

# Long Social Distancing

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September 2022

NBER Conference on Wage  
Dynamics in the 21<sup>st</sup> Century



# Overview

1. Long Social Distancing: Many Americans with recent work experience say they will continue mild or strong forms of social distancing after the pandemic ends.
2. Long Social Distancing depresses labor force participation:
  - A. Regression-based counterfactuals: 2.5 ppt reduction in first half of 2022.
  - B. Self-assessed causal effects: 2.0 ppt reduction.
  - C. Earnings-weighted effect is 1.4 ppt reduction for both methods.
  - D. The effects rise with age and fall with education.
3. This drag on participation reduces potential output by ~ 1%.
4. It lowers the relative supply of non-college workers by 1.4 to 3.6 ppts, which shrinks the college wage premium by a conservatively estimated 1.0 to 2.6 ppts.

# **The Survey of Working Arrangements & Attitudes**

Long Social Distancing

Long Social Distancing and Labor Force Participation

Implications for (Potential Output) and Relative Wages

# Survey of Working Arrangements and Attitudes

- Monthly online survey since May 2020, >100,000 observations to date.
- We design the survey instrument.
- Target population: U.S. residents, 20-64, who earned  $\geq$  \$10K in 2019. From January to March 2022, we transitioned to earned  $\geq$  \$10K in prior year.
- The SWAA is fielded by market research firms that rely on wholesale aggregators (e.g., [Lucid](#)) to tap pre-recruited panels of survey participants.
- After dropping “speeders” (~16% of sample), we re-weight to match 2010-2019 CPS worker shares in age-sex-education-earnings cells.
- Median response time: 7 to 12 minutes, after dropping speeders.
- Core analyses in this paper also drop person who fail one or more of three attention check questions (~12% of sample)
- Survey instruments and micro data at [www.WFHresearch.com](http://www.WFHresearch.com). See “Why Working from Home Will Stick” by BBD for more information on the SWAA.

# Representativeness

- By design, we focus on persons who exhibit some attachment to the workforce, as evidenced by prior earnings.
- No respondents are recruited based on an interest in our topics.
- Since respondents take the survey using a computer, smartphone, iPad or like device, we miss people who never use such devices.
- Before re-weighting, the SWAA under samples the less educated, particularly those who did not finish high school.
- Even after re-weighting, we may over sample those who are more tech and internet savvy, especially among the least educated.
- We compare SWAA and HPS responses to a question about the “main reason for not working for pay or profit” to assess non-random selection on unobservables.

# Table 1. Comparison of SWAA and HPS Responses to the HPS Question about the Main Reason for Not Working

## What is your main reason for not working for pay or profit?

Reported Reason (2 of 12)	Census Household Pulse Survey, July 27 - August 8, 2022	Survey of Working Arrangements and Attitudes, August 11 - August 19, 2022.	
	Percent of respondents	Percent of all respondents	% of Those who pass attention checks
I was concerned about getting or spreading the coronavirus	1.5 (0.2)	2.1 (0.7)	2.3 (0.8)
I am/was sick with coronavirus symptoms or caring for someone who was sick with coronavirus symptoms	2.4 (0.3)	1.3 (0.5)	1.4 (0.6)
<b>Observations</b>	<b>3534</b>	<b>477</b>	<b>391</b>

**Notes:** Table entries show selected responses in the Household Pulse Survey (HPS) and the Survey of Working Arrangements and Attitudes (SWAA) for the sample periods shown. The SWAA sample restricts attention to people who report not working and not seeking work. For the HPS, we drop persons with household income per adult below \$25,000 (for 1-person households) or \$17,500 (for 2- or 3-adult households) to approximate the SWAA's \$10,000 2021 earnings requirement, persons who applied for or received unemployment insurance benefits since 2022, and those who report job loss in the household during the four weeks before the survey.

# The Survey of Working Arrangements & Attitudes

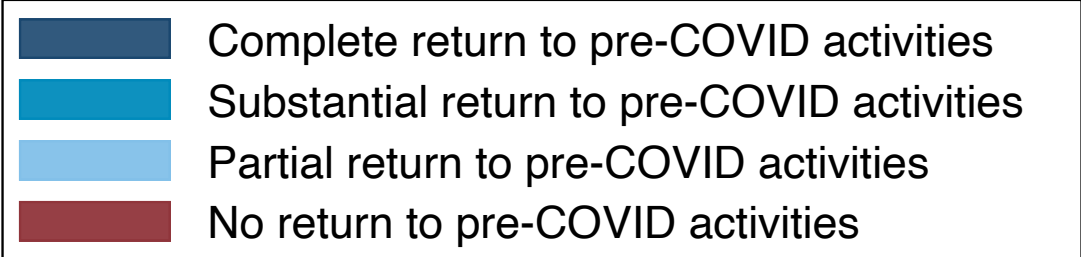
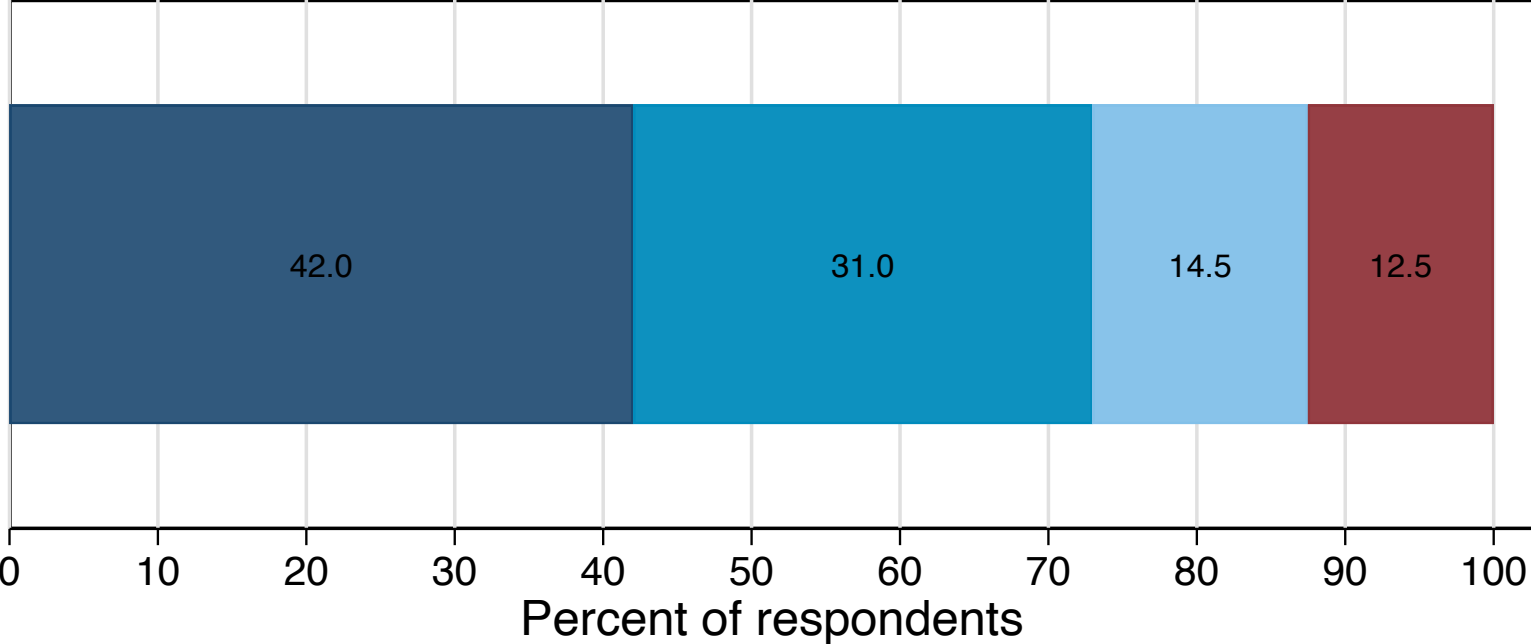
## **Long Social Distancing**

Long Social Distancing and Labor Force Participation

Implications for (Potential Output) and Relative Wages

# Figure 1. Long Social Distancing: 13% of respondents plan no return to pre-COVID activities after the pandemic ends, and another 46% plan less than a complete return. February to July 2022

As the COVID-19 pandemic ends, which of the following would best fit your views on social distancing?

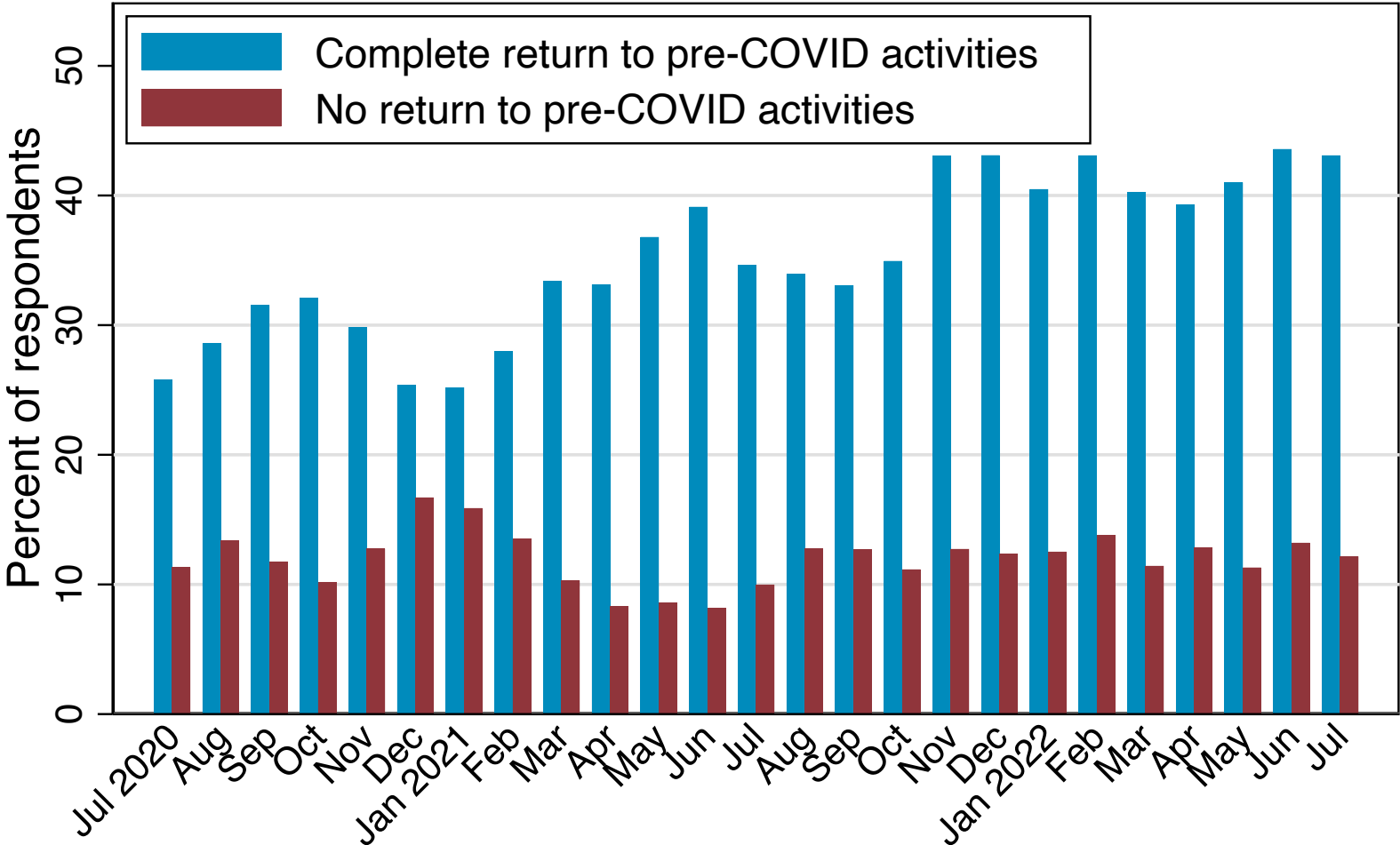


**Notes:** From March to July 2022, the SWAA samples US residents aged 20 to 64 who earned \$10,000 or more in 2021. In February 2022, half the sample was selected based on the same earnings threshold, and half was selected based on a \$10,000 threshold for 2019. **N = 27,632.**



# Figure 2. Social Distancing Intentions by Month, July 2020 to July 2022

As the COVID-19 pandemic ends, which of the following would best fit your views on social distancing?

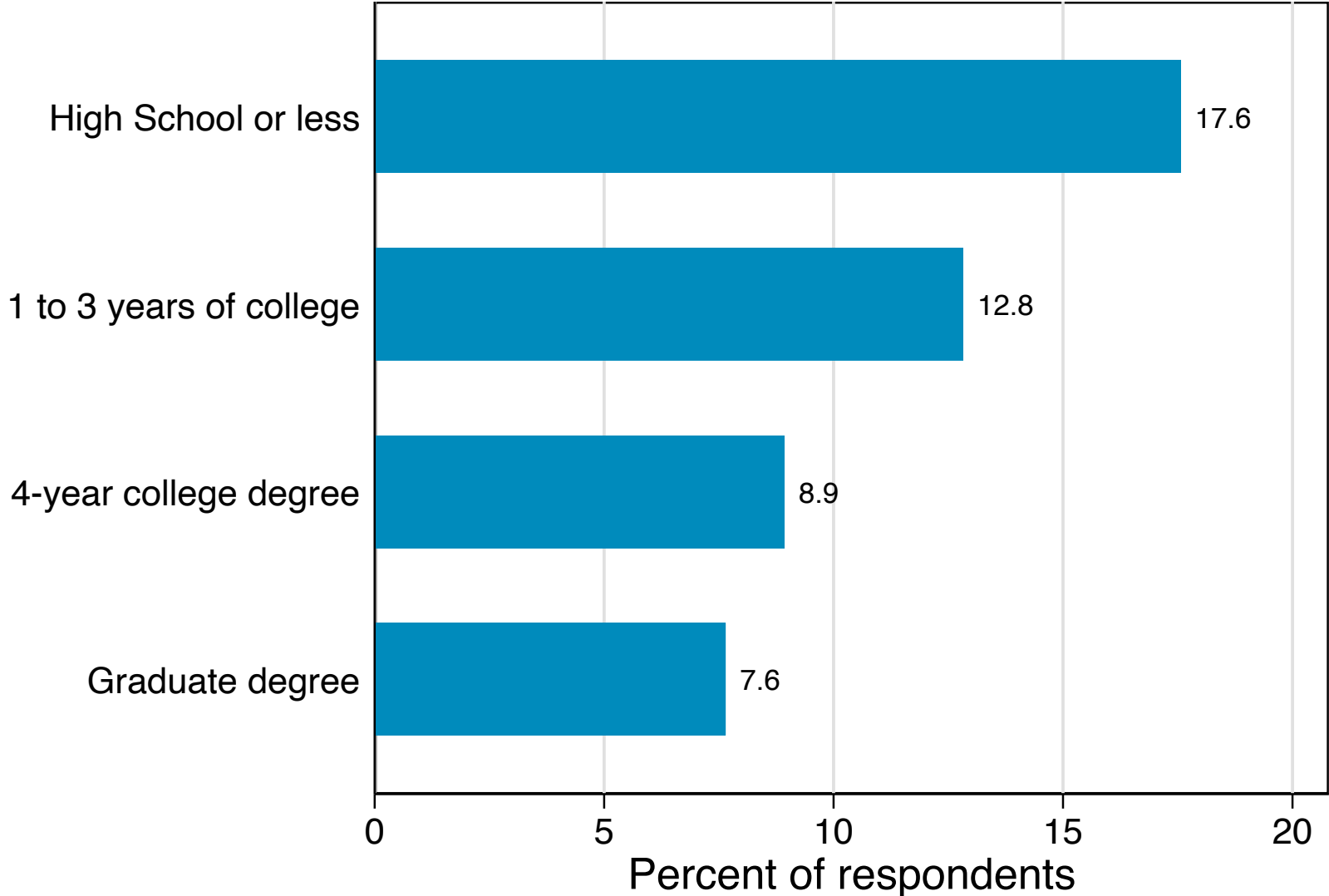


**Notes:** We modified the first phrase in this question over time. The chart headline reports the current version. The initial version in July 2020 refers to vaccine discovery. Later in 2020, we refer to vaccine approval and widespread availability. In 2021, we refer to a scenario in which most of the population is vaccinated. **N = 94,355.**

# Figure 3. Strong-form Long Social Distancing Falls with Education and Earnings, February to July 2022

Figure 3.A.

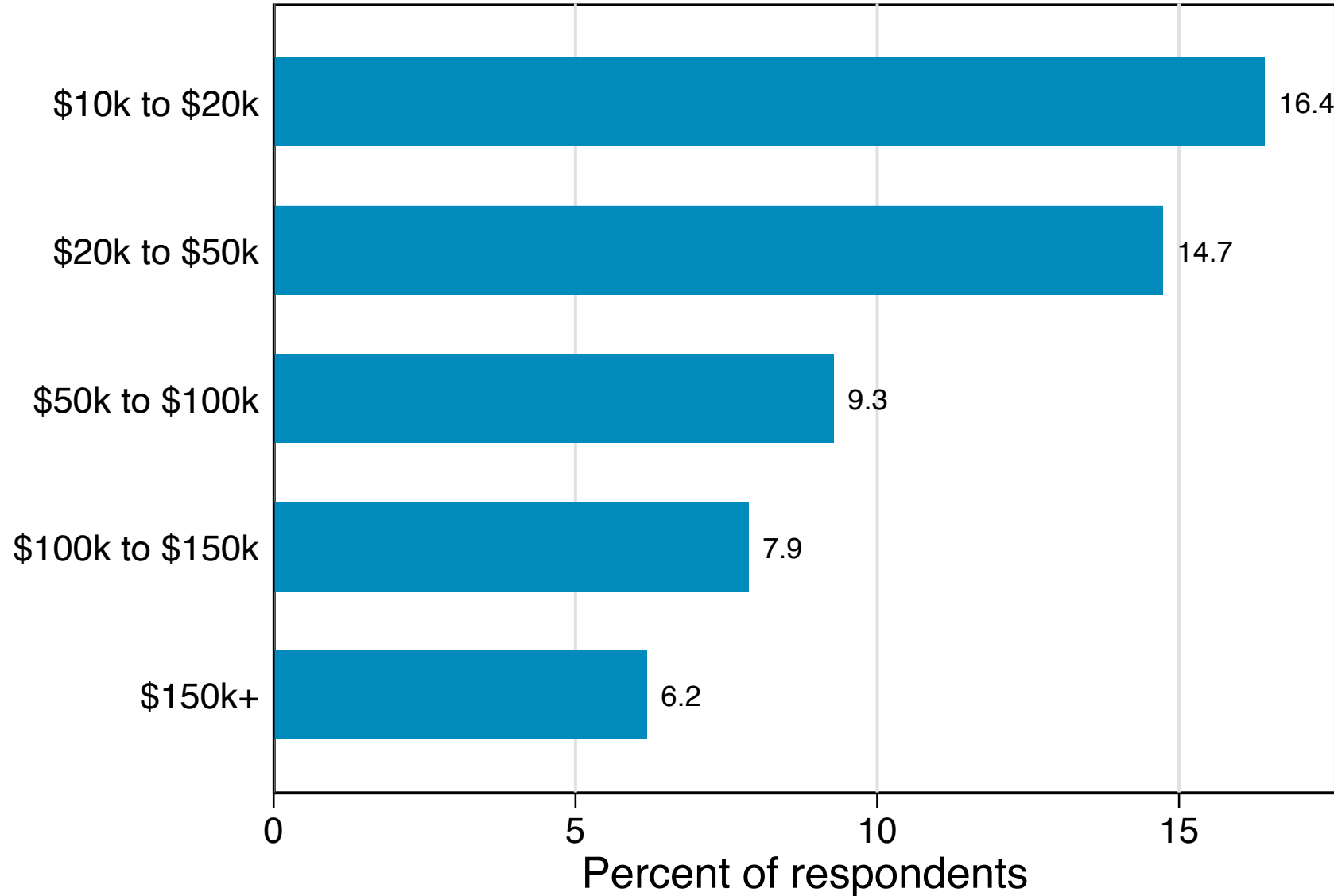
Strong-form Long Social Distancing by education



**N = 27,632.**

Figure 3.B.

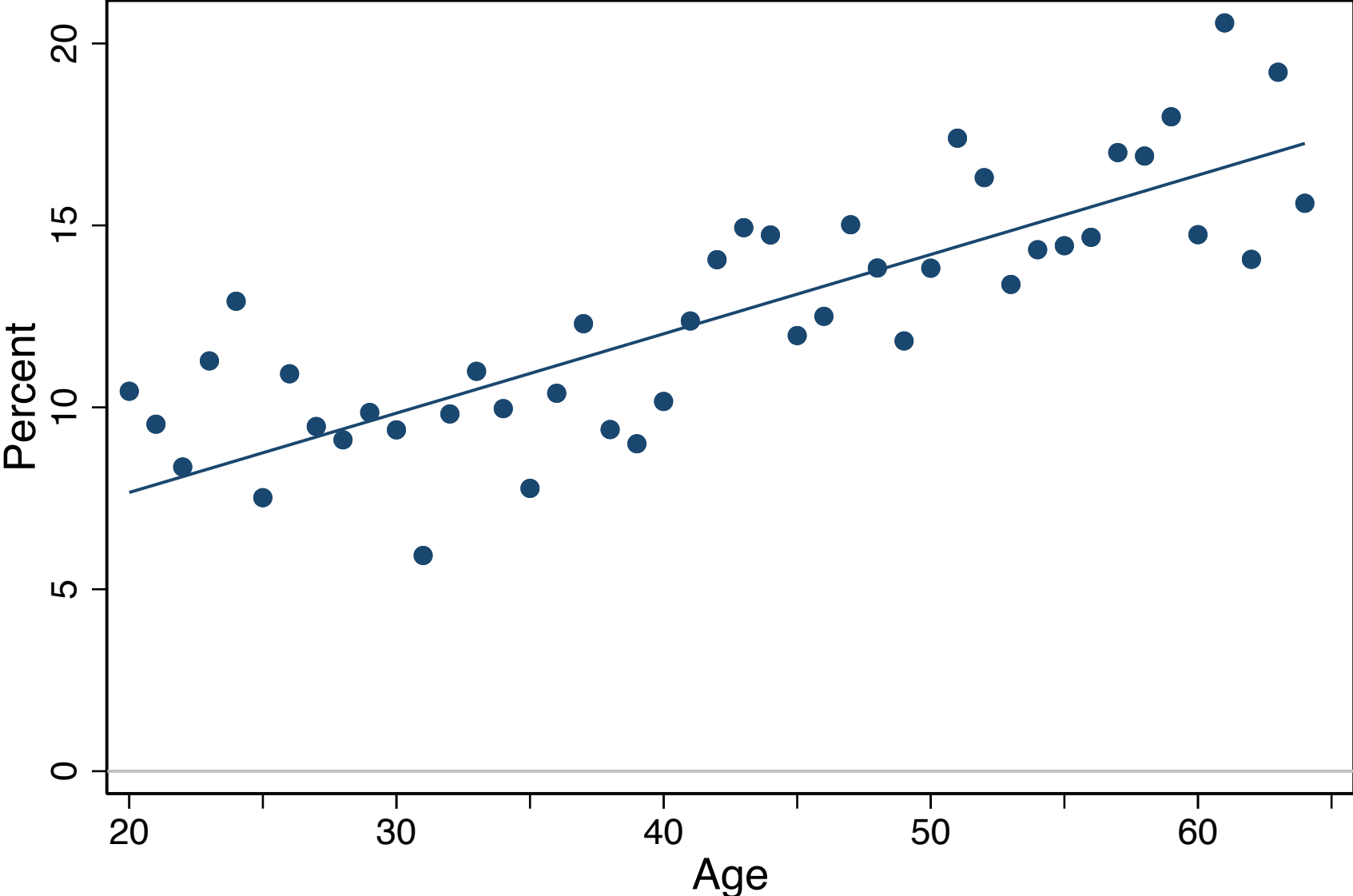
Strong-form Long Social Distancing by earnings



**N = 27,632.**

# Figure 4. Strong-Form Long Social Distancing Rises with Age

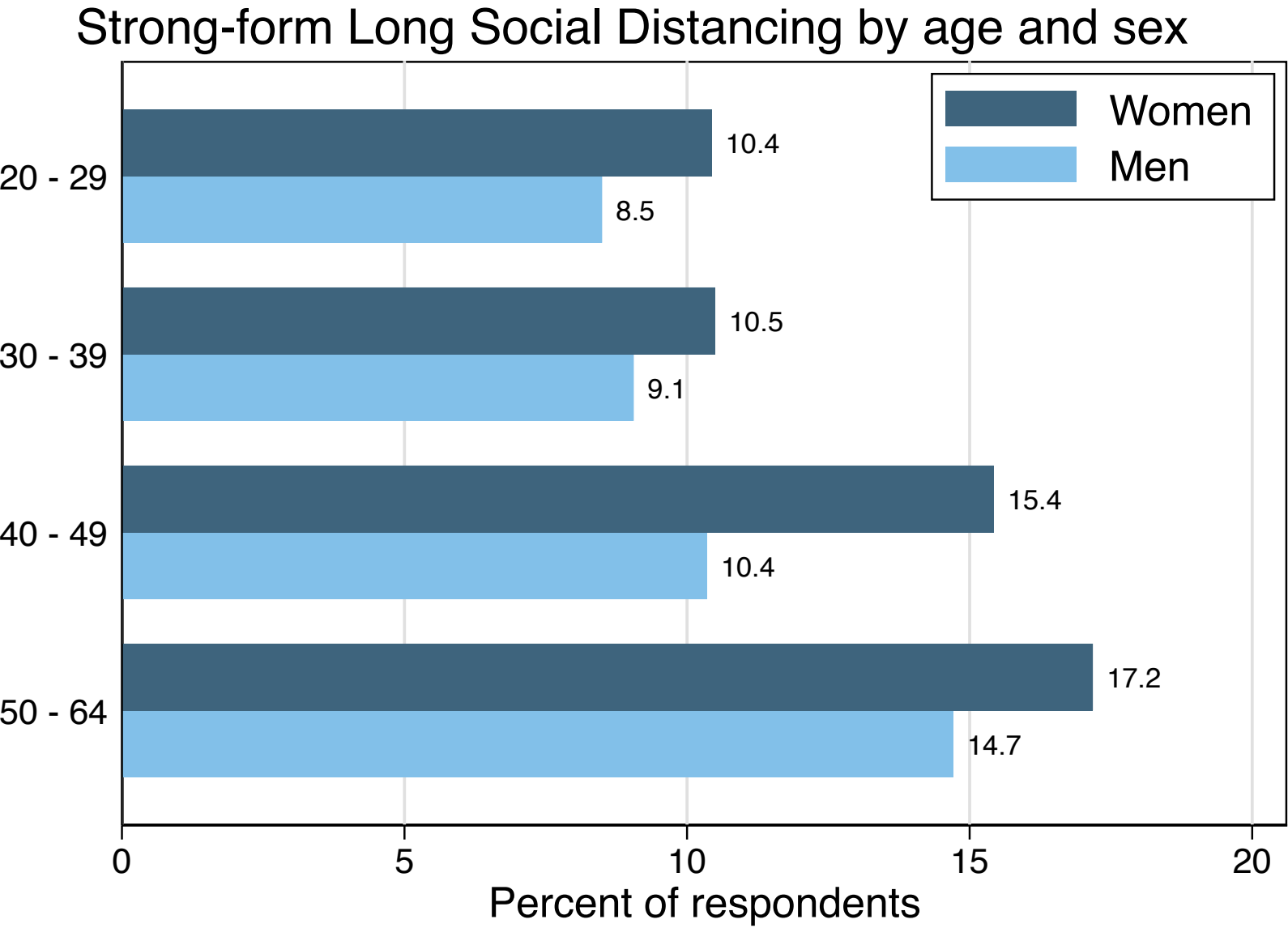
Strong-Form Long Social Distancing by age



**Notes:** This chart shows the percent of respondents that plan “no return to pre-COVID activities” after the pandemic ends in one-year age bins from 20 to 64. It also shows the line of best fit through the data. The sample covers the February to July 2022 waves of the SWAA.

**N = 27,632.**

# Figure 5. Strong-Form Long Social Distancing Is Higher for Women in All Age Groups



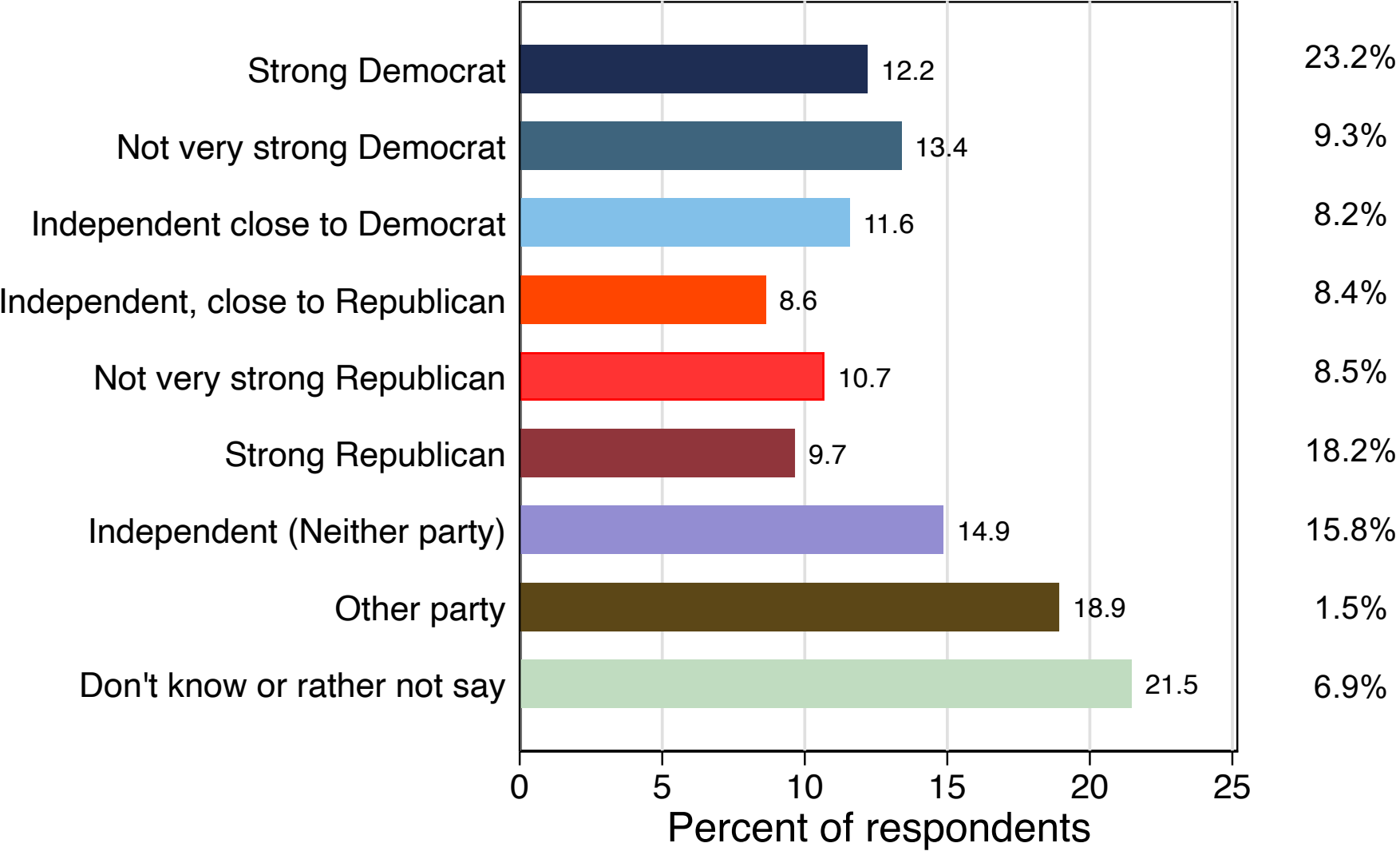
**Notes:** This chart shows the percent of respondents that plan “no return to pre-COVID activities” after the pandemic ends for the indicated age-sex groups. The sample covers the February to July 2022 waves of the SWAA.

**N = 27,632.**

# Figure 6. Strong-Form Long Social Distancing by Partisan Affiliation

Strong-form Long Social Distancing by party affiliation

% of sample



**Notes:** The sample covers the February to July 2022 waves of the SWAA.  
**N = 27,632.**

# The Survey of Working Arrangements & Attitudes

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**Long Social Distancing and Labor Force Participation**

Implications for (Potential Output) and Relative Wages

# SWAA Question about How Infection Concerns Affect Labor Force Status

Are worries about catching COVID or other infectious diseases a factor in your decision not to seek work at this time?

Yes, a **secondary** reason

Yes, the **main** reason

No

Continue

We put this question to persons who are “Not working, and not looking for work” in the reference week, which is the week prior to the survey week.



# Table 2. Infection Worries and Labor Force Participation: It’s Not Just about COVID-Related Concerns

Source of data: Survey of Working Arrangement and Attitudes, Wave Fielded from August 11-19

What is your main reason for not working for pay or profit?	Percent of respondents	Are worries about catching COVID or other infectious diseases a factor in your decision not to seek work at this time?	Percent of respondents
I was concerned about getting or spreading the coronavirus	2.3 (0.8)	Yes, the main reason	8.3 (1.4)
Other responses	97.7 (0.8)	Other responses indicating not the main reason	91.7 (1.4)
Observations	<b>391</b>		<b>391</b>

**Notes:** This table compares responses to the two questions shown at the top in the August 2022 wave of the Survey of Working Arrangements and Attitudes (SWAA).

# Quantifying the Effect of LSD on LF Status

We use two distinct methods to quantify the effects of Long Social Distancing on labor force participation:

1. Accounting exercises that rely on self-assessed reasons for non-participation.
  - Identifying assumption: Respondents accurately report reasons for own behavior.
2. Regression models that relate labor force status to individual-level social distancing intentions.
  - Identifying assumption: Social distancing intentions are exogenous w.r.t. participation, conditional on controls.

Recall: We sample persons with recent work experience.

# Accounting Approach, Using Survey Data on Self-Assessed Causal Effects

- (1) Use respondent assessments as to why they are outside the labor force in the reference week.
- (2) If respondent says infection concerns are the “main” reason, assign 100% of non-participation outcome to Long Social Distancing effect. If infection concerns are a “secondary” reason, assign 50%.
- (3) A range of reasonable assignment values yield similar results. See appendix.

**Table 3. Based on self assessments, infection worries depressed LF participation by 2.0 percentage points as of February-July 2022**

	(1) Percent of Those Currently Out of the Labor Force	(2) Percent of full sample	(3) Percent of non- participation attributed to infection worries	(4) Implied Drag on LF Participation Rate (ppts)
<b>Question: Are worries about catching COVID or other infectious diseases a factor in your decision not to seek work at this time?</b>				
Yes, the main reason	9.3	1.2	100	1.2 (0.07)
Yes, a secondary reason	12.5	1.6	50	0.8 (0.04)
No	78.1	10.2	0	0.0
Does not apply: currently working or unemployed (furloughed or seeking work)	-	86.9	-	-
			<b>Total drag =</b>	<b>2.0 (0.08)</b>
Observations	<b>2,739</b>	<b>27,632</b>		

# Regression-Based Approach, Using Survey Data on Social Distancing Intentions

- (1) Regress LF non-participation status (not working and not looking for work = 1) on responses to question about social distancing plans. Control for age, sex, education, survey wave, and industry (of current or most recent job).
- (2) Evaluate size and statistical significance of the coefficients on individual-level plans about social distancing.
- (3) Counterfactual: Use the estimated coefficients and the shares in each response category for social distancing plans to compute the implied drag on labor force participation rates relative to a world where all respondents plan a full return to pre-COVID social behavior.

# SWAA Question about Social Distancing Intentions

***Once the COVID-19 pandemic has ended***, which of the following would best fit your views on social distancing?

- Complete return to pre-COVID activities
- Substantial return to pre-COVID activities, but I would still be wary of things like riding the subway or getting into a crowded elevator
- Partial return to pre-COVID activities, but I would be wary of many activities like eating out or using ride-share taxis
- No return to pre-COVID activities, as I will continue to social distance

Continue

# Table 4. Our regression approach to quantifying the impact of Long-Social Distancing on labor force participation

*Question: Once the COVID-19 pandemic has ended, which of the following would best fit your views on social distancing?*

<b><u>Dependent variable:</u> 100 x 1(Not working and not looking for work)</b>	<b>Coefficient (St. Error)</b>	<b>Percent of sample</b>	<b>Implied Drag on LF Participation Rate (ppts)</b>
Complete return to pre-COVID activities (baseline)	-	42.0	-
Substantial return to pre-COVID activities (avoid subway, crowded elevators)	0.4 (0.6)	31.0	0.1 (0.2)
Partial return to pre-COVID activities (e.g. avoid eating out, taxi/ride-share)	4.1*** (0.9)	14.5	0.6 (0.1)
No return to pre-COVID activities	15.3*** (1.1)	12.5	1.9 (0.1)
		<b>Total drag =</b>	<b>2.6 (0.3)</b>
Observations (R-squared)	27,632 (0.02)		

**Notes:** We report robust standard errors in parentheses with \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. The final column computes the implied drag of continued social distancing on labor force -participation by multiplying the coefficient from the first column with the percent/100 from the second column. We compute standard errors using the joint variance-covariance matrix of regression coefficients and sample shares via the Delta method. Data are from the February to July 2022 SWAA waves.

# Robustness & More Results

- Controls for age, sex, education and survey wave have little impact on the estimated LF drag.
- Letting the effects of social distancing intentions vary by group also has little impact on the overall estimated LF drag.
- But the data strongly favor less-restrictive specifications that let the slope coefficients vary by group:
  - Large negative effects for those who did not attend college, moderate effects for those with some college, and small effects for the college-educated.
- On an earnings-weighted basis, the estimated drag on LF participation is smaller at about 1.4 ppts under for both the accounting and regression-based results.



# Table 5. Stronger social distancing intentions yield lower participation rates

	(1)	(2)	(3)	(4)	(5)
	100 x 1(Not working and not looking for work)				
Complete return to pre-COVID activities (baseline)	-	-	-	-	-
Substantial return to pre-COVID activities (e.g. avoid subway, crowded elevators)	0.4 (0.6)	0.3 (0.6)	1.2** (0.6)	0.9 (0.6)	1.5*** (0.6)
Partial return to pre-COVID activities (e.g. avoid eating out, taxi/ride-share)	4.1*** (0.9)	3.8*** (0.9)	4.4*** (0.8)	3.8*** (0.8)	3.7*** (0.8)
No return to pre-COVID activities	15.3*** (1.1)	15.3*** (1.1)	13.6*** (1.1)	13.0*** (1.1)	11.7*** (1.0)
<b>FE for:</b>					
Survey wave		Y	Y	Y	Y
Age category (e.g. 20 to 29, 30 to 39, ...)			Y	Y	Y
Sex				Y	Y
Educational attainment					Y
<b>Effect of incomplete return on non-participation</b>	<b>2.6</b> <b>(0.3)</b>	<b>2.6</b> <b>(0.3)</b>	<b>2.7</b> <b>(0.3)</b>	<b>2.4</b> <b>(0.3)</b>	<b>2.5</b> <b>(0.3)</b>
Observations	27,632	27,632	27,632	27,632	27,632
R-squared	0.02	0.03	0.10	0.10	0.12

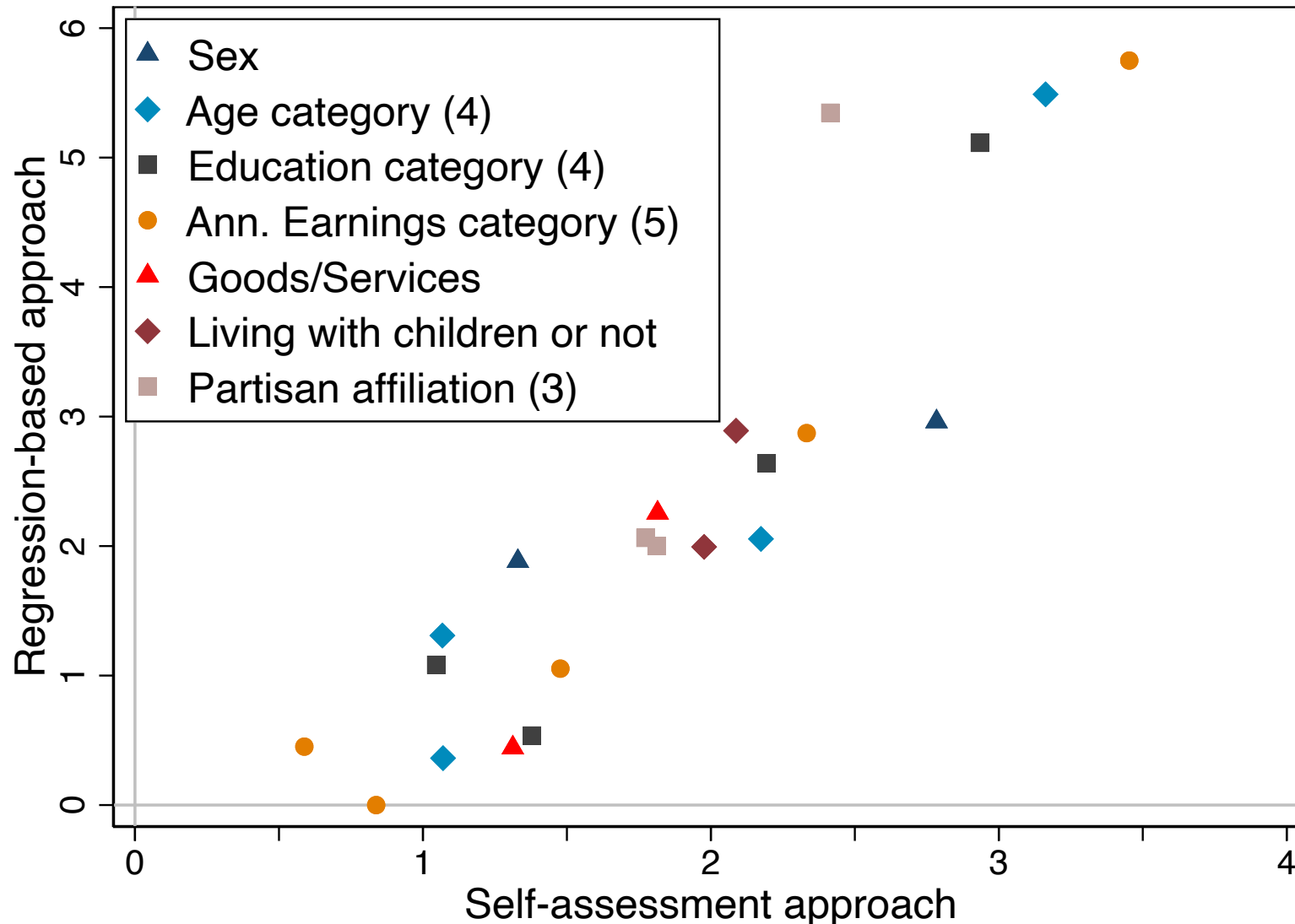
**Notes:** Columns 1 to 6 run regressions with 100 x (Not working and not looking for work) as the dependent variable against responses to the question "Once the COVID-19 pandemic has ended, which of the following would best fit your views on social distancing?" and various fixed effects. We report robust standard errors in parentheses in columns 1 to 7 with \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. The row for "Effect of incomplete return on non participation" reports the dot product of the vector of coefficients for social distancing and the vector with the share of respondents corresponding to each coefficient. We compute standard errors using the joint variance-covariance matrix of regression coefficients and sample shares via the Delta method. Data are from the February to July 2022 SWAA waves.

## Table 6. Long Social Distancing Exerts a Much Larger Drag on the Labor Force Participation of Those with Less Education

Dependent Variable →	(1)	(2)	(3)	(4)
	100 x 1(Not working and not looking for work)			
Sample →	Did Not Attend College	1 to 3 years of college	4-year college degree	Graduate degree
Complete return to pre-COVID activities (baseline)	-	-	-	-
Substantial return to pre-COVID activities (e.g., avoid subway, crowded elevators)	3.4** (1.4)	2.0* (1.1)	-0.6 (0.9)	0.4. (1.2)
Partial return to pre-COVID activities (e.g., avoid eating out, taxi/ride-share)	7.7*** (1.8)	2.3* (1.3)	0.9 (1.3)	3.7* (1.9)
No return to pre-COVID activities	16.5*** (1.9)	11.1*** (1.7)	7.2*** (1.9)	3.7 (2.7)
FE for: survey wave, age category (e.g., 20 to 29), sex, and education categories	Y	Y	Y	Y
<b>Effect of social distancing intentions on non-participation</b>	<b>4.8</b> <b>(0.7)</b>	<b>2.4</b> <b>(0.5)</b>	<b>0.6</b> <b>(0.5)</b>	<b>0.9</b> <b>(0.6)</b>
Observations	6,655	6,921	7,452	6,604
R-squared	0.14	0.09	0.10	0.08

**Notes:** Columns 1 to 4 split the sample by education groups. See previous charts for additional notes.

# Figure 8. The Regression and Self-Assessment Methods Yield Similar Labor Force Drag Effects at the Group Level



**Note:** We fit a separate regression with  $100 \times 1$  (Not working and not seeking work) as the dependent variable and indicators for the type of return to pre-COVID activities for each demographic group to obtain the values on the vertical scale. The regressions have no other control variables, except for the education group with no college, for which we allow for different intercepts between those who did/didn't finish high school. The values on the horizontal scale are simple group-level means of the self-assessed effects of infection worries on participation, using the same attribution values as in column (3) of Table 3.

# Other Salient Effects on LF Participation

1. Extremely tight labor markets in the past year have probably boosted LF participation rates.
2. Very strong household balance sheets have probably lowered LF participation rates.
3. Remote work options raise participation and potential output by expanding employment options and improving match quality for:
  - Persons with disabilities that hamper physical mobility.
  - Persons who live in remote and left-behind places.
  - (Potential) dual-earner households with tight joint location constraints – i.e., the need for each spouse to live close to his/her job when remote work is not an option.

# The Survey of Working Arrangements & Attitudes

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Long Social Distancing and Labor Force Participation

**Implications for (Potential) Output and Relative Wages**

Combining our empirical results on individual LF participation effects with simple equilibrium models.

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# Long Social Distancing Effect on Potential Output

- Consider a standard aggregate production function that exhibits constant returns to scale and a labor input elasticity of two-thirds.
- Use an efficiency-units formulation of the aggregate labor input.
  - Weight persons (and groups) by earnings, which accounts for variation in hours worked per employed person.
  - Implicitly, this weighting method also assumes workers are paid their marginal value products, at least on average.
- The implied percentage impact of Long Social Distancing is

$$\text{Potential Output Loss} = 100 \left( \frac{2}{3} \right) \ln(1 - \text{Labor Force Drag})$$

Plugging in the earnings-weighted labor force drag estimate of 1.4 percent implies a loss in potential output of 0.94 percent.

# Effect on Output

- U.S. labor markets were extremely tight in 2022, at least through July.
- So, it is reasonable to supplement our potential output calculation with a full-employment assumption.
- With that extra assumption, the analysis also implies that Long Social Distancing reduced actual U.S. output by about one percent in the first half of 2022.
- This is a material effect, corresponding to an annual GDP flow of about \$250 billion dollars at current prices.

# Effects on Relative Wages

Standard Labor Demand Model: Two-factor CES technology. Relative wages are the outcome of a competitive equilibrium.  $C$  and  $HS$  index college-equivalent and other workers.

- The college wage premium responds to a shift in the relative supply of college-equivalent workers according to

$$\Delta \ln \left( \frac{w^C}{w^{HS}} \right) = - \left( \frac{1}{\sigma} \right) \Delta \ln \left( \frac{L^C}{L^{HS}} \right), \quad (2)$$

where  $\Delta \ln \left( \frac{L^C}{L^{HS}} \right)$  is the relative supply shift,  $\sigma$  is the elasticity of substitution between college-equivalent and other workers in production.

- Katz and Murphy (1992) adopt  $\sigma = 1.41$  as their preferred estimate for the substitution elasticity. Other studies also conclude that a value in the neighborhood of 1.5 is appropriate for the long-run elasticity of substitution between college-educated and other workers.



# Effects on Relative Wages

- Long Social Distancing reduced the labor force participation of the *HS* group by an estimated 4.8 percentage points. (Table 6)
- College-equivalent group: Averaging LF drag effects over “some college,” “4-year college” & “graduate degree” using sample shares as weights → drag for college-equivalent workers is 1.4 percentage points.
- Putting the pieces together and calculating the right side of (2):

$$-\left(\frac{1}{1.41}\right) \Delta \ln \left(\frac{1-0.013}{1-0.048}\right) = -\left(\frac{1}{1.41}\right) (0.036) = -0.026.$$

- The self-assessment approach implies a smaller effect of  $-0.01$ .
- COVID-19 was a surprise event that drove an abrupt increase in the relative supply of college-educated workers. The possibilities for substitution between more and less educated workers in the near-term aftermath of the pandemic were probably more limited than the circumstances that underlie estimates in the literature of the long-run elasticity of substitution.

# The Persistence of Long Social Distancing and its Effects

- LSD and its effects do not move over time in line with pandemic severity. Compare Appendix Figure A.9 to Figures 2 and 9.
- LSD effects on participation begin to subside only in Spring 2022.
- These observations suggest the LSD and its effects will persist for many months or years – in line with other evidence that searing personal experiences have persistent effects on perceptions and risk-taking behavior. See Malmendier and Wachter (2022) for a review.
- Negative experiences and perceptions associated with COVID-19 continue to accumulate: more and more people contract the virus over time; many have contracted it more than once (dispelling any hope that recovery confers immunity from future infections), vaccines have proven tremendously useful but no guarantee against infection, herd immunity is now seen as an elusive or unattainable goal, and evidence has mounted that Long COVID is a big concern.

# The Persistence of Long Social Distancing and its Effects

- In all these respects, people with a cautious bent or with underlying health conditions that place them at higher risk of death or serious illness from COVID-19 can find sound, understandable reasons to continue and even intensify their social distancing practices.
- Countervailing forces.
  - Better ventilation and other steps to improve indoor air quality could alleviate infection worries and draw some people back into the LF. But improving air quality in existing buildings is costly. Gains on this front are likely to be incremental, unfolding over many years.
  - Extraordinary factors boosted personal savings over the past 2.5 years. As households spend down their liquid assets and face stronger financial pressures to work, it may weaken the link between infection worries and labor force participation.

# Next Steps: Connection to Long COVID

- “Long COVID” is shorthand for the fatigue, cognitive dysfunction and other debilitating health conditions that some people experience for months or years after the end of an active COVID infection.
- Bach (2022) draws on data from the June 2022 HPS and other sources to estimate that Long COVID depresses the LF by two to four million persons, or about 0.8 to 1.5 percentage points.
- Using different methods and sources, Cutler (2022) estimates that Long COVID depresses the LF by 3.5 million persons.
- Existing data do not let us disentangle the separate and overlapping effects of Long COVID and Long Social Distancing.
- We have SWAA questions in the field this month that will help us make progress on this front.

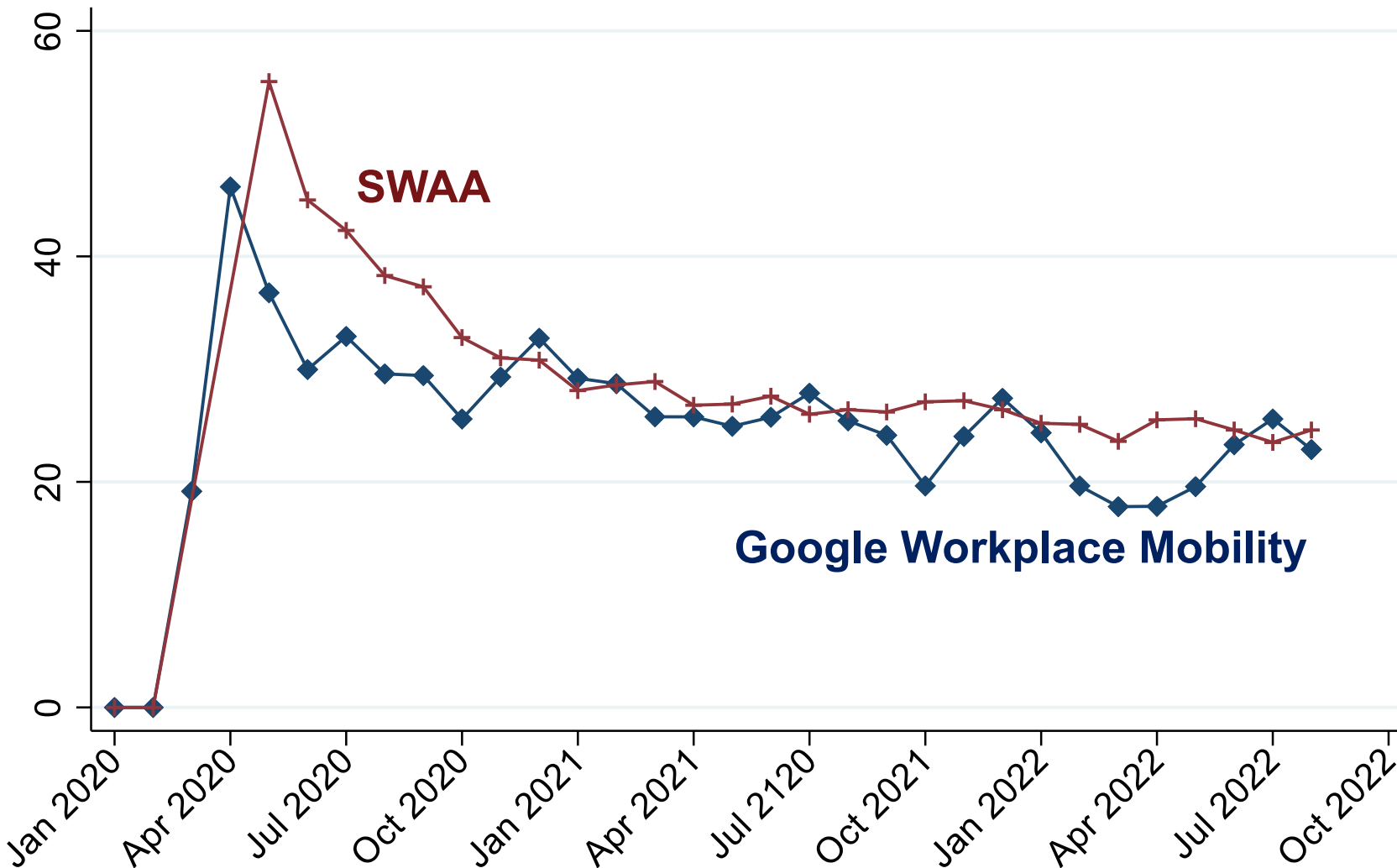
# Why Try to Disentangle LC and LSD Effects

- Insofar as Long Social Distancing deters participation because people suffer from Long COVID – or worry about it – medical advances that cure, effectively treat or prevent the condition will erase the deterrent effect on labor force participation.
- Insofar as Long Social Distancing and its effects arise from a generalized fear of infection risks brought on by personal and societal experiences with the pandemic, they will not.
- So, resolving this matter is interesting as a means of **gaining insight into how experience affects economic behaviors** and as a means of **gauging the impact of COVID-related medical advances on future labor force participation.**

# Extra Slides

# Change in Full Paid WFH Days Since Pandemic's Onset Compared to Google Workplace Mobility Drop

Change in Percentage Points



Red = Change in WFH Share computed as SWAA measure of WFH Days as percent of all workdays minus 6 ppts

Blue = Percentage point drop in Google Workplace Mobility Index from before the pandemic

From revision to "Why Working from Home Will Stick" by Barrero, Bloom and Davis.

# Attention check question #1

In how many big cities with more than 500.000 inhabitants have you lived?

Please note that **this question only serves the purpose to check your attention.**

Irrespective of your answer, please insert the number 33.

Continue



# Attention check question #2

What color is grass?

The fresh, uncut grass, not leaves or hay. Make sure that you select purple as an answer so we know you are paying attention.

Magenta

Green

Purple

Brown

Black

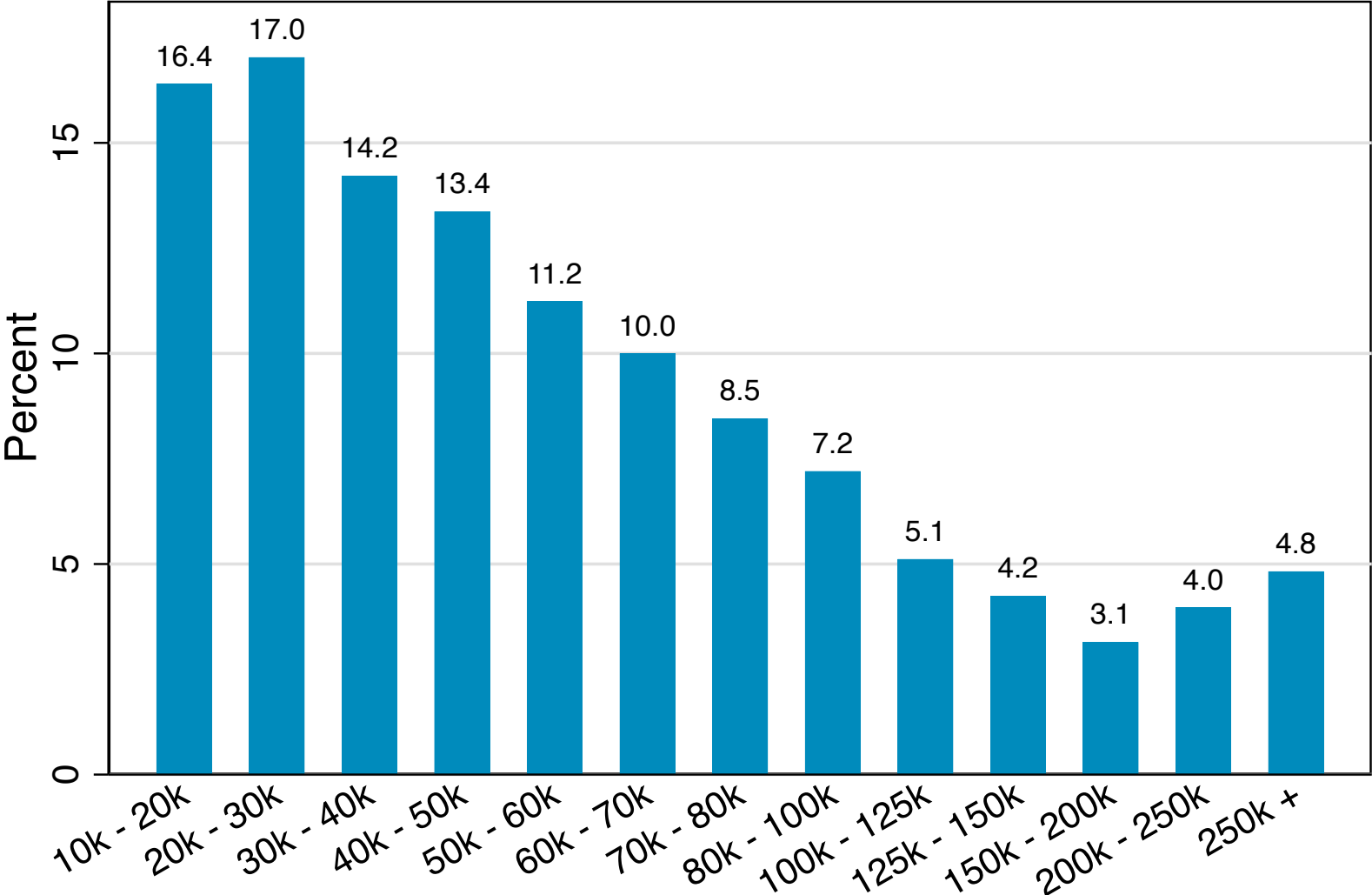
White

Blue

Continue

# Figure A.5. Strong-Form Long Social Distancing Falls with Earnings

## Strong-Form Long Social Distancing by Earnings

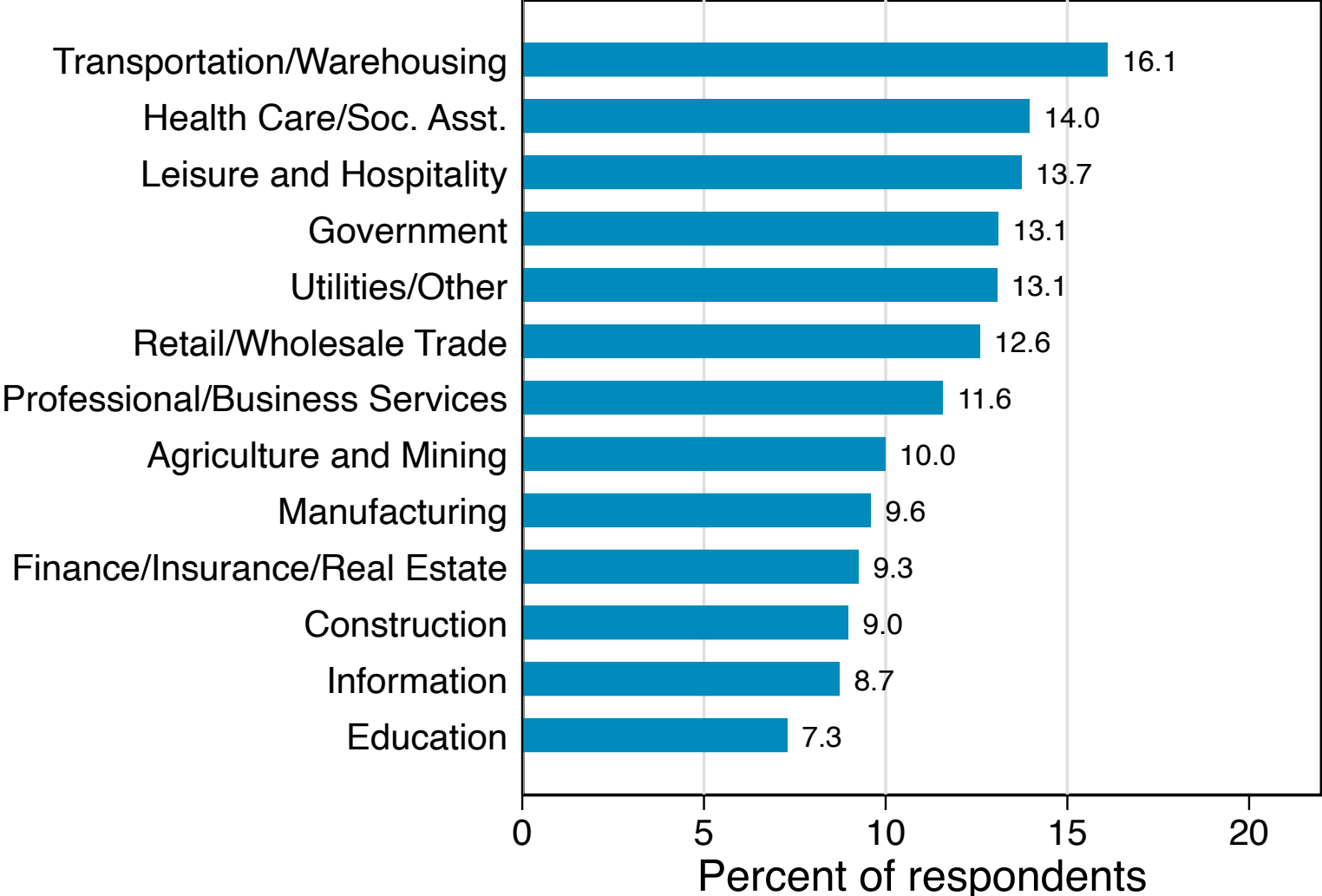


**Notes:** The sample includes respondents from the October 2021 to March 2022 survey waves. The SWAA samples US residents aged 20 to 64 who earned \$10,000 or more using 2019 or 2021 earnings. We don't use weights when computing the mean for each earnings bucket in this figure.

**N = 27,633.**

# Figure A.6 Strong-form Long Social Distancing is Lowest Among Workers in Education and Highest in Transportation and Warehousing

Strong-form Long Social Distancing by industry

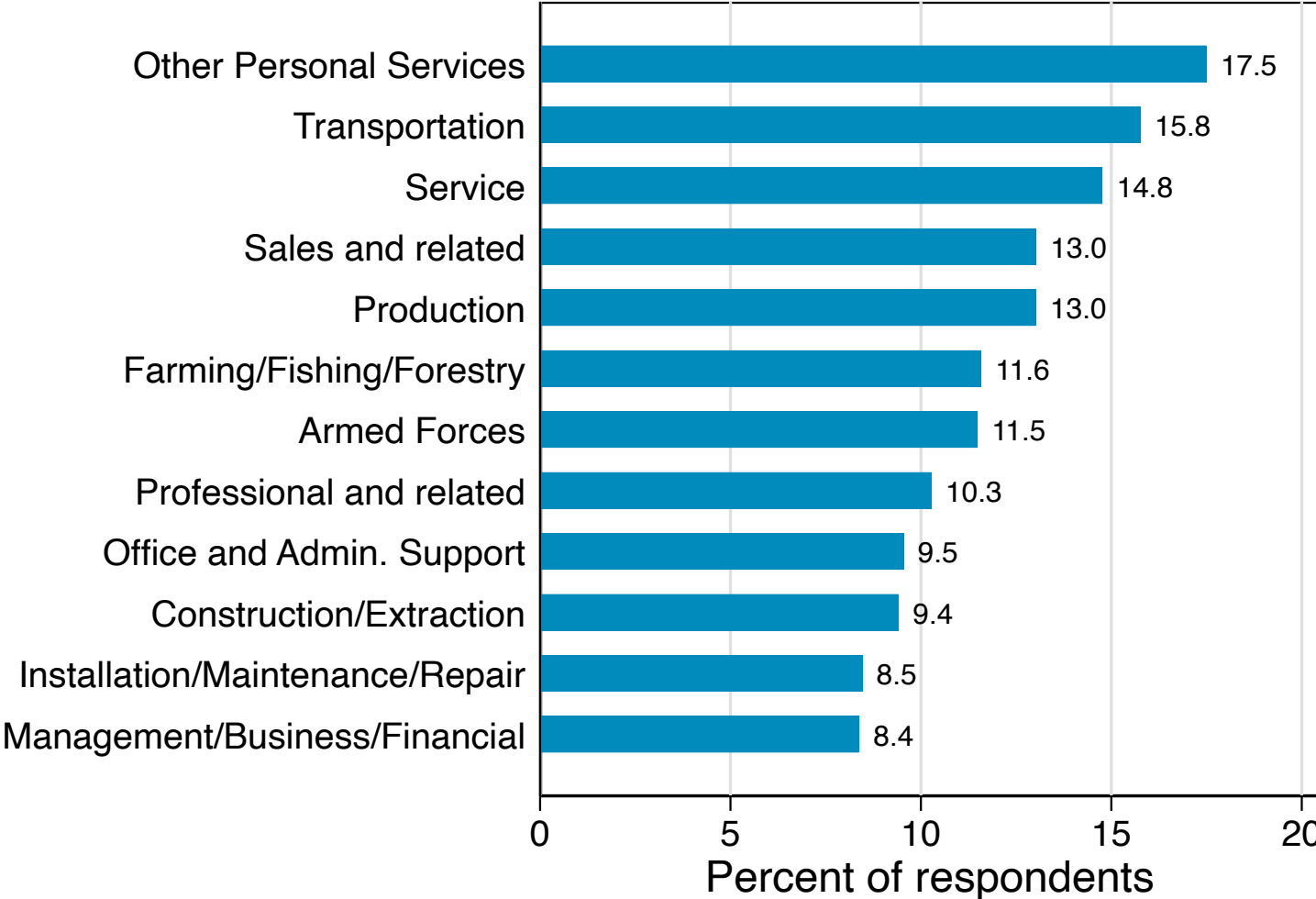


**Notes:** The sample includes respondents from the February to July 2022 survey waves. The SWAA samples US residents aged 20 to 64 who earned \$10,000 or more using 2019 or 2021 earnings.

**N = 26,530.**

# Figure A.7. Strong-form Long Social Distancing is Highest Among Workers in Other Personal Services Occupations and Lowest Among those in Management, Business, and Financial occupations

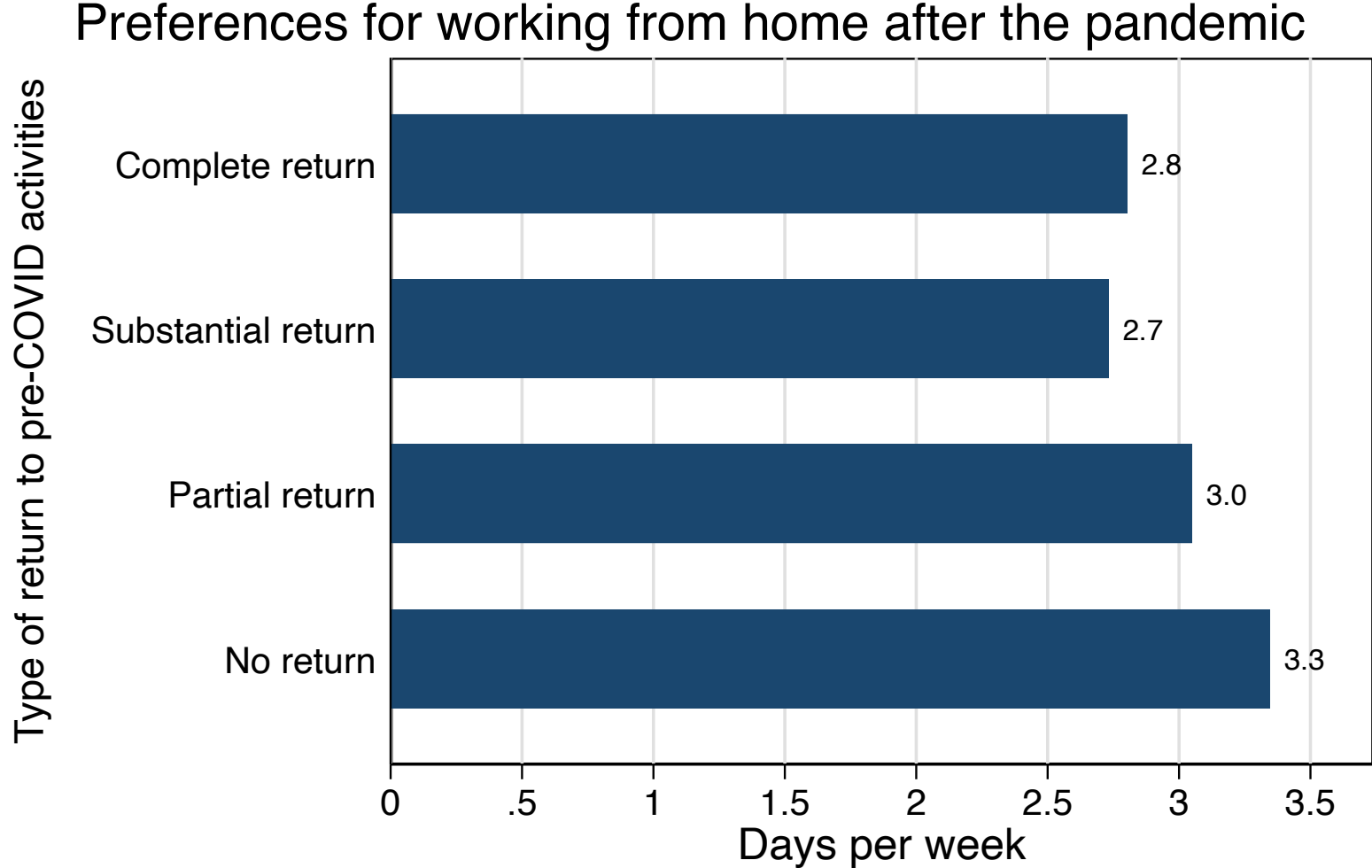
Strong-form Long Social Distancing by occupation



**Notes:** The sample includes respondents from the February to July 2022 survey waves. The SWAA samples US residents aged 20 to 64 who earned \$10,000 or more using 2019 or 2021 earnings.

**N = 26,512.**

# Figure A.8. Desired Work-from-Home Days Rise with the Strength of Social Distancing Intentions.

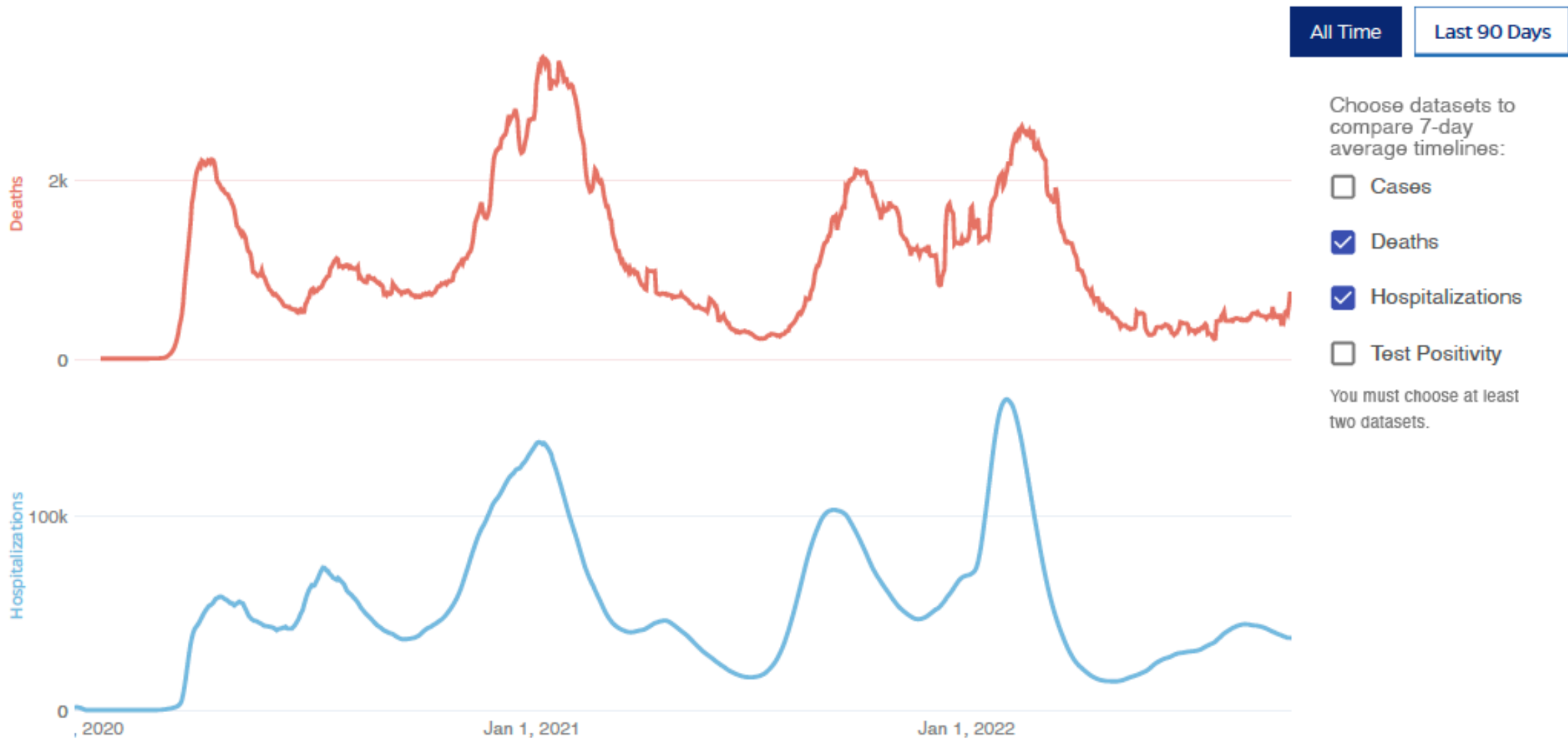


**Notes:** The sample includes respondents who are employed or unemployed (seeking work or awaiting recall to an old job) and who are able to work from home (as revealed by having done so during the pandemic) in the January to March 2022 waves of the SWAA. Preferences for working from home after the pandemic come from responses to the question, *“As the pandemic ends, how often would you like to have paid workdays at home?”*

**N = 17,993.**

Sample: Respondents who are working or looking for work, and able to work from home.

# Figure A.9. U.S. Deaths and Hospitalizations Due to COVID-19, Seven-Day Moving Averages, 22 January 2020 to 30 August 2022

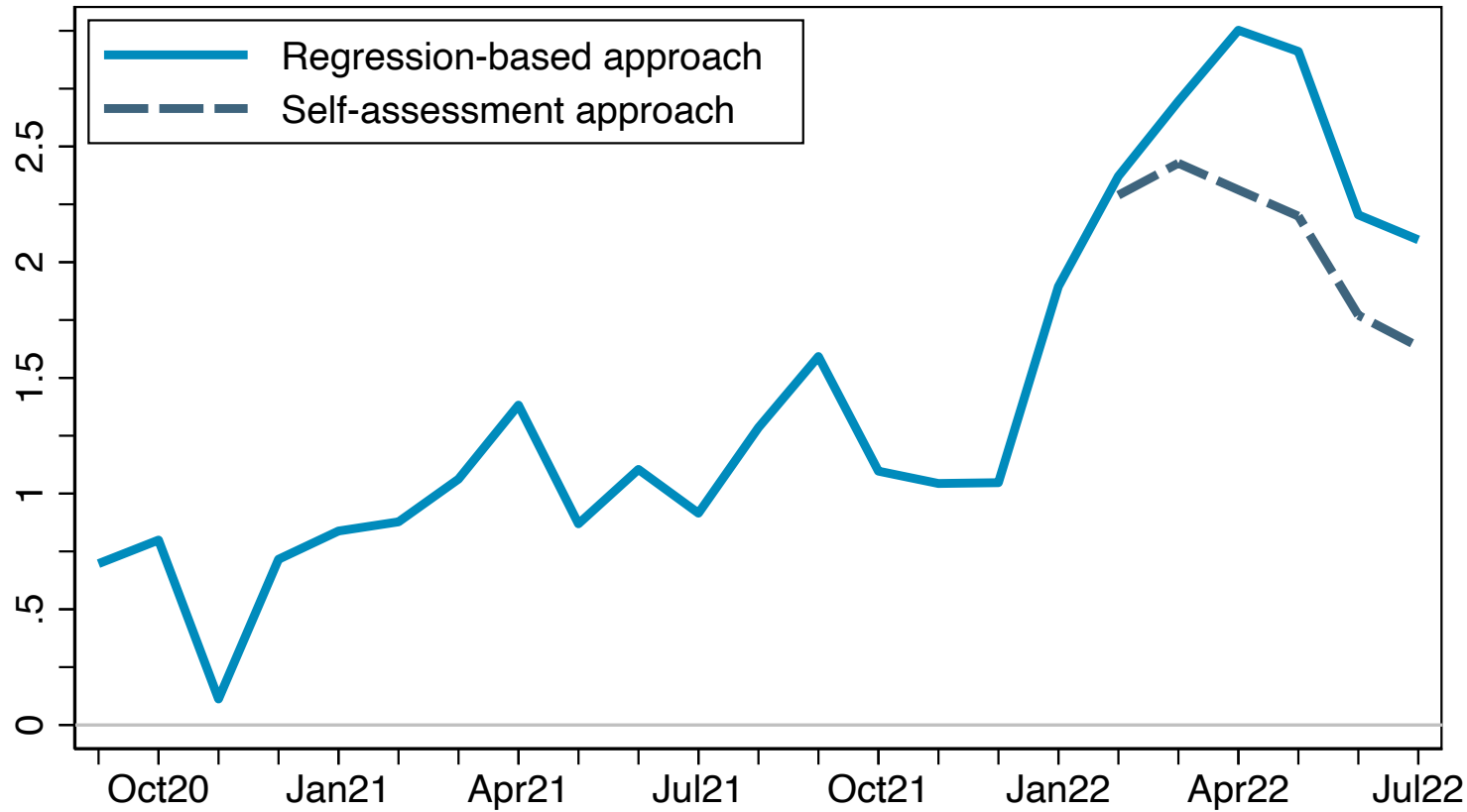


**Data Sources:** Cases and deaths data from JHU CSSE; testing and vaccine data from JHU CCI; and hospitalization data from the U.S. Department of Health and Human Services.

Source: Johns Hopkins Coronavirus Resource Center at <https://coronavirus.jhu.edu/region/united-states>, accessed on 2 September 2022.

# Figure 9. The Long Social Distancing drag on labor force participation by month from July 2020 to July 2022

Effect of Long Social Distancing on Labor Force Non-Participation (percentage points)



Note: For the regression-based approach, each monthly estimate is based on the 3 most recent months of data to that point.

**Notes:** In month  $t$  we pool data for  $t-2$  to  $t$  and regress an indicator for whether a respondent is out of the labor force (not working and not looking for work) on their responses to the question “After the COVID-19 pandemic has ended, which of the following would best fit your views on social distancing?” with “Full return to pre-COVID activities” as the baseline level, and controls for survey wave, education and age categories. We multiply the coefficients for each type of (incomplete) return to pre-COVID activities by the corresponding share of respondents and add the results to obtain the total effect of social distancing on labor force non-participation. Data are from the July 2020 to July 2022 waves of the SWAA.

**N = 94,355 (regression-based approach).**

**N = 27,632 (self-assessment approach)**