They're Coming for You! How Perceptions of Automation Affect Public Support for Universal Basic Income

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Abstract

Media stories on the economy tout automation as one of the biggest contemporary technological changes in America and argue that many Americans may lose their jobs because of it. Politicians and financial elites often promote a policy of Universal Basic Income (UBI) as a solution to the potential unemployment caused by automation, suggesting Americans should support UBI to protect them from this technological disruption. This linkage and basic descriptive findings are largely untested: we don't know much about whether Americans support UBI, see automation as a threat to their job, or connect the two in any meaningful way. Using a Mechanical Turk survey of 3600 respondents, we examine the relationship between Americans' perception of how much automation threatens their jobs, how much automation actually threatens their jobs, and their support for UBI. Our results indicate that while the public does not view automation as the same threat that elites do, Americans who believe their jobs will be automated are more likely to support UBI. These relationships, however, vary considerably by political party.

Keywords

universal basic income, automation, partisanship, public opinion

Introduction

Automation is one of the biggest technological developments affecting America today. In many industries, tasks that were until recently done by humans are now done by computer-controlled machines. Expert industry analysts predict that a variety of industries, from fast food service to insurance claims to production lines (Manyika, 2017), will be affected by automation. Some people fear that increasing automation may result in job loss and high unemployment in the near

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future. In response to this fear, some politicians and financiers have proposed the idea of Universal Basic Income (UBI).

Universal Basic Income is a policy in which the government gives cash payments to individuals without regard to need, qualification, or employment status. Its supporters tout it as a way of ameliorating the potential unemployment and loss of income for those whose jobs are replaced by automation and cushioning the harsher aspects of the technological disruption in the economy. Furthermore, in the last few years, UBI has become a more visible policy in the mind of the American public. Aspects of UBI featured prominently in the 2020 Democratic Presidential primary, the CARES Act of 2020, monthly payments of the increased child tax credit, and Congressional debates over government spending to stimulate the economy.

It's not clear, however, if Americans think about automation and UBI in same way that politicians do. There is relatively little research about how much Americans view automation as a threat to their careers or how accurate their perceptions of automation are. Public opinion scholars also lack a good understanding of how partisanship affects American perceptions of UBI and automation. While some media stories tout UBI as an issue with bipartisan support, partisan and ideological polarization affects almost everything in American political behavior today, and it would be surprising if perceptions of UBI and automation were exceptions. Some initial research (Jordan et al., 2022; Yeung, 2022) finds that UBI is mostly a Democratic and liberal policy, and that increased messaging by political elites is likely to widen existing partisan and ideological divisions over UBI, but the issue is far from settled.

Analyzing the results from an MTurk survey of 3600 respondents, we show mixed evidence that the American public views automation and UBI in the same way as some political elites. Americans' perceptions of how likely their jobs are to be automated are not consistently related to the actual likelihood of those jobs being automated in the near future. Moreover, Democrats and Republicans have polarized views of UBI, with Democrats supporting it and Republicans opposing it. However, Republicans who view their jobs as likely to be automated in the future are somewhat more likely to support UBI. Democrats, though, generally like UBI regardless of how likely their jobs are actually to be automated or how likely they perceive their jobs will be automated.

Automation, UBI, and Public Opinion

The preponderance of work on UBI focuses on public opinion towards UBI in Europe. Using data from the European Social Survey (ESS), these studies find that, generally speaking, UBI's public support is higher in countries where social spending is low (Parolin & Siöland, 2020) and among left-leaning individuals (Schwander & Vlandas, 2020). Additionally, those who have more positive views of benefit recipients tend to feel more positively towards UBI, and support is higher in countries with less generous unemployment benefit programs (Vlandas, 2021).

Recent work has also considered the role of occupation and automation in determining UBI support in the European public. Because some jobs face a greater likelihood of being automated in the coming years, those who work in these sectors are hypothesized to be more supportive of a policy that would provide them a basic income should their job sector shrink in the face of changing technological advancement. Using ESS data, Vlandas (2021) finds that low- and specific-skill workers are more supportive of UBI. Interestingly, Vlandas (2021) also finds that highly skilled professional workers show high levels of UBI support. Dermont and Weisstanner (2020) directly address the question of automation by using routine task intensity (RTI) (as described by Goos et al., 2014) to assess an occupation's vulnerability to technological change. They find that those whose jobs have higher RTI scores are more supportive of redistribution, but not more likely to support UBI.

While valuable, it is important to consider that these findings may be context-dependent. At its core, UBI is a policy focused on reallocating federal funds to citizens on a broad scale, independent from an individual's needs for financial assistance. In Europe, trade unions and Social Democratic political elites often do not support UBI, as it could, among other things, undermine a union's position in wage negotiations and violates the notion of reciprocity in economic exchange (Cigna, 2022). But broadly speaking, compared to the United States, there is much stronger public support for redistribution policies generally across the European continent. Recent Eurobarometer survey data finds that 78% of European Union citizens think their government should take measures to reduce differences in income levels. Similarly, 78% of Europeans believe that public spending on key social policies (such as health, education, and income support) should increase (Eurobarometer, 2023). Many European nations have progressive tax systems, extensive social benefit programs, and more public spending meant to reduce inequality and half of Europeans support higher taxes to fund spending on these social policies (Eurobarometer, 2023).

The United States spends far less on these programs and generally has a stronger commitment to individualistic political values. The scant work on UBI in the American context indicates conservatives tend to oppose UBI and are unaffected by frames that highlight features of the policy that align with conservative ideology (Jordan et al., 2022; Yeung, 2022). More generally, classic American public opinion research suggests a core tension between equality of opportunity and an individual's responsibility for their own economic future (Feldman, 1988).

Conservative skepticism around redistributive policies broadly has been marked since the rise of the "New Right" in the 1980s under Ronald Reagan. This coalition of ideological elites featured Republican "familiar themes of limited government, lower taxes, and less inflation" (Sundquist, 1983, p. 420). "Such elite linkages and issue mobilizations channeled conservative evangelical party activism almost exclusively into the GOP" (Rosenfeld, 2018, p. 203), creating a generation of conservative voters skeptical of redistribution, government spending, and in favor of cutting taxes. This message was additionally reflected in the 1980 Republican party platform, where Reagan "exerted strong presidential influence over the platform writing process, setting in motion a movement by the Republican Party to the right" (Jordan et al., 2014, p. 179), and reflecting the more broad move towards contemporary polarization.

This movement can be seen as a reflection of the long-term tension between the Republican and Democratic parties in the United States. Each offers a distinct social contract, largely centered around who should benefit from government, and at what expense. This division over economic issues about the proper size and scope of government has long been the primary axis of conflict between the Democratic and Republican parties, going back to at least the 1950s (Poole & Rosenthal, 2007). With the victory of Reagan in 1980, this conflict reemerged, with Republicans "continuously attacking programs benefiting the masses" while also seeking lower taxes and less regulation (Wood & Jordan, 2017, p. 301).

In short, conservative, and more recently Republican, skepticism over redistribution has long been the norm of American politics: a norm that has only grown more entrenched since the 1980s. Both partisanship and ideology in America affect contemporary U.S. public support for redistributive policies broadly, in ways that are similar for policies such as UBI and government guaranteed jobs (Jordan et al., 2022). While lower conservative and Republican support is ideological and related to preferences for a government that taxes and spends less, it may also be related to value distinctions unique to American politics.

Haidt (2012) finds that Democrats and liberals embrace overlapping but distinct so-called "moral foundations"—the six proposed distinct dimensions that explain variations in human moral reasoning—from Republicans and conservatives. While both liberals and conservatives hold moral foundations of care/harm, fairness/cheating, and liberty/oppression that affect how they react to government policy, conservative thinking is also affected by foundations of loyalty/

betrayal, authority/subversion, and sanctity/degradation (Haidt, 2012). Therefore, when Republicans and conservatives evaluate government policy, their moral reactions take into account additional considerations that those of Democrats and liberals do not.

Furthermore, Haidt (2012, p. 183) notes that conservatives view the fairness/cheating moral foundation as much more about proportionality (or "making sure that people get what they deserve, and do not get things they do not deserve") than liberals do, and conservatives' focus on proportionality specifically affects their views of income and merit. With specific respect to fairness/cheating, Democrats and liberals "are often willing to trade away fairness…when it conflicts with compassion" while "conservatives are more willing than liberals to sacrifice care and let some people get hurt in order to achieve their many other moral objectives" (Haidt, 2012, p. 184). Such moral reasoning applies directly to views of government support, especially if that support is unearned (or universal).

Based on Haidt's (2012) moral foundations theory, there is an additional reason to expect Democrats and liberals to support redistributive government policies like UBI and Republicans and conservatives to oppose them. Liberals are more willing to sacrifice the value of fairness and let taxpayer money support everyone, whether this support is deserved or not. Conservatives, on the other hand, are more willing to reject universal government support that could care for additional people if it means some who don't deserve help will receive it. Given the considerable size of the conservative ideological coalition in American politics (Jones, 2023), and their partisan, ideological, and moral opposition to government redistribution policies, we should expect overall U.S. public support for UBI to be more divided than it is in European countries. Thus, it is likely that baseline support for UBI will be higher in studies like the European Social Survey, necessitating further data collection and analysis in the United States for comparison. The dynamics of automation, UBI, and public opinion in America may be distinct, a proposition we explore with new survey data.

Research Design and Data

To explore attitudes towards UBI in the American context, we conducted a survey from November 1–2, 2019 with a sample of 3600 Mechanical Turk (MTurk) users.¹ While MTurk samples are not nationally representative, research has shown that MTurk samples are more diverse than typical convenience samples (Berinsky et al., 2012) and have proven effective for studying political ideology (Clifford et al., 2015). Despite these limitations, our MTurk samples approximates population characteristics and is consistent with other validated MTurk samples; MTurk samples also regularly replicate experimental results from nationally representative surveys (Berinsky et al., 2012; Mullinix et al., 2015; Weinberg et al., 2014).

Primarily, we are interested in support or opposition to UBI. To measure this support, we first prompted respondents with a bare minimum of information about UBI:

Now we'd like to get your opinion on new policy proposal. There is a new policy being tested around the world called Universal Basic Income (UBI). This policy guarantees a payment of money to individuals from their government, regardless of need, qualification, or work.

We then measured UBI support on a scale of 1–5, where 1 is no support at all and 5 is strong support.

Our research question is whether the public connects support for this social welfare policy, routinely argued as a hedge against the loss of income resulting from automation in industry, to the threat that automation poses to their own occupation. Threats, however, can be both objective as well as subjective. A respondent might work in an industry that economists and experts agree is

actually likely to be automated, but that does not mean they perceive that threat of automation. Accordingly, we measure both the *actual* threat of automation as well as a respondent's self-assessed *perception* of the threat of automation.

To measure the *perception* that a respondent's job is likely to be automated, we ask "how likely is it that the following jobs will be replaced by robots or computers in your lifetime"; the list of jobs included fast food worker, insurance claims processor, teacher, legal clerk, construction worker, and the respondent's own job. Responses range from 1 to 4, where 1 is not at all likely and 4 is very likely. Higher numbers, then, indicate a stronger self-assessment that automation is a threat to the respondent's industry.

We later asked the respondents to tell us their occupation in an open-ended response format. We leverage respondent occupation to determine the *actual* likelihood that their job will be automated. To do this, we developed a coding scheme based on job classifications identified by the United States Bureau of Labor Statistics (BLS) to match each respondent to an industry from their openended occupation. Each respondent is placed in the BLS classification that most closely matches their self-described occupation. We then match these BLS codes to a 2017 expert evaluation of what kinds of jobs are likely to be automated.² In this expert evaluation, each BLS industry receives a 0–100 score that indicates the likelihood the industry can be automated; higher scores suggest a higher likelihood of automation. The scores are additionally collapsed into a threecategory indicator of industries that face a low, medium, or high threat of automation. More automatable sectors (at the time) included those that involve predictable physical tasks, data collection, and data processing. Jobs that are less likely to be automated tend to involve management duties, specific expertise, and more public interfacing. Pairing these expert evaluations with the respondent's self-described occupation, we can determine if a respondent is in an industry at low, medium, or high threat of *actually* being automated. This allows us to fully examine the relationship between UBI support, self-assessments of the likelihood of automation, and the actual threat of automation to the respondent.

Finally, we account for standard political and demographic information when determining support for UBI and assessing automation perceptions: party identification, ideology, income, past voting behavior, and education. We also include a trio of indicators to control for a respondent's a priori level of concern about the economy: economic retrospections and economic prospections, along with the respondent's actual industry of work. We additionally indicate if the respondent is a freelancer or MTurker (self-described), as well as if the respondent is self-employed. Students, the unemployed, retired individuals, and individuals who did not disclose their occupation are excluded from the analysis (as we cannot determine the likelihood of their job being automated), leaving us with an inferential sample of observations of employed individuals who disclose their occupation (N = 2354).

Results

Automation Perceptions and Automation Reality

We begin by looking at whether respondents are successful at self-assessing the level of threat of automation that their own industry faces. For reference, Figure 1 shows the actual self-reported industries of MTurk workers in our sample. The top ten most common industries from the full sample are shown; they are additionally shown as represented in each partian group.

We focus, though, on Figure 2. The x-axis of Figure 2 shows the average self-assessment of the likelihood of their own job being automated reported by respondents in each industry. The averages for all career fields fell between 1.2 and 2.8 on a four-point scale, which ranges from "Not At All Likely" (1) to "Not Very likely" (2) to "Somewhat Likely" (3) to "Very Likely" (4). The

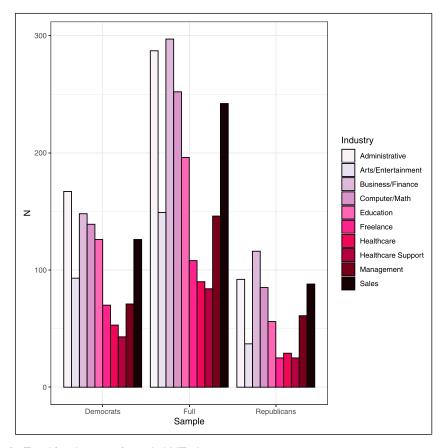


Figure 1. Top 10 industries of sampled MTurkers.

y-axis of Figure 2 is the *actual* threat of automation to the industry, as assessed by experts on a 0-100 scale, where higher numbers indicate greater threat (as a reminder, see the Appendix for details on this expert assessment). We additionally color the industry by the three-category indicator (low, medium, and high) of actual threat developed in the expert evaluations. Finally, the size of the bubble of the industry name reflects the number of respondents in that industry (in the full sample).

Most people in industries facing an actual likelihood of automation in the near future, such as food preparation and transportation (in lightest purple in Figure 2), believe more than the average respondent that their jobs will be automated (mostly around 2.4). Their assessment, though, is just as high on the *x*-axis as the assessment of automation of someone in sales or administrative work faces, even though the actual likelihood of automation in those industries is, in reality, much lower. In general, there is relatively little variation in the assessment of likelihood of automation by industry.

The objective likelihood of an industry being widely automated does not have a strong relationship with perceptions of automation among workers in those industries. Self-assessment of automation by industry only varies about one category on a four-point scale, despite the very different likelihoods of those industries actually being automated. Among the industries most likely to be automated (highest on the *y*-axis), respondents are more likely than the average respondent to believe that their industry will be automated, but they are not that likely to believe it will be automated in general. Respondents who work in food service, for example, do report a

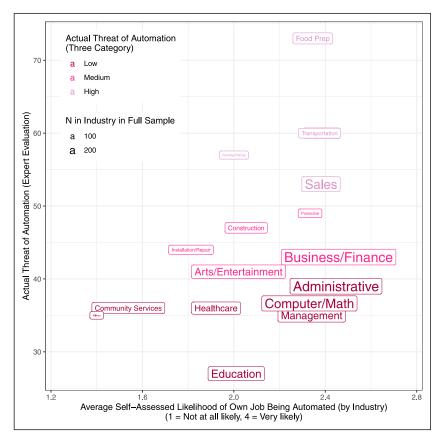


Figure 2. Do respondents in different industries correctly self-assess the likelihood of being automated?

higher-than-average level of likelihood of automation at 2.3 points. That above average level, however, lies between saying it is "Not Very likely" and it is "Somewhat Likely" that their jobs will be automated. Given that food services is the *most* likely industry to be automated (as determined by the expert evaluations), the average respondent in this industry reports a relatively low level of concern. Generally, the response to this signal about the potential impacts of actual automation appears noisy and weak. If there were a clear positive correlation between perceptions of automation and the reality, the industry boxes in Figure 2 would demonstrably increase from the bottom left of the plot to the top right; this is not the case here.

Next, we more systematically define these relationships by predicting a respondent's fear of their job being automated with a series of indicator variables for the actual threat of automation that the industry the respondent is in faces. Table 1 shows the OLS regression of respondent self-perceptions of how likely their jobs are to be automated in their lifetimes on the expert ratings of how *actually* likely a respondent's occupation is to be automated. We include respondents who are self-employed or freelance as separate industries. The first column is the regression with the full sample; the subsequent columns are the same regression with respondents subset by party identification.

There is no consistent relationship between how actually likely an individual's job is to be automated in the near future and how likely that person is to *perceive* that their job will be automated. Respondents working in careers that face a medium level of actual threat of automation

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Variable	All	Republicans	Democrats
Actual threat of automation (medium)	.059 (.055)	.050 (.095)	.037 (.073)
Actual threat of automation (high)	.152* (.061)	.037 (.105)	.242* (.083)
Freelance	.046 (.105)	244 (.2I3)	.103 (.129)
Self-employed	173 (.125)	358 (.209)	045 (.186)
Intercept	2.216 (.031)	2.204 (.055)	2.245 (.040)
R ²	.003	.002	.004
Ν	2132	714	1171

Table I. Predicting Self-Assessed Likelihood of Your Own Job Being Automated.

Note: *p < .05.

Baseline category is low actual threat of automation.

are no more likely to view their jobs as threatened by automation than respondents in occupations with a low level of threat (the baseline category). However, respondents working jobs with a high threat of actual threat of automation are more likely to view their jobs as threatened. Yet, this is true only for Democrats (final column); this is not true for Republicans (middle column). The only significant indicator, relative to the baseline of low-threat industries, is being in a high-threat industry as a Democrat.

It may be the case that this finding is simply driven by respondents' inability to accurately perceive the threat of automation of any industry. We check this by asking respondents to rate how likely it is that different jobs will be automated and examining the distribution of those ratings given in our sample; this is shown in Figure 3. Generally, respondents actually seem adept at rating the actual threat of automation to different industries. Both nurses and politicians are correctly (as compared to the expert evaluation) rated as unlikely be replaced by robots or computers in Figure 3; fast food workers are (correctly) rated as facing the most threat. Interestingly, the most noise is in respondent's perceptions of their own occupation's threat, perhaps suggesting that respondents are good at evaluating other industries systematically but evaluate their own with subjective impressions.

We explore further self-perceptions of the threat of automation in Figure 4. Here, we show the density of a respondent's likelihood of their job being automated, as separated by their partisanship as well as their self-rated economic vulnerability on the *x*-axis (0 indicates the least economic vulnerability and 100 indicates the most economic vulnerability). Partisan groups are broken out by panel; self-reported automation threat is denoted by the different colors and line types. For example, for Independents who believe their jobs are very likely to be automated (the darkest area on the "Independents" density plot with the longest dashed line), the heavily right-skewed distribution shows that they also report being very economically vulnerable.

The majority of respondents across all partisan groups report feeling economically vulnerable, with an average vulnerability slightly above 50. In every partisan group, the majority of respondents who think their jobs are very likely to be automated report that they are economically vulnerable to some degree. However, the relationship between self-reported general economic vulnerability and the perception that one's job is threatened by automation differs by party.³ For Democrats, there is virtually no relationship between feelings of economic vulnerability and perceptions of automation threat. In contrast, there is some relationship between economic vulnerability and perceptions of automation threat among Republicans. Republicans who report their jobs are "Not At All Likely" or "Not Very Likely" to be automated also report being markedly less economically vulnerable. Next, we explore this partisan asymmetry with respect to support for UBI.

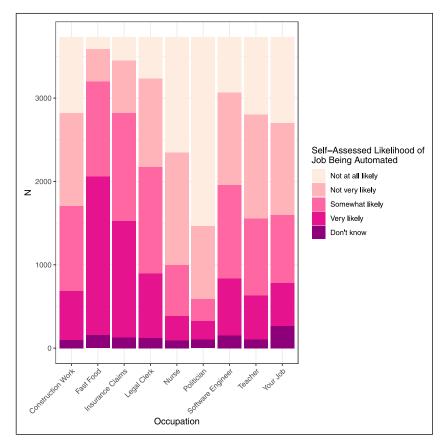


Figure 3. Self-assessments of likelihood of automation across industries.

Automation Threat, Partisanship, and UBI Support

Our primary interest is the extent to which these perceptions about the likelihood of automation are connected to support for UBI. Accordingly, we execute another series of OLS regressions (Table 2) with the five-point measure of support for UBI as a dependent variable. The independent variables include dummy variables for working in medium- or high-actual-threat industries, working as a freelancer, being self-employed, respondent assessments of how likely it is that their job will be automated in their lifetime, and interactions between automation assessments and actual threat.⁴

We find that the relationship between actual automation threat, perceived likelihood of automation, and support for UBI is also strongly partisan. To interpret the interactions, we turn to Figure 5: support for UBI on the *y*-axis by self-assessment of the likelihood of automation on the *x*-axis, actual threat of automation as line colors, and partisan groups in separate panels. Figure 5 shows that Democrats support UBI, regardless of how *actually* likely it is that their job will be automated or how likely it is that they *think* it will be automated.⁵ The slightly positive slopes of the lines on the Democrat side of Figure 5 are statistically significant, as evidenced by the significant coefficient for automation fear, though they are not very substantively different. Believing that one's job is unlikely to be automated only slightly decreases Democrat support for UBI, and thinking that one's job is likely to be automated only modestly increases Democratic

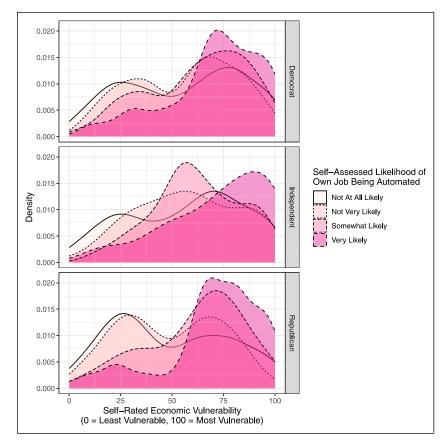


Figure 4. Self-assessment of likelihood of own job being automated, by economic vulnerability and partisanship.

Variable	All	Republicans	Democrats
Actual threat of automation (medium)	035 (.202)	337 (.328)	.214 (.237)
Actual threat of automation (high)	.032 (.217)	.342 (.343)	.126 (.264)
Freelance	.068 (.348)	451 (.587)	.597 (.400)
Self-employed	.201 (.408)	.870 (.626)	.856 (.570)
Self-assessment (of your job being automated)	.258* (.046)	.352* (.077)	.153* (.052)
Medium threat x self-assessment	.085 (.082)	.318* (.135)	036 (.096)
High threat x self-assessment	010 (.085)	073 (.139)	059 (.100)
Freelance x self-assessment	.137 (.139)	.199 (.255)	061 (.156)
Self-employed x self-assessment	.007 (.176)	300 (.296)	094 (.23I)
Intercept	2.716* (.110)	1.612* (.184)	3.459* (.128)
R ²	.037	.09	.016
Ν	2104	703	1157

Note: *p < .05.

Baseline category is low actual threat of automation.

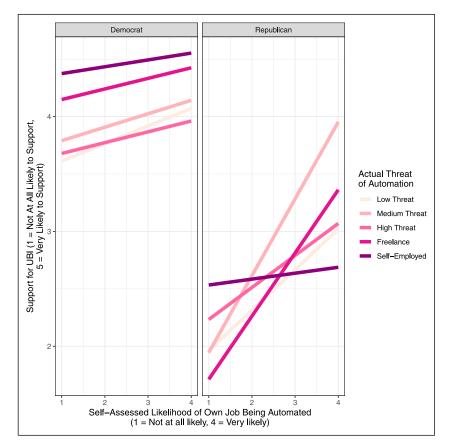


Figure 5. Predicting UBI support by partisanship, self-assessment of likelihood of own job being automated, and actual threat of automation (Table 2).

support. This finding of relatively strong, nonreactive Democratic support for UBI corroborates the results of Jordan et al. (2022) and Yeung (2022).

Turning to the right side of Figure 5, we find that Republicans generally oppose UBI, illustrating a strong partisan divide on the issue. However, Republican perceptions of automation strongly affect their support for UBI. Republicans who perceive their jobs as more likely to be automated express more support for UBI. The reverse is also true: Republicans who perceive their jobs as unlikely to be automated are more opposed to UBI. Perceptions of how likely it is that their jobs will be automated strongly affected most groups of Republicans, but especially those whose jobs experts rank as having a "medium" threat from automation. Republicans in the medium-threat category show the greatest change across fear levels with a nearly two-point shift on the UBI support scale. Notably, a majority of the Republicans in the "medium" threat category report working in the business/finance industry, which had a higher-than-average perception of automation threat.

Conclusion

Overall, these results suggest some tentative conclusions about public opinion towards automation and UBI. We find that Americans as a whole have not responded to news coverage about automation in the way that some media outlets and politicians suggest. Americans are not that worried, on average, that they will lose their jobs to automation. While Americans in jobs actually vulnerable to automation are somewhat more worried about it, overall they are not very concerned. There is no consistent, significant relationship between how likely it is that Americans *think* their jobs will be automated, and how likely it is that their jobs *will* be automated.

If Americans are only weakly responding to the signal that automation seriously threatens jobs in several different industries, perhaps it is because they receive the signal through some sort of resistant information filter. Partisan filters can distort individual perceptions of economic conditions in a variety of ways (Enns & McAvoy, 2012). It may also be the case that media signals about the effects of automation are subject to the classic Zaller (1992) model of information reception from political persuasion. It's also possible automation is another example of the difference between individuals evaluating overall economic conditions and evaluating how those conditions apply to their own households, a phenomenon that occurs in other aspects of public opinion (e.g., Lewis-Beck & Stegmaier, 2000, on pocketbook and sociotrophic voters). Without a strong link between automation perceptions and automation reality in the minds of Americans, it may be difficult for politicians to identify and rally interested voters on this issue or related policies, though this could change in the future.

In line with previous research, we find that UBI is a partisan issue and does not enjoy the broad bipartisan support some media coverage implies. For all respondents, there is no consistent relationship between how *actually* likely it is that someone's job will be automated and support for UBI. Instead, perception matters. How likely it is that Americans *think* their jobs will be automated is a significant predictor of UBI support. There are also notable partisan differences. Perceptions of automation threat have a much stronger effect on Republican support for UBI than on Democratic support. The support of Republicans whose careers face a moderate threat from automation, in particular, is sensitive to perceptions of automation. Across virtually all levels of automation threat, Republicans who do not think their jobs are threatened by automation do not support UBI. Republicans who believe their jobs are very threatened by automation are more neutral, or even somewhat supportive. In contrast, Democrats support UBI regardless of their fear or actual threat of automation, and their perceptions of automation threat only weakly affect their support or opposition.

These findings suggest that the relationship between automation perceptions and support for UBI is complicated and partisan. While it's unknown what kinds of cuing messages Republican elites will send their co-partisans in the electorate in the future, it seems likely they will oppose any action that increases support for UBI. When Congress passed the American Rescue Plan Act of 2021 and gave cash to all single Americans earning less than \$80,000, a policy similar to UBI, no Congressional Republicans voted for it. Republican leadership essentially made opposing the American Rescue Plan Act of 2021 a party-defining issue. Further, our results imply that Democrats probably will not adjust their preferences on UBI very much in response to new

information. However, they might increase their existing support somewhat in response to future Democratic elite cuing messages about the threat of automation.

Our study is not without some contemporary limitations. This data was collected prior to 2020 and therefore prior to the inflationary environment in the United States economy that followed the beginning of the COVID-19 pandemic. There were also significant changes in stimulus policy during the pandemic. Several rounds of government checks were mailed to most Americans over the course of 2020 and 2021, giving individuals direct experience with some version of UBI. These significant events likely had meaningful effects on public sentiment towards UBI and potentially automation as well.

Moreover, the automation landscape has changed tremendously. Our survey data are from 2019; the expert evaluations of automation are from late 2017. For our study, it's appropriate to use these dated expert evaluations to help gauge the contemporary (2019) level of threat each industry faced at the time. The 2017 expert evaluations were weighted towards predictable, physical occupations. In the time since, however, automation has taken on an entirely new realm of possibilities. Recent advances in artificial intelligence (AI) technology, such as ChatGPT, have revolutionized how people view automation and generated conversation about the future of computerization in society more broadly. Previously low-threat industries (like information services in 2017) now seem highly likely to be automated as AI is able to process multitudes of information. In this sense, we view our study as a useful historical baseline against which scholars can measure how concerns about automation and support for social policy, like UBI, can be measured, especially as the nature of that automation evolves.

Appendix

Expert Assessment of Automation Threat: Methodology

We use a 2017 analysis conducted by McKinsey & Company, a global management consulting firm that serves businesses, governments, non-governmental organizations, and not-for-profits, to assess how automatable different job sectors are. McKinsey uses data from the U.S. Bureau of Labor Statistics to classify jobs into sectors. From there, McKinsey analyzes different types of job activities, how automatable they are, and the proportion of time spent on those activities in different job sectors. This produces a measure of automation potential for each sector, based on how much of that sector's work time is spent on automatable activities. The complete McKinsey Briefing Note can be found at www. mckinsey.com/featured-insights/digital-disruption/whats-now-and-next-in-analytics-ai-and-automation. We particularly focus on the analysis in Exhibit 6 for our study. We cannot distribute the report or a copy of the Exhibit due to copyright; interested readers are encouraged to contact the authors.

We acknowledge that this is only one expert rating of how automatable an industry is. This analysis was chosen for our study because (1) it is the most temporally proximate to our survey, allowing us to make the best possible comparison given the economic climate at the time and (2) it comprises the broadest set of jobs analyzed using established government data about sector classification available. Future research should continue to refine these measures, and we anticipate changes to these expert ratings as technology evolves.

Variable	All	Republicans	Democrats
Actual threat of automation (medium)	.162* (.071)	.309* (.126)	.130 (.091)
Actual threat of automation (high)	.036 (.083)	.188 (.147)	071 (.107)
Freelance	.155 (.141)	.056 (.282)	.199 (.168)
Self-employed	.254 (.165)	.436 (.279)	.500* (.232)
Self-assessment (of your job being automated)	.196* (.029)	.281* (.052)	.103* (.037)
Concern for deficit	.111* (.028)	.086 (.056)	.115* (.034)
Income	027* (.011)	026* (.020)	038* (.014)
Education	.032 (.027)	.111* (.046)	011 (.035)
Ideology	.296* (.019)	.222* (.042)	.201* (.031)
Female	29I* (.058)	212* (.106)	312* (.074)
Economic retrospections	.208* (.037)	.320* (.073)	.092 (.046)
Economic prospections	022 (.037)	094 (.069)	.011 (.045)
Economic vulnerability	.007* (.001)	.011* (.002)	.004* (.002)
Voter	056 (.07I)	.127 (.141)	126 (.092)
Intercept	.486 (.225)	467 (.40 9)	2.166 (.341)
R ² .	.29	.231	.105
Ν	2006	685	1103

Table A. I. Predicting Support for UBI (With Controls).

Note: *p < .05.

Baseline category is low actual threat of automation.

Not shown: Fixed effects for an experimental framing of UBI.

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Notes

- 1. This study was reviewed and approved by the IRB at The University of Minnesota.
- After searching for expert evaluations, this expert report was the most temporally proximate to the date of our data collection that we were able to locate. The automation likelihoods from this evaluation are available in the Appendix. These likelihoods are broadly consistent with research in the European context (Vlandas, 2021).
- 3. It is worth noting that economically vulnerable respondents are more significantly supportive of UBI. See Table 1 in the Appendix.
- 4. A full suite of predictors with controls in the model can be found in the Appendix. The main effects are substantively similar.
- Democratic freelancers and self-employed Democrats are slightly more supportive of UBI, but there is no expert rating for these occupations.

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