

**Financial Insecurity and Hardship in the Pulse:  
An In-Depth Look at Gender Identity and Sexual Orientation**

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Currently, many household surveys in the United States do not explicitly ask respondents about their gender identity and sexual orientation. The American Community Survey and the Current Population Survey Annual Social and Economic Supplement ask about same-sex and opposite-sex spouses and partners; however, there are no direct questions about sexual orientation. The Household Pulse Survey, which was started to examine the well-being of people on a frequent and timely basis during the COVID-19 pandemic, introduced questions about gender identity and sexual orientation in Phase 3.2, which began in July of 2021. This marks the first time a Census Bureau survey included questions about gender identity and sexual orientation. In this paper, I explore how non-cisgender and sexual minorities fared during the COVID-19 pandemic in terms of financial insecurity, job insecurity, mental health, housing insecurity, and food insufficiency. I compare these financial insecurity and hardship rates over time and to those of cisgender and straight people. Finally, I run a linear probability model to examine how gender identity and sexual orientation are related to financial insecurity and hardship while holding other demographics constant.

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<sup>1</sup> This paper is released to inform interested parties of ongoing research and to encourage discussion of work in progress. Any views expressed are those of the author and not those of the U.S. Census Bureau. The Census Bureau reviewed this data product for unauthorized disclosure of confidential information and has approved the disclosure avoidance practices applied to this release. CBDRB-FY23-SEHSD003-036.

## I. Introduction

The U.S. Census Bureau differentiates between same-sex and opposite-sex partners in the American Community Survey (ACS) and Current Population Survey Annual Social and Economic Supplement (CPS ASEC). However, there are no specific questions about sexual orientation or gender identity. The first questions about gender identity and sexual orientation in a major Census-sponsored household survey were added to the Household Pulse Survey (HPS) in July of 2021.

Over the years, a growing amount of research has shown that sexual minorities and non-cisgender people are more disadvantaged than straight and cisgender people. Multiple studies have shown that bisexual and transgender people are more likely to live in poverty than the general population and that the LGBT population overall has poverty rates at least as high if not higher than the general population (Badgett et al. 2019; Schneebaum and Badgett 2019; Badgett 2018; Carpenter et al. 2017; Crissman et al. 2017; Badgett et al. 2013).

There has also been work showing that sexual minorities and non-cisgender people face economic and social consequences other than just poverty. Sexual minorities are more likely to face economic hardships than heterosexuals (Conron et al. 2018), high proportions of LGBT adults face food insecurity (Brown et al. 2016), and LGBT respondents are more likely to face food insecurity, lose employment income, and experience anxiety and depression than non-LGBT respondents (Anderson et al. 2021).

This paper adds to this literature in three ways. First, it uses new measures to evaluate the well-being of sexual minorities and the non-cisgender population, including a measure of financial insecurity and of multidimensional hardship. Second, up-to-date survey data allow for the timely examination of these well-being measures by month. Finally, I run a regression that examines well-being by sexual orientation and gender identity while holding each other and demographics constant.

The paper is organized as follows. Section 2 describes the data and methods in detail. The results are shown in Section 3. First, I show hardship rates by sexual orientation and gender identity for financial insecurity, multidimensional hardship, and the individual hardships. Second, each hardship rate is shown over time for straight and LGBT people. Third, linear probability models examine the probabilities of being in each hardship by sexual orientation and gender identity while holding other factors constant. Section 4 concludes.

## II. Data and Methods

The data used in this paper come from the Household Pulse Survey (HPS).<sup>2</sup> The Census Bureau, in collaboration with seven other federal agencies, created the HPS in April of 2020 to provide real-time effects of the COVID-19 pandemic on peoples' lives. The HPS is a publicly available experimental household level survey compiled and released in the U.S. during the pandemic at a high frequency. It includes more than 3.5 million household respondents, and public-use data files are released 2 to 4

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<sup>2</sup> Technical documentation, including questionnaires, methodology, and source and accuracy statements, is at <https://www.census.gov/programs-surveys/household-pulse-survey/technical-documentation.html>.

weeks after data is collected. The HPS is representative of the household population aged 18 years and over, at the state and national level as well as for the 15 largest Metropolitan Statistical Areas.

Questions regarding gender identity and sexual orientation were added to the HPS in July of 2021. Therefore, the data in this paper come from week 34 (July 2021) through week 52 (December 2022) of the HPS. Data are used both monthly and as combined cross sections for July 2021 through December 2022.

The HPS does have some limitations. The first limitation is that the sampling frame is limited to households with a known email address or cell phone number (which is how respondents were contacted for the survey). A second limitation is, unlike other household surveys, the HPS has detailed information on the respondent but limited information about other household members. Third, the HPS is a relatively new and evolving survey, which means that some questions and the order of questions changes over time. Therefore, changes in responses over time should be viewed with caution. A fourth limitation is a low response rate, about 7.5% on average, throughout the survey. The response patterns differ across key demographic groups, but the Census Bureau's weighting strategy helps to mitigate some of this nonresponse bias (Peterson and Toribio, 2021).<sup>3</sup> A final limitation is item nonresponse. In this paper, I impute a respondent's missing answers to the financial insecurity and hardship questions by estimating an ordered logit model using multiple imputation. The explanatory variables are age groups, sex, presence of children in the household, race and Hispanic origin, education, state of residence, and month of survey.

There are two questions of interest used in this paper. The first regards sexual orientation:

*Which of the following best represents how you think of yourself?*

- 1) *Gay or lesbian*
- 2) *Straight, that is not gay or lesbian*
- 3) *Bisexual*
- 4) *Something else*
- 5) *I don't know*

Approximately 2 percent of respondents did not answer this question. Rather than try to impute or assign values, these respondents were classified as not having answered the question.

The second question is about gender identity:

*Do you currently describe yourself as male, female, or transgender?*

- 1) *Male*
- 2) *Female*
- 3) *Transgender*
- 4) *None of these*

Approximately 1.4 percent of respondents did not answer the question. In these cases, gender was assigned to these respondents based on their answer to a previous question which asked about sex

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<sup>3</sup> While the Census Bureau adjusted weights in the HPS to account for nonresponse, weighting mitigates rather than eliminates nonresponse bias. Refer to [2020 HPS NR Bias Report-final.pdf \(census.gov\)](#) for more information on nonresponse bias in the HPS.

assigned at birth. Furthermore, if a respondent chose one gender to the birth question and another gender to the current gender question, then they were assigned as transgender. Additionally, cases for which the Census Bureau allocated gender at birth were removed from the transgender population.

Tables 1 and 2 show a detailed overview of the demographics of people who answered these two main questions of interest.<sup>4</sup> Table 1 displays demographics overall and by the answers to the sexual orientation question. The 2 percent of the population that did not answer the question was older, less likely to be White, more likely to be married, widowed, and separated, and less educated than the overall population. Therefore, dropping these individuals altogether would lead to a biased sample.

Of the 98 percent of respondents who did answer the sexual orientation question, there were significant differences in demographic makeup. The straight population was the oldest, while the bisexual population was the youngest, on average. Gay/lesbian respondents were least likely to have kids in the household and had the smallest number of people in the household, while people unsure of their sexual orientation were most likely to have kids in the household and resided in the largest households.

Among straight, gay/lesbian, and bisexual people, bisexuals were least likely to be Black and most likely to be other race, while straight people were least likely to be Hispanic. The racial makeup of the other two groups was far different. Nearly half of the respondents selecting “something else” and nearly 60 percent of the respondents selecting “unsure” were non-White. Compared to the overall population, the respondents selecting “something else” or “unsure” were less likely to be Black and more likely to be both other race and Hispanic. Furthermore, the respondents selecting “unsure” were twice as likely to be Asian as the overall population.

Respondents who answered something other than straight to the sexual orientation question were less likely to be married and more likely to never have been married than straight respondents. Gay and lesbian respondents reported the highest levels of college completion, while those selecting “unsure” reported the lowest levels among all the groups.

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<sup>4</sup> Standard errors are shown in Appendix Tables A-1 and A-2.

	Overall	Straight	Gay/lesbian	Bisexual	Something else	Unsure	Did not answer
Percentage of population		86.1%	3.2%	4.6%	2.0%	2.1%	2.0%
Average age	49	50	42	33	40	44	55
Kids in household	38.0%	38.7%	19.1%	36.3%	39.4%	46.0%	30.9%
Average number of people in household	3.34	3.31	2.92	3.45	4.20	4.40	3.20
Race							
White, NH	62.2%	63.2%	61.2%	63.3%	51.0%	40.8%	50.0%
Black, NH	11.2%	11.7%	9.9%	7.4%	7.0%	9.2%	11.0%
Asian, NH	5.3%	5.4%	3.8%	3.9%	4.0%	10.9%	6.1%
Other race, NH	3.9%	3.6%	4.5%	6.0%	7.6%	7.9%	2.9%
Hispanic	17.3%	16.1%	20.6%	19.4%	30.4%	31.1%	30.0%
Marital status							
Married	55.1%	58.2%	29.1%	28.3%	33.2%	38.6%	63.4%
Widowed	4.6%	4.8%	1.5%	1.3%	3.8%	4.9%	8.1%
Divorced	11.8%	12.3%	7.9%	8.5%	9.3%	9.4%	12.3%
Separated	2.3%	2.2%	1.6%	2.5%	3.7%	3.8%	2.9%
Never married	26.2%	22.5%	59.9%	59.4%	50.0%	43.3%	13.3%
Gender identity							
Cisgender male	47.4%	48.8%	60.0%	26.4%	26.8%	39.9%	46.8%
Cisgender female	50.2%	50.6%	30.7%	63.9%	39.9%	41.7%	51.8%
Transgender	0.8%	0.1%	5.6%	5.7%	12.8%	4.0%	S
None	1.6%	0.6%	3.7%	4.1%	20.5%	14.5%	1.4%
Education							
No high school	7.8%	7.0%	6.5%	7.0%	18.6%	25.6%	18.9%
High school degree	30.9%	31.6%	23.3%	25.8%	24.4%	27.8%	33.2%
Some college	30.3%	29.9%	33.8%	39.6%	30.7%	25.7%	23.8%
College degree	31.0%	31.5%	36.4%	27.6%	26.3%	20.8%	24.0%

Note: S represents data suppression due to sample size. All estimates representative of the 18 years and older population.  
Source: U.S. Census Bureau, Household Pulse Survey Public Use File, weeks 34 to 52.

Table 2 displays demographics overall and by the answers to the gender identity question. The vast majority of respondents identified as cisgender male or female. Only 0.8 percent of the population identified as transgender, and 1.6 percent of respondents chose none of the presented options. The transgender population was the youngest and among the least likely to have children in the household, while cisgender males lived in the smallest sized households.<sup>5</sup>

The respondents identifying as transgender or “none of these” differed significantly from cisgender males and females based on race. These two groups were more likely than cisgender males and females to be other races and Hispanic and less likely to be White. Furthermore, transgender respondents were less likely than all other respondents to be Black and Asian. The transgender population was less than one-half as likely to be married and more than twice as likely to never have

<sup>5</sup> The average number of children in the household was not significantly different for transgender people and males.

been married as cisgender male and female respondents. Finally, respondents identifying as transgender or “none of these” were less likely to have a college degree and more likely to not have a high school degree than the cisgender male and female populations.

	Overall	Cisgender male	Cisgender female	Transgender	None of these
Percentage of population		47.4%	50.2%	0.8%	1.6%
Average age	49	48	49	37	44
Kids in household	38.0%	35.5%	40.3%	34.5%	42.7%
Average number of people in household	3.34	3.28	3.33	4.73	4.58
<b>Race</b>					
White, NH	62.2%	63.1%	61.9%	54.3%	47.1%
Black, NH	11.2%	10.1%	12.4%	5.8%	11.7%
Asian, NH	5.3%	5.9%	4.9%	2.7%	5.3%
Other race, NH	3.9%	3.4%	4.1%	8.4%	9.7%
Hispanic	17.3%	17.5%	16.7%	28.8%	26.2%
<b>Marital status</b>					
Married	55.1%	59.6%	52.0%	17.2%	35.0%
Widowed	4.6%	2.3%	6.7%	6.1%	6.2%
Divorced	11.8%	9.4%	14.2%	7.2%	10.2%
Separated	2.3%	1.8%	2.7%	4.1%	3.5%
Never married	26.2%	26.9%	24.4%	65.4%	45.1%
<b>Sexual orientation</b>					
Did not answer	2.0%	2.0%	2.1%	S	1.8%
Gay/lesbian	3.2%	4.0%	1.9%	21.1%	7.5%
Straight	86.1%	88.6%	86.8%	7.4%	32.8%
Bisexual	4.6%	2.5%	5.8%	30.9%	12.0%
Something else	2.0%	1.1%	1.6%	30.7%	26.6%
Unsure	2.1%	1.7%	1.7%	9.8%	19.3%
<b>Education</b>					
No high school	7.8%	7.7%	7.4%	22.9%	18.9%
High school degree	30.9%	32.9%	29.2%	23.1%	28.2%
Some college	30.3%	29.3%	31.2%	32.1%	28.6%
College degree	31.0%	30.1%	32.1%	21.9%	24.3%
Note: All estimates representative of the 18 years and older population.					
Source: U.S. Census Bureau, Household Pulse Survey Public Use File, weeks 34 to 52.					

The next set of variables important for this paper are the outcome variables, different measures of hardship: financial insecurity, an index of multidimensional hardship (MHI), mental health hardship, job insecurity, housing insecurity, and food insufficiency. The national level hardship rates and standard errors are listed for each outcome variable in Table 3.

<b>Table 3: Outcome Variables for Respondents Ages 18 and Older</b>		
<b>Outcome variable</b>	<b>Estimate</b>	<b>Standard error</b>
Financial insecurity	15.21	0.08
MHI	13.35	0.07
Mental health	19.35	0.07
Job insecurity	11.96	0.07
Housing insecurity	9.70	0.05
Food insufficiency	10.77	0.07
Note: All estimates representative of the 18 years and older population. Source: U.S. Census Bureau, Household Pulse Survey Public Use File, weeks 34 to 52.		

People are considered financially insecure if they respond that it has been very difficult for their household to pay for usual household expenses.<sup>6</sup>

People are in multidimensional hardship if they face hardship in at least two of four dimensions: mental health, job insecurity, housing insecurity, and food insufficiency (Dhongde and Glassman 2021).<sup>7</sup>

People face hardship in:

- mental health if they felt down, depressed, or hopeless more than half the days in the previous week.
- job insecurity if they were not employed, unless they did not want to be employed, were retired, or were not employed for some other reason.
- food insufficiency if they lived in a household that sometimes or often did not have enough food to eat in the last 7 days.
- housing insecurity if:
  - they had little or no confidence in their ability to make mortgage or rent payments next month (for June 2021 through May 2022)<sup>8</sup>
  - they were not current in their rent or mortgage payments or they kept their household at unsafe temperatures almost every month in the last year (for June 2022 through December 2022)

<sup>6</sup> For a more detailed explanation of the financial insecurity variable, refer to [https://www.census.gov/content/dam/Census/library/working-papers/2023/demo/SEHSD\\_wp2023\\_03.pdf](https://www.census.gov/content/dam/Census/library/working-papers/2023/demo/SEHSD_wp2023_03.pdf).

<sup>7</sup> Refer to <https://www.census.gov/library/working-papers/2021/demo/SEHSD-WP2021-16.html> for more information. The job insecurity dimension has been revised since this working paper was released.

<sup>8</sup> The HPS dropped the question about mortgage or rent confidence beginning in June 2022.

### III. Results

Results are monthly cross-sections for the entire period from July 2021 through December 2022 and are representative of the U.S. population 18 years and older. No HPS data were released for November of 2021; this gap is represented by a dotted line between October 2021 and December 2021 in each graph. In each section, there are two figures. First, a well-being variable is explored by sexual orientation and gender identity over the period. Respondents who selected “something else” or “don’t know” to the sexual orientation question were combined into an “other” category, while respondents who did not answer the sexual orientation question are not shown.

Second, the well-being rates are shown by month from July 2021 to December 2022 for the straight population and the LGBT population. The LGBT population is those respondents who selected lesbian/gay or bisexual for the sexual orientation question and those respondents who selected transgender to the gender identity question.<sup>9</sup> The combined LGBT population was used due to the small size of these individual populations in the monthly samples.<sup>10</sup>

#### A. Financial insecurity

Figure 1 shows financial insecurity rates by sexual orientation and gender identity for the third quarter of 2021 through the fourth quarter of 2022. Respondents classified as “other” sexual orientation faced the highest rate of financial insecurity, while straight respondents faced the lowest rates. Bisexual respondents were more financially insecure than gay/lesbian respondents.

Respondents selecting transgender or “none of these” to the gender identity question faced the highest rate of financial insecurity, followed by cisgender women, and then by cisgender men.

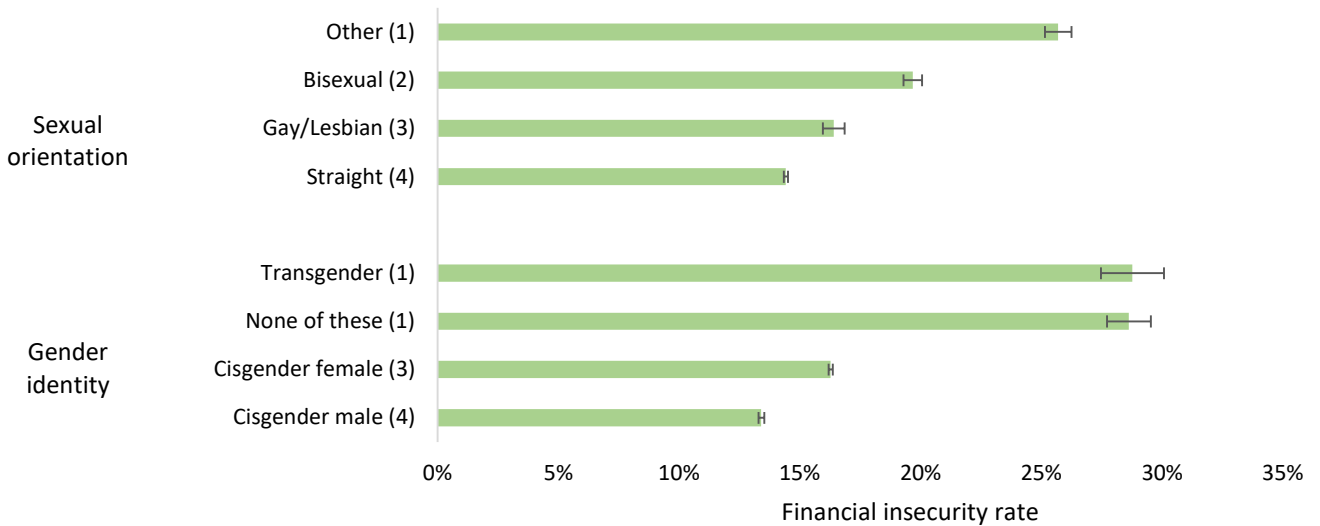
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<sup>9</sup> Refer to <https://www.census.gov/library/stories/2021/11/census-bureau-survey-explores-sexual-orientation-and-gender-identity.html> for further explanation of the LGBT definition.

<sup>10</sup> An “other” category was also created for people not in the straight or LGBT categories. However, it was not included due to sample size concerns at the monthly level.



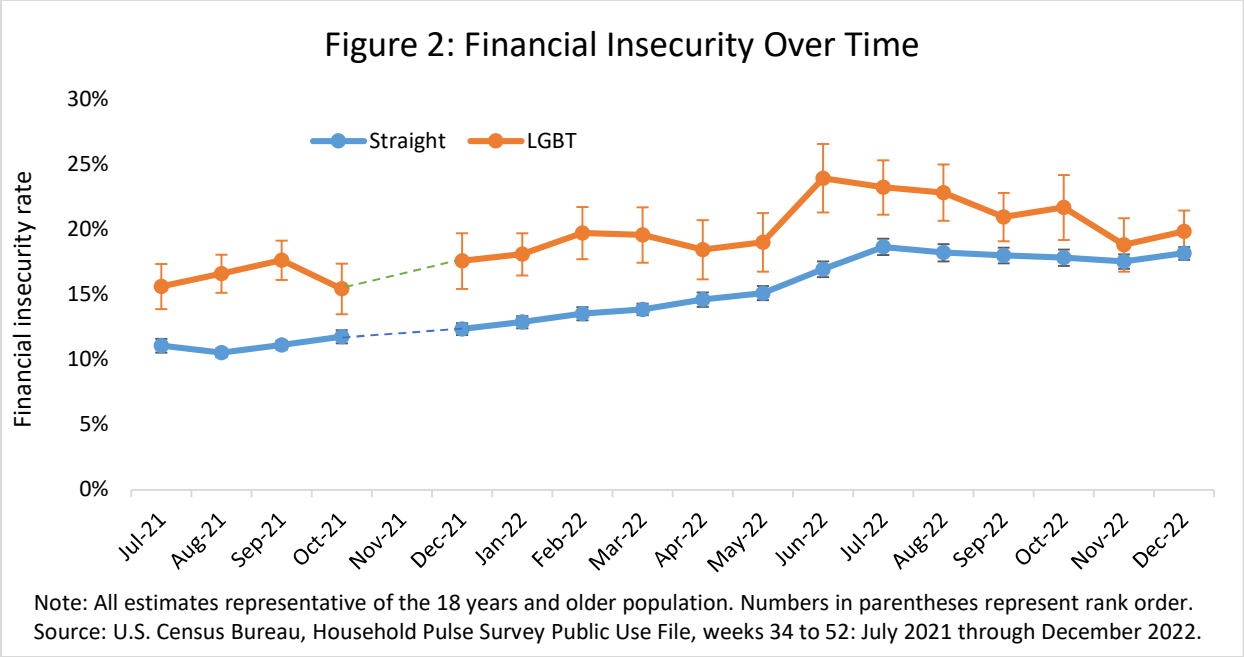
Figure 1: Financial Insecurity by Sexual Orientation and Gender Identity



Note: All estimates representative of the 18 years and older population. Numbers in parentheses represent rank order.  
Source: U.S. Census Bureau, Household Pulse Survey Public Use File, weeks 34 to 52: July 2021 through December 2022.

Figure 2 shows financial insecurity rates, and 90 percent confidence intervals, by month for straight and LGBT respondents. LGBT respondents were more financially insecure than straight respondents in every month except for November 2022, when the two rates were not significantly different.

Financial insecurity rates for both groups increased from July 2021 to December 2022. The rate for straight respondents increased by 7.1 percentage points, while the rate for LGBT respondents increased by 4.2 percentage points. There was a larger increase in the rate of financial insecurity during the coverage period for straight respondents than for LGBT respondents. Consequently, the financial insecurity rates were closer for the two groups at the end of the period than at the beginning.

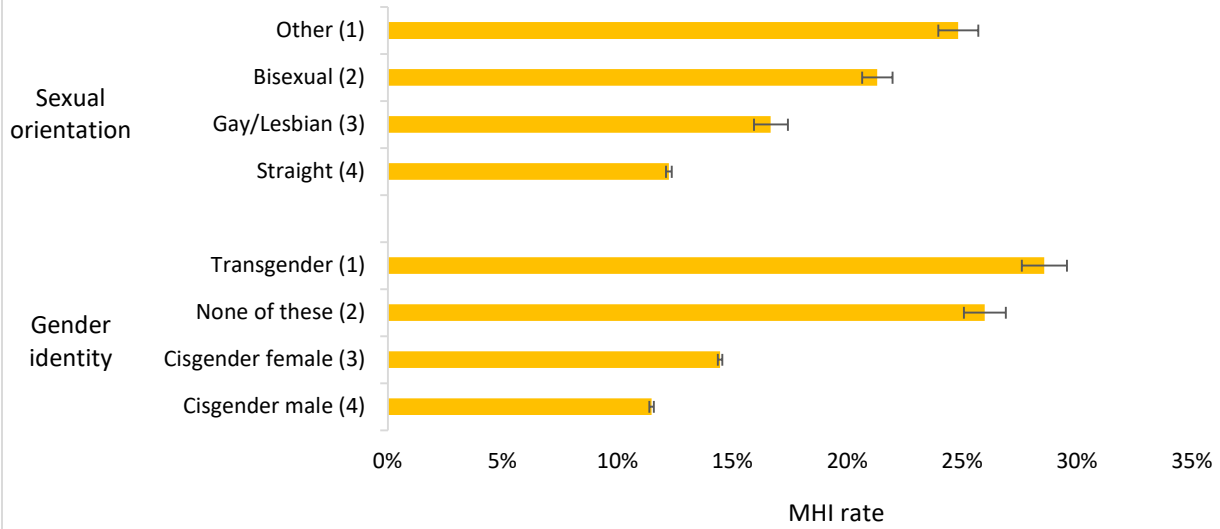


**B. Multidimensional Hardship**

The multidimensional hardship index (MHI) is 1 if a respondent faces hardship in at least two of the following areas: mental health, job insecurity, housing insecurity, and food insufficiency and 0 otherwise. Figure 3 shows MHI rates by sexual orientation and gender identity.

For sexual orientation, respondents classified as “other” had the highest MHI rate, while straight respondents had the lowest. Bisexual respondents had a higher MHI rate than gay/lesbian respondents. For gender identity, transgender respondents had the highest MHI rate, while cisgender men had the lowest.

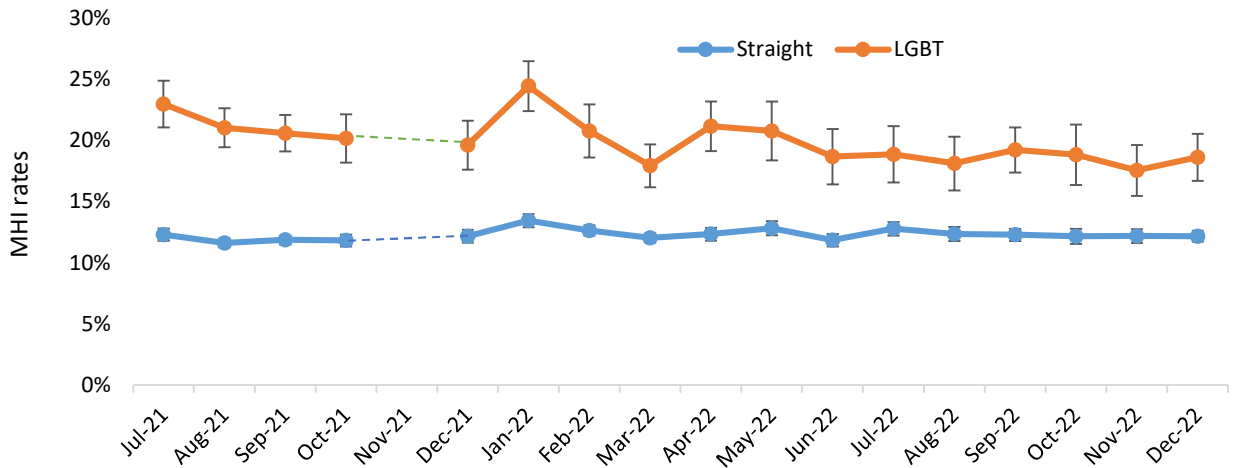
Figure 3: MHI Rate by Sexual Orientation and Gender Identity



Note: All estimates representative of the 18 years and older population.  
 Source: U.S. Census Bureau, Household Pulse Survey Public Use File, weeks 34 to 52: July 2021 through December 2022.

Figure 4 shows the MHI rate over time for straight and LGBT respondents. LGBT respondents have a higher MHI rate than straight respondents for all months. The MHI rate does not change significantly for straight respondents between July 2021 and December 2022. Conversely, the MHI rate decreases by 4.4 percentage points for LGBT respondents between July 2021 and December 2022. Consequently, the MHI rate is closer for the two groups at the end of the period than at the beginning of the period.

Figure 4: MHI Over Time



Note: All estimates representative of the 18 years and older population.  
 Source: U.S. Census Bureau, Household Pulse Survey Public Use File, weeks 34 to 52: July 2021 through December 2022.

### C. Individual Dimensions

To delve further into well-being, the figures in this section divide the MHI rate into its individual dimensions. Hardship in mental health by sexual orientation and gender identity are shown in Figure 5. Bisexual respondents had the highest rate of mental health hardship, while straight respondents had the lowest. For gender identity, transgender respondents had the highest rate of mental health hardship, more than twice as high as the rates for cisgender males and females.

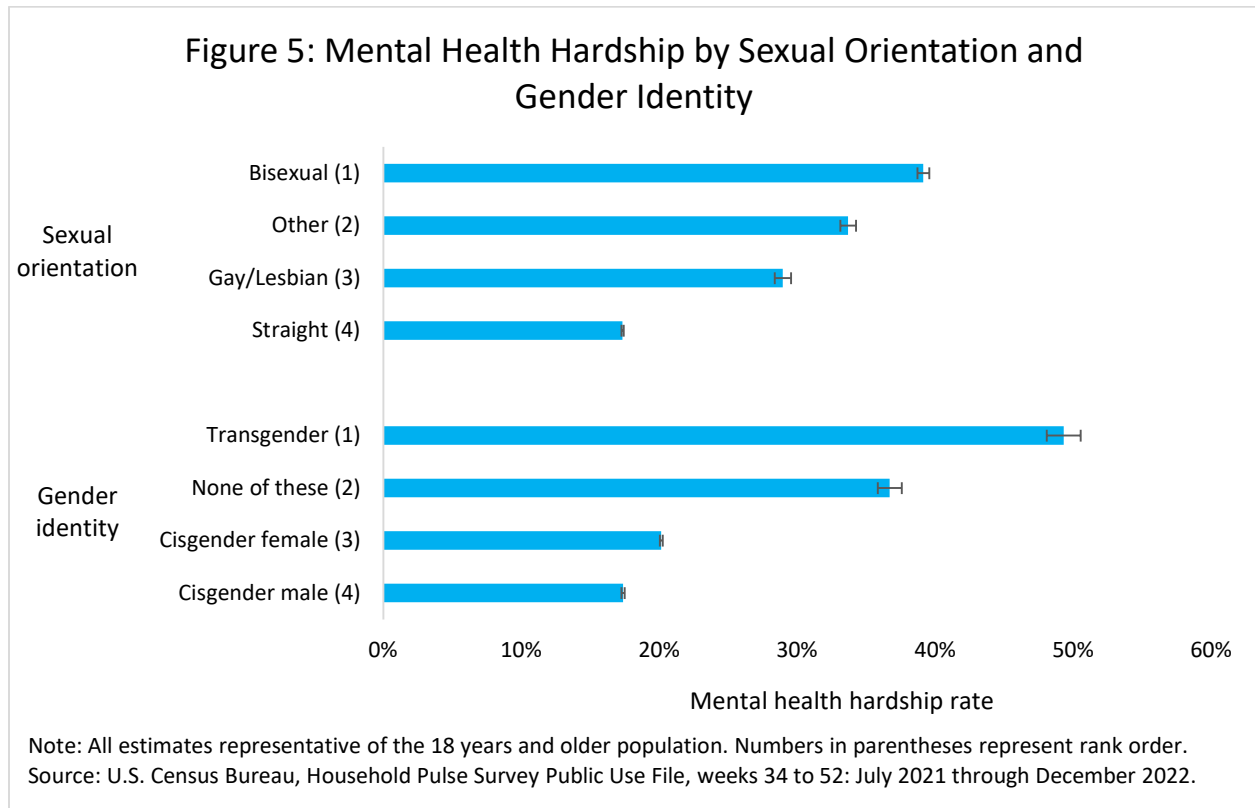
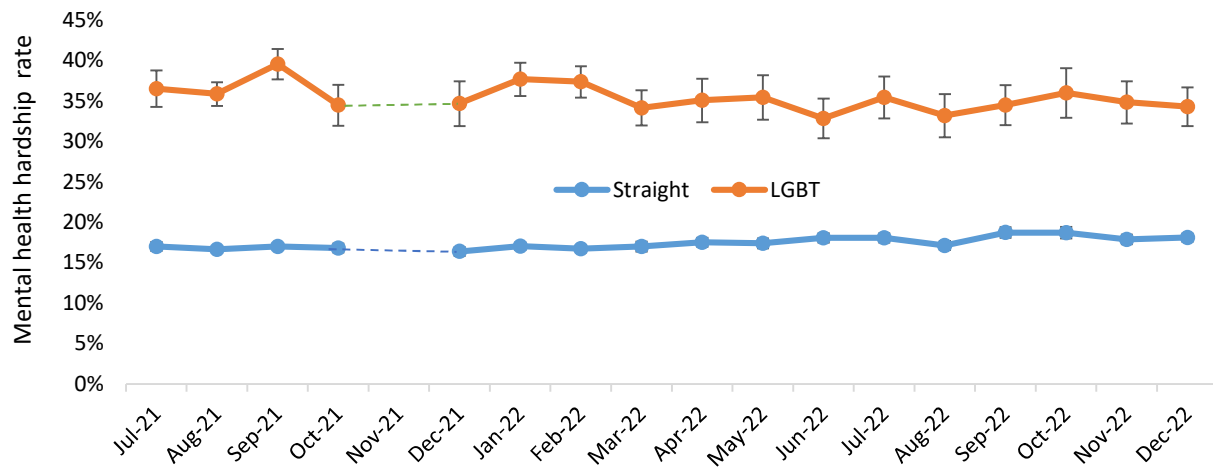


Figure 6 shows the mental health hardship rate by month for straight and LGBT respondents from July 2021 to December 2022. The mental health hardship rate is higher for LGBT respondents than for straight respondents for all months.

Between July 2021 and December 2022, the mental health hardship rate does not change significantly for LGBT respondents, while it increases by 1.1 percentage points for straight respondents. However, there is no significant increase in the difference in mental health hardship rates for the two groups at the end of the period compared to the beginning of the period.

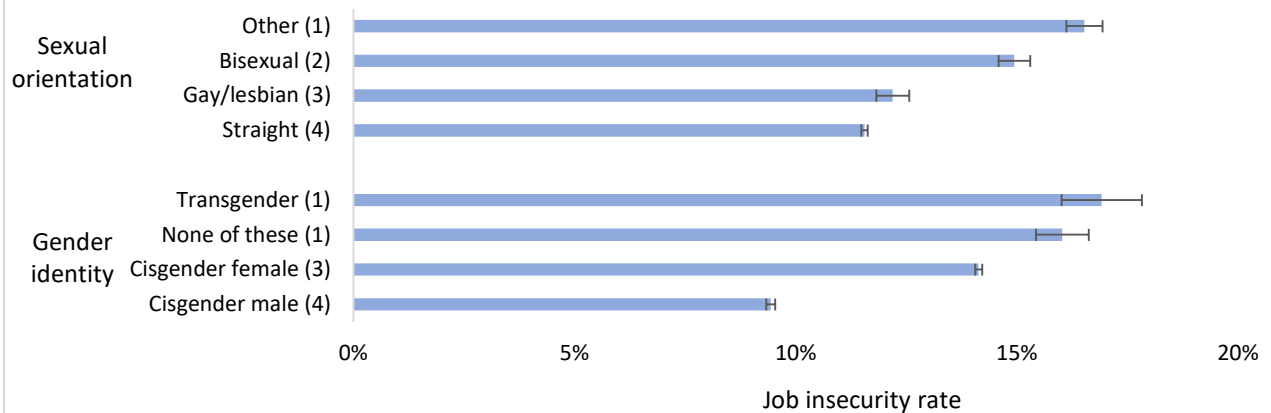
Figure 6: Mental Health Hardship Over Time



Note: All estimates representative of the 18 years and older population.  
 Source: U.S. Census Bureau, Household Pulse Survey Public Use File, weeks 34 to 52: July 2021 through December 2022.

Figure 7 shows job insecurity rates by sexual orientation and gender identity. Respondents classified as “other” for sexual orientation had the highest job insecurity rate, while straight respondents had the lowest. Bisexual respondents had a higher job insecurity rate than gay /lesbian respondents. Respondents selecting transgender or “none of these” to the gender identity question faced the highest rates of job insecurity, followed by women, and then by men.

Figure 7: Job Insecurity by Sexual Orientation and Gender Identity



Note: All estimates representative of the 18 years and older population. Numbers in parentheses represent rank order.  
 Source: U.S. Census Bureau, Household Pulse Survey Public Use File, weeks 34 to 52: July 2021 through December 2022.

Figure 8 shows job insecurity rates by month from July 2021 to December 2022 for straight and LGBT respondents. The job insecurity rate is higher for straight respondents for 10 out of the 17 months. In the other seven months, there is no significant difference in job insecurity rates between the two groups.

Between July 2021 and December 2022, job insecurity rates decreased by 1.5 percentage points for straight respondents and 4.5 percentage points for LGBT respondents. Consequently, the rates were not significantly different for the two groups at the end of the period, while the rate for LGBT respondents was higher at the beginning of the period.

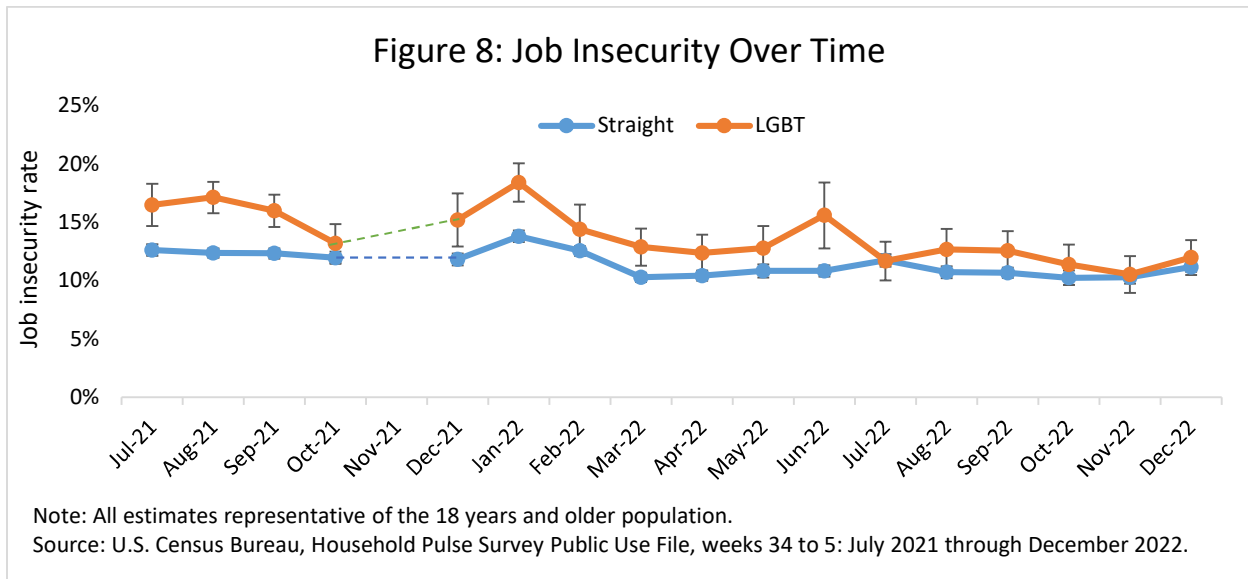
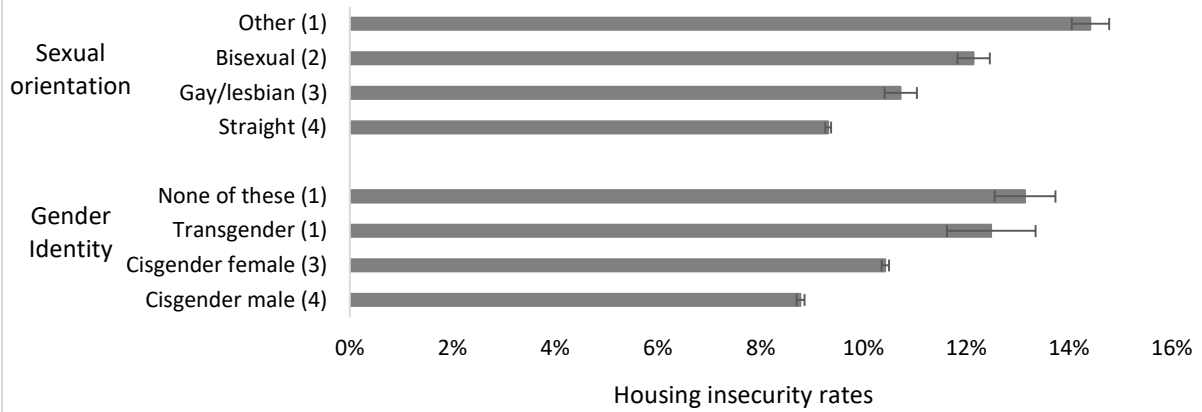


Figure 9 shows housing insecurity rates by sexual orientation and gender identity. Respondents classified as “other” for sexual orientation had the highest housing insecurity rate, while straight respondents had the lowest. Bisexual respondents had a higher housing insecurity rate than gay/lesbian respondents. Respondents selecting transgender or “none of these” to the gender identity question faced the highest rates of housing insecurity, followed by cisgender female, and then by cisgender male.

**Figure 9: Housing Insecurity by Sexual Orientation and Gender Identity**

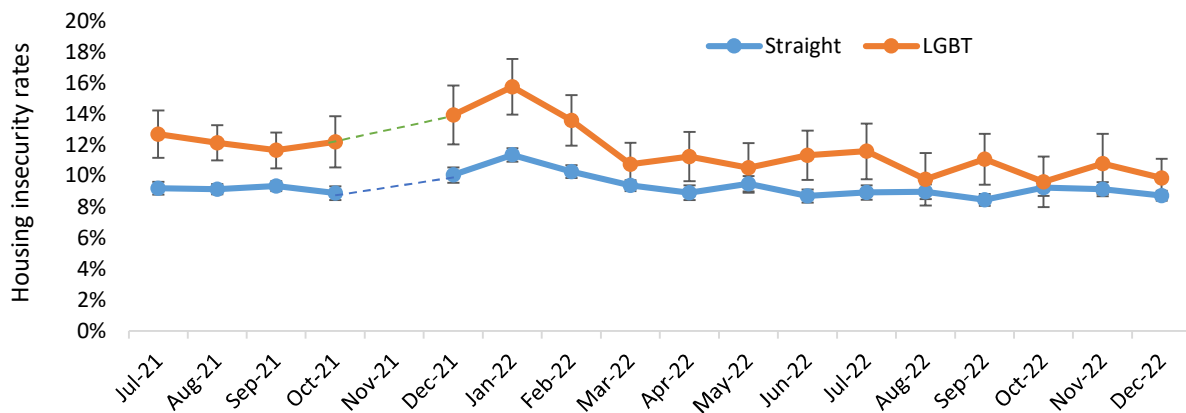


Note: All estimates representative of the 18 years and older population. Numbers in parentheses represent rank order. Source: U.S. Census Bureau, Household Pulse Survey Public Use File, weeks 34 to 52: July 2021 through December 2022.

Figure 10 shows housing insecurity rates by month for July 2021 through December 2022 for straight and LGBT respondents. The housing insecurity rate is higher for straight respondents for 11 out of the 17 months. In the other six months, there is no significant difference in housing insecurity rates between the two groups.

Between July 2021 and December 2022, housing insecurity rates decreased by 2.8 percentage points for LGBT respondents and did not change significantly for straight respondents. Consequently, the rates were not significantly different for the two groups at the end of the period, while the rate for LGBT respondents was higher at the beginning of the period.

**Figure 10: Housing Insecurity Over Time**



Note: All estimates representative of the 18 years and older population. Source: U.S. Census Bureau, Household Pulse Survey Public Use File, weeks 34 to 52: July 2021 through December 2022.

Figure 11 shows food insufficiency rates by sexual orientation and gender identity. Respondents classified as “other” for sexual orientation had the highest food insufficiency rate, while straight respondents had the lowest. Bisexual respondents had a higher food insufficiency rate than gay or lesbian respondents. Respondents selecting transgender or “none of these” to the gender identity question faced the highest rates of food insufficiency, followed by cisgender female, and then by cisgender male.

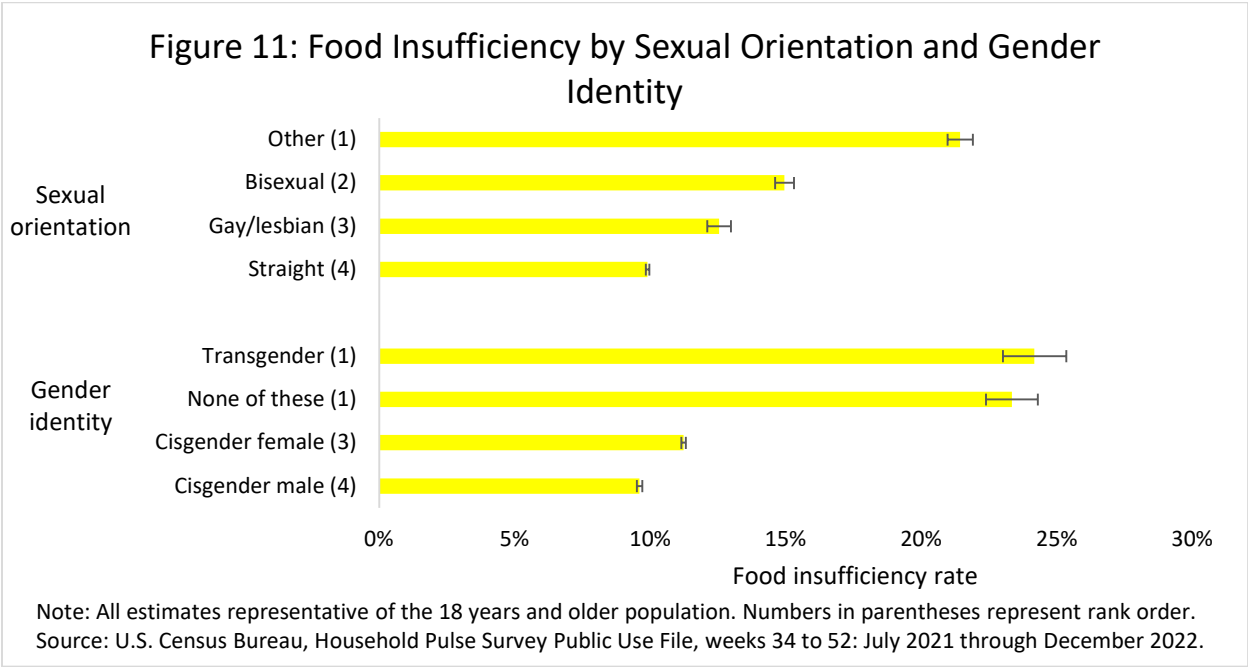
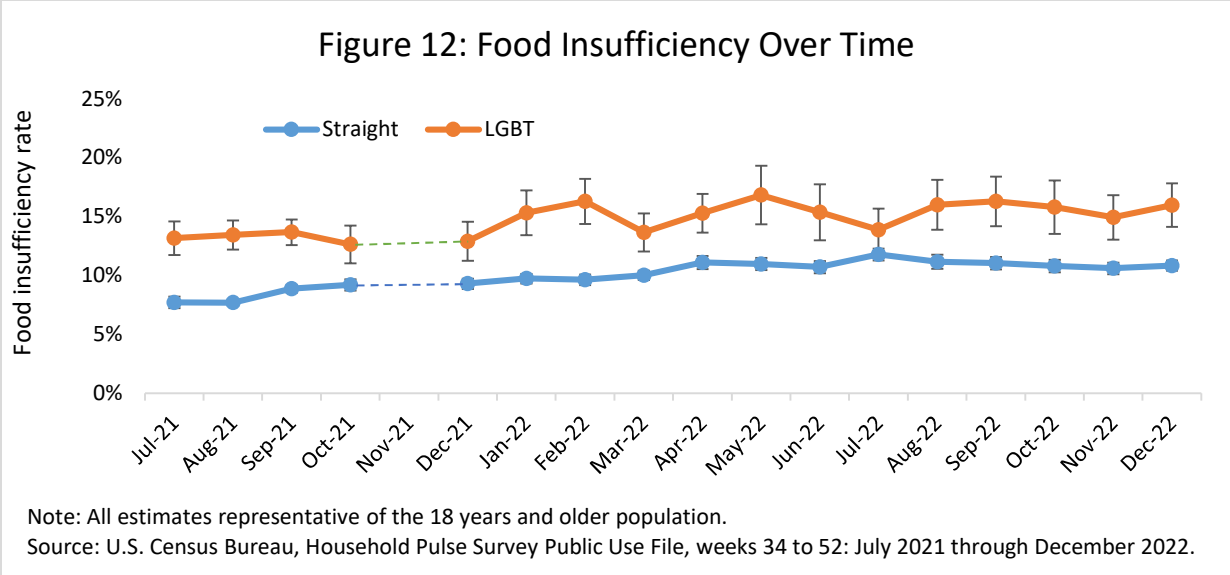


Figure 12 shows food insufficiency rates over time for straight and LGBT respondents. LGBT respondents had a higher food insufficiency rate than straight respondents for all months. The food insufficiency rate increased between July 2021 and December 2022 by 3.1 percentage points for straight respondents and 2.8 percentage points for LGBT respondents. The difference in food insufficiency rates for the two groups did not change significantly at the end of the period compared to the beginning of the period.





**D. Regression**

The previous section discussed the financial insecurity and hardship variables by sexual orientation and gender identity. This section estimates a regression model to provide results for each sexual orientation and gender identity category while holding all other demographic characteristics constant.

$$Y_{it} = \beta_0 + \beta_1 Orientation_{it} + \beta_2 Gender\_ident_{it} + \beta_3 Demo_{it} + \beta_4 State_{it} + \beta_5 Month_{it} + \epsilon_{it} \quad (1)$$

Equation (1) is a linear probability model in which the dependent variable (Y) represents financial insecurity, MHI, or one of the four individual dimensions. In equation (1), the suffix *i* denotes individuals and *t* denotes the survey month. The demographic characteristics include age, age squared, race and ethnicity, marital status, the presence of children and the number of people in the household, and educational attainment. State and month fixed effects are also included in the estimation model. The estimates can be interpreted as the probability of being affected by each hardship measure in relation to the reference group.

The results in Table 4 serve to emphasize what the previous figures showed. For sexual orientation, not only are demographic differences and geographic and over time differences considered, but the gender identity of respondents is included as well. The most obvious result is that sexual minorities, or respondents answering other than straight to the sexual orientation question, were more likely than straight respondents to face each type of hardship.<sup>11</sup>

Respondents classified as “other” for the sexual orientation question were most likely to face financial insecurity and multiple hardships. Bisexuals were most likely to face mental health hardship, respondents classified as “other” were most likely to face food insufficiency, and bisexuals and

<sup>11</sup> Financial insecurity rates, mental health hardship rates, and job insecurity rates were not significantly different for straight respondents and for respondents who did not answer the sexual orientation questions.

respondents classified as “other” were most likely to face housing insecurity.<sup>12</sup> Interestingly, there were no significant differences in the probabilities of facing job insecurity among the different sexual minority groups.

For the gender identity results, demographic differences, geographic and time differences, and sexual orientation were held constant. Other than for housing insecurity, cisgender males faced the lowest probability of hardship in all the well-being areas. For housing insecurity, those identifying as cisgender male or as transgender faced the lowest probability of being in hardship.<sup>13</sup>

Respondents identifying as transgender or “none of these” had the highest probabilities of facing financial insecurity and multidimensional hardship. For the individual hardships, transgender respondents were the most likely to face mental health hardship, while respondents identifying as transgender or “none of these” were most likely to face food insufficiency.

	<b>Financial insecurity</b>	<b>MHI</b>	<b>Mental health</b>	<b>Food insufficiency</b>	<b>Job insecurity</b>	<b>Housing insecurity</b>
<b>Sexual orientation</b>						
Straight	Reference group					
Gay/lesbian	*1.25 (0.48)	*2.76 (0.48)	*6.65 (0.55)	*1.42 (0.46)	*1.05 (0.41)	*1.39 (0.34)
Bisexual	*2.36 (0.41)	*4.93 (0.42)	*12.97 (0.45)	*2.38 (0.33)	*1.65 (0.40)	*2.30 (0.35)
Other	*5.87 (0.63)	*6.38 (0.67)	*9.27 (0.77)	*5.92 (0.62)	*1.81 (0.52)	*3.07 (0.49)
<b>Gender identity</b>						
Cisgender male	Reference group					
Cisgender female	*2.06 (0.15)	*2.49 (0.14)	*2.31 (0.17)	*1.11 (0.13)	*4.48 (0.12)	*1.20 (0.12)
Transgender	*9.19 (1.21)	*8.36 (1.06)	*17.16 (1.25)	*7.71 (1.09)	*4.65 (0.99)	0.28 (0.85)
None	*9.36 (0.86)	*7.79 (0.88)	*10.62 (0.88)	*7.54 (0.94)	*3.90 (0.68)	*1.08 (0.63)
*denotes estimate is different from zero at the 90 percent confidence level.						
Note: Other variables included in regression but not shown: age, age squared, race, educational attainment, marital status, presence of children and number of people in the household. Respondents not answering the sexual orientation question were included in the regression, but results are not shown. Includes month and state fixed effects. Replicate weight standard errors are in parentheses.						
Source: U.S. Census Bureau, Household Pulse Survey Public Use File, weeks 34 through 52: July 2021 through December 2022.						

#### **IV. Conclusion**

Two measures developed in previous research, financial insecurity and the multidimensional hardship index, were used in this paper to explore the well-being of the adult population by sexual

<sup>12</sup> Housing insecurity rates for bisexual respondents and for respondents classified as “other” were not significantly different.

<sup>13</sup> The housing insecurity rate for transgender respondents was not significantly different from the rates for female respondents or for respondents selecting “none of these” as their gender identity.

orientation and gender identity. For both measures, respondents classified as “other” sexual orientation were the most likely to be financially insecure and face multiple hardships. Furthermore, straight respondents were the least likely to be financially insecure or face multiple hardships. When exploring these hardships while holding other factors that may affect these hardships constant, the results held.

The results for the two measures only differed slightly when examining gender identity. Transgender respondents were most likely to face multiple hardships, while respondents identifying as transgender or “none of these” were most likely to face financial insecurity. In both cases, cisgender males were least likely to face hardship. When exploring these hardships while holding other factors that may affect these hardships constant, the result held for financial insecurity, but respondents identifying as transgender or “none of these” were most likely to face multiple hardships.

This paper also examined the monthly change in financial insecurity and multidimensional hardships for straight and LGBT respondents. In both cases, the rates for LGBT respondents were higher than the rates for straight respondents for nearly all months covered, and the results for straight and LGBT respondents moved closer together over time. For financial insecurity, rates increased for both groups between July 2021 and December 2022, but the rate for straight respondents increased more than for LGBT respondents.

The individual hardships that make up the MHI can be explored as well. When not holding other factors constant, the results for job and housing insecurity were consistent. In both cases, respondents classified as “other” for their sexual orientation were most likely to face hardship, while straight respondents were among the least likely. Furthermore, in both cases, respondents selecting transgender or “none of these” were the most likely to face hardship, and cisgender males were the least likely.

These results differed when holding demographics and other factors constant. For housing insecurity, there was no significant difference in likelihood of hardship between respondents classified as “other” for their sexual orientation and bisexual respondents and between transgender and cisgender male respondents.<sup>14</sup> For job insecurity, there were no longer any significant differences in the probabilities of facing job insecurity among the different sexual minority groups, and cisgender women joined the other two gender identity groups in being most likely to face hardship.

Bisexual respondents were most likely to face mental health hardship, while respondents classified as “other” for their sexual orientation were most likely to face food insufficiency. As with the other hardships, in both these cases transgender respondents were among the most likely to face hardships. In these cases, the results for mental health and food insufficiency held when holding demographics and other factors constant.

Finally, the difference in the individual hardships was shown over time for straight and LGBT respondents. The hardship rates for job insecurity and housing insecurity were closer together for straight and LGBT respondents in December 2022 compared to July 2021. However, there were differences in how these two groups’ rates changed over this period. There was a decrease in job insecurity and no significant change in housing insecurity for straight respondents, while both job and housing insecurity decreased for LGBT respondents from July 2021 to December 2022. While the

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<sup>14</sup> Housing insecurity rates were not significantly different for transgender respondents and for cisgender female respondents and respondents selecting “none of these”.

difference in rates for LGBT and straight respondents for food insufficiency and mental health hardship did not increase over time, food insufficiency rates increased for both groups and mental health hardship increased for straight respondents and did not change significantly for LGBT respondents between July 2021 to December 2022.

To sum up, sexual minorities and non-cisgender respondents had lower levels of well-being as measured by each of the hardships in this paper. However, these differences were attenuated for both groups for job insecurity and for non-cisgender respondents for housing insecurity when demographic and state factors were taken into account. Furthermore, when comparing straight and LGBT respondents, the hardship rates moved closer together between July 2021 and December 2022 for each rate except for food insufficiency and mental health hardship.

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## Appendix

<b>Table A-1: Demographics of Responses to Sexual Orientation Question for Respondents Ages 18 and Older (Standard Errors)</b>							
	Overall	Straight	Gay/lesbian	Bisexual	Something else	Unsure	Did not answer
Percentage of population		0.07	0.04	0.04	0.03	0.03	0.03
Average age	0.01	0.02	0.17	0.12	0.29	0.35	0.26
Kids in household	0.11	0.12	0.56	0.55	0.77	0.75	0.66
Average number of people in household	0.02	0.01	0.03	0.03	0.06	0.06	0.04
Race							
White, NH	0.02	0.05	0.58	0.49	0.77	0.62	0.67
Black, NH	0.02	0.03	0.36	0.24	0.38	0.47	0.43
Asian, NH	0.03	0.03	0.21	0.17	0.26	0.48	0.32
Other race, NH	0.03	0.03	0.19	0.17	0.40	0.42	0.18
Hispanic	0.02	0.04	0.60	0.43	0.83	0.81	0.78
Marital status							
Married	0.09	0.09	0.45	0.33	0.64	0.73	0.90
Widowed	0.04	0.03	0.15	0.07	0.30	0.31	0.46
Divorced	0.06	0.06	0.26	0.18	0.43	0.43	0.46
Separated	0.03	0.03	0.12	0.16	0.30	0.29	0.27
Never married	0.06	0.07	0.57	0.40	0.61	0.71	0.61
Gender identity							
Male	0.03	0.04	0.45	0.45	0.77	0.78	0.76
Female	0.02	0.04	0.41	0.43	0.66	0.74	0.76
Transgender	S	0.01	0.28	0.18	0.50	0.38	0.01
None	0.03	0.02	0.22	0.14	0.57	0.67	0.22
Education							
No high school	0.05	0.06	0.46	0.29	0.62	0.89	0.83
High school degree	0.05	0.06	0.46	0.55	0.76	0.67	0.68
Some college	Z	0.04	0.47	0.47	0.58	0.57	0.55
College degree	Z	0.03	0.44	0.32	0.59	0.50	0.39
Note: Z represents or rounds to zero. All estimates representative of the 18 years and older population. S represents data suppression due to sample size. Source: U.S. Census Bureau, Household Pulse Survey Public Use File, weeks 34 to 52: July 2021 through December 2022.							

**Table A-2: Demographics of Responses to Gender Identity Question for Respondents Age 18 and Older (Standard Errors)**

	Overall	Male	Female	Transgender	None
Percentage of population		0.03	0.02	0.02	0.03
Age	0.01	0.02	0.01	0.59	0.32
Kids in household	0.11	0.18	0.11	1.37	0.78
Number of people in household	0.02	0.02	0.01	0.11	0.07
Race					
White, NH	0.02	0.04	0.03	1.14	0.84
Black, NH	0.02	0.04	0.02	0.56	0.58
Asian, NH	0.03	0.04	0.04	0.33	0.41
Other race, NH	0.03	0.04	0.04	0.71	0.53
Hispanic	0.02	0.05	0.03	1.02	0.86
Marital status					
Married	0.09	0.12	0.11	0.89	0.84
Widowed	0.04	0.04	0.05	0.66	0.38
Divorced	0.06	0.08	0.07	0.56	0.43
Separated	0.03	0.05	0.04	0.61	0.32
Never married	0.06	0.12	0.07	1.18	0.67
Sexual orientation					
Did not answer	0.03	0.05	0.04	S	0.28
Gay/lesbian	0.04	0.06	0.03	1.03	0.45
Straight	0.07	0.10	0.06	0.73	0.85
Bisexual	0.04	0.05	0.05	1.02	0.39
Something else	0.03	0.04	0.03	1.11	0.64
Unsure	0.03	0.05	0.03	0.93	0.79
Education					
No high school	0.05	0.08	0.05	1.24	0.94
High school degree	0.05	0.08	0.05	0.94	0.81
Some college	Z	0.02	0.02	0.92	0.67
College degree	Z	0.02	0.02	0.81	0.62

Note: All estimates representative of the 18 years and older population.

S represents data suppression due to sample size.

Source: U.S. Census Bureau, Household Pulse Survey Public Use File, weeks 34 to 52: July 2021 through December 2022.