Following their initial infection, millions of Covid-19 patients go on to develop a range of debilitating symptoms\(^1\) that last for months or years. These patients are diagnosed with Post Acute Sequelae of Covid-19, or long Covid.\(^2\) Despite being two and a half years into the pandemic, we still know far too little about these "long haulers" — why they stay sick, how long they stay sick, or what the impact of long Covid is on their lives.

Today, I will discuss an equally critical, though often-overlooked, issue: what is the impact of long Covid on the US labor market? Specifically, I will focus on four questions:

1. How many people have long Covid today?
2. How many of those are out of work or working reduced hours due to long Covid?
3. Is this situation likely to get better or worse over time, absent policy intervention?
4. What can policymakers and employers do to mitigate this impact?

1. Around 16 million working-age Americans likely have long Covid today

In January of this year, I wrote a report\(^3\) for the Brookings Institution in which I assessed the role of Long Covid in the labor market shortage. Because we had so little data then about long Covid prevalence, I had to make a series of assumptions, using various studies. I arrived at what I believed to be a conservative estimate of the number of people who, at the time, had long Covid: 4.5 million.

It turns out I was more conservative than I realized. Last month, the Census Bureau’s Household Pulse Survey (HPS) added four questions\(^4\) pertaining to Long Covid. The most recent survey wave found that around 8.1 percent of working age Americans currently have long Covid — about 16.4 million people.

A recent Federal Reserve Bank of Minneapolis study\(^5\) corroborates this figure. Using a longitudinal survey, the study found that 24.1 percent of people who’ve had Covid experienced symptoms for three months or more, which is how the study defined long Covid. (This is comparable to findings from earlier studies that I cited in my report, which suggested that between 27 and 33 percent\(^6\) of US Covid patients are still experiencing symptoms months after their infection.)

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\(^1\) https://www.frontiersin.org/articles/10.3389/fmicb.2021.698169/full
\(^2\) https://amp.theguardian.com/commentisfree/2021/dec/22/long-covid-pandemic-support-funding
\(^3\) https://www.brookings.edu/research/is-long-covid-worsening-the-labor-shortage/
\(^4\) https://www.cdc.gov/nchs/covid19/pulse/long-covid.htm
\(^5\) https://www.minneapolisfed.org/research/institute-working-papers/long-haulers-and-labor-market-outcomes
According to the CDC,\(^7\) as of this past winter, 57.7 percent of Americans had had Covid. (The number is certainly higher now.) Applying that 57.7 percent to the working-age population of the US gives us 28 million working-age Americans who have had, at some point, long Covid.

The author of the FED study found that 50 percent of respondents who experienced long Covid had recovered from it. If we exclude that 50 percent, we are left with around 14 million people who may currently have long Covid — very near the HPS estimate of 16 million. (Of course, the recovered long haulers should not be excluded entirely, but rather distributed across the relevant time period; 14 million is therefore a slight undercount. As such, for the remainder of this testimony, I will use the 16.4 million figure from the HPS.)

2. Of those, anywhere from 25 to 65 percent may have a reduced ability to work — around four million full-time equivalent workers, or 2.4 percent of the entire US employed population

Not everyone with long Covid will leave work or reduce their hours. In some cases, symptoms may be mild enough that they don’t interfere with work. In others, employer-provided accommodations may enable people to remain productive — a topic I will return to below. In yet others, people may be simply financially unable to stop working, and therefore continue to push through, despite being very ill. But long Covid is leading millions of Americans to reduce their work schedules or stop working.

Studies on the percentage of long haulers whose work hours are impacted vary substantially:
- At the high end of the range, a study published in The Lancet, co-authored by Hannah Davis, who is also testifying today, found that 22 percent of long haulers were unable to work due to ill health, and another 45 percent had had to reduce their hours worked.\(^8\)
- In the middle, a survey from the UK’s Trades Union Congress found that 20 percent of long haulers were not working, and an additional 16 percent were working reduced hours.\(^9\)
- At the low end, the Minneapolis Fed study cited above found that 25.9 percent of long haulers have their work “impacted” (meaning that they are either out of work or working reduced hours). The study found that, on average, long haulers were working 50 percent as many hours as healthy individuals.

Applying these percentages to the number of working age Americans suffering from long Covid today — 16.4 million — gives us somewhere between four and eleven million people whose work has been impacted.

I think it is helpful to translate that number into full-time equivalent workers out of work. Using the middle estimate — 20 percent out of work completely, 16 percent at reduced hours — and assuming that the hours reduction is about 25 percent (the

\(^7\) https://www.cdc.gov/mmwr/volumes/71/wr/mm7117e3.htm?s_cid=mm7117e3_w
\(^8\) https://www.thelancet.com/journals/clinm/article/PIIS2589-5370(21)00299-6/fulltext
above-cited Fed study found that the average hours reduction was around 10 hours per week), we get:

- 3.3 million people out of work; and
- 2.6 million people who have reduced hours by 25 percent — equivalent to 656,000 full-time workers.

In other words, a reasonable estimate is that nearly four million full-time equivalent workers are out of work due to long Covid. That is 2.4 percent of the entire US employed population.

This may sound unreasonably high. But it is not inconsistent with the experience of other, comparable economies. For example, in a recent speech, a Bank of England representative stated that labor force participation has dropped by around 1.3 percent of the entire 16-64 population (not just those who are working), and that the majority of that impact is from the rise in long-term sickness— which he associates with long Covid.\(^\text{10}\) Meanwhile, a quarter of UK companies cite long Covid as one of the main causes of long-term staff absence.\(^\text{11}\)

3. This number appears likely to increase as more people get (re)infected

As long as a significant number of people fail to recover from long Covid — which we know to be the case currently — the number of people not working due to long Covid will likely continue to grow as more people become infected with Covid-19.

The speed at which the number grows will depend on four factors:

1. The availability and accessibility of improved treatment options that increase the long Covid recovery rate, or move people from “severely ill” to “moderately” or “mildly” ill;
2. Policy interventions that reduce the workforce impact of long Covid (see below);
3. Whether vaccines reduce the odds of getting long Covid; and
4. Whether repeat infections carry additional long Covid risk (i.e., whether you can get long Covid after a second infection when you didn’t after a first).

The news on the first, third, and fourth factors isn’t good. While doctors and researchers learn more about the underlying causes of long Covid every day, there is no standardized, generally-accepted treatment for long Covid. The most compelling study I’ve seen on vaccines and long Covid suggests that vaccines reduce the risk of long Covid by only 15 percent.\(^\text{12}\) And while we don’t yet know definitively the long Covid risk of repeat infections\(^\text{13}\), a recent study\(^\text{14}\) found that every repeat infection increases the odds of long-term health consequences of Covid-19.

\(^{10}\) [https://www.bankofengland.co.uk/speech/2022/may/michael-saunders-speech-at-the-resolution-foundation-event](https://www.bankofengland.co.uk/speech/2022/may/michael-saunders-speech-at-the-resolution-foundation-event)

\(^{11}\) [https://www.ft.com/content/8b9166af-2e85-4429-ab1f-362c189e46f2](https://www.ft.com/content/8b9166af-2e85-4429-ab1f-362c189e46f2)


\(^{14}\) [https://www.researchsquare.com/article/rs-1749502/v1](https://www.researchsquare.com/article/rs-1749502/v1)
Together, then, these three factors suggest that absent intervention, the burden of long Covid on the economy will continue to rise.

To put this in perspective, consider the economic cost of just the lost earnings of long haulers — this doesn’t include the lower productivity of people working while ill, the significant healthcare costs incurred by patients, or the lost productivity of caretakers. Four million people out of work translates into $230 billion a year in lost earnings (with the average US wage of $1,106 per week)\. If the long Covid population increases just 10 percent each year, by 2030, that will be half a trillion dollars each year.

4. To mitigate the economic drag of long Covid, policymakers should support improved healthcare, sick leave, disability, and workplace accommodation access, as well as better data collection on long Covid’s economic effects

There are at least five critical interventions that the government can support to better understand and reduce the economic burden of long Covid.

First, better treatment. We need better research to inform better and more accessible treatment options. The more people that recover, or at least improve to the extent that they are able to work, the smaller the burden. I expect my fellow witnesses will speak to this need.

Second, improved sick leave. Currently, 27 percent of private-sector American workers — around 30 million people — lack access to any form of paid sick leave. The situation is worse for more vulnerable workers: among the bottom 25 percent of earners, only 52 percent have access to paid sick leave. When workers do not have access to paid sick leave, they are more likely to go to work sick. This likely increases the spread of Covid-19, which leads to more (re)infections, and, therefore, more long Covid. By requiring employers to give all workers access to paid sick leave, Congress could reduce the spread of Covid-19, improve families’ economic security, and, potentially, reduce the rate at which Covid-19 infections turn into long Covid.

Third, greater access to better-designed Social Security Disability Insurance benefits. Reports suggest that long Covid patients are struggling to secure approval for SSDI benefits. Without the safety net of SSDI and accompanying Medicare benefits, it may be even more difficult for workers to access appropriate medical care and return to productivity.

In terms of SSDI approval, there are two challenges:

- The need to show objective evidence of illness; and
- The requirement that the illness be expected to last at least 12 months.

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17 https://fred.stlouisfed.org/series/USPRIV
18 https://www.washingtonpost.com/business/2022/03/08/long-covid-disability-benefits/
With respect to long Covid, each of these can be challenging, if not outright impossible, given the current state of our understanding of the condition. And this of course assumes that people know that they are eligible to apply for SSDI when they have long Covid — or even that “long Covid” is what’s making them sick.

Congress could improve access to SSDI and related Medicare benefits for long Covid patients by:

- Waiving the 12-month requirement;
- Releasing specific guidance concerning the assessment of long Covid (and other post-viral illness claims) — for example, regarding the burden of proof of illness;
- Eliminating the 24-month Medicare waiting period;¹⁹
- Committing to expedited reviews of long Covid SSDI claims; and
- Ensuring broader dissemination of information regarding both SSDI and, for those already on SSDI, back-to-work programs such as Ticket To Work.

Fourth, improved employer accommodation. One of the paradoxes of the pandemic is that, while the number of disabled Americans has risen by nearly eight percent,²⁰ the share of disabled Americans participating in the labor force has also increased, by about 13 percent.²¹ While we do not know for sure why more disabled people are participating in the labor force, one likely explanation is the pandemic shift to remote work, which makes employment more accessible for many with disabilities.

The increasing labor force participation of disabled Americans demonstrates the power of workplace accommodation. The Department of Labor²² has been clear in its guidance that long Covid can qualify as a disability under the Americans with Disabilities Act (ADA), thereby making long haulers eligible for workplace accommodation.

However, more could be done to inform employers that long Covid is covered by the ADA, and to recommend potential accommodations. For example, the Department of Labor and Census Bureau could lead research on the economic and firm-level benefit of providing accommodations to long haulers, with case examples, and relevant agencies could provide lists of high-impact accommodations for long haulers, such as flexibility on deadlines, longer / more frequent breaks, flexible hours, and remote work.

Fifth, better data collection. Finally, to fully assess the labor market impact of long Covid, and to track the efficacy of any interventions, better data collection is required. Adding long Covid prevalence questions to the HPS was a start; however, policymakers also need to understand the impact of long Covid on work, and the role that SSDI plays in alleviating the burden of long Covid.

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²⁰ https://fred.stlouisfed.org/series/LNU00074597
²¹ https://fred.stlouisfed.org/series/LNU01374597
To fill this data gap, the Census Bureau and the Bureau of Labor Statistics (BLS) should introduce questions about long Covid’s impact on work to the HPS, as well as to the Current Population Survey (CPS), which has a larger sample size, greater rigor, and higher reliability as compared to the HPS. (For example, HPS response rates tend to be low.) Further, as economist Arindrajit Dube pointed out, the CPS tracks respondents over time, which is helpful in understanding duration of long Covid symptoms.

Crafting the right questions about long Covid is critical. The Census Bureau and BLS should work with the National Institutes of Health (NIH) teams working on long Covid, as well as long Covid patient advocacy groups, like Body Politic and Patient-Led Research Collaborative, to define the questions. Long Covid patients are best placed to identify trends and potential data pitfalls that survey designers might otherwise miss. Further, questions should focus on the information policymakers most need, including:

- The number of full-time equivalent workers currently not working due to long Covid (including those at reduced hours);
- Average time off / at reduced hours due to long Covid;
- Workplace accommodations that would enable long Covid patients to increase working hours; and
- Applications, approvals, and rejections for SSDI among long Covid patients.

5. I would like to end on a personal note. Five years ago, I was a healthy, active 33-year-old. I ran 4 times a week, worked 12 hour days, and travelled the world.
Then, I got a virus in Kenya and never recovered. It wasn’t long Covid, obviously, but it is functionally indistinguishable—a chronic, complex, post-viral illness. Over the following three years I slowly declined: I went from working full time in person, to working full time remotely, to working part time, to being so sick I couldn’t stand up, read, or even physically pick up a phone.

Two years later I am still sick, but am again working full time, as both a nonresident senior fellow at Brookings and a top executive at a local company. Three things enabled me to go back to work:

1. I had the health insurance and financial resources to access top-tier care — to give you a sense, last year I spent about $30,000 OOP on medical care (much of the care for people like me is out of network);
2. I had an employer-sponsored disability plan and the means to hire a lawyer to make sure I wasn’t denied — that gave me 18 months where I could focus solely on recuperation; and
3. My employer was willing to make significant accommodations to enable me to join, which made going off disability feasible.

If all long Covid patients had my healthcare access, disability support, and workplace accommodations, the figures I presented today would be a lot less daunting.

I thank the Subcommittee for the opportunity to testify today about these important issues. I look forward to hearing your questions.