COVID-19 Impact on workers in Ohio’s Public Health Sector

**Abstract**

Background: This study seeks to measure the impact of COVID-19 on public healthcare workers in Ohio. We ask whether public health sector workers were similarly affected compared to workers in other industries in Ohio and if there were any differences between the subcategories under public healthcare.

Methods: Using detailed firm level data from Ohio Jobs and Family Services (JFS) department, we study the employment levels for different public health care sectors and regions in Ohio. We also calculate job creation and destruction rates to study the disruptions caused by COVID-19.

Results: Certain sectors such as Ambulatory Health Care Services and Hospitals recovered to previous employment levels almost immediately after lockdown. Social Assistance also recovered but never reached previous employment levels whereas Nursing and Residential Care facilities experienced permanent decline.

Conclusion:

Keywords: COVID-19, Public Health, Labor Economics

Introduction

**General Covid Impact**

Centers for Disease Control and Prevention (hereby CDC) confirmed the first case of coronavirus disease 2019 (hereby COVID-19) on January 28th, 2020 (source 1). Since then, there have been more than 82,000,000 cases and 995,000 deaths in U.S due to COVID-19 as of May 2022 (source 2). To contain the deadly virus in the U.S, states implemented various safety measures such as stay-at-home orders and mask mandates. Federal government also announced CARES ACT to provide economic support to U.S citizens.  
  
**Why study Health care Impact: Importance of healthcare sector in Ohio**

Along with being a global health crisis, COVID-19 has also been an economic crisis (source 3).  
U.S Gross Domestic Product (GDP) declined by record 32.9 percent in the second quarter of 2020 (source 4) and unemployment rate reached 15% (source 5).   
  
**What all closed in Ohio**

**Impact on Ohio**

**Healthcare impact on Ohio**

Healthcare workers were uniquely affected by COVID-19 lockdown as it was one of the few essential-care services that was not under lockdown. Because the healthcare workers in Ohio form a \_\_% of the total workforce in Ohio, it is important to identify the effect of COVID-19 lockdown on people employed by this sector. Furthermore, even within the healthcare sector, the impact may be quite different for different groups. For instance, clinics providing outpatient services such as general practitioners, optometrists and dentists may experience a more sudden decrease in in-person interaction due to COVID-19 as compared to hospitals, which contrastingly experienced a surge of patients during the pandemic.

For a complete definition of healthcare sector and its subsectors, see the methodology section.

**Why look at jobs created and destroyed**

Unit-level data allows us to dive deeper than just observing aggregate employment patterns and observe how people may be affected by the changing state of economy. Whenever a representative unit hires a new person and adds them to their payroll, a new job is created and whenever a person is removed from payroll, a job is destroyed. Even within Ohio, thousands of jobs are added and destroyed every day. These new jobs can either be created by existing firms which are expanding their workforce or by new firms entering the market. Analyzing the number of jobs created by new and existing firms in Ohio can tell us how likely is a person to get a job in a given scenario. Similarly, when firms downsize their workforce or exit the market, they destroy jobs.

**Areas explored by this paper**

1. Employment level (net increase or decrease in number of healthcare workers)
   1. Comparing Ohio Public Health Sector with non-public health sector
   2. Breakdown of OHPHS by subcategory
   3. Breakdown of OHPHS by region
2. Jobs created and destroyed
   1. Breakdown of OHPHS by subcategory
   2. Breakdown of OHPHS by region

What is the breakdown?

1. Ambulatory Health Care Services
2. Hospitals
3. Nursing and Residential Care Facilities
4. Social Assistance

**Summary of findings/Results**

Methodology

**Data**

The data for this study comes from Ohio Department of Job and Family Services (JFS). Ohio Revised Code (ORC) Section 4141.13 (G) requires the Ohio JFS to collect information from all Ohio employers to determine if they are subject to the state’s unemployment insurance laws. According to JFS website (source 6), unemployment benefits are financed by taxes paid by employers to the federal and state governments. The federal taxes cover most of the program’s administrative costs and the state taxes fund the actual benefits. Unemployment benefits provide short-term income to workers who lose their jobs through no fault of their own and who are actively seeking work. JFS collects this data via their State of Ohio Unemployment Resource for Claimants and Employers (SOURCE) application. The employers report to JFS with the number of employees on their payroll every month and the wages paid to the employees. Each employer has a unique Employer Identification Number (EIN) and is classified as per North American Industry Classification system.

Data goes from 2006Q1 to 2021Q2

**Variables**

1. Number of employed persons:
2. NAICS code variable:
3. Sub-categories variable:
4. EIN:
5. Unique location identifier:
6. Region:

**Measures**

1. Employed persons
2. Employed person (% change from year ago)
3. Job creation rate
4. Job destruction rate

Results

**Health care workers**

OHPHS vs Non-OHPHS

OHPHS breakout

OHPHS urban vs rural

**Job creation and destruction rate**

Discussion

COVID recession was different from The Great Recession in terms of its impact on the healthcare sector. While other (aggregated) sectors in Ohio experienced a decrease in workforce during The Great Recession, healthcare and social assistance sector experienced no such decline. However, COVID had a very similar on both these broad sectors as all employers were forced to take safety measures.

COVID-19 also had a dissimilar impact on different healthcare sub-sectors.

Ambulatory healthcare sector experienced the sharpest decline due to COVID, followed by . Why?

Nursing sector never recovered from COVID and is experiencing a continuous decline in workforce. This suggests a deeper problem than a one-time shock. This is because elderly were disproportionately affected by COVID-19 (as shown by higher death rate), causing a decrease in demand for nursing and residential care facilities.

Public Health Implications

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References:

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