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Race, Disability, Gender, Age, and Income Among Participants of United Way King County's Door Dash Program as Compared to King County Residents Living Below the Federal Poverty Level

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Introduction

Rates of food insecurity in the United States steadily declined until the onset of the Coronavirus Pandemic in 2020, which resulted in a sharp increase in food insecurity.[1] Feeding America projected that Washington state's overall food insecurity rate will be 11.4% during 2021, with a projected rate of 16% for children.[2] In response to the Coronavirus public health and subsequent food insecurity crises, United Way King County partnered with King County food banks and DoorDash to deliver food bank items to King County households through the UWKC DoorDash program, which will be referred to as "the DoorDash program" for the remainder of this report. The purpose of this analysis is to describe demographics of people living below the Federal Poverty Level in King County, and compare these demographic characteristics to those of the DoorDash program participants using client survey data. By comparing these populations, this analysis aims to answer the following research questions: How is the DoorDash program population similar or different from the King County population in regard to Race, Disability, Gender, Age, and Income? Is the DoorDash program missing or not reaching certain populations?

Methods

Data on King County residents living below the Federal Poverty Level were obtained from the American Community Survey using the U.S. Census Bureau's website. Table S1701, titled "Poverty Status in the Past 12 Months," provided data for the Race, Disability, Gender, and Age analyses.[3] Table S1901, titled "Income in the Past 12 Months (in 2019 Inflation-Adjusted Dollars)," provided data for the Income analysis.[4] When extracting data from both tables, the author selected the 2019 American Community Survey 5-Year estimates in the "product" field of the search. The data were reported as totals instead of as proportions, so the author calculated the population proportions from the population totals using Microsoft Excel. Data on the DoorDash program participants were obtained from the program's client survey for the analyses on Race, Disability, Age, and Income. Data on DoorDash program participants' gender identity among household members was obtained from program intake data. Data proportions were calculated using Microsoft Excel. All charts were made using Microsoft Excel.

Specific methods for the Race, Gender, Age, and Income analyses are listed in separate sections below.

Race Analysis Methods

The American Community Survey and the DoorDash program survey structured questions about race and ethnicity differently. Although the DoorDash client survey allowed participants to select multiple racial categories on the demographics portion of the survey, the American Community Survey data only reports racial categories as one race alone (such as "Asian alone") and groups multiracial respondents into a category called "Two or more races." Furthermore, the American Community Survey does not include Hispanic and/or Latinx identity as a race category and includes a separate question about Hispanic and/or Latinx ethnicity in addition to allowing respondents to choose a category for race. However, the DoorDash program survey included Hispanic/Latinx identity in the list of racial categories, in which respondents could check any and all categories which applied. The DoorDash program also included racial categories, such as African and Middle Eastern/North African, which do not appear on the American Community Survey. To perform the Race analysis, the author structured the DoorDash data and American Community Survey data following ways:

- The DoorDash client survey included both a "Black or African-American" and "African" category, while the American Community Survey data only reports data for the category titled "Black or African-American alone." For this analysis, DoorDash survey respondents who selected only "African" or "Black or African-American" were grouped together and compared to the to the American Community Survey category of "Black or African-American alone." The American Community Survey's "Black or African-American alone" category includes participants both with and without Hispanic and/or Latinx ethnicity.
- The DoorDash client survey included both a "South Asian" and "Asian" category, while the American Community Survey data only reports data for the category titled "Asian alone." For this analysis, respondents who selected "Asian" and "South Asian" alone were grouped together and compared to the American Community Survey category of

"Asian alone." The American Community Survey's "Asian alone" category includes participants both with and without Hispanic and/or Latinx ethnicity.

- The DoorDash client survey included a category titled "Middle Eastern and/or North-African," but this category was not reported or included in the American Community Survey data. For this analysis, respondents who selected "Middle Eastern and/or North African" were grouped with respondents who selected "Other Race," and compared to the American Community Survey category of "Some other race alone." The American Community Survey's "Some other race alone" category includes participants both with and without Hispanic and/or Latinx ethnicity.

- DoorDash survey clients who selected multiple racial categories were grouped and compared to the American Community Survey category of "Two or more races." The American Community Survey's "Two or more races" category includes participants both with and without Hispanic and/or Latinx ethnicity.

- DoorDash survey clients who selected only "American Indian or Alaska Native" or "Native Hawaiian or Pacific Islander" were compared to the respective American Community Survey categories of "American Indian or Alaska Native alone" and "Native Hawaiian and Other Pacific Islander alone." Each of these categories from the American Community Survey include participants both with and without Hispanic and/or Latinx ethnicity.

- The American Community Survey reports results for "White alone" and "White alone, not Hispanic or Latino" categories. The American Community Survey data for the "White alone, not Hispanic or Latino" category was extracted and compared to DoorDash clients only checked the only the "White" category on the survey. The American Community Survey's "White alone, not Hispanic or Latino" category only includes participants without Hispanic and/or Latinx ethnicity.

- The American Community Survey category "Hispanic or Latino of any race" was compared to DoorDash survey respondents who checked the "Hispanic and/or Latinx" regardless of any other racial categories selected.

Gender Analysis Methods

The DoorDash program collected information on gender identity in each participating household through the intake form, which provided the data for the gender analysis. The dataset provided the number of members in the household identifying as female, male, and non-binary, along with additional options to provide the number of household members choosing to self-identify their gender or preferring not to disclose their gender. To determine the proportion of each gender identify served by the DoorDash program, the number of household members for gender category was totaled, and then the total for each category was summed to create the total number of household members with provided gender information served by the DoorDash program. However, the American Community Survey only provides "male" and "female" gender categories. Thus, to directly compare the DoorDash population to King County residents living below the Federal Poverty Level, a Male-Female analysis was performed using only the total sum of DoorDash program household members identifying as male or female.

Age Analysis Methods

Unfortunately, the age categories provided to respondents of the DoorDash program client survey did not perfectly match the age categories used in the American Community Survey. Therefore, a full analysis of ages represented among survey respondents compared to ages of King County residents living below Federal Poverty Level cannot be performed. However, both datasets provide a result for respondents over age 65. The Age analysis was performed for DoorDash program survey respondents over age 65, and the results were compared to data for King County residents over age 65 living below the Federal Poverty Level.

Income Analysis Methods

The American Community Survey and the DoorDash program survey reported income using identical income categories. However, neither survey reports income with such precision so that one could compare the income between King County residents living below Federal Poverty Level to DoorDash program survey respondents, as this project has done for other

factors such as age and disability. Nevertheless, comparing King County household income to DoorDash client survey respondents' income may provide valuable information, which will be presented in the results section below.

Results

This section will first present an executive summary of results in bullet-point format, and then will present the detailed findings for Race, Disability, Gender, Age, and Income in labeled sections.

Summary

- Based on client survey data, the DoorDash program serves a lower proportion of Black or African American participants and a much lower proportion of White participants as compared to King County residents living below the Federal Poverty Level. The DoorDash program serves a higher proportion of multiracial participants and a much higher proportion of Hispanic and/or Latinx participants as compared to King County residents living below the Federal Poverty Level.

- Based on client survey data, the DoorDash program serves a much higher proportion of participants with a disability or disabled participants as compared to King County residents living below the Federal Poverty Level.

- Based on client intake data, the DoorDash program serves a similar proportion of females and males as compared to King County residents living below the Federal Poverty Level. Almost 6% of household members served by the DoorDash program identify as non-binary or prefer to self-identify their gender.

- Based on client survey data, the DoorDash program serves a similar proportion of participants over age 65 as compared to King County residents living below the Federal Poverty Level.

Race

The results of comparing the racial makeup of King County residents living below the Federal Poverty Level and the racial makeup of DoorDash program clients surveyed are displayed in Table 1 below. Although Black or African Americans make up over 16% of King County residents living below the Federal Poverty Level, the DoorDash program's survey population is only 11.56% Black or African-American. Similarly, the DoorDash program's survey population contained a slightly smaller proportion of respondent selecting the "Asian" or "Some other race" categories as compared to the proportion of King County residents living below the Federal Poverty Level for these same categories. Additionally, over 43% of King County's residents living below the Federal Poverty Level are White, but less than one quarter of the DoorDash program's survey population identified as White.

The DoorDash program's survey population represented a similar proportion of American Indian and Alaska Native, Native Hawaiian and other Pacific Islander populations as compared to King County. The DoorDash clients surveyed represented a higher proportion of respondents identifying as two or more races than King County residents living below the Federal Poverty Level. Finally, the DoorDash program serves a much greater proportion of clients identifying as Hispanic and/or Latinx as compared to King County residents living below the Federal Poverty Level. Almost 13% of King County residents living below the Federal Poverty Level identify as Hispanic and/or Latinx of any race, whereas almost 24% of the DoorDash clients surveyed identified as Hispanic and/or Latinx.

Table 1: Racial Makeup of King County Residents Living Below Federal Poverty Level (FPL) as Compared to Racial Makeup of DoorDash Program Clients Surveyed

Race / Race Category	% of King County <FPL Residents by Race	% of DoorDash Clients Surveyed by Race	Difference
Black or African American alone[*]	16.69%	11.56%[*]	-5.12%
American Indian and Alaska Native alone	1.65%	3.21%	1.56%
Asian alone	19.77%	18.42%[**]	-1.35%
Native Hawaiian and Other Pacific Islander alone	1.36%	1.71%	0.35%
Some other race alone[***]	5.98%	3.21%	-2.77%

Two or more races	7.56%	12.63%	5.07%
Hispanic or Latinx origin (of any race)	12.69%	23.55%	10.86%
White alone, not Hispanic or Latinx	43.29%	23.34%	-19.95%
Didn't answer	N/A	3.21%	N/A
Prefer not to answer	N/A	4.07%	N/A

*Includes respondents selecting "Black or African-American" or "African" categories
**Includes respondents selecting "Asian" or "South Asian" categories.
***Includes respondents selecting the "Middle Eastern/North African" category.

Disability

The results of comparing disability status among King County residents living below the Federal Poverty Level to the DoorDash program client survey respondents are listed in Table 2 and visualized in Chart 1. While almost 23% of King County residents living below the Federal Poverty Level identify as disabled, over 40% of DoorDash clients surveyed identified as disabled, which represents a percentage-point difference of almost 18%. In other words, the DoorDash program serves a much higher proportion disabled people or people with a disability than the proportion of disabled King County residents living below the Federal Poverty Level. Given the convenience and ease of delivery, it is unsurprising that this program reaches a higher proportion of clients reporting a disability.

Table 2: Disability Among King County Residents Living Below Federal Poverty Level (FPL) as Compared to DoorDash Program Clients Surveyed

Disability Status/Identification	% of King County <FPL Residents by Disability Status	% of DoorDash Clients Surveyed by Disability Status	Difference
Has a disability or Disabled	22.59%	40.51%	17.91%
Doesn't have a disability or Able-bodied	77.41%	48.52%	-28.88%
Prefer not to answer/didn't answer	N/A	6.75%	N/A

Chart 1: Disability Among King County Residents Living Below Federal Poverty Level as Compared to DoorDash Clients Surveyed
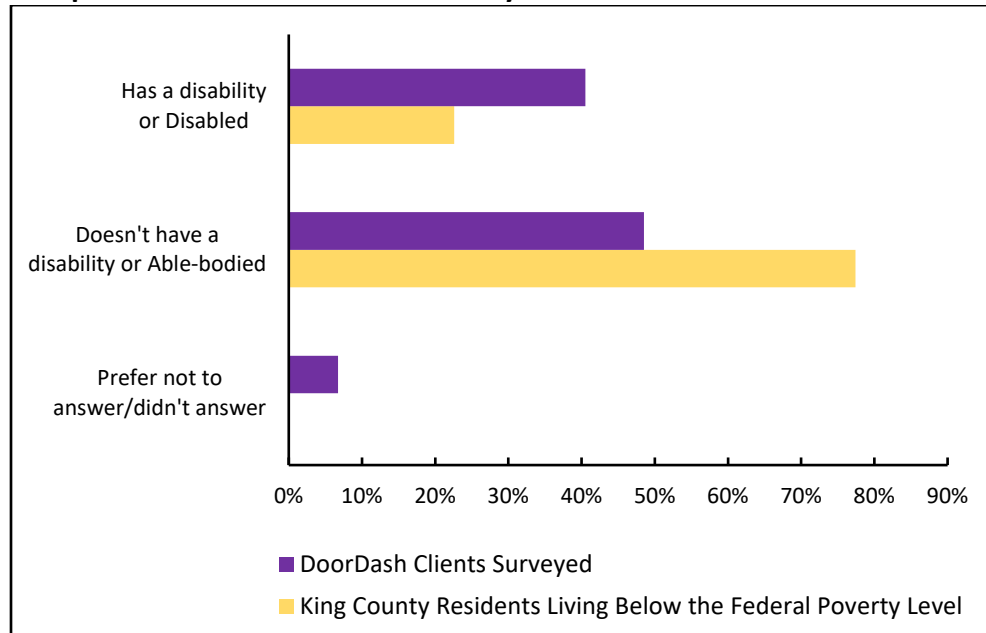
Gender

The results of this analysis are presented in Table 3 below. Women or female-identified persons represent a higher proportion of King County residents living below the Federal Poverty Level as compared to men or male-identified persons. The Male-Female analysis found that the proportion of females and males among household members participating in the DoorDash program is similar to King County residents living below the Federal Poverty Level. There is no data available describing the proportion of King County residents living below the Federal Poverty Level who identify as non-binary or self-identifying their gender. Based on the provided information, almost 6% of households members served by the DoorDash program identify as non-binary or prefer to self-identify their gender, but there is no available King County data to compare with this result.

Table 3: Gender Identity Among King County Residents Living Below Federal Poverty Level (FPL) as Compared to Household Members from DoorDash Program Intake Data

Gender	% of Household Members Served by	% of Household Members Served by the DoorDash	% of King County <FPL Residents by Gender

	the DoorDash Program, by Gender	program, by Gender – Male-Female analysis	
Female	47.91%	53.28%	54.64%
Male	42.01%	46.72%	45.36%
Non-Binary	1.15%	N/A	N/A
Prefer to Self-Identify	4.74%	N/A	N/A
Prefer not to disclose	4.19%	N/A	N/A

Age

Based on American Community Survey data, 12% of King County residents living below the Federal Poverty Level are over age 65. Similarly, 12.8% of DoorDash program clients surveyed are over age 65.

Income

The results of this analysis are presented in Table 4 below. This analysis revealed, unsurprisingly, an inverse relationship between proportion of King County households at each income level and proportion of DoorDash clients surveyed at each income level. DoorDash clients surveyed are overrepresented in the lower income categories and under-represented or not represented in higher income categories. The greatest differences were seen at the <$10,000 and $15,000 - $24,999 level, in which DoorDash clients surveyed represented a respective 25% and 12% point difference as compared to King County as a whole.

Table 4: Yearly Household Income Among All King County Residents as Compared to DoorDash Program Clients Surveyed

Yearly Household Income in $	% of King County Residents by Household Income	% of DoorDash Clients Surveyed by Household Income	Difference
<10,000	4.10%	28.69%	24.59%
10,000 - 14,999	2.30%	11.18%	8.88%
15,000 - 24,999	4.60%	16.88%	12.28%
25,000 - 34,999	4.90%	12.45%	7.55%
35,000 - 49,999	7.90%	10.97%	3.07%
50,000 - 74,999	13.40%	5.06%	-8.34%
75,000 - 99,999	11.00%	0.84%	-10.16%

>10,0000	51.90%	0.00%	-51.90%
Don't know	N/A	4.43%	N/A
Prefer not to answer or didn't answer	N/A	10.13%	N/A

Discussion and Conclusion

The DoorDash program reaches a somewhat similar to population to King County's residents living below Federal Poverty Level based on available data. The Age and Gender analyses showed that the DoorDash program reaches a similar proportion of participants when compared to King County data for residents living below the Federal Poverty Level. The Disability analysis showed that participants with disabilities represent a much higher proportion of the DoorDash program as compared to all King County residents living below Federal Poverty Level. The Race analysis showed the DoorDash program may reach a smaller proportion of Black or African American participants when compared to King County data for residents living below the Federal Poverty Level. However, the American Community Survey's county-level data for the Black or African American people living below the Federal Poverty Level includes people both with and without Hispanic and/or Latinx ethnicity, but this analysis directly compared this population to Black, African American, and African DoorDash clients not identifying as Hispanic and/or Latinx. This analysis also found that the DoorDash program serves a higher proportion of multiracial and Hispanic/Latinx participants as compared to King County residents living below the Federal Poverty Level. Thus, some Hispanic/Latinx and Black or African American DoorDash clients may have been counted as multiracial clients.

References

1. *The Impact of the Coronavirus on Food Insecurity in 2020 & 2021*. Feeding America; 2021. Accessed November 18, 2021. https://www.feedingamerica.org/sites/default/files/2021-03/National%20Projections%20Brief_3.9.2021_0.pdf

2. *The Impact of the Coronavirus on Local Food Insecurity in 2020 and 2021*. Feeding America; 2021. https://www.feedingamerica.org/sites/default/files/2021-03/Local%20Projections%20Brief_3.31.2021.pdf

3. Census - Table Results. Accessed November 21, 2021. https://data.census.gov/cedsci/table?t=Poverty&g=0500000US53033&tid=ACSST5Y2019.S1701&hidePreview=true

4. Census - Table Results. Accessed November 21, 2021.
   https://data.census.gov/cedsci/table?q=income&t=Poverty&g=0500000US53033&tid=ACSS
   T5Y2019.S1901&hidePreview=true