

Socially Useless Jobs*

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Recent research suggests that many workers in modern economies think that their job is socially useless, i.e., that it makes no or a negative contribution to society. However, the evidence so far is mainly anecdotal. We use a representative dataset comprising 100,000 workers from forty-seven countries at four points in time. We find that approximately 8 percent of workers perceive their job as socially useless, while another 17 percent are doubtful about the usefulness of their job. There are sizeable differences among countries, sectors, occupations, and age groups, but no trend over time. A vast majority of workers cares about holding a socially useful job and we find that they suffer when they consider their job useless. We also explore possible causes of socially useless jobs, including bad management, strict job protection legislation, harmful economic activities, labor hoarding, and division of labor.

Introduction

In a widely read essay, anthropologist David Graeber (2013: n.p.) has claimed on the basis of anecdotal evidence that “Huge swathes of people, in Europe and North America in particular, spend their entire working lives performing tasks they secretly believe do not really need to be performed” (see also Graeber 2018). This claim, if true, is worrisome for at least three reasons. First, insofar as workers’ beliefs reflect the true usefulness of their job, it would mean a huge waste of resources. Second, experimental studies (Ariely, Kamenica, and Prelec 2008; Carpenter and Gong 2016; Grant 2008; Kosfeld, Neckerman, and Yang 2017) have shown that motivation and, hence, productivity, deteriorate when workers consider their job to be useless or harmful, which is problematic when jobs are actually useful. Third, and independent of the true usefulness of the job,

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job satisfaction and well-being will be lower for those workers who care about doing a useful job, but perceive their job as useless.

This paper studies socially useless jobs using a large representative dataset—the International Social Survey Program, Work Orientations Waves—covering more than 100,000 workers from forty-seven countries in 1989, 1997, 2005, and 2015. We address the following issues: How many workers consider their job to be socially useless? How does this differ among countries, sectors, occupations, cohorts, age groups, and over time? Do workers suffer when they perceive their job to be useless? What explains the existence of socially useless jobs? And, finally, what can be done about the perceived social uselessness of jobs?

Our study is limited to workers' subjective assessment of the social usefulness of their job, which we measure by workers' response to the statement, "My job is useful to society." Ideally, we would also consider the true usefulness of jobs, as well as how that relates to workers' perceptions. However, objective measures are hard to find (cf. Lockwood, Nathanson, and Weyl 2017) or may not even exist (Graeber 2013). As a result, we will not be able to speak to the issue of whether there is a substantial waste of human resources. We are, however, in a good position to speak to the other major issues mentioned above—workers' motivation, productivity, and satisfaction—as these are affected by the workers' perceived social impact, not by the true social impact of their work.

Our focus on the social usefulness of jobs differs from Dekker (2018), who— independently from and concurrently with the present study—examined the responses of workers to the more general question "I doubt the importance of my work" using the European Working Conditions Survey 2015. Likewise, Hu and Hirsh (2017) used a composite measure of "meaningful work," which includes whether the job is interesting and whether one can help other people on the job.¹ Closer to our definition, YouGov surveyed a sample of workers in the UK in 2015 asking whether their job is making a meaningful contribution to the world, finding a higher percentage of workers who disagree than we do.²

Our paper is structured as follows. In the next section, we will examine workers' perceptions of the social usefulness of their jobs and how that differs across and within countries and over time. We then study workers' desire for a socially useful job and the consequences of holding a socially useless job for job satisfaction, the pride workers take in their job, and workers' job search behavior. We then turn to possible explanations for the existence of socially useless jobs. We explore the role

¹ See also Steger, Dik, and Duffy (2012) for an extensive description of several dimensions of meaningful work and Kaplan and Schulhofer-Wohl (2018) for an analysis of how meaningful U.S. workers find their work.

² See <https://yougov.co.uk/news/2015/08/12/british-jobs-meaningless/>.

of bad management, strict job protection legislation, harmful economic activities, labor hoarding, and division of labor. The last section concludes with a brief summary and a discussion of what governments, employers, and workers can do to prevent socially useless jobs from emerging or persisting.

Who Considers Their Job to Be Socially Useless?

We assume a worker considers his job to be socially useless when he disagrees or strongly disagrees with the statement “My job is useful to society.” Using this classification, we find for the sample of workers in the 2015-wave—which includes more than 27,000 workers in thirty-seven countries—that 8 percent perceive their job to be socially useless. In contrast, close to 75 percent of workers agrees or strongly agrees with the statement. The remaining 17 percent neither agrees nor disagrees, and so they seem doubtful about the usefulness of their job.³

Figure 1 shows considerable differences between countries in the percentage of workers perceiving their job as socially useless, with relatively high shares in countries such as Poland, Japan, Israel, and India, and relatively low shares in Norway, Switzerland, and Mexico. There is some variation over time in the share of socially useless jobs, but no clear time trend: it moves from 6 percent in 1989, to 10 percent in 1997, back to 6 percent in 2005.⁴ The pattern over time mirrors the business cycle, with lower shares during booms and higher shares during recessions, an issue we will return to later, when we examine possible explanations for socially useless jobs.

Table 1 reports the results of regressing whether a worker considers her job to be socially useless on sector of employment, whether one holds a management position, and a set of demographic characteristics.⁵ In line with a rich literature in public administration and economics (Besley and Ghatak 2018; Francois and Vlassopoulos 2008; Perry and Vandenabeele 2015), we find that workers in the public sector are much less likely to report having a socially useless job than workers in the private sector (more than 6 percentage points lower, which is large compared to the average of 8 percent in the full sample). Further inspection of the data shows that this holds particularly for occupations such as fire fighters, police officers, social benefits officials, health workers,

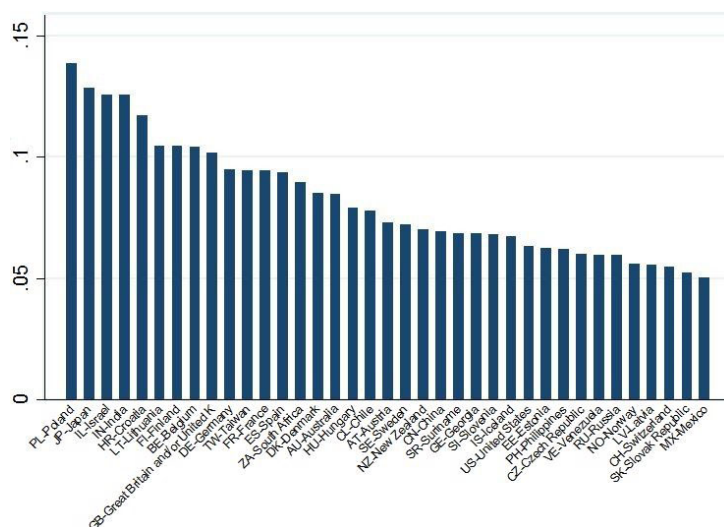
³ Respondents could also choose “Can’t choose,” which was chosen by slightly more than 1 percent.

⁴ Countries included in the sample vary from wave to wave, but correcting for this does not change the pattern over time in an important way, see Table S1 in the supporting information.

⁵ Throughout this paper we use ordinary least squares (OLS) regression models for ease of interpretation; logistic regressions give similar results.

FIGURE 1

THE FRACTION OF WORKERS WHO CONSIDER THEIR JOB TO BE SOCIALLY USELESS BY COUNTRY IN 2015



SOURCE: International Social Survey Program, Work Orientations Wave 2015. [Color figure can be viewed at wileyonlinelibrary.com]

and teachers. For these occupations, we find that the percentage of workers reporting socially useless work is close to or equal to zero; see Table S2 in supporting information. In contrast, for government clerks and the armed forces we find percentages closer to the sample average. Regarding the demographic variables, we find no significant gender difference and a weak, but statistically significant, negative relation with years of education. In contrast to what is sometimes thought (Graeber 2013), managers are not more likely to report socially useless work than regular workers, and this holds for both middle managers and top managers. Last, we find sizeable associations with cohort and age; see the coefficients plotted in Figure 2. Holding age constant, cohorts born before World War II are less likely to perceive their job as socially useless, particularly the cohort born before 1921.⁶ Holding constant the cohort, older workers are much less likely to perceive their job as socially useless. This age pattern may arise for a variety of reasons including “job shopping” by young workers in search for a meaningful job and early retirement by old workers who consider their job socially useless.

⁶ When interpreting these coefficients, it is important to keep in mind that the regression in Table 1 does not include time fixed effects, because of the linear dependency of age, cohort, and time effects.

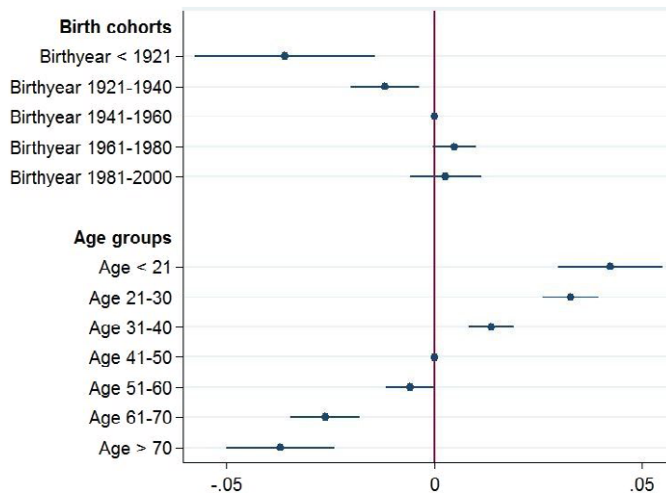
TABLE 1
WHO CONSIDERS THEIR JOB TO BE SOCIALLY USELESS?

Dependent Variable	Socially Useless Job
Public sector	-0.063*** (0.002)
Top manager	-0.024 (0.015)
Middle manager	0.001 (0.006)
Years of education	-0.0001* (0.0001)
Female	-0.002 (0.002)
Birth cohort and age group dummies	Yes
Country fixed effects	Yes
Observations	86,469
R ²	0.033

NOTES: OLS regression. Mean of dependent variable is 0.079. Standard errors in parentheses * $p < 0.1$; *** $p < 0.01$.

FIGURE 2

CHANGE IN THE PROPORTION OF WORKERS WHO CONSIDER THEIR JOB TO BE SOCIALLY USELESS
IMPLIED BY THE COEFFICIENTS OF THE BIRTH COHORT AND AGE GROUP DUMMIES OF THE REGRESSION
REPORTED IN TABLE 1



NOTES: The dot depicts the coefficient and the line the 95-percent confidence interval of the coefficient estimated in the regression in Table 1. The reference categories are Birthyear 1941–1960 and Age 41–50. [Color figure can be viewed at wileyonlinelibrary.com]

TABLE 2
WORKERS' PREFERENCE FOR SOCIALLY USEFUL JOBS AND PERCEIVED USEFULNESS OF THEIR JOB IN
2015

Considers Job Socially Useless	Don't Mind Having a Socially Useless Job		
	No	Yes	Total
No	73%	19%	92%
Yes	4%	4%	8%
Total	77%	23%	100%

NOTES: Workers consider their job as socially useless when they do not agree with the following statement: "My job is useful to society." Workers do not mind having a socially useless job when they do not find it important to have "a job that is useful to society."

Do Workers Suffer When They Perceive Their Job to Be Socially Useless?

Having a job that is useful to society is considered an important job characteristic by a vast majority of workers: Table 2 shows that close to 77 percent of the 2015 wave finds this important or very important. Not all of these workers manage to get a job they consider socially useful. Fifty percent of socially useless jobs are occupied by workers who find it important to have a socially useful job. However, the data do suggest that there is some sorting of workers to jobs on the basis of preferences, as workers who do not care about the usefulness of their job are clearly overrepresented among those who perceive their job as socially useless. We find similar results for the other waves.

Workers who care about holding a socially useful job report lower job satisfaction when they perceive their job as useless. In the first column of Table 3, we

TABLE 3
SOCIALLY USELESS JOBS AND JOB SATISFACTION IN 2015

Dependent Variable	Job Satisfaction		
Socially useless job (SUJ)	-0.77*** (0.03)	-0.52*** (0.03)	-0.52*** (0.03)
Don't mind having a SUJ	-0.22*** (0.02)	-0.14*** (0.02)	-0.15*** (0.02)
Don't mind having a SUJ x SUJ	0.40*** (0.05)	0.27*** (0.05)	0.28*** (0.05)
Demographic characteristics	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes
Other job characteristics	No	Yes	Yes
Wage dummies per countries	No	No	Yes
Observations	26.184	26.184	26.184
R ²	0.09	0.21	0.29

NOTES: Job satisfaction is measured using a 7-point scale; a higher value means more satisfied. The mean is 5.32 and the standard deviation is 1.17. Standard errors in parentheses. *** $p < 0.01$.

regress a worker's job satisfaction (measured on a 7-point scale) on whether she holds a socially useless job, whether she cares about holding a socially useless job, and the interaction between these two variables. We also include a set of demographic characteristics (age, gender, and education) and country fixed effects.⁷ We find a strong negative relation between holding a socially useless job and job satisfaction for those who care, while the relationship is much weaker for those who indicate not caring about holding a socially useless job.⁸

In the second column, we add a range of other job characteristics as controls, resulting in a slightly weaker—but still highly significant—relationship between holding a socially useless job and job satisfaction for those who care.⁹ The drop in the coefficient reflects that workers who hold a socially useless job often-times also report that other job characteristics are less attractive, such as a lack of opportunities for advancement and job insecurity. Not including these as controls leads to a bias away from zero in the coefficient of main interest.

In the final column of Table 3, we add as a control the workers' wage, which is measured in country-specific intervals. If the theory of compensating wage differentials (Rosen 1974) holds, then we expect that socially useless jobs pay higher wages to compensate for the disamenity. Not controlling for wages in the job satisfaction regression then biases the estimate of the true nonpecuniary loss of holding a socially useless job toward zero. However, we find that the estimate hardly changes, suggesting that workers holding a socially useless job are not financially compensated for this disamenity. The estimated coefficient implies that, for those who care, holding a socially useless job is associated with a drop in job satisfaction by 45 percent of a standard deviation, which is comparable to the association of job satisfaction with other important job characteristics, such as job security, opportunities for advancement, and being able to work independently; see the first column in Table 4.

We ran the same regressions for other important outcome variables, and find results in line with those for job satisfaction; see the second, third, and fourth column in Table 4. Workers who hold a socially useless job and care about this feel less proud of the type of work they do. They are significantly more

⁷ Table S3 in supporting information provides a version of Table 3 that also reports the coefficients for the demographic characteristics. The coefficients for the country fixed effects are available upon request.

⁸ Both the dependent and the main independent variable in the regressions in Table 3 and 4 are respondent's subjective assessments, which may give rise to biases, for instance due to omitted variables such as the respondent's personality and mood. While this argument may have some merit, we believe it is not quite so compelling here, because the worker's assessment of the usefulness of his job (the main independent variable) is not so much a statement about his overall feeling of happiness with work. We thank a reviewer for bringing up this point.

⁹ Table S3 provides a description of the job characteristics we control for and the resulting regression coefficients.

TABLE 4
 SOCIALLY USELESS JOBS AND OTHER IMPORTANT OUTCOME VARIABLES IN 2015

Dependent Variable	(1)	(2)	(3)	(4)
Socially useless job (SUJ)	−0.52*** (0.03)	−0.61*** (0.03)	0.49*** (0.04)	0.23*** (0.03)
Don't mind having a SUJ	−0.15*** (0.02)	−0.26*** (0.01)	0.09*** (0.02)	0.02 (0.02)
Don't mind having a SUJ x SUJ	0.28*** (0.05)	0.26*** (0.04)	−0.32*** (0.06)	−0.12*** (0.04)
Demographic characteristics	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes
Other job characteristics				
My job is secure	0.38*** (0.02)	0.18*** (0.01)	−0.26*** (0.02)	−0.29*** (0.01)
My opportunities for advancement are high	0.40*** (0.02)	0.22*** (0.01)	−0.25*** (0.02)	−0.08*** (0.01)
I can work independently	0.35*** (0.02)	0.29*** (0.01)	−0.24*** (0.02)	−0.03*** (0.02)
I often have to do hard physical work	−0.11*** (0.02)	−0.03*** (0.01)	0.16*** (0.02)	0.05*** (0.01)
I often find my work stressful	−0.36*** (0.01)	−0.03*** (0.01)	0.26*** (0.02)	0.14*** (0.01)
Wage dummies per countries	Yes	Yes	Yes	Yes
Observations	26.184	25.858	25.500	25.002
R ²	0.29	0.29	0.23	0.23

NOTES: The dependent variables are (1) job satisfaction (on a 7-point scale); (2) I am proud of the type of work I do (on a 5-point scale); (3) given the chance, I would change my present type of work (on a 5-point scale); (4) how likely is it that you will try to find a job with another firm within the next 12 months (on a 4-point scale). Standard errors are in parentheses. ** $p < 0.05$; *** $p < 0.01$.

likely to indicate that, given the chance, they would change their type of work. Likewise, they find it more likely that they will try to find another job within the next 12 months.¹⁰

What Explains the Existence of Socially Useless Jobs?

What might explain that about 8 percent of workers perceive their job to be socially useless? We can think of five plausible reasons, for which we provide tentative empirical evidence in what follows.

First, it has been widely recognized that some economic activities harm rather than help people. Think, for instance, of firms that exploit our psychological weaknesses and ignorance to make us buy products that we actually do

¹⁰ Earlier research has found that workers who find their job useless more likely suffer from emotional exhaustion, a distinctive feature of burnout (Grant and Sonnentag 2010).

not need or that harm us (Akerlof and Shiller 2015; Thaler 2018). As a concrete example, it has been argued that financial advice by bankers and insurance agents can be “a curse rather than a blessing” for consumers (Inderst and Ottaviani 2012). Similarly, workers in so-called “sin industries” such as tobacco and gambling and those involved in rent-seeking and lobbying may not be convinced that they make a positive contribution to society (Brun, Schneider, and Weber 2017; Murphy, Shleifer, and Vishny 1991).

Our data provide some support for this explanation. Indeed, among the top-20 occupations with the highest share of workers reporting a socially useless job, we find “sales, marketing, and public relations professionals,” “finance managers,” and “sales and purchasing agents and brokers” (which include insurance representatives) scoring percentages higher than 14 percent; see Table S4 in supporting information. This is in line with the empirical evidence in Lockwood, Nathanson, and Weyl (2017)—reporting negative economy-wide externalities for jobs in finance and law—and in Ashraf and Bandiera (2017)—reporting particularly low values of perceived social impact of bankers engaged in marketing and legal offices, finance, and investment banking. Interestingly, economists also make it into the top 20. For workers in “sin industries” such as tobacco and gambling, we unfortunately lack a sufficient number of observations.

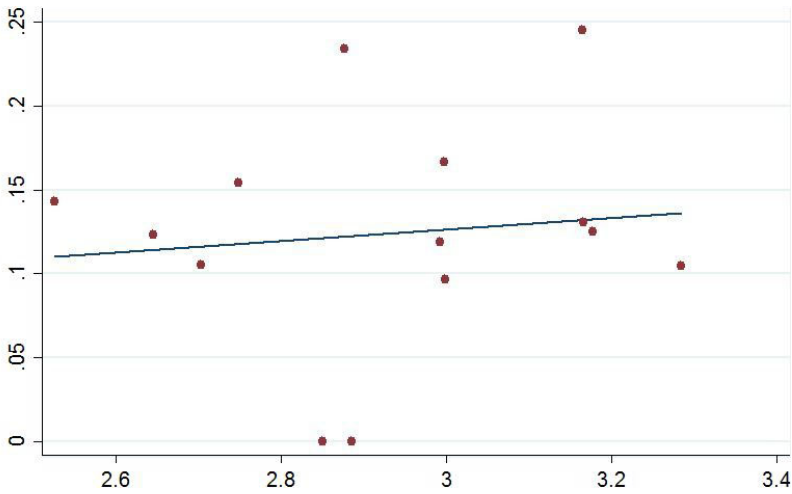
A second explanation relies on Marx’s (1844) theory of alienation, which argues, among other things, that division of labor into highly specialized parts can make meaningful work look meaningless. We find some support for this idea in our data. In the top-20 occupations with the highest share of workers reporting to have a socially useless job, we find three occupations for which Marx’s theory may be particularly relevant: “stationary plant and machine operators,” “assemblers,” and “labourers in mining, construction, manufacturing, and transport performing simple and routine manual tasks” with percentages close to 14 percent; see Table S4.

The third explanation relies on the fact that decisions on job creation and job destruction are typically taken by managers. If managers do a bad job, socially useless jobs may emerge or persist. We use data from Bloom et al. (2014) about the average quality of management in the manufacturing industry for fourteen countries and find no support for this prediction: management quality is not negatively associated with the share of socially useless jobs among workers (see Figure 3). We find a similar result when replacing the average quality of management by the percentage of companies that is badly managed. Unfortunately, we lack data on management quality for more countries and other industries.

Our fourth explanation is that strict job protection legislation may force organizations into retaining workers, even when work has disappeared (e.g.,

FIGURE 3

THE AVERAGE MANAGEMENT QUALITY IN THE MANUFACTURING INDUSTRY (HORIZONTAL AXIS) AND THE SHARE OF WORKERS REPORTING A SOCIALLY USELESS JOB IN THE MANUFACTURING INDUSTRY (VERTICAL AXIS) FOR THE AVAILABLE COUNTRIES IN 2015



Source: International Social Survey Program, Work Orientations Wave 2015 and Bloom et al. (2014).

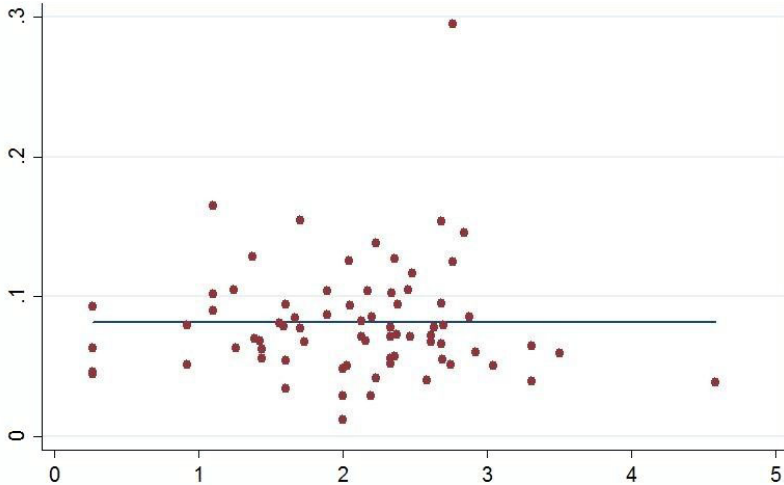
Notes: $R^2 = 0.02$, coefficient: 0.04 ($p = 0.672$). [Color figure can be viewed at wileyonlinelibrary.com]

due to technological shocks or changing market circumstances), leaving workers with little to do on the job. Using data from the Organization for Economic Cooperation and Development (OECD) about job protection legislation in thirty-one different countries for several years, we find no evidence for this prediction: job protection does not correlate significantly with the share of socially useless jobs; see Figure 4.

Our fifth and last explanation is labor hoarding, i.e., the tendency of organizations to hold on to more workers than necessary during economic downturns in anticipation of better times, resulting in “on-the-job underemployment” (Okun 1962). Using data from the OECD on the economies’ output gap in twenty-seven countries for several years, we find some support for this idea: the share of socially useless jobs is significantly higher when the economic situation gets worse (a one standard deviation increase in the output gap is associated with a 0.5 percentage points increase in the share of socially useless

FIGURE 4

JOB PROTECTION INDEX (HORIZONTAL AXIS) AND THE SHARE OF SOCIALLY USELESS JOBS (VERTICAL AXIS) FOR AVAILABLE COUNTRIES AND WAVES



Source: International Social Survey Program, Work Orientations Wave 2015 and the OECD Indicators of Employment Protection, “Strictness of employment protection—individual and collective dismissals (regular contracts)”; https://stats.oecd.org/Index.aspx?DataSetCode=EPL_OV.

Notes: $R^2 = 0.00$, coefficient: 0.00 ($p = 0.882$). [Color figure can be viewed at wileyonlinelibrary.com]

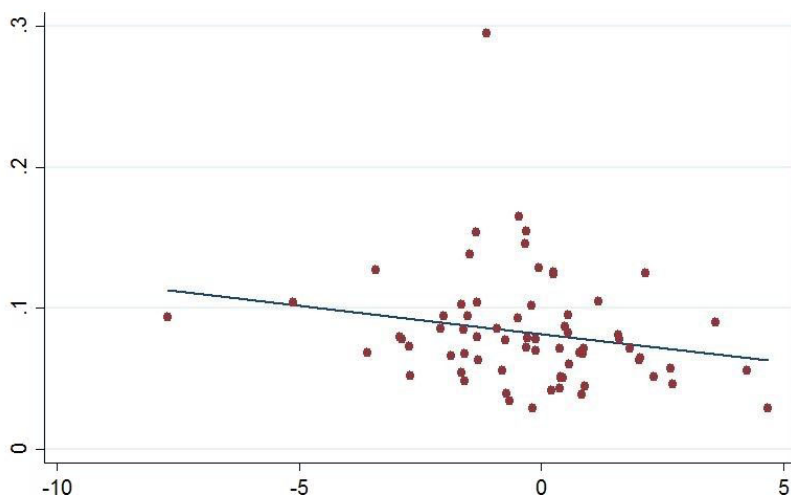
jobs; see Figure 5). However, it also appears clearly from the data that socially useless jobs are not merely observed during recessions.

Concluding Remarks

We have found that about 8 percent of workers consider their job to be socially useless. An additional 17 percent seem doubtful about the social usefulness of their job. While these numbers are much lower than has been suggested on the basis of anecdotal evidence in Graeber (2013, 2018), the share of workers perceiving their job to be socially useless is clearly not negligible either. In line with earlier studies in public administration and economics, we found a big difference between workers in the public sector and workers in business, with 11 percent of the latter considering their job to be socially useless, while only 3

FIGURE 5

OUTPUT GAP (HORIZONTAL AXIS) AND THE SHARE OF SOCIALLY USELESS JOBS (VERTICAL AXIS) FOR AVAILABLE COUNTRIES AND WAVES.



Source: International Social Survey Program, Work Orientations Wave 2015 and the OECD Economic Outlook No. 102—November 2017, “Output gap of the total economy”; <https://stats.oecd.org/Index.aspx?DataSetCode=EO#>.

Notes: $R^2 = 0.05$, coefficient: -0.004 ($p = 0.071$). Lower values mean larger output gap. [Color figure can be viewed at wileyonlinelibrary.com]

percent of public sector workers think about their job in that way. Within business, the share of workers considering their job to be socially useless is particularly high in jobs involving simple and routine tasks as well as jobs in finance, sales, marketing, and public relations. Within the public sector, jobs in education, health, and the police force are rarely perceived to be socially useless. Further, we have seen that managers and workers do not differ much in how they evaluate the usefulness of their job, in contrast to what is sometimes thought. Of the potential causes of socially useless jobs, we found some evidence consistent with the ideas that division of labor, labor hoarding, and harmful economic activities may be partly responsible for the existence of socially useless work. We found no evidence for the hypotheses that bad managers and strict job protection legislation give rise to socially useless jobs. However, we cannot draw firm conclusions, as our analysis is correlational in nature.

What can be done to reduce socially useless jobs? We see a role for governments, employers, and workers. Governments may use taxation to discourage employers from creating or retaining pointless and harmful jobs and encourage

them to create socially useful jobs, an idea recently explored in Lockwood, Nathanson, and Weyl (2017). Stricter regulation of harmful economic activities (e.g., through consumer protection laws) may, of course, also contribute to reducing the number of socially useless jobs. Moreover, even though our preliminary evidence does not convincingly point in this direction, it seems wise to avoid unnecessarily strict job protection legislation. Employers can help by removing or improving bad management (although our tentative empirical evidence on this does not suggest that management quality plays a big role). When the social uselessness of jobs is a matter of perception rather than reality, employers may use nudging or adapt job design. Last, Valcour (2013) and Coleman (2017) suggest a role for workers as well in making their job more meaningful.

REFERENCES

- Akerlof, George A., and Robert J. Shiller. 2015. *Phishing for Phools: The Economics of Manipulation and Deception*. Princeton, NJ: Princeton University Press.
- Ariely, Dan, Emir Kamenica, and Drazen Prelec. 2008. "Man's Search for Meaning: The Case of Legos." *Journal of Economic Behavior & Organization* 67: 671–77.
- Ashraf, Nava, and Oriana Bandiera. 2017. "Altruistic Capital." *American Economic Review P&P* 107(5): 70–75.
- Besley, Timothy, and Maitreesh Ghatak. 2018. "Pro-social Motivation and Incentives." *Annual Review of Economics* 10: 411–38.
- Bloom, Nicholas, Renata Lemos, Raffaella Sadun, Daniella Scur, and John Van Reenen. 2014. "The New Empirical Economics of Management." *Journal of the European Economic Association* 12(4): 835–76.
- Brun, Fanny, Florian H. Schneider, and Roberto A. Weber. 2017. "Immoral Labor Markets." Mimeo.
- Carpenter, Jeffrey, and Erick Gong. 2016. "Motivating Agents: How Much Does the Mission Matter?" *Journal of Labor Economics* 34(1, Part 1): 211–36.
- Coleman, John. 2017. "To Find Meaning in Your Work, Change How You Think About It." *Harvard Business Review*. <https://hbr.org/2017/12/to-find-meaning-in-your-work-change-how-you-think-about-it> (accessed November 8, 2018).
- Dekker, Fabian. 2018. "In Nederland heeft bijna niemand een bullshit job" ["In the Netherlands Hardly Anybody Has a Bullshit Job"]. *ESB* 103(4758): 90–91.
- Francois, Patrick, and Michael Vlassopoulos. 2008. "Pro-social Motivation and the Delivery of Social Services." *CESifo Economic Studies* 54(1): 22–54.
- Graeber, David. 2013. "On the Phenomenon of Bullshit Jobs: A Work Rant." *Strike! Magazine* 3: 10–11.
- . 2018. *Bullshit Jobs: A Theory*. New York: Simon and Schuster.
- Grant, Adam M. 2008. "The Significance of Task Significance: Job Performance Effects, Relational Mechanisms, and Boundary Conditions." *Journal of Applied Psychology* 93: 108–24.
- Grant, Adam M., and Sabine Sonnentag. 2010. "Doing Good Buffers Against Feeling Bad: Prosocial Impact Compensates for Negative Task and Self-Evaluations." *Organizational Behavior and Human Decision Processes* 111(1): 13–22.
- Hu, Jing, and Jacob B. Hirsh. 2017. "Accepting Lower Salaries for Meaningful Work." *Frontiers in Psychology* 8: 1649.
- Inderst, Roman, and Marco Ottaviani. 2012. "Financial Advice." *Journal of Economic Literature* 50(2): 494–512.
- Kaplan, Greg, and Sam Schulhofer-Wohl. 2018. "The Changing (Dis-)Utility of Work." *Journal of Economic Perspectives* 32(3): 239–58.

- Kosfeld, Michael, Susanne Neckermann, and Xiaolan Yang. 2017. "The Effects of Financial and Recognition Incentives Across Work Contexts: The Role of Meaning." *Economic Inquiry* 55: 237–47.
- Lockwood, Benjamin B., Charles G. Nathanson, and E. Glen Weyl. 2017. "Taxation and the Allocation of Talent." *Journal of Political Economy* 125(5): 1635–82.
- Marx, Karl. 1844. *The Economic and Philosophic Manuscripts*. Moscow: Progress Publishers.
- Murphy, Kevin M., Andrei Shleifer, and Robert W. Vishny. 1991. "The Allocation of Talent: Implications for Growth." *Quarterly Journal of Economics* 106(2): 503–30.
- Okun, Arthur M. 1962. "Potential GNP: Its Measurement and Significance". *Cowles Foundation Paper 190*. Princeton, NJ: Cowles Foundation.
- Perry, James L., and Wouter Vandenabeele. 2015. "Public Service Motivation Research: Achievements, Challenges, and Future Directions." *Public Administration Review* 75(5): 692–99.
- Rosen, Sherwin. 1974. "Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition." *Journal of Political Economy* 82(1): 34–55.
- Steger, Michael F., Bryan J. Dik, and Ryan D. Duffy. 2012. "Measuring Meaningful Work: The Work and Meaning Inventory (WAMI)." *Journal of Career Assessment* 20(3): 322–37.
- Thaler, Richard H. 2018. "Nudge, Not Sludge." *Science* 361(6401): 431.
- Valcour, Monique. 2013. "Make Your Work More Meaningful." *Harvard Business Review*. <https://hbr.org/2013/08/make-your-work-more-meaningful> (accessed November 8, 2018).

Supporting Information

Additional Supporting Information may be found in the online version of this article:

Table S1: The fraction of workers who consider their job to be socially useless over time.

Table S2: Top 20 occupations with the smallest share of workers considering their job to be socially useless in 2015.

Table S3: Socially useless jobs and job satisfaction in 2015.

Table S4: Top 20 occupations with the largest share of workers considering their job to be socially useless in 2015.