



Oregon State
University

Oregon Policy Analysis Lab (OPAL)
School of Public Policy

Oregon State University
Bexell Hall, Suite 300
Corvallis, Oregon 97331

P 541-737-2811/**F** 541-737-2289
liberalarts.oregonstate.edu/spp

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Estimating the Number of Food Insecure Oregonians
Prof. Mark Edwards, Director, Oregon Policy Analysis Lab

Taking into account the 2019 USDA food security survey and the newest unemployment numbers available in May 2020, **we estimate that the total number of Oregonians experiencing or likely to soon experience food insecurity has doubled to at least 900,000, more than one in five residents.** We describe here the logic for this estimate and show how the number may vary depending on some assumptions we make. The benefit of providing the details of the computation is that others who wish to question these assumptions or who have new data may offer adjusted estimates.

In September of 2019, we at OSU estimated that approximately 438,000 Oregon adults and children had experienced food insecurity^a at some point in the previous year. This number represented a household food insecurity rate of 11.1%. With a total population of 4.2 million, and an average of 2.5 persons per household, this meant that about 1 in 10 Oregonians was food insecure. During that period, the food insecurity rate for households with no unemployed adults was 10.2% and was 22.4% for those with at least one unemployed adult.

Our 2019 estimate came during a time of historically low unemployment, with an average of only 4,000 new unemployment claims per week through 2019. But in Spring of 2020, with the massive lockdown due to the coronavirus pandemic, the number of unemployment claims skyrocketed. From March 15, 2020 to May 2, 2020, total claims increased by over 1,000%, with 329,550 initial claims in a 7 week period that previously would have had 28,000 initial claims (4,000/wk x 7 weeks). The available data take us through May 2, 2020. If the growth of unemployment has continued apace in the past two weeks, with around (modestly) 30,000 new claims per week, that is an additional 60,000 households with at least one unemployed individual. Adding these to the 329,550 sums to 389,550 households that have a food insecurity rate no less than 22%. Of course many who are unemployed have not yet applied and not all who will apply will be granted unemployment benefits. So the 389,550 is probably an underestimate of employees who are out of work, whether or not they are approved to receive benefits.

Normally we would not rely on new unemployment claims to try to estimate food insecurity because typically people have very short unemployment spells, finding work again fairly soon

after losing a job. But under current conditions, it seems unlikely that many will soon be back to work or at least to full-time work. Meanwhile, the food insecurity rate among families with unemployment is likely to be significantly higher now than the 22% found in 2019, given that not only have families lost jobs, but prospects of finding new jobs are bleak. Many had been relying on reduced-price school meals for their children, but school districts are struggling to make these available. We can conservatively assume that the food insecurity rate for unemployed families is now greater than 22%. OSU's repeated annual studies of Oregon food insecurity have shown that the food insecurity rate among households with annual incomes up to 185% of the poverty line has been around 30%, so considering a rate of 30% or 40% among households experiencing unemployment under current conditions is not unreasonable.^b

Of the 389,550 additional unemployment claimants, let us assume that each case represents a household. A household may be a person living alone, a childless couple, a family with children, etc. It is true that some households that experience unemployment may not be immediately pushed into food insecurity, but this issue is already addressed by the observation that there has never been a one-to-one relationship of unemployment and food insecurity, hence we will use percentages for unemployed households informed by earlier studies, in this case no less than 22%.

So far we have only considered the unemployed, but have not attended to the food insecurity status of the many households that do not show unemployment. Out of Oregon's 1.64 million households, those not experiencing unemployment represent the vast majority (1.25 million), computed by subtracting the 389,550 unemployed households discussed above from the total. In any given year, a little more than 60% of all households have an adult in the workforce.^c Another third are not in the labor force perhaps because of retirement or disability. But many of these households, some with earnings through jobs and others with fixed incomes in retirement, are also impacted by current economic hardship. This group often has food insecurity rates of around 10%. However during this period, many of those employed persons who avoided food insecurity before are now working reduced hours, thus with incomes that also are falling toward the poverty line. They too, like those discussed above, have lost some supports such as ready access to school meals for their children. It would not be unreasonable to imagine this group's food insecurity rate rising during this period to at least 16% (the food insecurity rate in all of Oregon in 2010-2012). Below we examine what the implications are if this rate goes beyond 16%.

Table 1 indicates estimated numbers of food insecure Oregonians, taking into account some of these adjustments. The formula for each calculation appears in footnote "d". If the food insecurity rate for those families not experiencing unemployment were at 16% and the food insecurity rate were 40% for newly unemployed households (many of which were already low income households with occupations in the hard-hit hospitality and services industries), then the computed number of food insecure persons would be 889,550. If those households not dealing with newly lost jobs were experiencing greater economic stress, now at a food

Table 1 Population Estimates Under Different Assumptions about Food Insecurity Rates^d

If food insecurity rate for households not experiencing unemployment is ...	If food insecurity rate for unemployed is ...		
	20%	30%	40%
16%	694,775	792,163	889,550
18%	757,275	854,663	952,050
20%	819,775	917,163	1,014,550

insecurity rate of 18% or 20%, and conditions are as dire for newly unemployed households as we might reasonably imagine (40%), the estimate moves up to almost or just over 1 million.

Are these high numbers reasonable? By some accounts, they are low. The Oregon Food Bank (OFB) reports that in 2019 they served 860,000 different people. These are “unduplicated” numbers, meaning that these are not total visits nor total food boxes, but different persons. And now under current conditions, they report a spike of requests of 40%, pushing the number of people needing help to well above 1 million. There is little reason to believe that the OFB numbers are inflated, or if so, then not by very much given their strenuous efforts in recent years to calculate unduplicated counts. Recall too that in our estimates above we only counted the unemployed group as those who have applied for or received benefits, not including those out of work but who as yet have not applied for benefits. Moreover, our estimate is likely to undercount two groups that the OFB readily serves – non-citizens and homeless individuals. These groups are often not included in our surveys estimating food insecurity. Therefore, the percentages we have applied are likely too low, leading to an undercount. Using our methods, a cautious estimate is 900,000, a number of similar magnitude but not as high as the OFB unduplicated counts of people served.

Thus we conclude that ***there are at least 900,000 food insecure Oregonians as of May 20, 2020. This is more than 1 in 5 Oregonians food insecure.***

Contact information:

Mark Edwards
 Professor of Sociology, Oregon State University
 Oregon Policy Analysis Laboratory
 541-737-5379
 medwards@oregonstate.edu

Footnotes:

a) Food insecurity means that a household was, at times, “unable to acquire adequate food for one or more household members because they had insufficient money and other resources for food” (USDA 2019). This does not necessarily mean that the household experienced hunger (officially labeled “very low food insecurity”.) Only around a third to a half of these households experienced very low food security where the “eating patterns of one or more household members were disrupted and their food intake reduced, at least some time during the year, because they could not afford enough food.” Note that some the households identified as food insecure in December (when data are collected) may have been adequately fed in that month, but had experienced the problem during the previous year. On average, those who are food insecure at one point in the year are food insecure for 7 months of the year.

b) Workers who lose jobs may have two other sources of support that may prevent their fall into food insecurity. The first possibility is that they have savings. However, data from the Pew Research Center last month suggest that about half of households (and three-quarters of low-income households) do not have emergency funds that would last them three months, so extended job loss would certainly bring on food insecurity. Thus it is unlikely that savings are helping many of the recently unemployed to avoid food insecurity. Second, government transfers such as cash assistance and food stamps (SNAP) may help some families avoid very low food security (hunger). Recent legislation that granted stimulus money and more generous SNAP eligibility rules and benefits undoubtedly help these families. However, these are all one-time or temporary solutions to attaining food security for most families.

c) In recent weeks the Oregon Employment Department indicates that there was a surge from 75,000 to 155,000 workers with hours reduced by their employers.

d) To calculate the number of food insecure Oregonians, we use this formula:
[unemployed households x food-insecurity rate x 2.5 persons/household] +
[households without unemployment x food-insecurity rate x 2.5 persons/household]

References:

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