditions after mid-2019. Nearly 90% of the respondents answered that they were very or quite dissatisfied with the political condition in Hong Kong in February 2020.

Additional descriptive statistics can be found in the appendix section. Table A displays detailed summary statistics for the main variables. Table B displays the pairwise correlation matrix of the main variables before and after mid-2019.

The descriptive statistics show that there was an enormous decrease in the popularity of CE Carrie Lam and the government after mid-2019. We also see that more people were dissatisfied with the political, economic, and livelihood conditions in Hong Kong after mid-2019. However, in order to find the relationship between the popularity of CE Carrie Lam and the government and the society's conditions of Hong Kong, I need to do further analysis to conclude significant relationships between the factors.

4 Empirical Method

For the empirical analysis, I conducted a series of ordinary least square (OLS) regression models as follows:

$$Y_i = \beta_j * X_{j,i} + \beta_k * C_{k,i} + \varepsilon_i$$

Y_i represents the outcome variables, which are the extent of support to Chief Executive Carrie Lam (*CE_rating)* and the satisfaction level with the performance of the HKSAR Government (*government_rating)*. $X_{j,i}$ represents the three explanatory variables, which are the satisfaction levels with the political (*political)*, economic (*economic)*, and livelihood (*livelihood)* conditions in Hong Kong respectively. $C_{k,i}$ represents the additional demographic control variables. εit is the error term.

I used probability weights so that the results are reweighted to compensate for over- or under-sampling of a specific case and make the sample more representative of the population in

interest. This also accounts for heteroskedasticity and serial correlation. Including control variables can take into account other factors that might have an impact on the outcome and explanatory variables.

There are still shortcomings to the empirical method. I cannot claim causality in any of the results with the method I used. There are still uncontrollable factors that I was not able to include in the model, which might contribute to omitted variable bias and reverse causality. For this research, my focus is to explore whether there are significant relationships between the variables. Future research can be done to prove causality by conducting controlled experiments or using the instrumental variable approach.

5   Results

5.1   Main Results

Table 4 presents the results for three OLS regressions with people's rating of support for Chief Executive Carrie Lam against people's satisfaction level with the three society's conditions. I have included demographic control variables that might affect the outcome and explanatory variables and used probability weights in all regressions.

First, I conducted a regression for all the observations in the dataset since July 2017, shown as 4(a) in Table 4. The regression shows that political, economic, and livelihood conditions have a significant positive association with the rating of CE Carrie Lam. Looking at the coefficients, variables *political* and *livelihood* have a higher magnitude than *economic*, inferring that these two conditions have a stronger effect on the rating of CE Carrie Lam. The coefficients for periods before and after mid-2019 are also significantly different. The rating of

CE Carrie Lam is 23 points lower after mid-2019 on average. Some demographic variables are also significantly associated with the popularity of CE Carrie Lam. Male on average had a significantly lower rating of support for CE Carrie Lam than female. Respondents who are younger and have higher educational attainment had a lower CE rating on average respectively. Respondents who own a living property also had a lower CE rating than those who rent. The demographic variable that has the biggest effect on the rating of support for CE Carrie Lam is political orientation. Compared to pro-establishment respondents, pro-democracy and localist respondents on average had a rating of support for CE more than 30 points lower.

For regression 4(b) with data before mid-2019, all coefficients on people's satisfaction with political, economic, and livelihood conditions in Hong Kong are positively significant. There is a strong positive relationship between people's satisfaction with each of the three conditions and their rating of support for CE Carrie Lam. Similar to 4(a), males and respondents with higher educational attainment and owned property had a lower rating of support for CE Carrie Lam respectively. There was not a political group called localist before mid-2019. Nonetheless, political orientation also had a big impact on the rating of support for CE Carrie Lam. On the other hand, age does not seem to have a significant effect on the rating overall.

However, for regression 4(c) with data after mid-2019, only the coefficients on people's satisfaction with political and livelihood conditions in Hong Kong remain positively significant, but not economic conditions. This means that people's satisfaction level with the economic condition no longer has a significant impact on the rating of CE Carrie Lam. The coefficient on the political condition has also increased drastically, from only 4.4 before to 7.7 after mid-2019. Gender, education, and property ownership no longer have significant associations with the

rating of support for CE respectively. On the other hand, age became a significant factor with younger respondents having a lower rating of CE Carrie Lam on average. Political orientation had become an even larger effect of the rating in terms of magnitude. Especially for pro-democracy and localist respondents, their ratings for CE were more than 40 points lower than pro-establishment respondents, which is a significant increase from before mid-2019.

Table 5 displays the regressions with people's satisfaction level with the HKSAR Government against people's satisfaction level with the three society's conditions and the same demographic controls. The main results are similar to the previous regressions with the rating of support for CE Carrie Lam mentioned above. The only difference is that the education level and property ownership of respondents are not significantly associated with the satisfaction level with the HKSAR Government in any of the three regressions.

5.2 Additional Results and Robustness Checks

The measure for the rating of support for CE Carrie Lam is a scale of a limited range from 0 to 100. The data shows that many of the respondents' answers were either 0 or 100. However, these respondents probably do not have the same level of rating. Some might have ratings over the boundaries but were only able to rate up to 100 or down to 0. To take into account this phenomenon, I conducted the same regressions as Table 4 using the Tobit model. Table C in the appendix displays the results of the three Tobit regressions. The results are consistent with the OLS regressions.

The absence of multicollinearity is an important assumption for using the OLS model. If there is a near-perfect correlation between two or more variables, the regression coefficients and

standard errors would be unreliable. I ran the vif (variance inflation factor) command on Stata to check for collinearity. A vif value of 10 or above for a variable might need further investigation. The results of the test are normal with no variable with a vif of above 10.

5.3 Discussions

The results are very interesting. Overall, all three conditions of society played a vital role in impacting how people think about CE Carrie Lam and the government. However, since mid-2019, the political condition has significantly greater impact and the economic condition has become insignificant in determining the popularity of the government. This result suggests that the public became more aware of the political situation in Hong Kong, and this correlates with how satisfied they are with CE Carrie Lam and the HKSAR Government. On the other hand, the public does not seem to tie the economic situation in Hong Kong to whether they are satisfied with the government anymore. The results are consistent with my previous research and Wong's work that the level of economic freedom and economic performance did not have significant relationships with political trust in Hong Kong (To 2020; Wong et. al 2011). This is also consistent with previously mentioned literature that different measures of political and livelihood conditions were significantly associated with the trust in the Hong Kong government (To 2020; Wong et. al 2011; Zhang and Ip 2019; He and Ma 2020). Therefore, I propose the government to conduct further research on how specific political and livelihood conditions affect the popularity of the government and develop public policies that focus on these areas.

Political orientation plays an extremely important role in determining the popularity of the government. The relationship between them is not only significant but has great influence.

People who are pro-democracy or localist have extremely low satisfaction with the government on average. Age also became a significant factor in determining the popularity of the government after mid-2019. This is consistent with the results in He and Ma (2020). On the other hand, gender, education, and property ownership lost significance in their relationship with the popularity of the government. The government should take note of pro-democracy and the recent emerging localist groups and younger people's demands as they are important factors of determining the popularity of the government.

6　　Results

This paper examines how the three society's conditions (political, economic, and livelihood) and demographics are associated with the popularity of Chief Executive Carrie Lam and the Hong Kong government. The topic is relevant and important as the popularity of the government has dropped to historical lows. It is urgent to examine the potential cause of this low popularity and propose actions to regain trust among the public. I used survey data in several periods since July 2017 and conducted OLS regressions to explore the relationship between the popularity of the government and the three society's conditions and demographics.

With robustness checks, the results show that only better political and economic conditions lead to a higher level of popularity of CE Carrie Lam and the government. On the other hand, the perception of the economic condition loses its significance with the popularity of the government after mid-2019. Political orientation and age are also significant factors, with pro-democracy and localist groups and younger people having a lower rating and satisfaction with the government on average.

This study has a few limitations. First, I do not claim causality for the results obtained. The model I used does not eliminate all the potential problems that might impact the credibility of the results. Future research should be done using a different approach that can establish causality. Second, I was only able to obtain survey results from four periods. Although the selection should be representative of all periods, more data from different periods should ensure the validity and accuracy of the results.

Nonetheless, my research provides great insight into whether and how conditions of the society and demographics are related to the popularity of CE Carrie Lam and the Hong Kong government. Based on the results, the political condition in Hong Kong seems to become the primary factor in determining the popularity of the government. Pro-democracy and younger people also have greater dissatisfaction with the government. During this critical period, the government should conduct further polls and research to validate my results. At the same time, the government should also devote efforts to settling political tensions and listening to pro-democracy and younger people.

Figures and Tables

Table 1. Main Variables Definitions [5, 6]

Variable	Definition
CE_rating	- respondent's extent of support to the Chief Executive Carrie Lam - scale (0 - 100) 0 = absolutely not supportive, 50 = half-half, 100 = absolutely supportive
government_rating	- respondent's satisfaction level with the performance of the HKSAR Government - response categories 1 = very dissatisfied, 2 = quite dissatisfied, 3 = half-half, 4 = quite satisfied, 5 = very satisfied
political	- respondent's satisfaction level with the current political condition in Hong Kong - response categories 1 = very dissatisfied, 2 = quite dissatisfied, 3 = half-half, 4 = quite satisfied, 5 = very satisfied
economic	- respondent's satisfaction level with the current economic condition in Hong Kong - response categories 1 = very dissatisfied, 2 = quite dissatisfied, 3 = half-half, 4 = quite satisfied, 5 = very satisfied
livelihood	- respondent's satisfaction level with the current livelihood condition in Hong Kong - response categories 1 = very dissatisfied, 2 = quite dissatisfied, 3 = half-half, 4 = quite satisfied, 5 = very satisfied

---

[5] Refer to Section 3.1.
[6] Measurements are modified from the original survey to show better clarifications.

Table 2. Demographic Control Variables Definitions [7, 8]

Variable	Definition
sex	- respondent's gender - response categories 1 = male, 2 = female
age_group	- respondent's age group - response categories 1 = 18 - 29, 2 = 30 - 39, 3 = 40 - 49, 4 = 50 - 59, 5 = 60 - 69, 6 = ≥70
education	- respondent's highest educational attainment - response categories 1 = primary school or under, 2 = secondary school (S1 - S7), 3 = post-secondary or above
occupation	- respondent's job/ position - response categories 1 = administrative and professionals, 2 = clerk and service staff, 3 = laborer, 4 = student, 5 = houseworker, 6 = other
political_orientation	- respondent's political orientation - response categories 1 = pro-democracy, 2 = pro-establishment/ pro-China, 3 = localist, 4 = centrist, 8881 = other, 8886 = not politically inclined/ political neutral/ not belonging to any category, 8888 = don't know/ hard to say
living_type	- respondent's property ownership - response categories 1 = self-owned, 2 = rented (including rent-free or provided by employer)
social_class	- respondent's social class - response categories 1 = upper class, 2 = upper middle class, 3 = middle class, 4 = lower middle class, 5 = lower class

---

[7] Refer to Section 3.1.

[8] Measurements are modified from the original survey to show better clarifications.

Table 3. Frequency Tables [9]

Table 3A. Frequency Table for Variables *CE_rating* and *government_rating*

	Percentage (%)				
CE_rating:	0 - 19	20 - 39	40 - 59	60 - 79	80 - 100
before mid-2019	10.60	9.10	29.70	22.69	27.91
after mid-2019	66.30	6.69	11.65	6.79	8.57
	very dissatisfied	quite dissatisfied	half-half	quite satisfied	very satisfied
government_rating:					
before mid-2019	21.46	23.93	19.90	26.40	8.31
after mid-2019	64.75	13.33	9.17	7.83	4.92

Table 3B. Frequency Table for Variables *political*, *economic*, *livelihood*

	Percentage (%)				
Satisfaction level:	very dissatisfied	quite dissatisfied	half-half	quite satisfied	very satisfied
political					
before mid-2019	38.46	27.19	15.12	16.11	3.12
after mid-2019	69.65	17.62	7.06	4.12	1.55
economic					
before mid-2019	13.41	26.37	24.18	31.43	4.61
after mid-2019	42.07	30.33	17.83	8.01	1.76
livelihood					
before mid-2019	23.56	28.68	20.11	23.76	3.89
after mid-2019	51.10	25.60	12.73	8.32	2.25

[9] Refer to Section 3.2.

Figure 2. Distribution of Support of Chief Executive Carrie Lam [10]

Before mid-2019

Obs (n): 2010
Mean: 56.96 | SD: 27.91
Min: 0 | Q1: 40 | Q2: 60 | Q3: 80 | Max: 100

After mid-2019

Obs (n): 2018
Mean: 19.95 | SD: 30.35
Min: 0 | Q1: 0 | Q2: 0 | Q3: 49 | Max: 100

---
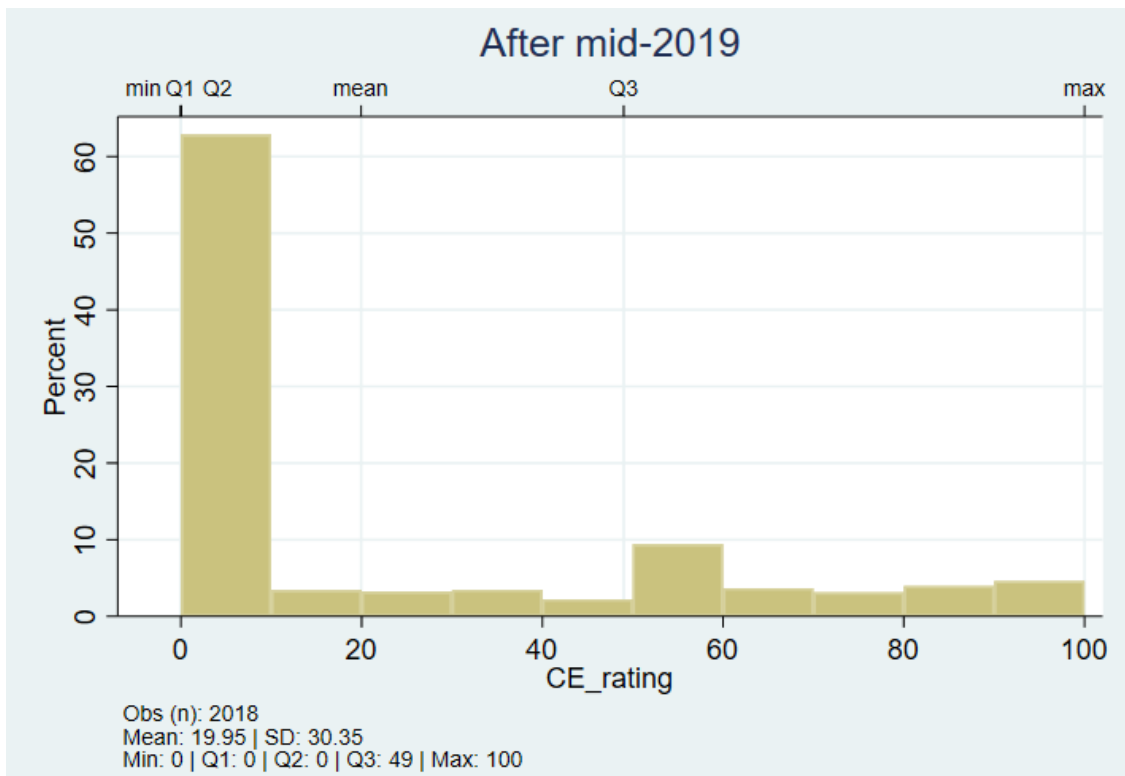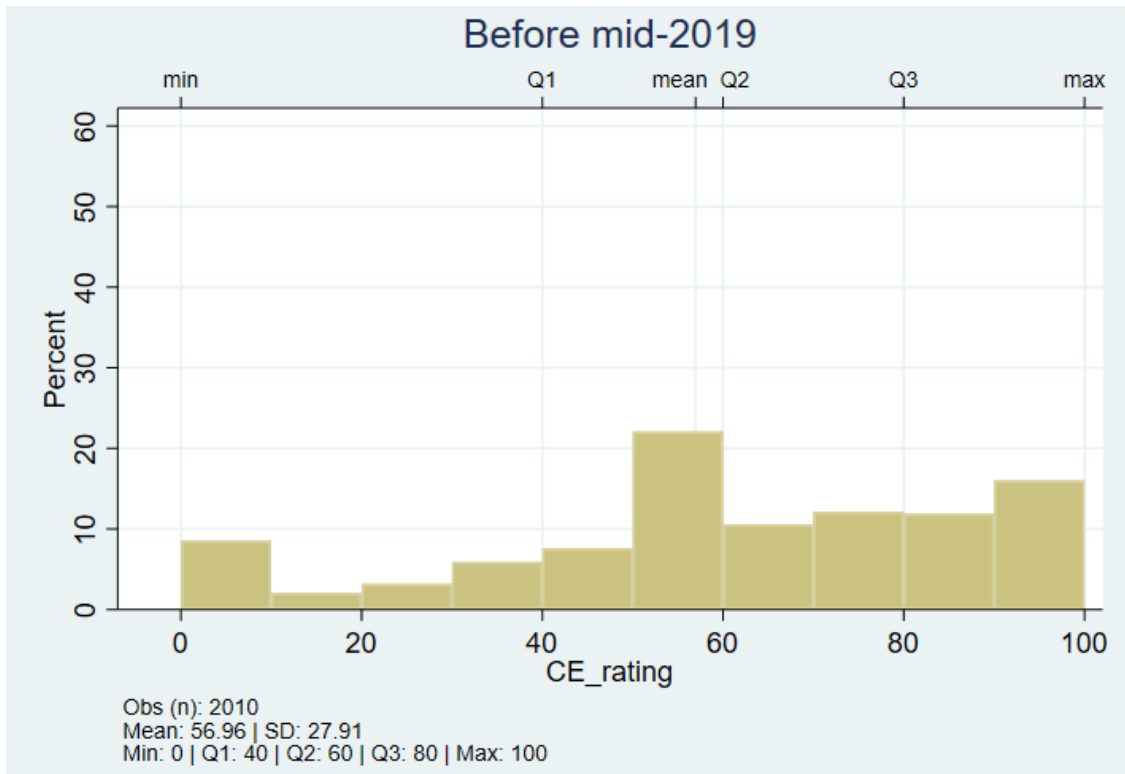
[10] Refer to Section 3.2.

Table 4. OLS Regressions: People's Support Towards CE Carrie Lam [11]

Period:	4(a)	4(b)	4(c)
		CE_rating	
	All	before mid-2019	after mid-2019
political	5.773***	4.445***	7.710***
	(0.552)	(0.617)	(0.989)
economic	1.324***	2.050***	0.656
	(0.483)	(0.667)	(0.669)
livelihood	6.099***	6.276***	5.717***
	(0.547)	(0.649)	(0.882)
period (base: before mid-2019)			
after mid-2019	-23.076***		
	(1.034)		
Additional Controls	Yes	Yes	Yes
Observations	3,464	1,747	1,717
R-squared	0.655	0.474	0.605

Note 1: Robust standard errors in parentheses
Note 2: *** p<0.01, ** p<0.05, * p<0.1

---

[11] Refer to Section 5.1

Table 4. OLS Regressions: People's Support Towards CE Carrie Lam (Continued) [12]

Period:	4(a)	4(b)	4(c)
		CE_rating	
	All	before mid-2019	after mid-2019
sex (base: female)			
male	-3.630***	-5.665***	-1.617
	(0.891)	(1.297)	(1.187)
age_group	1.178***	0.835	1.423***
	(0.351)	(0.513)	(0.481)
education	-1.992**	-3.271***	-0.875
	(0.825)	(1.230)	(1.193)
political_orientation (base: pro-establishment)			
pro-democracy	-33.274***	-24.473***	-42.499***
	(1.612)	(1.765)	(2.734)
localist	-35.979***	N/A	-42.938***
	(1.727)		(2.724)
centrist	-18.477***	-12.445***	-24.928***
	(1.602)	(1.643)	(2.837)
not politically inclined	-20.953***	-13.383***	-29.229***
	(1.904)	(1.956)	(3.423)
living_type (base: rented)			
self-owned	-1.781**	-2.964**	-0.480
	(0.897)	(1.300)	(1.199)

Note 1: Robust standard errors in parentheses

Note 2: *** p<0.01, ** p<0.05, * p<0.1

Note 3: Controls without significance (*occupation*, *social_class*) are not shown. Details can be found in Table 2.

---

[12] Refer to Section 5.1

Table 5: OLS Regressions: Satisfaction with the HKSAR Government [13]

	5(a)	5(b)	5(c)
	government_rarting		
Period:	All	before mid-2019	after mid-2019
political	0.317***	0.292***	0.333***
	(0.029)	(0.035)	(0.051)
economic	0.105***	0.139***	0.077*
	(0.028)	(0.035)	(0.045)
livelihood	0.279***	0.297***	0.258***
	(0.03)	(0.039)	(0.048)
period (base: before mid-2019)			
after mid-2019	-0.364***		
	(0.049)		
Additional Controls	Yes	Yes	Yes
Observations	2,067	1,047	1,020
R-squared	0.642	0.563	0.644

Note 1: Robust standard errors in parentheses
Note 2: *** $p<0.01$, ** $p<0.05$, * $p<0.1$

[13] Refer to Section 5.1

Table 5: OLS Regressions: Satisfaction with the HKSAR Government (Continued) [14]

Period:	5(a)	b(b)	5(c)
		government_rating	
	All	before mid-2019	after mid-2019
sex (base: female)			
male	-0.141***	-0.174**	-0.102*
	(0.046)	(0.071)	(0.060)
age_group	0.039**	0.0125	0.063***
	(0.018)	(0.026)	(0.022)
education	-0.065	-0.075	-0.053
	(0.043)	(0.066)	(0.057)
political_orientation (base: pro-establishment)			
pro-democracy	-1.138***	-0.952***	-1.342***
	(0.087)	(0.106)	(0.144)
localist	-1.120***	N/A	-1.300***
	(0.092)		(0.143)
centrist	-0.613***	-0.450***	-0.810***
	(0.083)	(0.099)	(0.140)
not politically inclined	-0.837***	-0.561***	-1.190***
	(0.102)	(0.128)	(0.154)
living_type (base: rented)			
self-owned	-0.037	-0.078	0.008
	(0.042)	(0.063)	(0.055)

Note 1: Robust standard errors in parentheses

Note 2: *** p<0.01, ** p<0.05, * p<0.1

Note 3: Controls without significance (*occupation*, *social_class*) are not shown. Details can be found in Table 2.

---

[14] Refer to Section 5.1

Appendix

Table A. Summary Statistics for Main Variables [15]

	Obs	Mean	SD	Min	25%	50%	75%	Max
CE_rating								
before mid-2019	1980	56.74	27.85	0	40	60	80	100
after mid-2019	1995	19.75	30.22	0	0	0	45	100
government_rating								
before mid-2019	1201	2.76	1.28	1	2	3	4	5
after mid-2019	1189	1.74	1.19	1	1	1	2	5
political								
before mid-2019	1899	2.17	1.19	1	1	2	3	5
after mid-2019	1925	1.50	0.90	1	1	1	2	5
economic								
before mid-2019	1987	2.87	1.13	1	2	3	4	5
after mid-2019	1965	1.97	1.03	1	1	2	3	5
livelihood								
before mid-2019	2001	2.55	1.19	1	2	2	4	5
after mid-2019	1974	1.84	1.07	1	1	1	2	5

[15] Refer to Section 3.2

Table B. Correlation Matrix of Main Variables [16]

Table B1. Correlation Matrix of Main Variables with data before mid-2019

Variable	CE_rating	government_rating	political	economic	livelihood
CE_rating	1.0000				
government_rating	0.7380	1.0000			
political	0.5266	0.6202	1.0000		
economic	0.4088	0.4684	0.4556	1.0000	
livelihood	0.5507	0.6324	0.5881	0.5606	1.0000

Table B1. Correlation Matrix of Main Variables with data after mid-2019

Variable	CE_rating	government_rating	political	economic	livelihood
CE_rating	1.0000				
government_rating	0.8627	1.0000			
political	0.5953	0.6691	1.0000		
economic	0.3296	0.3749	0.3760	1.0000	
livelihood	0.5894	0.6517	0.5434	0.5030	1.0000

---

[16] Refer to Section 3.2

Table C. Tobit Regressions: People's Support Towards CE Carrie Lam [17]

	C(a)	C(b)	C(c)
	CE_rating		
Period:	All	before mid-2019	after mid-2019
political	7.104***	5.088***	12.120***
	(0.746)	(0.699)	(1.680)
economic	2.019***	2.586***	1.181
	(0.706)	(0.768)	(1.501)
livelihood	7.905***	6.763***	10.842***
	(0.753)	(0.735)	(1.612)
period (base: before mid-2019)			
after mid-2019	-33.514**		
	(1.525)		
Additional Controls	Yes	Yes	Yes
Observations	3,464	1,747	1,717
Pseudo R-squared	0.137	0.070	0.145

Note 1: Robust standard errors in parentheses
Note 2: *** $p<0.01$, ** $p<0.05$, * $p<0.1$

[17] Refer to Section 5.2

Table C. Tobit Regressions: People's Support Towards CE Carrie Lam (Continued) [18]

Period:	C(a) All	C(b) before mid-2019	C(c) after mid-2019
		CE_rating	
sex (base: female)			
male	-4.987***	-6.476***	-4.408
	(1.383)	(1.500)	(2.923)
age_group	1.423***	0.774	2.643**
	(0.529)	(0.576)	(1.165)
education	-2.398*	-3.666**	-0.819
	(1.306)	(1.465)	(2.659)
political_orientation (base: pro-establishment)			
pro-democracy	-44.720***	-28.139***	-71.736***
	(2.299)	(2.212)	(4.698)
localist	-69.505***	N/A	-87.975***
	(4.117)		(5.881)
centrist	-23.480***	-15.036***	-30.910***
	(2.186)	(2.067)	(4.129)
not politically inclined	-26.875***	-16.142***	-38.692***
	(2.590)	(2.422)	(5.255)
living_type (base: rented)			
self-owned	-2.905**	-3.737**	-1.796***
	(1.386)	(1.509)	(2.909)

Note 1: Robust standard errors in parentheses

Note 2: *** p<0.01, ** p<0.05, * p<0.1

Note 3: Controls without significance (*occupation*, *social_class*) are not shown. Details can be found in Table 2.

---

[18] Refer to Section 5.2

References

Cheng, Lillian. "Hong Kong Third Wave: Officials Scrap Coronavirus-Related Ban on Eating in

Restaurants after Just 24 Hours." South China Morning Post, July 30, 2020.

https://www.scmp.com/news/hong-kong/health-environment/article/3095283/hong-kong-

third-wave-government-changes-mind.

"Comparison between Ratings of Chris Patten, Tung Chee-hwa, Donald Tsang Yam-kuen, Leung

Chun-ying and Carrie Lam - Monthly Average." Hong Kong Public Opinion Research

Institute, November 2020. https://www.pori.hk/pop-poll/chief-executive/combined/rating.

He, Alex Jingwei, and Liang Ma. "Citizen Participation, Perceived Public Service Performance,

and Trust in Government: Evidence from Health Policy Reforms in Hong Kong." Public

Performance & Management Review (2020): 1-23.

"Hong Kong Holds Spot As World's Priciest Residential Property Market." CBRE, June 8, 2020.

https://www.cbre.com.hk/en/about/media-centre/hong-kong-holds-spot-as-worlds-priciest

-residential-property-market.

"POP Releases Popularities of CE and SAR Government, Trust and Confidence Indicators and

Public Sentiment Index." Hong Kong Public Opinion Research Institute, August 25,

2020. https://www.pori.hk/eng/press-release/2020/20200825-eng.

"The Hong Kong Protests Explained in 100 and 500 Words." BBC News. BBC, November 28,

2019. https://www.bbc.com/news/world-asia-china-49317695.

To, Peter. "Do Economic Freedom and Democracy Affect Public Opinion of a Government?

Evidence from Hong Kong." Unpublished manuscript, University of California,

Berkeley, 2020.

Tsang, Denise. "Hong Kong Exports Fall 5.7 per Cent amid US-China Trade War." South China

    Morning Post, August 27, 2019.

    https://www.scmp.com/news/hong-kong/hong-kong-economy/article/3024374/hong-kong

    -exports-fall-57-cent-us-china-trade-war.

Tsang, Denise. "Hong Kong's Coronavirus-Ravaged Economy Shrinks 9 per Cent in Second

    Quarter." South China Morning Post, August 3, 2020.

    https://www.scmp.com/news/hong-kong/hong-kong-economy/article/3095166/hong-kong

    s-coronavirus-ravaged-economy-shrinks-9.

Tsoi, Grace, and Cho Wai Lam. "Hong Kong Security Law: What Is It and Is It Worrying?" BBC

    News. BBC, June 30, 2020. https://www.bbc.com/news/world-asia-china-52765838.

Wong, Timothy Ka-Ying, Hsin-Huang Michael Hsiao, and Po-san Wan. "Comparing political

    trust in Hong Kong and Taiwan: Levels, determinants, and implications." Japanese

    Journal of Political Science 10, no. 2 (2009): 147-174.

Wong, Timothy Ka-ying, Po-san Wan, and Hsin-Huang Michael Hsiao. "The bases of political

    trust in six Asian societies: Institutional and cultural explanations compared."

    International Political Science Review 32, no. 3 (2011): 263-281.

Zhang, Shujian, and Kuai Peng Ip. "Public Service of City Government and Political Trust from

    Resident: An Analysis Based on 1992–2015 Hong Kong Livelihood Data." Emerging

    Markets Finance and Trade 55, no. 7 (2019): 1486-1496.