



Indianapolis Neighborhood Housing Partnership

Estimated Scale of COVID-19 Disruption on Evictions & Foreclosures

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The following is an update to a previous analysis compiled by CityStrategies, LLC and presented on May 12, 2020. This version incorporates more recent data regarding employment disruptions resulting from the recent economic downturn, and it has been updated to reflect extensions and expirations of policy responses to that disruption. Because the underlying dataset detailing cost burden and industries in which individuals work remains the same, the change in potential impact between this analysis and the previous one should not be broadly attributed to changing conditions as experienced by households over the time period between these analyses.

This update also provides an analysis of how households and communities of color experience these impacts.

EXECUTIVE SUMMARY

The global COVID-19 pandemic has contributed to widespread economic disruption, impacting individuals and families across the country. In Marion County alone, unemployment claims increased more than 12 times between the week of March 7, 2020, and July 25, 2020, and there is continued concern that renters and homeowners with a mortgage will face increased risk of eviction or foreclosure, respectively, as a result of the widespread employment disruption. While protections for renters and mortgagors have been included within the Governor’s Executive Orders (specifically Executive Order 20-06: Temporary Prohibition on Eviction and Foreclosures, extended through August 14 via Executive Order 20-39) and the federal CARES Act, these limitations are temporary and may contribute to an acute challenge upon their expiration.

At the time of this report, the eviction protections within the CARES Act have expired. Further, an additional \$600/week unemployment insurance benefit—which may have assisted households impacted by the disruption in meeting housing obligations—has likewise expired. State-level protections are expected to expire this week

Within that context, this analysis seeks to estimate the potential scale of Marion County households who may be at increased risk of eviction or foreclosure as a result of the economic downturn. It examines data on the percent of household incomes spent on housing related costs, the industries in which households are employed, and how those industries have fared—locally and nationally—since the beginning of the employment disruption.

Households are assessed on two measures: 1) a household’s housing costs relative to its income, and 2) given the industry in which they are employed, the likelihood of wage-earners within that household having experienced an employment disruption. For both of these measures, households are categorized as low-risk, moderate-risk, elevated-risk, and high-risk and considered within the conceptual framework below, Figure ES-1.

FIG ES-1. CONCEPTUAL FRAMEWORK FOR ASSESSING POTENTIAL FORECLOSURE/ EVICTION RISK

Burden Cost-	High-Low	High-Moderate	High-Elevated	High-High
	Elevated-Low	Elevated-Moderate	Elevated-Elevated	Elevated-High
	Moderate-Low	Moderate-Moderate	Moderate-Elevated	Moderate-High
	Low-Low	Low-Moderate	Low-Elevated	Low-High
Employment Disruption				

Those that are categorized as a high risk on one measure and moderate, elevated, or high risk on the other measure, as well as those are categorized as an elevated risk on both measures, were considered to be at heightened risk of foreclosure or eviction.



The analysis finds 17,919 homeowners with a mortgage in Marion County or 15.2 percent of those considered within the analysis, may be at a heightened risk of foreclosure. Likewise, 30,037 renting households, 22.2 percent of those considered within the analysis, may be at a heightened risk of being unable to meet rent obligations.

The analysis also examines the potential for these impacts to be realized disproportionately by households led by persons of color relative to white households. Our analysis finds that there is the potential for a disproportionate impact. While households led by persons of color comprise 38.0 percent of the households within our analysis, they represent 45.9 percent of the households at heightened risk of experiencing impact. The disparity is greatest among homeowners. Notably, due to racial wealth inequities, these households may be likely to have fewer resources to draw upon to navigate the economic disruption as well.

Absent an economic disruption, given recent 90-day mortgage delinquency and eviction rates for Marion County, it might be expected that 1,260 homeowners would be at a substantial risk of foreclosure and an annual 9,864 evictions could have been expected to occur. The current economic disruption represents a substantial increase in both homeowners and renters who may have difficulty meeting the obligations of their mortgages or leases relative to historic norms.

Governor Holcomb's Executive Order 20-06, extended through Executive Order 20-39, temporarily protects renters and mortgages by halting evictions and foreclosure proceedings. At present, this Order is in effect through August 14. Similarly, the federal CARES Act temporarily prevented evictions from rental units receiving federal assistance through July 24 and provided an additional \$600 per week unemployment benefit to those experiencing unemployment; the act continues to enable many homeowners to seek a loan forbearance for a minimum of 180 days (with the ability to extend a forbearance for another 180 days). While the eviction moratorium on evictions from federally-supported rental properties has expired, on August 8, 2020, President Trump issued an *Executive Order on Fighting the Spread of COVID-19 by Providing Assistance to Renters and Homeowners*. At present, it is difficult to assess the potential for this order to forestall evictions.

Given the temporal differences in protections available to renters and homeowners, it is anticipated that renters will realize the impact of the economic disruption in the near term, shortly after restrictions are lifted. Homeowners with a mortgage may be able to delay negative housing outcomes, for six months if not longer. Nevertheless, a prolonged economic downturn may deeply impact many Marion County renters and homeowners alike, especially those falling behind in rent or mortgage obligations and finding it difficult to secure permanent employment.

INTRODUCTION

Beyond the health and mortality impacts of COVID-19, the pandemic has caused substantial economic disruption to people's livelihoods locally and across the nation. With state and locally-directed stay-at-home orders, many are facing decreasing work hours and/or outright unemployment. According to data from the Indiana Department of Workforce Development (via STATS Indiana), total unemployment claims for the State of Indiana grew from 20,927 for the week of March 7, 2020, to 191,112 for the week of July 18, 2020, a magnitude of increase of more than 9 times.¹ For Marion County, over the same period, unemployment claims increased from 3,233 to 39,655, an increase of 12.3 times.

As the economic fallout of the pandemic is realized, it is anticipated that many households may have difficulties meeting several financial obligations including rent or mortgage obligations. In March 2020, the state and federal

¹ Data includes initial and continued claims. Data available [\(here\)](#)



governments provided temporary protections for renters and mortgage holders. The federal CARES Act provides for a loan forbearance for up to 180 days, with the ability to extend that forbearance for another 180 days, for homeowners with federally-backed mortgages. While this may provide temporary relief for mortgage-holders, some loan servicers may require a lump sum payment at the end of the deferral period and/or an increased subsequent monthly payment. The end of the forbearance may defer, but not eliminate, the financial hardship of the mortgage-holder, especially if the economy enters a prolonged recession or period of limited economic growth.ⁱ

The protections for renters of federally-supported rental properties—as well as a \$600 per week Pandemic Unemployment Assistance benefit—under the CARES Act expired on July 24, 2020, and Indiana’s moratorium on eviction proceedings is set to expire on August 14.² Neither the state nor the federal program absolved lessees of their rent obligations; thus, the protections may have simply delayed the challenges faced by households in meeting their obligations. With those protections expiring, there is a growing concern that a substantial number of renting families are likely to face evictions in the short term.

As Congress debates the future of any federal relief in response to a prolonged economic downturn, there is a growing appreciation of the rental assistance as an appropriate policy response to keep impacted families in their homes.³ Indianapolis and the State of Indiana both worked to establish rental assistance programs. Both programs have been heavily subscribed. More than 10,000 applications were received for Marion County’s program in its first few days, and the state has seen more than 24,000 applications since opening in mid-July. The state has contributed \$40 million to its rental assistance program; the City has allocated \$15 million to its program, derived from public and philanthropic sources.⁴

Given that the federal and state protections are temporary, that the economic disruption may have lingering effects and will impact some households’ abilities to honor their lease or mortgage obligations, and that some of these households may see increased housing expenses in the future as a result of falling into arrears due to COVID-19, it is anticipated that substantially more families may face eviction or foreclosure relative to historic norms. The most recent *Household Pulse Survey* from the US Census Bureau (taken the week of July 16 to July 21) reports that nearly 1 in 4 households (24 percent) in Indiana face housing insecurity, defined as having missed last month’s mortgage/rent payment or have “slight or no confidence” in their ability to pay next month’s rent/mortgage payment on time.ⁱⁱ

The following presents an analysis seeking to estimate the scale of potential households that may be impacted in Marion County and reflects an update from a previous version conducted in early May. The following provides some general context to current conditions, a general overview of the analytical approach to the analysis, the results of the analysis and discussion of those results, and limitations that should be considered in applying these results. A fuller explanation of the methodology and a more detailed breakdown of the results are included in the appendix. It should be noted that the following is based on limited and

² In response to these concerns, on August 8, 2020, President Trump issued an *Executive Orders on Fighting the Spread of COVID-19 by Providing Assistance to Renters and Homeowners* and a *Memorandum on Authorizing the Other Needs Assistance Program for Major Disaster Declarations Related to Coronavirus Disease*. The degree to which these orders will be effective in addressing challenges related to eviction and foreclosure are unknown as of the publishing of this report.

³ See Politico (August 9, 2020): *Trump’s Eviction Ban Would Leave Most Tenants in Peril*.

⁴ Information on state and local rental assistance programs derived from contemporaneous news reports.



preliminary economic data and the results should be considered with that caveat.

CONTEXT

In assessing the financial pressures resulting from the economic disruption and how those will be experienced by homeowners and renters, it is important to recognize some differences in the timing of when those pressures are likely to be experienced. Through the CARES Act, many homeowner/borrowers are able to secure a forbearance for 180 days, with the ability to extend that forbearance for an additional 180 days. The risk of foreclosure may not become acute for six months or a year from their initial inability to meet their repayment obligation. Similar protections for renting households, eviction moratoria, have either expired or are scheduled to expire in the very near future. As a result, under the legal protections currently provided, it is likely that eviction pressures will increase well before similar pressures are realized among homeowners/borrowers.

National data from the Mortgage Bankers Association's (MBA) *Forbearance and Call Volume Survey* (dated August 3, 2020, with data from the week ending on July 26) found that 7.67% of loans were in forbearance, a total of 3.8 million homeowners. Notably, the percentage of homeowner/borrowers in loan forbearance in advance of the disruption was 0.25%.ⁱⁱⁱ

There is no similar national dataset for evictions, and thus it will be difficult to assess the potential scale of the national eviction risk. Likewise, it will be difficult to place the results of a local analysis within the broader national context. With respect to risks realized by renters relative to homeowners, it may be notable that while 90-day delinquency rate for mortgagees in Marion County track relatively similarly to the nation (1.06. and 0.78 percent, respectively),⁵ the eviction rate for Marion County is considerably higher than the national average (7.3% versus 2.34%, respectively).^{iv,v}

GENERAL APPROACH & LIMITED METHODOLOGY

To assess the potential risk of foreclosure and eviction, and to evaluate the potential increase to those risks attributable to economic disruption, we start by understanding the current cost of housing relative to income for mortgage holders and renters, respectively. We then categorize households across a scale of low-risk (given existing cost burden), moderate-risk, elevated-risk, or high-risk. Using industry-specific local unemployment data and federal job creation data, we use the same construct to assess potential economic disruption attributable to COVID-19 and subsequent stay-at-home order(s). A full discussion of the Methodology is outlined in Appendix A.^{vi,vii}

Renters and homeowners experience differing realities in terms of existing cost burden. Relatively few homeowners receive mortgage financing for loan applications in which they will pay more than 30 percent of their incomes on housing related costs. For those that do, their earnings are often expected to subsequently increase over the course of the loan, which in turn reduces the percentage of income spent on housing over time. If a homeowner who typically pays 18 percent of his or her income on housing related costs is suddenly placed into a position in which they had to pay 30 percent of income, they would realize an increased risk of foreclosure.^{6,7}

⁵ Via the US Consumer Financial Protection Bureau, the figures cited represent the most recent 12-month moving average.

⁶ A note on data used within this report: unless otherwise noted, local data referenced throughout this report are derived from the 2018 1-year American Community Survey Public Use Microdata Sample (PUMS). These data are organized and aggregated for the purposes of this analysis, as such, the data reported may vary slightly from data reported through the US Census summary data files or other organizations linking to that source data at the summary level.

⁷ Within Marion County, the median percent of income spent on housing costs for homeowners with a mortgage is 18 percent.



At the same time, however, the median housing costs as a percent of income for all renters in Marion County is already 30 percent.⁸

Given the previous expenditures to service a mortgage and the tangible asset that those payments secure, a homeowner may exhaust additional avenues before accepting foreclosure. There are comparatively fewer avenues of recourse for renters to pursue, and because previously made rent payments represent sunk costs rather than payments on an asset, renters may be comparatively less likely than a homeowner to exhaust all options in preventing displacement. This may be further reflected in the differing emotional attachment a homeowner feels toward his or her home than a similarly situated renter. Given those differences between homeowners and renters, and the recourse and protections available to them, in constructing this analysis we accept that it is fair to consider differing cost-burden thresholds between owners and renters.

Within our analysis, the potential economic disruption to a household is assessed through reviewing local and federal unemployment data. The most recent Marion County data, at the time of this analysis, were derived from initial claims the week of July 25 and continued claims from the week of July 18. These data were available for major industry sectors (i.e., at 2-digit NAICS-level) and were not seasonally adjusted. Federal data provide greater specificity (up to 6-digit NAICS) with respect to subcategories of industry.⁹ It is worth noting that this approach only shows employment impacts as a binary option: either having or having not filed for unemployment at the local level or the presence of a job/no job at the federal level. The data do not account for workers who may remain employed but have experienced a limiting of their hours, a reduction in pay, or other impacts.¹⁰

Using a statistical measure of distribution from the mean (z-score) for each industry sector/subsector for both employment datasets, we assess the impact of the economic disruption for a given industry relative to all industries with available data. For each record, the z-scores were joined based on the industry listed for the individual record in the dataset. The two measures (the local and federal) were then weighted with 2/3 of the weight given to the local measure due to its reflection of local conditions. This figure was then translated to a categorical scale of low, moderate, elevated, or high, reflecting the potential likelihood that an individual/household would realize an income disruption related to COVID-19 and the subsequent shutdown.

Homeowners with a mortgage or renting households were separated to assess the impacts separately,¹¹ and the total number of households fitting each unique criterion were summed and categorized based on risk thresholds (see Figure 1 for conceptual framework, see Appendix A for more information about categorical thresholds).

⁸ Housing costs, as reflected in the American Community Survey, include mortgage payments, rent payments, condominium fees, real estate taxes, premiums for homeowners in surface, and utility costs. Because gross rents include additional costs such as common area amenities, cleaning, maintenance, and a return on investment to owners that either do not exist for homeowners or are not considered within the definition of housing costs for homeowners, rents for similar units are generally higher, relative to income, than homeowner costs (even after controlling for incomes).

⁹ NAICS stands for the North American Industrial Classification System. It is the standard used by federal statistical agencies in classifying business and industry data.

¹⁰ At the local level, the most disrupted industries were as follows: Accommodation and Food Services; Arts Entertainment and Recreation; Other Services; and Management of Companies and Enterprises. At the federal level, the following industries showed the most disruption (note the level of specificity within the federal categories relative to local): Motion Picture and Sound Recording; Performing Arts and Spectator Sports; Scenic and Sightseeing Transportation; Accommodation; Arts, Entertainment and Recreation; and Transit and Ground Passenger Transportation.

¹¹ Housing units that were owned without a mortgage, units that were occupied without paying rent, and group quarters were excluded from the analysis.



FIG 1. CONCEPTUAL FRAMEWORK FOR ASSESSING POTENTIAL FORECLOSURE/EVICTION RISK

Burden Cost-	High-Low	High-Moderate	High-Elevated	High-High
	Elevated-Low	Elevated-Moderate	Elevated-Elevated	Elevated-High
	Moderate-Low	Moderate-Moderate	Moderate-Elevated	Moderate-High
	Low-Low	Low-Moderate	Low-Elevated	Low-High
Employment Disruption				

Following the preliminary categorization of households in accordance with the above, households with multiple earners were then considered. For housing records indicating a second wage-earner, the industry impact of the householder was averaged with the second wage-earner and the employment disruption measure for those records were recategorized based on the averaged figure. This adjustment was only applied to the second person within the household; the potential employment disruption for a third or subsequent wage-earner within a given household was not considered. Nevertheless, because the housing cost-burden was based on total household income, those individuals' incomes would still be considered within the cost-burden categorization.

Lastly, if the head of household was not employed in the 2018 PUMS dataset and no subsequent wage earners were listed, these records were omitted from the final results. While we recognize that these homeowners or renters may be at risk of foreclosure or eviction, respectively; they would not necessarily be at an *increased* risk resulting from employment disruption attributable to the economic downturn. Omitting these records impacts 45,877 housing units (or 15.3 percent of records); these records likely represent a limited number of households that have an out-of-work householder actively seeking employment as well as retirees and/or others not actively seeking employment.

Among occupied housing units, the following housing units were not considered within the final analysis: housing units owned without a mortgage (i.e., owned free and clear and not at risk of foreclosure, n=62,999), those that are occupied without paying rent (n=4,314), those in which the head of household is not employed and therefore not at increased risk of foreclosure/eviction due to employment disruption (n=45,877), those for which there were not complete housing and employment records (n=4,528), and those for whom housing costs were not available (n=2,693). In compiling the dataset for analysis, as outlined above, a total of 253,222 housing units, out of the 373,633 occupied housing units listed in the 2018 PUMS dataset, were considered within the analysis.

RESULTS & DISCUSSION

The results were categorized by the tenure status of the household (i.e., homeowner with a mortgage or a renter) and then further categorized according to cost burden and employment disruption.

The results for homeowners and renters are presented separately. Figure 2 shows the number of homeowners with a mortgage by category of risk; Figure 3 shows the proportion of each risk categorization relative to all homeowners with a mortgage. Figure 4 shows the number of renters by category of risk; Figure 5 shows the proportion of each risk categorization relative to all renters. Appendix B provides a more detailed breakdown of the findings, with each risk measure broken into deciles.

The analysis finds that 10,026 homeowner/borrowers are at an elevated or high risk on both measures. An additional 7,893 homeowners with a mortgage have either a cost burden or potential employment disruption and moderate on the other measure.



In total, 17,919 homeowners, representing 15.2 percent of all homeowners with a mortgage, are identified as being at a minimum of an elevated risk on both measures or a combination of high risk on one measure with at least a moderate risk on the other. Within Figures 2 and 3, the owners represented within the upper-right cells, are those that are most likely to need to consider forbearance, foreclosure prevention services, or otherwise need to engage in some measure of strategizing around loss mitigation.

Similarly, the analysis finds 20,620 renters at an elevated or high risk on both measures. An additional 9,417 renters are categorized with a combination of high risk on one measure with a moderate risk on the other. This represents 30,037 renting households, or 22.2 percent of all renters, who may be at a heightened risk of eviction given current economic circumstances.

Given 90-day delinquency rates in Marion County of 1.067 percent ^{vi} and an annual eviction rate of 7.3 percent, ^{vii} it may be expected that 1,260 serious delinquencies and an annual total of 9,864 evictions would have occurred even absent the COVID disruption.¹² As seen in Figures 2 and 4, the total number of households showing the highest levels of risk on both measures analyzed exceed the total number of delinquencies or evictions, respectively, that could have been expected absent an employment disruption. While these households would likely have experienced housing difficulties even absent an employment disruption, they would still likely seek assistance through any available programs and should be considered within the potential scale of any available program.

¹² Given the 118,098 homes owned with a mortgage and 135,124 households occupied with rent included within this analysis and applying the most recent available data on delinquency and eviction (the most recent 12-month moving average for delinquencies and 2016 data for evictions).

FIG 2. HOMEOWNERS WITH MORTGAGE BY RISK CATEGORY

Cost-Burden	High	10,944	3,848	1,576	6,035
	Elevated	4,977	1,316	452	1,963
	Moderate	8,282	1,559	1449	4,045
	Low	41,132	11,179	4,708	14,633
		Low	Moderate	Elevated	High
Employment Disruption					

FIG 3. HOMEOWNERS WITH MORTGAGE BY RISK CATEGORY AS A PCT. OF ALL HOMEOWNERS WITH MORTGAGE

Cost-Burden	High	9.3%	3.3%	1.3%	5.1%
	Elevated	4.2%	1.1%	0.4%	1.7%
	Moderate	7.0%	1.3%	1.2%	3.4%
	Low	34.8%	9.5%	4.0%	12.4%
		Low	Moderate	Elevated	High
Employment Disruption					

FIG 4. RENTERS BY RISK CATEGORY

Cost-Burden	High	9,874	4,498	2,871	11,711
	Elevated	5,394	1,155	1,379	4,659
	Moderate	10,609	2,539	2,204	4,919
	Low	34,732	11,357	9,810	17,413
		Low	Moderate	Elevated	High
Employment Disruption					

FIG 5. RENTERS BY RISK CATEGORY AS A PCT. OF ALL RENTERS

Cost-Burden	High	7.3%	3.3%	2.1%	8.7%
	Elevated	4.0%	0.9%	1.0%	3.4%
	Moderate	7.9%	1.9%	1.6%	3.6%
	Low	25.7%	8.4%	7.3%	12.9%
		Low	Moderate	Elevated	High
Employment Disruption					



It is reasonable to expect that the impact to renting households will be more widespread and felt more immediately than those realized by homeowners in the short term. Further, because there are limited statutory protections and little variation in the recourse available to renters, it is possible that these impacts may occur shortly following the expiration of Indiana’s moratorium on eviction and foreclosure proceedings (currently August 14, 2020).

The impact to homeowners is likely to be delayed relative to renting households given the protections granted within the CARES Act and subsequent Executive Order (at present, it is unclear to what degree the protections extended via President Trump’s Executive Order on August 8, 2020, will serve to forestall evictions). However, depending upon the terms of forbearance agreements and the degree to which a substantial impact is simply delayed rather than mitigated, the impact may represent a future liability to many mortgagors. A prolonged economic disruption, in which economic conditions continue to deteriorate or recovery is slow, may create situations for some homeowners where they are unable to meet the terms of their forbearance agreements when their payments recommence.

POTENTIAL IMPACT TO HOUSEHOLDS OF COLOR

Following the initial analysis in early May and in response to events that have brought increased national and local attention to issues of equity and racial justice, there has been increased interest in examining how the risk of foreclosure and eviction impact racial groups differently.¹³ As with the above results, the following is limited to those experiencing an increased risk of eviction or foreclosure as a result of the economic disruption. It does not include those households with no workers in the dataset due to their not being at an *increased* risk due to potential employment disruptions.

To assess the potential disparate impact for households of color, we compare the percent of those households with a mortgage or renting that are at a greater risk of disruption to the percent households of color within the full dataset. Within the homeowner with a mortgage dataset, 21.8 percent are households of color; in the renter dataset, 52.2 percent are households of color. If there were no disparate impact, one would expect the percent of households of color facing increased concerns of foreclosure or eviction to mirror the percentages of those households within the dataset.

Among all households of color in both dataset (homeowners with a mortgage and renters), 22.9 percent meet the definitions outlined in the previous section regarding increased risk of impact. Households of color are 38.4 percent more likely than white households to be at heightened risk of experiencing an impact. Notably, while households of color comprise 38.0 percent of the total households in the dataset, they represent 45.9 percent of the households facing a heightened risk of impact.

This same approach finds that Hispanic-led households face a disparate impact as well. While Hispanic households only represent 8.6 percent of the households in the dataset, they represent 12.9 percent of all households at risk of experiencing an impact. In total, 28.5 percent of all Hispanic households are at risk of experiencing an impact. Hispanic households are disproportionately more likely to be employed in an industry experiencing a high level of employment disruption than non-Hispanic households.

¹³ For the purposes of this analysis, *households or individuals of color* include all households or individuals where the householder is listed as a race other than “white alone”. Note: the US Census Bureau treats race and ethnicity as separate variables. Being of Hispanic origin is considered an ethnic characteristic that may be reported in combination with a racial characteristic (i.e., a respondent can be Caucasian and Hispanic, Black and Hispanic, or other combinations); as such, data on households of color/white households included within these figures do not uniformly include Hispanic/Latinx respondents.



Among households of color with a mortgage, we find a much higher share at an increased risk of foreclosure relative to white households: 30.4 percent, nearly 1.4 times the number one would expect given an even distribution. These households are much more likely to be cost-burdened homeowners. Relative to white households, 39 percent of *high* cost-burdened homeowners and 31.9 percent of *elevated* cost-burdened homeowners are households of color. Households of color are also more likely than white households to experience *moderate* or *elevated* employment disruptions and are more likely to experience the combination of an *elevated* or *high* cost-burden in combination with an *elevated* or *high* employment disruption. In total, 36.4 percent of minority-led homeowners have these combination of categories (at least an *elevated* risk on both measures).

Among renting households of color, the potential impact those renters face is more closely aligned with the broader population as a whole: 55.1 percent renting household of color are at increased risk of being impacted relative to 52.1 percent of all renters at increased risk of being impacted. Among renting households, households of color are slightly less likely than white renters to be in industries experiencing a *high* levels of employment disruption (48.1 percent relative to 51.9 percent of white households). Conversely, renting households of color are much more likely to be employed in industries facing an *elevated* risk of disruption (65.6 percent compared to 34.4 percent).

Due to historical inequities resulting in a racial wealth gap, households and individuals of color may be likely to have fewer reserves available to address these disruptions.¹⁴ Households in the same position in terms of cost-burden and employment disruption, but with differing racial characteristics, may have substantially different reserves and/or means to address those disruptions. As a result, while the data reflect the potential for heightened risk of disruption, households and individuals of color may need assistance at greater rates due to more limited savings and wealth.

LIMITATIONS

There are several limitations that a reader should be aware of in examining the results of this analysis. These limitations have to do with the availability of data, nuances with the available data, the preliminary nature of some of the data, methodological choices, and the current dynamic environment that may unfold unpredictably, given what has been experienced thus far with the disruption.

First, the economic disruption data is focused solely upon unemployment claims for Marion County data and the number of jobs for federal data. While this represents a useful indicator for those who have likely lost all income and the difficulty of finding new work in a given sector, it does not add clarity among those professions where a person has not become unemployed but lost substantial pay due to a reduction in hours worked, reduced commissions, or other similar pay related concerns. These data may not uniformly capture the impacts of furloughs which may be more common in certain industries. Additionally, it assumes individuals remain employed within the same industries; therefore, it likely underestimates an individual's ability to find work in a growing industry to replace a job lost in a troubled industry.

Secondly, the economic data at the local level are limited to major industry sectors which may mask substantial differences among subsectors within the same industry sector. For example, Health Care and Social Assistance are considered a singular industry sector. This sector contains those who work at hospitals, which may be

¹⁴ Data detailing racial inequities related to wealth and net worth are not available through the datasets used for this analysis. Nevertheless, a considerable amount of recent research has been published on this topic and we feel comfortable stating such a gap exists and may influence the abilities of otherwise similarly situated households to respond to economic disruption.



seeing increased work, and those that work at outpatient facilities, which may be temporarily closed. Similarly, within the retail sector, some larger warehouse style stores (e.g., Walmart, Meijer) may see increased employment, while boutique retailers see closures. These within-sector nuances are more sufficiently captured within the federal data. However, the federal data are preliminary reports and are subject to revision over the coming months as is typical with federal employment data.

Additionally, the economic experience by industry that has been felt heretofore may not necessarily be a harbinger of future impacts. While some already-impacted industries may likely experience prolonged challenges, others may have fared relatively well thus far but will see increasing challenges in the future. For example, those working in public administration may be more likely to experience residual impacts as realized tax revenues are less than what was forecast prior to the economic disruption. At a minimum, it is anticipated that a prolonged economic disruption will only further impact additional industries and further strain households already realizing a housing cost burden.

For housing and individual records derived from the PUMS data, including race and ethnicity, the data were limited to the householder; in considering employment disruption, if a second wage-earner were listed, that person's industry was also considered. No attempt was made to discern the differences in wages between a head of household and a secondary wage earner, rather they were weighted similarly. In households where there is a great divergence in earning potential between primary wage earners and secondary wage earners, the analysis likely underestimates the potential risk of losing the income from the higher earning job.

Our analysis frames the potential risk of disruption on existing cost burden and the likelihood of economic disruption in a given industry. The analysis assumes anyone employed within an industry that is in the top half of industries impacted may be, at a minimum, moderately impacted (with higher thresholds at the 67th and 75th percentiles). While this framing is relevant in an economic environment in which some industries are more greatly impacted than others, because this approach compares an industry against the economy as a whole, it would be inadequate in measuring employment disruptions that were spread evenly across all industry sectors. Should the economic disruption grow to broadly impact all industries (i.e., a widespread recession experienced equally across industries), this methodology may under-report the risk of economic disruption in some sectors.

Similarly, the risk posed by cost-burden uses thresholds to establish categories of risk. These are established at differing thresholds for renters and homeowners for the reasons discussed throughout the paper. There is little definitive guidance as to where these thresholds should be established. The renter thresholds largely mirror conventions around housing cost-burden (30 and 50 percent of income). However, that same threshold among homeowners would yield a result that shows very few homeowners at risk of foreclosure, a finding that belies the reality of a 30-fold increase in forbearance requests. Thus, establishing these thresholds, particularly for homeowners with a mortgage, requires some measure of judgment and informed intuition; a reader may examine the results without the categorical thresholds (organized by decile) via the tables in Appendix B.

This analysis relies on survey data collected by the US Census which has a 90 percent confidence level and there may be some variation between reality and the measures reported here. These variations, as a matter of degree, can be greater among metrics that are cross-tabulated.

As noted within the section on the impact to households of color, the data available for this analysis provides information on household cost-burden and potential for employment disruption, but data on these households' wealth are not available. As such, similarly situated households within the analysis may have vastly different



resources to draw upon to assist them in weathering the economic disruption. The disparities in wealth—particularly as experienced differently by race—may contributed to a greater need for assistance programs among households of color.

Lastly, while the analysis examines the potential number of households that may be impacted, it is difficult to predict how many households will seek assistance from the public sector, local nonprofits, or philanthropic entities. The City's rental assistance program has experienced considerable demand in the limited time it has been available. For homeowners, the first avenue of recourse will likely be with their lending institution, and they may only turn to secondary sources following an initial engagement or a continued deterioration of their financial situation. At the same time, lenders may refer individuals to local entities providing foreclosure prevention services, which could increase the work of local nonprofits providing those services.

As additional data become available—especially data at the local level that provide insights into how households are faring within the economic downturn—this analysis may be refined. Given the data presently available, and assuming economic conditions that have been realized thus far extend into the future, the impacts of the economic disruption will continue to be deeply felt by many Marion County households, and many of these households will experience increased housing challenges as a result of the disruption.

END NOTES

ⁱ US Consumer Financial Protection Bureau: [CARES Act Mortgage Forbearance](#)

ⁱⁱ US Census Bureau: *Household Pulse Survey - Measuring Household Experiences during the Coronavirus Pandemic* (available [here](#))

ⁱⁱⁱ Mortgage Bankers Association: [Share of Mortgage Loans in Forbearance Decreases for Seventh Straight Week to 7.67%](#)

^{iv} US Consumer Financial Protection Bureau: [Mortgages 90 or More Days Delinquent](#)

^v Eviction Lab: [Marion County](#)

^{vi} IN-DWD (via STATS Indiana): [Weekly Unemployment Claims](#)

^{vii} US Bureau of Labor Statistics: [Current Employment Statistics: Employment and Earnings Table](#)



APPENDIX A: FULL METHODOLOGY

The data for this analysis were derived from three sources:

- Housing, industry of employment records, racial characteristics, as well as several other characteristics were drawn from the 2018 1-year American Community Survey Public Use Microdata Sample. The housing and person records data were pulled; these data were subset to Marion County, and then subset again to limit the records to heads of households and additional respondents who reported working more than 14 weeks in the past year. These data were joined based on the serial numbers in each dataset to provide a complete record of housing and personal characteristics. Housing units owned without a mortgage or lien were excluded from the analysis, as were housing units that were occupied without the payment of rent and/or group quarters.
- Weekly unemployment claims by industry were drawn from the Indiana Department of Workforce Development, via STATS Indiana. Initial claims were drawn from the weeks of 4/18 and 3/14 and continued claims were drawn from 4/11 and 3/7. The April claims were summed, the March claims were summed, and the March claims were subtracted from the April claims to identify the numerical and rate of increase in unemployment claims by industry. The rate of increase, a normalized measure, was used to conduct the analysis.
- Federal employment data from the US Bureau of Labor Statistics for the month ending April 30 were used to construct the federal employment impact. These data were available at varying levels of specificity (from 6-digit to 2-digit NAICS), and only the industries/NAICS codes for which complete data were available were used. The data provided February and April employment numbers (seasonally-adjusted) and the change in the number of jobs. The relative change (the difference between April jobs and February jobs divided by February jobs) was used to assess the employment disruption by industry.

Once the data were pulled and organized, the data were organized into a comprehensive dataset based on the joined PUMS data, with the employment data merged based on the NAICS code in the PUMS data and the employment data. For the federal employment data, the data was joined to the greatest level of specificity available. For both federal and local data, if data were not available for a given person's industry the prevailing average for the all federal or local jobs was used.

For each industry for which complete data were available, at both the federal and local levels, a z-score was constructed within each respective dataset. This statistic measures the difference in employment disruption from a given subject (in this case, an industry) from the average of all subjects. The z-scores were constructed in such a way that a positive z-score (distance from the mean in a positive direction) represented greater economic disruption.

Given the two z-scores for each record, local and federal, the scores were weighted into a single measure, with 2/3 of the weighted z-score representing local conditions and 1/3 representing federal conditions. While the assigning of relative weights is somewhat arbitrary, it balances the local nature of the Marion County data set and its relative recency with the greater precision and specificity of the federal dataset.

Given the assignment of the weighted z-score measure for each record, a statistical processing package was used to derive a weighted mean and percentile ranks (weighted based on the weights provided within



the PUMS dataset), with those not employed excluded from the statistical analysis. The 50thk, 67thk, and 75thk were pulled, and those measures formed the thresholds for low/moderate risk, moderate/elevated risk, and elevated/high risk. For households reporting multiple earners the weighted z-score for the head of household and the weighted z-score for the second respondent were averaged and the risk was assigned based that average. No adjustment was made to heads of households without a second wage-earner listed.

A similar procedure was undertaken to derive the varying risk categories for homeowners and renters, although some adjustments were made to reference conventions within the established body of work relating to housing cost-burden. For each record, the Selected Monthly Owner Costs or Gross Rent Payments, as appropriate given the tenure indicated within the record, were divided by the reported household incomes; this approach provides greater precision with respect to cost-burden than the cost burden data provided within the dataset (which is rounded to the nearest percent).

The datasets were then separated by tenure and a weighted median/percentile rank analysis was performed. For renters, the 50thk, 67thk, and 75thk were 30 percent of income spent on housing, 41 percent, and 50 percent, respectively. To even the difference in the classes the moderate/elevated threshold was adjusted to 50 percent and then these figures served as the appropriate thresholds. For homeowners, the weighted median/percentile ranks returned results of 18, 23, 28 at the 50thk, 67thk, and 75thk respectively. To align with more conventional figures and to be somewhat more conservative in the analysis, these thresholds were adjusted to 20, 25, and 30 (i.e., one would be considered at a high risk above 30 percent).

Given the establishment of the class thresholds, outlined above, homeowners with a mortgage and renters were assigned to individual risk categories, and then those records were summed (as weighted within the dataset). Those households having heads of households (and, where appropriate, the second respondent) that were reported as unemployed were removed from the results (due to their being unlikely to be directly influenced by employment disruptions related to COVID-19). The resulting records were categorized appropriately and summed as outlined within the results section; these results were also cross-tabulated with the head of household's reported race. The results are available, by decile, in Appendix B.



APPENDIX B: DETAILED RESULTS BY DECILE

FIG. B-1. HOMEOWNERS WITH A MORTGAGE: RISK CATEGORIZATION DETAIL

← Cost Burden Risk	10 th Decile	227	1,170	284	387	1,638	1,367	311	1,236	676	1,099
	9 th Decile	494	1,882	973	615	1,245	1,689	428	519	1,743	647
	8 th Decile	1,551	1,320	1,383	576	2,906	1,800	227	1,253	1,005	404
	7 th Decile	768	2,165	1,708	770	1,211	1,715	256	1,537	1,304	724
	6 th Decile	955	1,908	2,462	443	1,529	2,425	166	1,002	687	1,037
	5 th Decile	1,038	2,409	974	942	2,198	1,867	230	1,362	802	497
	4 th Decile	465	1,995	2,331	205	2,292	1,812	401	953	332	661
	3 rd Decile	437	1,736	2,164	991	2,571	1,606	583	1,044	838	778
	2 nd Decile	1,358	1,749	1,765	582	3,010	1,991	247	740	991	446
	1 st Decile	1,072	1,538	2,711	1,050	1,618	1,972	409	771	1,283	454
		1 st Decile	2 nd Decile	3 rd Decile	4 th Decile	5 th Decile	6 th Decile	7 th Decile	8 th Decile	9 th Decile	10 th Decile
		Employment Disruption					Risk →				

FIG. B-2. COMPOSITION OF HOMEOWNERS WITH A MORTGAGE: RISK CATEGORIZATION DETAIL

← Cost Burden Risk	10 th Decile	0.2%	1.0%	0.2%	0.3%	1.4%	1.2%	0.3%	1.0%	0.6%	0.9%
	9 th Decile	0.4%	1.6%	0.8%	0.5%	1.1%	1.4%	0.4%	0.4%	1.5%	0.5%
	8 th Decile	1.3%	1.1%	1.2%	0.5%	2.5%	1.5%	0.2%	1.1%	0.9%	0.3%
	7 th Decile	0.7%	1.8%	1.4%	0.7%	1.0%	1.5%	0.2%	1.3%	1.1%	0.6%
	6 th Decile	0.8%	1.6%	2.1%	0.4%	1.3%	2.1%	0.1%	0.8%	0.6%	0.9%
	5 th Decile	0.9%	2.0%	0.8%	0.8%	1.9%	1.6%	0.2%	1.2%	0.7%	0.4%
	4 th Decile	0.4%	1.7%	2.0%	0.2%	1.9%	1.5%	0.3%	0.8%	0.3%	0.6%
	3 rd Decile	0.4%	1.5%	1.8%	0.8%	2.2%	1.4%	0.5%	0.9%	0.7%	0.7%
	2 nd Decile	1.1%	1.5%	1.5%	0.5%	2.5%	1.7%	0.2%	0.6%	0.8%	0.4%
	1 st Decile	0.9%	1.3%	2.3%	0.9%	1.4%	1.7%	0.3%	0.7%	1.1%	0.4%
		1 st Decile	2 nd Decile	3 rd Decile	4 th Decile	5 th Decile	6 th Decile	7 th Decile	8 th Decile	9 th Decile	10 th Decile
		Employment Disruption					Risk →				

FIG. B-3. RENTING HOUSEHOLDS: RISK CATEGORIZATION DETAIL

← Cost Burden Risk	10 th Decile	491	1,426	307	234	1,281	1,346	433	1,426	1,596	2,238
	9 th Decile	810	1,051	697	1,265	522	1,802	941	653	1,459	2,752
	8 th Decile	598	1,335	582	811	356	1,114	1,117	2,469	982	2,357
	7 th Decile	983	2,267	1,968	900	2,420	1,371	466	1,777	1,192	1,024
	6 th Decile	309	1,959	963	1,156	1,949	1,791	619	2,082	1,095	1,709
	5 th Decile	1,268	2,239	1,105	868	1,372	1,398	860	2,458	795	1,050
	4 th Decile	1,573	1,720	1,788	1,585	1,312	2,253	798	1,764	806	840
	3 rd Decile	1,318	1,178	820	593	2,618	2,398	763	2,140	1,627	1,529
	2 nd Decile	1,134	1,631	2,140	1,787	2,110	2,089	725	958	532	2,644
	1 st Decile	1,232	2,238	3,116	490	1,283	2,078	481	1,737	482	950
		1 st Decile	2 nd Decile	3 rd Decile	4 th Decile	5 th Decile	6 th Decile	7 th Decile	8 th Decile	9 th Decile	10 th Decile
		Employment Disruption					Risk →				



**FIG. B-4. COMPOSITION OF RENTING HOUSEHOLDS: RISK CATEGORIZATION
DETAIL**

← Cost Burden Risk	10 th Decile	0.4%	1.1%	0.2%	0.2%	0.9%	1.0%	0.3%	1.1%	1.2%	1.7%
	9 th Decile	0.6%	0.8%	0.5%	0.9%	0.4%	1.3%	0.7%	0.5%	1.1%	2.0%
	8 th Decile	0.4%	1.0%	0.4%	0.6%	0.3%	0.8%	0.8%	1.8%	0.7%	1.7%
	7 th Decile	0.7%	1.7%	1.5%	0.7%	1.8%	1.0%	0.3%	1.3%	0.9%	0.8%
	6 th Decile	0.2%	1.4%	0.7%	0.9%	1.4%	1.3%	0.5%	1.5%	0.8%	1.3%
	5 th Decile	0.9%	1.7%	0.8%	0.6%	1.0%	1.0%	0.6%	1.8%	0.6%	0.8%
	4 th Decile	1.2%	1.3%	1.3%	1.2%	1.0%	1.7%	0.6%	1.3%	0.6%	0.6%
	3 rd Decile	1.0%	0.9%	0.6%	0.4%	1.9%	1.8%	0.6%	1.6%	1.2%	1.1%
	2 nd Decile	0.8%	1.2%	1.6%	1.3%	1.6%	1.5%	0.5%	0.7%	0.4%	2.0%
	1 st Decile	0.9%	1.7%	2.3%	0.4%	0.9%	1.5%	0.4%	1.3%	0.4%	0.7%
		1 st Decile	2 nd Decile	3 rd Decile	4 th Decile	5 th Decile	6 th Decile	7 th Decile	8 th Decile	9 th Decile	10 th Decile
	Employment Disruption					Risk →					