The Impact of the COVID-19 Pandemic on Consumer Bankruptcies

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This manuscript conducts a simple, exploratory analysis to test whether the use of the consumer bankruptcy process fundamentally differed during the COVID-19 pandemic compared to previous years. Data were drawn from the Public Access to Court Electronic Records (PACER) database maintained by the U.S. Bankruptcy Court's Eastern District of Washington for the years 2007, 2011, 2016, and 2020. Kruskal-Wallis tests indicate that filers in 2020 had lower average real monthly incomes than in previous years. However, household incomes were not statistically different from previous years. Filers in 2020 has significantly more debt in collections compared to 2007, but no more or less debt than in 2011 or 2016. Chi-square tests report a significantly greater proportion of filings with debts owed to collections agencies in 2020 compared to previous years. Overall, the findings suggest that the pandemic did significantly alter the use, and intensity of use, of the consumer bankruptcy process.

Keywords: consumer bankruptcy, Covid-19 pandemic, social insurance, personal finance

INTRODUCTION

The COVID-19 pandemic that swept through the United States in 2020 profoundly impacted the health and well-being of many of its citizens, and profoundly disrupted many of its socio-economic institutions (Atkeson, 2020; Udalova, 2021). Among the most obvious policy-driven disruptions were the "lockdowns" that shuttered public schools, many businesses, and other community organizations in many states. The primary benefit of these lockdowns is that they ensured sufficient social distancing to prevent the rapid spread of the SARS-CoV-2 virus throughout the population (Atkeson, 2020). One notable consequence of the lockdown was that it created an economic recession (Makridas & Hartley, 2020; Udalova, 2021). Shuttered business attempted to offset lost sales through employee reductions and reduced payroll expenses (Baker, Bloom, Davis, & Terry, 2020). While most individuals experiencing job losses were eligible to seek unemployment insurance benefits, there was a delay in the receipt of those benefits, and the amount of benefits did not fully offset lost income (Lund, Ellingrud, Hancock, & Manyika, 2020). As a result, many households operating on thin financial margins were placed in a very precarious financial position (Semuels, 2020). The longer households experienced a reduction in income and sustained unemployment, the more likely these households might become insolvent. Once insolvent, the primary means to resolve the insolvency is through the consumer bankruptcy process. As a form of social insurance, consumer bankruptcy redistributes wealth from creditors to debtors (Spooner, 2017). Creditors who incur losses from

unpaid billings pass on a portion of those losses to society at large through higher prices and/or interest rates, which further slows economic recovery. As a result, the link between use of the bankruptcy process and the onset of the pandemic is of concern to policy makers.

The aforementioned argument makes a critical assumption; namely, that the economic conditions created by the COVID-19 pandemic fundamentally alter households' use of the consumer bankruptcy process. The degree to which this assumption is correct depends on i) the magnitude of the financial margin upon which households operate; and ii) the degree to which households adjust expenses as income is lost. If households consistently spend less than they earn in income, it is possible to maintain financial solvency and maintain current expenses, albeit with a smaller financial margin (i.e., monthly additions to the household's savings). Concomitant with adjusted household expenses are policies and other structural changes that automatically reduce expenses. For example, under a lockdown, families with small children may not have daycare expenses if they lose their day care options or if one spouse is unemployed, and can now provide childcare within the home. Similarly, several states imposed a moratorium on evictions, collections activities, and other legal actions related to debt repayment. As a result, if an individual becomes unemployed and unable to make rent payments on time, he or she could at least temporarily reduce expenses by not making those types of payments.

Taken cumulatively, the link between economic conditions and use of consumer bankruptcy during a pandemic may or may not be a tenable one. The purpose of this manuscript is to conduct a simple, exploratory analysis to test the appropriateness of this assumption using data drawn from the Public Access to Court Electronic Records (PACER) database maintained by the U.S. Bankruptcy Court's Eastern District of Washington for the years 2007, 2011, 2016, and 2020. The remainder of this manuscript proceeds as follows. In the next section, we describe our study's empirical methodology, inclusive of its assumptions and hypotheses. The third section describes the data, while the fourth section contains the study's results. The paper concludes by summarizing out main findings, discussing policy implications from our work, noting major study limitations, and providing some directions for future research in this area of inquiry.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

As a form of social insurance, there is significant empirical evidence suggesting that the frequency of use, and the distributions of debts discharged through the consumer bankruptcy process, coincide with socio-economic institutions occurring within that community (Adkisson & McFerrin 2005; Dolfsma & McMaster 2007; Friesner, Hackney, McPherson, & Axelsen, 2011; Waller 2001). Tabb (1995, 2006 a,b) further argues that the vast majority of changes to the U.S. Bankruptcy Code throughout the history of the United States were enacted in response to major financial and/or economic events. Razeto and Romeo (2019) and Gross, Kluender, Liu, Notowidigdo, and Wang (2021) provide evidence from the implementation of the most recent major bankruptcy reform (The 2005 Bankruptcy Abuse Prevention Consumer Protection Act, or BAPCPA) that filers, creditors, and financial markets all respond to major economic shocks and the reform that followed.

When examining the rationale to explain why specific types of households file for bankruptcy, the drivers of bankruptcy become more nuanced and complex. Zhu (2011), for instance, finds that increased consumption of durable goods and the existence of medical conditions increase the likelihood that a household files for bankruptcy protection. However, other life-changing events, such as divorce or job loss, only marginally impact the likelihood of a bankruptcy filing. Concomitantly, Bauchet and Evans (2019) find that age, credit card debt, and major life events such as having a child or job loss increase the likelihood of a bankruptcy filing. However, they found no significant impact of medical events on the likelihood of a bankruptcy filing. Hackney, Friesner, and Johnson (2016, 2018) found that these differences can be resolved by examining the distributions of medical debt, credit card debt, secured debt, and other obligations relative to income. They find that some bankruptcies are truly caused by a major, unexpected catastrophe such as job loss or a medical condition. But the majority of households at risk of insolvency (and eventually bankruptcy) are simply operating on very thin financial margins, and any shock (which *might* be a medical event, but could just as easily be another equally likely event) leads to imminent

financial insolvency. Thus, the true driver of the bankruptcy filing is not the specific event that precipitates the filing, but rather the thin financial margin upon which the household operates. Gotberg and Souse (2019) argue that this is also true for individuals who have chronic conditions. If these individuals operate on thin financial margins, the additional, repeated expenditures to manage the chronic condition create a gradual, but inevitable decent into bankruptcy. Athreya, Mustre-del-Rio, and Sanchez (2019) corroborate these assertions more generally, finding that the majority of financial distress in the U.S. is created by less than 10 percent of households who are in a state of continual, extreme financial distress.

The bankruptcy literature has also investigated the specific benefits that may accrue for filing from bankruptcy. Zhang, Sabarwal and Gan (2015) find that, across all households, the decision to file for bankruptcy protection is largely non-strategic. That is, households do not explicitly consider the net financial benefits of filing when they make a decision to file for bankruptcy. However, the vast majority of households file for bankruptcy under one of two chapters (7 and 13) of the U.S. Bankruptcy Code, with the majority of households filing under Chapter 7 (Razeto & Romeo, 2019).[1] It is generally accepted that a Chapter 7 filing provides insolvent households with few additional benefits beyond immediate debt relief and discharge. But there is a literature suggesting that a Chapter 13 bankruptcy filing may also be used to address outstanding legal issues beyond debt relief, including the management of domestic support obligations (child support, alimony, etc.) (U.S. Government Accountability Office, 2008), outstanding tax bills (Hackney, Brajcich, Friesner, & Hickman, 2014), restoring a driver's license after traffic or other citations (Kiel & Fresques, 2017), among a host of other factors. Zhang, Sabarwal and Gan's (2015) study not only uses data collected prior to the implementation of BAPCPA, but also includes both Chapter 7 and Chapter 13 filings, which skews the results in favor of Chapter 7 filings. As a result, their study may overlook some of the more nuanced strategic uses of the bankruptcy process.

What is most interesting about the COVID-19 pandemic is that it not only spawned a recession, but it also spawned a temporary increase in social insurance to address pandemic related concerns (Atkeson, 2020; Makridas & Hartley, 2020; Udalova, 2021). More specifically, to ensure social distancing, states imposed lockdowns, business closures, expanded unemployment benefits, eviction moratoria, and prohibited the enforcements of garnishments for consumer debt (Erwin, Mucheck, & Brownson, 2021; Mitchell, Bulger, Duber, Greninger, et al., 2020; Washington State Office of the Governor, 2020). Many of these additional protections are not traditionally protected or treated as extenuating circumstances under bankruptcy law (Greene, Patel, & Porter, 2017; Spooner, 2017). For example, in the absence of a pandemic, renters may still be evicted from their residences for non-payment of rent, even if they file for bankruptcy protection. Creditors may seek levies or garnishments to recoup unpaid debts. While those levies or garnishments may be directly or indirectly resolved through the bankruptcy process, bankruptcy itself does not prohibit the imposition of garnishments or levies. While unemployment may increase the likelihood that an individual passes the "means test" and is allowed to file under Chapter 7 of the U.S. Bankruptcy Code, unemployed filers are not afforded any additional privileges in the bankruptcy process. Additional unemployment benefits (or extended eligibility for those benefits) may also delay financial insolvency. The U.S. Bankruptcy Code intends to strike a balance between two objectives: maximizing debt collections on behalf of creditors, and maximizing the debt relief of debtors (Spooner, 2017). Clearly, the COVID-19 pandemic is unique in that it created a major, albeit temporary, shift in this balance in a manner that benefits debtors.

There are two implications that arise from the aforementioned literature review. The first is that, while socio-economic institutions influence use of the consumer bankruptcy process, the extent to which those institutions changed *actual use* of the consumer bankruptcy process during the COVID-19 pandemic is unknown. Second, the policy initiatives undertaken during the COVID-19 pandemic indirectly identify several, non-exhaustive pathways through which the relationship between pandemic-induced socio-economic conditions and consumer bankruptcy filings may be assessed. More specifically, many states enacted moratoriums on evictions, collection activities, and other legal mechanisms to recoup outstanding debts that often precede (and possibly cause) a bankruptcy filing (Erwin, Mucheck, & Brownson, 2021; Washington State Office of the Governor, 2020). During a pandemic, there should consequently be a fundamentally different number of consumer bankruptcy cases filed with differing frequencies of co-

occurring legal actions (i.e., garnishments, wages, levies, etc.) compared to pre-pandemic levels. Moreover, the number of bankruptcy filings with outstanding debts due to collections agencies, as well as the amounts of debts owed to collections agencies, should be fundamentally different compared to other time periods.

As a corollary, the relative comparisons described above presume that the institutional and evolutionary conditions surrounding the consumer bankruptcy process were stable prior to the onset of the COVID-19 pandemic. If these underlying conditions were already in a state of change prior to the pandemic, it is inappropriate to attribute changes in the use of the bankruptcy process to the COVID-19 pandemic. Investigating the link between the COVID-19 pandemic and use of the bankruptcy process, therefore, requires the use of data with both time series and cross-sectional components (i.e., panel data) to assess the possibility of concomitant changes in socio-cultural institutions.

EMPIRICAL METHODOLOGY

The current manuscript adopts an exploratory framework, with parsimony as its guiding principle. We operate under the null hypothesis of no mean or median relationship between economic conditions and consumer bankruptcy filings. We operationalize the null hypothesis using a two-step process. First, we identify several key variables used in the literature to characterize the institutional context surrounding the use of the bankruptcy process. Panel data are used to assess the null hypothesis of no mean/median changes in these socio-cultural variables over time. If the null hypotheses is rejected, a comparison of how these variables differed between 2020 and other previous years is undertaken. In doing so, it is possible to empirically assess whether and (if so) how relevant institutions are evolving over time.

Second, we assess the null hypothesis of no mean or median changes in the number of bankruptcy filings with co-occurring legal actions and/or collection activities over time. As a corollary, we also assess the null hypothesis of no changes in the mean or median real dollar value of debts per filing owed to collections agencies over time. If either of these null hypotheses are rejected, a comparison of how filings in 2020 versus other previous years is undertaken to assess how the year of the COVID-19 pandemic (2020) compares to other, previous years.

All hypothesis tests applied to frequency our count data are operationalized using chi-square tests of independence. All hypothesis tests applied to ratio or interval data are operationalized using (nonparametric) Kruskal-Wallis tests. In instances where the Kruskal-Wallis test indicates a rejection of the null hypothesis, pairwise Kruskal-Wallis analyses are conducted using the Bonferroni correction to account for multiple (pairwise) comparisons. All hypothesis tests employ 5 percent significance levels and are implemented using the IBM SPSS Statistics Version 27 statistical package.

DATA

The data used to evaluate the study's null hypothesis are drawn from the Public Access to Court Electronic Records (PACER) database maintained by the U.S. Bankruptcy Court's Eastern District of Washington. The data are interesting to study for several reasons. First, the Eastern District of Washington is a large geographic area, comprising approximately half of the state's land mass. It includes both urban areas (including the cities of Spokane, Yakima, and the Tri-Cities of Kennewick, Pasco, and Richland) with diverse economies, as well as rural areas dominated by agriculture, forestry and mining. Numerous studies have been conducted examining the causes, consequences, and trends occurring in consumer bankruptcy filings in this District over the time period 2007-2020 (Hackney, Brajcich, McPherson, & Friesner, 2014; Hackney & Friesner, 2015; Hackney, Friesner, & Johnson, 2016, 2017, 2018; Hackney, McPherson, & Friesner, 2015).

Perhaps more interestingly, the State of Washington provides a unique natural experiment within which to assess the economic ramifications of the COVID-19 pandemic. It was one of the first states, and remains one of the most disproportionately impacted state, affected by COVID-19. The first case of COVID-19 in the U.S. was confirmed in Washington State between January 20 and 21, 2020 (Erwin, Mucheck, & Brownson, 2021; Mitchell, Bulger, Duber, Greninger, et al., 2020). The state's governor took action on

February 29, 2020 when Governor Inslee declared a state of emergency (Erwin, Mucheck, & Brownson, 2021). School closures, work from home arrangements, and non-essential business closures occurred in March 2020. Proclamation 20-21, enacted in March 2020, relaxed requirements to claim and maintain unemployment insurance benefits. Proclamation 20-19, which was enacted in March 2020, placed a moratorium on evictions, while Proclamation 20-49, which placed a moratorium on garnishments, was enacted in April 2020 (Washington State Office of the Governor, 2020). Discussion of these actions was discussed widely in the state throughout the first three months of 2020, giving both households and businesses ample opportunity to adjust to the temporary measures. These measures remained in effect throughout 2020 (Washington State Office of the Governor, 2020). Thus, virtually all consumer bankruptcy filings in 2020 were filed under both the COVID-19 pandemic as well as the public policy measures undertaken to mitigate the impact of the pandemic on households.

To ensure an adequately powered, generalizable dataset, interval random sampling techniques were used to draw approximately 10% samples or 400 observations (whichever was lesser) from the population of consumer bankruptcy filings (Chapter 7 and Chapter 13) each year (Dillman, 2000, pp. 206-208). Data are drawn from the years 2020 (i.e., the year in which the COVID-19 pandemic occurred), 2016, 2011, and 2007. This provides a panel with a relatively long duration (13 years), measured at 4-5 years intervals during that time span. The data also span several major events, including the recession of 2008. However, by choosing 4-5 year intervals, and identifying years just prior to, and following such events, the data avoids possible biased inferences that might occur through the use of bankruptcy filing data during extremely challenging economic conditions.

Consistent with the consumer bankruptcy literature, the data allow us to collect information on a number of key socio-economic and filing-related institutional variables, as well as several filer financial characteristics (Addo, 2017; Hackney, Brajcich, McPherson, & Friesner, 2014; Watkins, 2009). Filer characteristics include county of residence (Spokane County, Yakima County, Benton and Franklin counties, and all other counties)[2], marital status (currently married versus not currently married), and whether the filer has dependents. Data are collected on several institutional features of the bankruptcy filing process, most notably whether the household files under Chapter 7 or Chapter 13 of the U.S. Bankruptcy Code, and whether or not the household the household has a prior bankruptcy filing within the past 7 years (Hackney & Friesner, 2015; Loibl, Hira, & Rupured, 2006).

Data are also available on a filer's financial position at the time of filing. More specifically, data are collected on filer's average monthly income, as well as the household's average monthly income. Additional information collected include total outstanding debts, total unsecured debt (i.e., credit cards and other related debts), and the amount of debts owed to collections agencies. Lastly, information was collected to identify filers who have pending lawsuits, filings claiming garnishments, levies, or both, and filings who report debts held by collections agencies. All monetary data are converted to real 2020 dollars using the Federal Reserve Bank of St. Louis' consumer price index for all urban consumers. Lastly, since our data are drawn solely from information already existing in the public domain, the study is considered as a secondary data analysis, and it is not considered human subjects research by the authors' institutional review boards.

RESULTS

As noted previously, we used interval random sampling techniques to identify a sample of 400 filings or 10% of the combined population of Chapter 7 and Chapter 13 filings, whichever was the lesser of the two. According to the United States Court's website (https://www.uscourts.gov/statistics-reports/analysis-reports/bankruptcy-filings-statistics), there were 2,263 filings in 2020, 4,089 filings in 2016, 6,286 filings in 2011, and 4,325 filings in 2007. This necessitates collecting approximately 226 filings in 2020, 400 filings in 2016, 400 filings in 2011, and 400 filings in 2007, giving a grand total of 1,426 possible observations. After eliminating filings with mis-measured or missing data, were are left with a working sample size is 1,266 observations (approximately 89% of the raw sample), of which 208 were filed in 2020,

297 were filed in 2016, 397 were filed in 2011, and 364 were filed in 2007. Clearly, there is reduced overall use of the bankruptcy process over the duration of the sample, especially between 2011 and 2020.

Table 1 contains the variable names, definitions, and descriptive statistics employed in the empirical analysis. Panel A in Table 1 describes filer income and debt characteristics, all of which are measured in real terms or in real 2020 dollars. Mean filer monthly income was $2,362.26 (standard deviation: $1,781.38), while average monthly household income was $2,979.95 (standard deviation: $2,007.36). Thus, the vast majority of filers have monthly incomes (and household incomes) ranging from approximately $0 (i.e., unemployed) to $5,000 per month. On an annual basis, this implies that most filers earn approximately $60,000 per year or less. At the sample mean, total debt (in 2020 U.S. dollars) is $104,991.63, of which $72,197.61 is unsecured debt, and $8,845.07 is in collections. The standard deviations for each of these variables is between 2-3 times larger than the corresponding mean values, indicating a very high degree of dispersion in these variables. Approximately 55 percent of filings report a positive amount of debt held by collection agencies, 36 percent report at least one lawsuit attached to their filing, and 14 percent report a garnishment or levy (or both).

TABLE 1
DESCRIPTIVE STATISTICS [n = 1,266]

Variable	Description	Mean/Proportion	Std. Dev.
Debt and Income Characteristics at the Time of Filing			
DIncome	Debtor monthly income (in real 2020 dollars)	2362.62	1781.38
HHIncome	Household monthly income (in real 2020 dollars)	2979.95	2007.36
TDebt	Total debt (in real 2020 dollars)	104991.63	243214.67
UnDebt	Total unsecured bebt (in real 2020 dollars)	72197.61	227650.56
Collect	Total debt held by collection agencies (in real 2020 dollars)	8845.07	24693.11
Dcollect	Binary variable indicating filers who have debt held by collection agencies	0.550	
Lawsuit	Binary variable identifying filers whose filing is attached to a lawsuit	0.360	
GarnLevy	Binary variable identifying filers whose filing is attached to a garnishment or levy (or both)	0.140	
Variables Indicating Specific Filer Characteristics		**Proportion**	
Chapter	Binary variable identifying filings under Chapter 7 of the US Bankruptcy Code	0.777	
PriorBK	Binary variable identifying filers who have a prior bankruptcy filing	0.120	
Spokane	Binary variable identifying filers who live in Spokane County	0.330	
Yakima	Binary variable identifying filers who live in Yakima County	0.260	
BF	Binary variable identifying filers who live in Benton or Franklin Counties	0.150	
OthCnty	Binary variable identifying filers who live in another county in the Eastern Washington Bankruptcy Court District	0.260	
Married	Binary variable identifying filers who were married at the time of filing	0.400	
Children	Binary variable identifying filers with 1 or more dependents	0.550	

Panel B in Table 1 summarizes salient filer demographics. Approximately 78 of filers applied for bankruptcy protection under Chapter 7 of the U.S. Bankruptcy Code, and 12 percent of filers had previously filed for bankruptcy (and successfully completed the process) during the 8 years preceding their current filing. Approximately 33 percent of filers lived in Spokane County at the time of filing, while 26 percent lived in Yakima County, 15 percent lived in Benton or Franklin counties, and the remaining 26 percent lived in another (predominately rural) county in the District. Approximately 40 percent of filers report being currently married (with no intent to separate from their current spouse), while 55 percent report supporting one or more dependents.

The results contained in Table 2 use cross-tabulations and chi-square tests of homogeneity to assess relative changes in each of these filer demographics over the duration of the sample. The null hypothesis of no relationship between the year of the filing and the demographic assets a maintained hypothesis that the underlying socio-economic institutions that underlie bankruptcy filing decisions are relatively stable (or constant) over time. Rejecting the null indicates an evolution of these institutions. Panel A in Table 2 assesses the frequency of Chapter 7 and Chapter 13 filings over time. The chi-square test's probability value is 0.771, which leads to a failure to reject our null hypothesis that the distribution of Chapter 7 versus Chapter 13 filings has not changed over the duration of the sample.[3] Panel B assesses changes in the distribution of filers with, and without, a previous successfully closed bankruptcy filing (within 8 years of the current filing). The chi-square statistic's probability value of 0.041 rejects the null hypothesis, indicating that the distribution of repeated bankruptcy filings has evolved over the duration of the sample. In 2007, approximately 14.6 percent (53 out of 364) of filings reported a prior bankruptcy filing. These percentages drop to 12.1 percent in 2011, 7.4 percent in 2016, and increase to 12.0 percent in 2020. Thus, the change in the evolutionary trajectory in repeated filings comes from 2007 and 2016, rather than in 2020. Panels C through E assess bankruptcy filings over time and county of residence, marital status, and the existence of dependents, respectively. Chi-square probability values for each of these cross-tabulations are greater than 0.05, indicating failure to reject our null hypothesis. That is, we find no statistical evidence to suggest that bankruptcy filings varied by country of residence, marital status, or the existence of dependents has substantially changed over the period 2007-2020.

Table 3 reports the results of Kruskal-Wallis (i.e., nonparametric ANOVA) and corresponding pairwise tests (using Bonferroni corrections) to assess mean differences in filer income and debt characteristics over the period 2007-2020. Panel A assesses the filer's real monthly income in 2020 dollars. The Kruskal-Wallis test indicates that significant mean differences do exist by year. Pairwise tests indicate that the mean average monthly filer income for 2020 is significantly lower in 2020 and in 2016, 2011, or 2007. However, filer average monthly incomes in 2007, 2011, and 2016 are not significantly different from each other.

Panel B assesses mean differences in average household incomes in real 2020 dollars. Here, the Kruskal-Wallis test fails to reject the null hypothesis, indicating no mean differences in average household income by year. Thus, while individual filer incomes vary, the existence of another working adult in the household likely offsets lost filer income.

Panel C assesses mean differences in the real (2020) dollar value of total debt by year. The Kruskal-Wallis test fails to reject the null hypothesis at a 5 percent level of significance. Thus, there is no statistical evidence to suggest that the real dollar value of total debt has changed significantly over time.

Panel D evaluates a similar null hypothesis for unsecured debt. In this case, the Kruskal-Wallis test rejects the null of no mean change over time at a 5 percent level of significance. Pairwise tests indicate that the amount of unsecured debt in 2016 is significantly lower than in 2011. However, unsecured debts in all other year-to-year comparisons are not significantly different from each other.

Panel E assesses mean differences in debts owed to collections agencies over time. Again, the Kruskal-Wallis test rejects the null hypothesis at a 5 percent significance level. Pairwise tests indicate that the mean debt held by collections agencies in 2007 is significantly lower than in 2020, 2016, or 2011. However, filer average monthly incomes in 2011, 2016, and 2020 are not significantly different from each other.

TABLE 2
ANALYSIS OF DEMOGRAPHICS OVER TIME [n=1,266]

Panel A: Bankruptcy Filings by Chapter and Time

	2007	2011	2016	2020	Total
Chapter 7	278	306	235	165	984
Chapter 13	86	91	62	43	282
Total	364	397	297	208	1266
Chi-Square Test Probability					0.771

Panel B: Bankruptcy Filings by Prior Filings and Time

	2007	2011	2016	2020	Total
No Prior Filing	311	349	275	183	1118
Prior Bankruptcy Filing	53	48	22	25	148
Total	364	397	297	208	1266
Chi-Square Test Probability					0.041

Panel C: Bankruptcy Filings by County of Residence and Time

	2007	2011	2016	2020	Total
Spokane County	116	129	93	79	417
Yakima County	97	83	91	53	324
Benton & Franklin Counties	54	59	48	30	191
All Other Counties	97	126	65	46	334
Total	364	397	297	208	1266
Chi-Square Test Probability					0.051

Panel D: Bankruptcy Filings by Marital Status and Time

	2007	2011	2016	2020	Total
Not Married at the Time of Filing	225	220	177	137	759
Married at the Time of Filing	139	177	120	71	507
Total	364	397	297	208	1266
Chi-Square Test Probability					0.073

Panel E: Bankruptcy Filings by Number of Dependents and Time

	2007	2011	2016	2020	Total
0 Dependents	179	172	123	91	565
1 or More Dependents	185	225	174	117	701
Total	364	397	297	208	1266
Chi-Square Test Probability					0.201

TABLE 3
NONPARAMETRIC ANALYSIS OF VARIANCE [n=1,266]

				Kruskal-Wallis	Pairwise Analyses (with Bonferroni Correction)	
Panel A: Dincome						
Year	**Obvns.**	**Mean**	**Std. Deviation**	**Prob.**	**Sample 1, Sample 2**	**Prob.**
2007	364	2377.631	1497.698	< 0.001	2020, 2016	0.002
2011	397	2663.262	2259.476		2020, 2011	< 0.001
2016	297	2376.064	1498.667		2020, 2007	< 0.001
2020	208	1743.335	1386.107		2016, 2011	0.187
					2016, 2007	> 0.999
					2007, 2011	0.429
				Kruskal-Wallis	Pairwise Analyses (with Bonferroni Correction)	
Panel B: HHIncome						
Year	**Obvns.**	**Mean**	**Std. Deviation**	**Prob.**	**Sample 1, Sample 2**	**Prob.**
2007	365	3021.389	2335.405	0.058	2020, 2016	N/A
2011	397	3158.532	2142.352		2020, 2011	N/A
2016	297	2805.445	1601.992		2020, 2007	N/A
2020	208	2815.762	1573.321		2016, 2011	N/A
					2016, 2007	N/A
					2007, 2011	N/A
				Kruskal-Wallis	Pairwise Analyses (with Bonferroni Correction)	
Panel C: TDebt						
Year	**Obvns.**	**Mean**	**Std. Deviation**	**Prob.**	**Sample 1, Sample 2**	**Prob.**
2007	364	95987.941	112520.474	0.079	2020, 2016	N/A
2011	397	137844.340	406134.048		2020, 2011	N/A
2016	297	83861.391	96296.130		2020, 2007	N/A
2020	208	88215.180	85720.450		2016, 2011	N/A
					2016, 2007	N/A
					2007, 2011	N/A
				Kruskal-Wallis	Pairwise Analyses (with Bonferroni Correction)	
Panel D: UnDebt						
Year	**Obvns.**	**Mean**	**Std. Deviation**	**Prob.**	**Sample 1, Sample 2**	**Prob.**
2007	364	65108.980	97761.780	0.017	2020, 2016	> 0.999
2011	397	102421.929	386678.555		2020, 2011	0.944
2016	297	53341.295	75934.448		2020, 2007	> 0.999
2020	208	53839.605	54532.440		2016, 2011	0.021
					2016, 2007	0.064
					2007, 2011	> 0.999

				Kruskal-Wallis	Pairwise Analyses (with Bonferroni Correction)	
Panel E: Collect						
<u>Year</u>	<u>Obvns.</u>	<u>Mean</u>	<u>Std. Deviation</u>	<u>Prob.</u>	<u>Sample 1, Sample 2</u>	<u>Prob.</u>
2007	364	5992.469	16010.646	< 0.001	2020, 2016	> 0.999
2011	397	13347.763	37926.894		2020, 2011	> 0.999
2016	297	7049.974	14380.385		2020, 2007	0.002
2020	208	7806.221	13049.855		2016, 2011	> 0.999
					2016, 2007	0.008
					2007, 2011	< 0.001

Lastly, Table 4 presents cross-tabulations and chi-square tests of homogeneity assessing changes in the frequency of filings with debts owed to collections agencies, with garnishments/levies, or other lawsuits, over time. Panel A disaggregates the number of filings reporting debt held by collections agencies (or no debts held by collections agencies) over the period 2007-2020. The chi-square test probability value indicates a rejection of the null hypothesis. Thus, there is a significant change in the frequency of filings with collections activities over the duration of the sample. Examining Panel A further indicates that there is a consistent increase in the proportion of filings reporting collections activity over time, from 45.3 percent (or 165 out of 364 filings) in 2007 to 60.1 percent (or 125 out of 208 filings) in 2020.

Panel B disaggregates filings with, and without, garnishments or levies (or both) over time. The chi-square test again indicates a rejection of the null hypothesis, implying a statistically significant change in filings with garnishments and/or levies over the study window. Approximately 11.3 percent (41/364 total filings) of filers report this type of activity in 2007, compared to 11.6 percent in 2011, 22.6 percent in 2016, and 12.0 percent in 2020. Thus, the significant findings appear to be driven solely by filings in 2016, compared to the other years in the sample.

Panel E disaggregates filings with lawsuits (versus those without lawsuits) over time. Once again, the chi-square test rejects the null hypothesis, implying a statistically significant change in filings with lawsuits over the study window. Approximately 30.8 percent (112/364 total filings) of filers report this type of activity in 2007, compared to 41.3 percent in 2011, 36.4 percent in 2016, and 33.7 percent in 2020. Thus, the significant findings appear to be driven solely by filings in 2011, compared to the other years in the sample.

CONCLUSIONS

The premise of this manuscript was to conduct a simple, exploratory analysis to assess whether the use of the consumer bankruptcy process fundamentally differed during the COVID-19 pandemic compared to previous years. The results of the analysis are threefold. First, we find evidence to suggest that many of the socio-economic institutions underlying use of the consumer bankruptcy process are relatively stable over time, including during the COVID-19 pandemic. Only one of our institutional variables – repeated bankruptcy filings - showed statistically significant changes over time. However, the statistical significance was driven by changes in filings in 2016, rather than 2020. Thus, the onset of the COVID-19 pandemic largely left these underlying institutions unchanged. Particularly noteworthy in this analysis is that no significant differences were found over time across Chapter and Chapter 13 filings.

TABLE 4
ANALYSIS OF THE FREQIENCY OF FILINGS WITH COLLECTIONS DEBTS, GARNISHMENTS/LEVIES, and LAWSUITS OVER TIME [n=1,266]

Panel A: Bankruptcy Filings with Debts Owed to Collection Agencies over Time					
	2007	**2011**	**2016**	**2020**	**Total**
No Debts Owed to Collection Agencies	199	167	122	83	571
Debts Owed to Collection Agencies	165	230	175	125	695
Total	364	397	297	208	1266
Chi-Square Test Probability					< 0.001
Panel B: Bankruptcy Filings with Garnishments, Levies, or Both over Time					
	2007	**2011**	**2016**	**2020**	**Total**
No Garnishments or Levies	323	351	230	183	1087
Garnishments or Levies or Both	41	46	67	25	179
Total	364	397	297	208	1266
Chi-Square Test Probability					< 0.001
Panel C: Bankruptcy Filings with Lawsuits over Time					
	2007	**2011**	**2016**	**2020**	**Total**
No Lawsuits	252	233	189	138	812
Lawsuits	112	164	108	70	454
Total	364	397	297	208	1266
Chi-Square Test Probability					0.021

Second, we found significant evidence that individuals filing in 2020 (during the COVID-19 pandemic) reported significantly lower mean income compared to previous years, and that the previous years were not significantly different from each other. However, mean household income did not significantly differ by year. Thus, while the COVID-19 pandemic did lead individuals with lower average monthly incomes to file for bankruptcy, many of these filers also had others in the household whose income buoyed the finances of the household. This latter finding may explain our previous finding that there were no differences in chapter filings over time. Chapter filings are largely driven by the means test, which compares income relative to expenses. If others in the household earn income that offset's those of the filers, there would likely be no differences in eligibility to file under a specific chapter of the U.S. Bankruptcy Code.

Third, we found that significant differences in the amounts of unsecured debt, and debt held by collections agencies, do vary across time. However, in both of these cases, the significance was driven by time periods prior to 2020. Similarly, when examining the number of filings over time with garnishments and/or levies, as well as those with lawsuits, also varied significantly over time. However, the significance was driven by times periods that predate the COVID-19 pandemic. One notable COVID-related impact pertains to the number of filers with debts owed to collections agencies, which has risen gradually over the evaluation window, and peaking at 60 percent of cases in 2020. This suggests that, while the COVID-19 pandemic *might* have increased the number of filers with collections activities, the pandemic-related effect (if it exists) simply exacerbated a trend already in place prior to the start of the pandemic.

Our findings also provide several recommendations for financial institutions, regulators, and policy-makers. First, we find little evidence to suggest that Chapter 7 and Chapter 13 bankruptcy filings in the

Eastern Washington District are not significantly different from previous years. We also find that filer income significantly decreased in 2020, but household income was relatively unchanged. Moreover, the distribution of debts, especially unsecured debts, in 2020 appears to have stabilized after significant changes in 2016. The number of filers with garnishments/levies peaked in 2016, while those with lawsuits peaked in 2011. One the number of filers with debts held by collections activities increased steadily over the time period 2007-2020. Taken in tandem, these results suggest that the COVID-19 pandemic did noticeably affect households in the District, and that the additional social insurance policies (i.e., eviction moratoria, moratoria on garnishments, etc.) enacted during the pandemic do appear to have an impact that stabilized bankruptcy filings, as well as the characteristics of those filings, in the District. Even in the case of the number of filings with collections-related debts, the number of filings, which increased significantly over the course of the evaluation window, adhered to a roughly linear trend, implying stabilization around this trend. Again, this implies (but does not prove) that the policies enacted were impactful.

Second, it is equally important to note that the total number of bankruptcy filings in the District has also steadily declined, and the proportion of individuals filing under Chapter 7 has increased, over the evaluation window. If fewer people overall are filing for bankruptcy, and (during a combined pandemic-recession) social insurance policies helped to stabilize and continue this trend in 2020, it is also possible to conclude that the additional social insurance policies *might* have *overcorrected* by ensuring that current trends continue.

Our third policy implication is also a suggestion for future research in this area. The additional social insurance protections such as moratoria on evictions, moratoria on levies and garnishments, etc., are temporary. Once these moratoria expire, it is likely that the stability created by these policies will change. As a result, one might expect a substantial increase in consumer bankruptcy filings in 2021 and/or 2022, as well as substantial changes in the number of filers with debts held by collections agencies, levies, garnishments, and other legal actions. It is imperative that future research assess changes in the frequency of filings, chapter filing choices, and the composition of filings, and use the results to inform policy makers about the intermediate effects of COVID-19-induced social insurance policies.

While our results provide some interesting findings, they should be interpreted as preliminary, and viewed with caution. The primary limitation of our study is that it utilizes what is effectively a natural experiment. Changes occurring in 2020, if any, are presumed (rather than proven) to be attributed solely to the COVID-19 pandemic, the recession is spawned, and policy initiatives to mitigate the negative impacts of the pandemic and recession. However, if other major events occurred in 2020 that were not driven by these factors, our policy recommendations become untenable. Further research is necessary to determine whether other co-occurring phenomena in 2020 bias our results.

Second, while we attempt to control for a number of variables that quantify the socio-institutional features underling the bankruptcy filing decision, our variables are not exhaustive. If other, omitted but relevant institutional features changed between 2007 and 2020, they would not be captured in this study, which might bias the results.

Third, while our study covers the 2007-2020 time window, it uses data separated by 4-5 year time spans. The benefit of this approach is that it avoids introducing data that might be considered anomalies (i.e., shocks introduced during the Great Recession of 2009). However, it also ignores fundamental changes in bankruptcy filings that may have occurred in other years (2012, 2017, etc.) not included in this study. Future research that uses a different time frame, or a similar panel with smaller gaps between years (i.e., the full set of 14 years between 2007 and 2020), may identify inferences that are either more nuanced or are fundamentally different from those identified in the current study.

Lastly, the current study is intended to be exploratory in nature. It therefore adopts a very parsimonious empirical methodology that relies on Kruskal-Wallis tests and chi-square tests. Future studies that utilize more advanced forms of empirical analysis (regression, etc.) may uncover additional inferences not found in this manuscript.

ENDNOTES

1. When an individual files under Chapter 7 of the U.S. Bankruptcy Code, all assets (net of exemptions) are surrendered to the Court. The Court's Trustee liquidates all non-exempt assets and uses the proceeds to repay as many creditors as possible, in order of priority. Court personnel are repaid first, followed by priority unsecured debts such as outstanding tax bills, child support payments and alimony payments. Unsecured creditors are assigned the lowest priority. If a filer reports outstanding debts secured by (non-exempt) collateral, the filer must either re-affirm this debt, or turn the collateral over to the trustee. If value of the collateral exceeds the debt obligation attached to it, the Trustee liquidates the asset and repays the creditor the value of the outstanding claim. Remaining funds are included in the estate and redistributed to other creditors in priority order. All eligible outstanding debts not repaid through the liquidation of non-exempt assets are discharged, noting that some debts (including, but not limited to many student loans, unpaid domestic support obligations, and criminal restitutions) are not eligible for discharge through bankruptcy. Not surprisingly, many unsecured debts are discharged in a Chapter 7 filing. Under a Chapter 13 filing, the individual may retain his/her assets. The individual submits his/her income, any other income sources (includes those of a spouse), debts and demographics to the Court. Based on household size and geographic location, the Court imputes the filer's allowable monthly expenses. Any positive difference between income and expenses is used to fund a repayment plan, which last between 36-60 months. The payment plan repays creditors in the same priority order as is used in a Chapter 7 filing. If the filer successfully completes the repayment plan, any remaining dischargeable debts (as above, noting that certain debts are not dischargeable) are fully discharged. One major change to the bankruptcy process implemented in the 2005 BAPCPA legislation is that filers do not always have a choice under which chapter to file. More specifically, when an individual files under Chapter 7 of the U.S. Bankruptcy Code, the filer must demonstrate that their household's income (after controlling for household size and other similar characteristics) is below the median income in the filer's home state. This is known as the "means test". Filers whose income is below this threshold are said to have "passed the means test" and are allowed to file under Chapter 7 once every seven years. Filers who do not pass the means test (or who have successfully filed for bankruptcy more than once in the past eight years) must file under Chapter 13. Approximately 65-75% of all post-BAPCPA bankruptcies continue to be filed under Chapter 7. See White (2007a,b) and Greene, Patel, and Porter (2017) for more details.

2. Spokane County is home to the city of Spokane – the largest city in the District - and has a population of nearly half a million inhabitants. Yakima County is home to the city of Yakima, while Benton and Franklin counties are home to the Tri-Cities of Kennewick, Pasco, and Richland.

3. It is also noteworthy to consider the population distribution of Chapter 7 and Chapter 13 filings in the District. According to the United States Court's website (https://www.uscourts.gov/statistics-reports/analysis-reports/bankruptcy-filings-statistics), there were 447 were Chapter 13 filings and 1,816 Chapter 7 filings in 2020. In 2016, there were 976 filings under Chapter 13 and 3,113 under Chapter 7. In 2011 there were 1,361 under Chapter 13 and 4,925 under Chapter 7. Lastly, in 2007 there were 1,049 under Chapter 13 and 3,276 under Chapter 7. Chapter 7 filings, as a percentage of combined Chapter 13 and 7 filings, ranged from 75.75 percent in 2007 to 80.25 percent in 2020. Once again, these population parameters are roughly consistent with those in our sample.

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