A Experiment/Survey Document

A.1 Sample Survey

This appendix section contains a complete survey, beginning on the following page. The survey remains available to complete at http://louisville.az1.qualtrics.com/jfe/form/SV_39Keupyg3Vnqt49.

English

Minimum Wages, Morality, and Efficiency: A choice Experiment

September, 2018

Dear Survey Participant:

You are invited to participate in a research study about attitudes toward minimum wages. This study is conducted by Dr. Stephan Gohmann, Dr. Keith Teltser, Dr. Conor Lennon, and Dr. Jose Fernandez of the University of Louisville. There are no known risks for your participation in this research study. The information collected may not benefit you directly. The information learned in this study may be helpful to others. The information you provide will be used to help us understand the nature of public preferences towards minimum wages. Your completed survey will be stored at the University of Louisville. The survey will take approximately 10 to 12 minutes to complete. Payment will be $1 for completing the survey. You will also be asked if you would be willing to be re-contacted for a similar follow-up survey. If you are re-contacted, you will also be compensated $1 for that follow-up survey.

Individuals from the Department of Economics at the University of Louisville, the Institutional Review Board (IRB), the Human Subjects Protection Program Office (HSPPO), and other regulatory agencies may inspect these records. In all other respects, however, the data will be held in confidence to the extent permitted by law. Should the data be published, your identity will not be disclosed.

Taking part in this study is voluntary. By answering survey questions you agree to take part in this research study. You do not have to answer any questions that make you uncomfortable. You may choose not to take part at all. If you decide to be in this study you may stop taking part at any time. If you decide not to be in this study or if you stop taking part at any time, you will not lose any benefits for which you may qualify.

If you have any questions, concerns, or complaints about the research study, please contact: Dr. Conor Lennon (phone: (502) 852-7773; e-mail: conor.lennon@louisville.edu) or Dr. Jose Fernandez (phone: (502) 852-4861; e-mail: jose.fernandez@louisville.edu).

If you have any questions about your rights as a research subject, you may call the Human Subjects Protection Program Office at (502) 852-5188. You can discuss any questions about your rights as a research subject, in private, with a member of the Institutional Review Board (IRB). You may also call this number if you have other questions about the research, and you cannot reach the research staff, or want to talk to someone else. The IRB is an independent committee made up of people from the University community, staff of the institutions, as well as people from the community not connected with these institutions. The IRB has reviewed this research study.

If you have concerns or complaints about the research or research staff and you do not wish to give your name, you may call 1-877-852-1167. This is a 24 hour hot line answered by people who do not work at the University of Louisville.

Please note that this survey will be best displayed on a laptop or desktop computer. Some features may be less compatible for use on a mobile device. If

you do not wish to participate in this study, please close this window now and your session will end.

Sincerely,

_____ _____

Dr. Conor J. Lennon Dr. Jose M. Fernandez

- ○ I consent, begin the study
- ○ I do not consent, I do not wish to participate, please delete all record of my involvement.

>>

English

You will be able to continue with the survey after reading the brief text below.

The Fair Labor Standards Act explains that, as of June 2018, the federal minimum wage in the United States is $7.25 per hour of work. It is a federal crime to employ workers at any hourly wage below the federal minimum wage. Individual states are free to set a higher minimum wage, but the federal rate is the lowest possible hourly wage (there are some exceptions such as the hospitality industry, where tipping is customary).

In March of 2018, the Bureau of Labor Statistics reported that 1.8 million hourly workers, roughly 2.3 percent of all hourly workers, were paid no more than the federal minimum wage. Of those 1.8 million workers;

- 49 percent were between 16 and 24 years old.
- 65 percent work part-time.
- 53 percent have a high school diploma or less.
- 17 percent are Black, and 17 percent are Hispanic or Latino.
- 58 percent are female.

In recent years, there has been discussion about raising the federal minimum wage. Those in favor of an increase see the minimum wage as a potential way to reduce poverty and inequality. Opponents note that increasing the minimum wage could lead to unemployment because employers will not be able to afford to employ as many workers.

In this study, you may be asked to consider the minimum wage compared to some alternative policy options. We will refer to your options as System A and System B in each scenario. The order of presentation is randomly chosen. For that reason, you may be asked to consider System B prior to considering System A. You will be asked to express your opinion on the ethics of these systems, including if you feel they are fair (to both workers and their potential employers), dignified, or exploitative. You will then be given some potential associated employment outcomes to consider and asked to "vote" on a preferred option.

Based on the findings of this study, we will prepare and submit a summary of our findings (in the form of an op-ed) to major national newspapers including the New York Times, the Washington Post, the Chicago Tribune, and the Los Angeles Times. We may also be asked to speak about our findings on television, radio, or at public speaking events. In order to help us explain how American people view the minimum wage, we ask that you commit to answering our study's questions honestly.

Note that all of the answers that you provide will remain anonymous and treated with absolute confidentiality. The researchers do not know your identity, and they will never be able to match your name with the answers that you provide.

Do you commit to carefully reading and providing your thoughtful and honest answers to the questions in this survey?

- ○ **I commit to answering the questions in this study honestly and truthfully.**
- ○ **I <u>do not</u> commit to answering the questions in this study honestly and truthfully, please remove me from this study.**

English

System A: This system features a minimum wage of $10.10 per hour worked. This minimum applies in all 50 US states and employers must pay their employees at least $10.10 per hour. Any employer who pays any worker a wage below $10.10 would be guilty of a federal crime under the Fair Labor Standards Act.

Please consider the following statements and indicate your agreement or disagreement with them by moving the appropriate slider.

Note: the definition of underlined words can be viewed by hovering over them with the mouse cursor.

This system exploits workers

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
0	25	50	75	100

This system is unfair to workers

Strongly disagree 0 | Somewhat disagree 25 | Neither agree nor disagree 50 | Somewhat agree 75 | Strongly agree 100

This system is unfair to employers

Strongly disagree 0 | Somewhat disagree 25 | Neither agree nor disagree 50 | Somewhat agree 75 | Strongly agree 100

This system does not respect human dignity

Strongly disagree 0 | Somewhat disagree 25 | Neither agree nor disagree 50 | Somewhat agree 75 | Strongly agree 100

This system conflicts with my personal values

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
0	25	50	75	100

>>

English

System B: the federal government abolishes all minimum wages. For the purposes of this survey, please assume that this law would apply equally in all 50 US states and would override existing laws in all states. That is, there would be no minimum wage law anywhere in the United States. Workers and employers would negotiate hourly wages on a case-by-case and person-by-person basis. All wage agreements that workers and employers agree to are completely legal.

Please consider the following statements and indicate your agreement or disagreement with them by moving the appropriate slider.

Note: the definition of underlined words can be viewed by hovering over them with the mouse cursor.

This system exploits workers

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
0	25	50	75	100

This system is unfair to workers

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
0	25	50	75	100

This system is unfair to employers

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
0	25	50	75	100

This system does not respect human dignity

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
0	25	50	75	100

This system conflicts with my personal values

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
0	25	50	75	100

>>

English

In this part of the survey, you will consider some potential consequences of the systems you have rated. You will be presented with three choice scenarios. This is the first scenario.

For the purposes of the survey consider the potential effect of the alternative systems on a small U.S. city. The city contains 100,000 adults who are willing and able to work. Of these 100,000, 55,000 are male and 45,000 are female. In addition, 60,000 are White, 20,000 are Black, and 20,000 are Hispanic/Latino.

The table below summarizes what happens to employment in the city under each alternative system.

System A		**System B**
Minimum wage of $10.10 **Number of people unable to find work: 10,000**		Minimum Wage Eliminated **Number of people unable to find work: 8,000**
For System A, among the workers who are unable to find work, 40 percent are members of a minority community (they are Black or Hispanic) and 45 percent are female.		

For System B, among the workers who are unable to find work, 40 percent are members of a minority community and 45 percent are female.

Please indicate the system you would like to see implemented by choosing one of the options below. Please think of your selection as the expression of a "vote."

○ System A ○ System B

On a scale of 0 to 100, how would you rate the overall desirability of each system?

Extremely undesirable	Somewhat undesirable	Neither desirable nor undesirable	Somewhat desirable	Extremely desirable
0	25	50	75	100

System A

System B

English

This is the second scenario.

Again, consider the potential effect of the alternative systems on a small U.S. city. The city contains 100,000 adults who are willing and able to work. Of these 100,000, 55,000 are male and 45,000 are female. In addition, 60,000 are White, 20,000 are Black, and 20,000 are Hispanic/Latino.

The table below summarizes what happens to employment in the city under each system.

System A		**System B**
Minimum wage of $10.10 **Number of people unable to find work: 10,000**		Minimum Wage Eliminated **Number of people unable to find work: 6,000**
For System A, among the workers who are unable to find work, 40 percent are members of a minority community (they are Black or Hispanic) and 45 percent are female. **For System B, among the workers who are unable to find work, 40 percent are members of a minority community and 45 percent are**		

female.

Please indicate the system you would like to see implemented by choosing one of the options below. Please think of your selection as the expression of a "vote."

○ **System A** ○ System B

On a scale of 0 to 100, how would you rate the overall desirability of each system?

Extremely undesirable	Somewhat undesirable	Neither desirable nor undesirable	Somewhat desirable	Extremely desirable
0	25	50	75	100

System A

0

System B

0

English

This is the third scenario.

For the purposes of the survey consider the potential effect of the alternative systems on a small U.S. city. The city contains 100,000 adults who are willing and able to work. Of these 100,000 people, 55,000 are male and 45,000 are female. In addition, 60,000 are White, 20,000 are Black, and 20,000 are Hispanic/Latino.

The table below summarizes what happens to employment in the city under each system.

System A		**System B**
Minimum wage of $10.10 **Number of people unable to find work: 10,000**		Minimum Wage Eliminated **Number of people unable to find work: 4,000**
For System A, among the workers who are unable to find work, 40 percent are members of a minority community (they are Black or Hispanic) and 45 percent are female. **For System B, among the workers who are unable to find work, 40 percent are members of a minority community and 45 percent are**		

female.

Please indicate the system you would like to see implemented by choosing one of the options below. Please think of your selection as the expression of a "vote."

○ System A ○ System B

On a scale of 0 to 100, how would you rate the overall desirability of each system?

Extremely undesirable	Somewhat undesirable	Neither desirable nor undesirable	Somewhat desirable	Extremely desirable
0	25	50	75	100

System A

System B

English

This is the third scenario.

For the purposes of the survey consider the potential effect of the alternative systems on a small U.S. city. The city contains 100,000 adults who are willing and able to work. Of these 100,000 people, 55,000 are male and 45,000 are female. In addition, 60,000 are White, 20,000 are Black, and 20,000 are Hispanic/Latino.

The table below summarizes what happens to employment in the city under each system.

System A		**System B**
Minimum wage of $10.10 **Number of people unable to find work: 10,000**		Minimum Wage Eliminated **Number of people unable to find work: 2,000**
For System A, among the workers who are unable to find work, 40 percent are members of a minority community (they are Black or Hispanic) and 45 percent are female. **For System B, among the workers who are unable to find work, 40 percent are members of a minority community and 45 percent are**		

female.

Please indicate the system you would like to see implemented by choosing one of the options below. Please think of your selection as the expression of a "vote."

○ System A ○ System B

On a scale of 0 to 100, how would you rate the overall desirability of each system?

Extremely undesirable	Somewhat undesirable	Neither desirable nor undesirable	Somewhat desirable	Extremely desirable
0	25	50	75	100

System A

System B

English

The following question asks you to recall the choices you made.

Please check all of the below sentences that apply to your choices, as truthfully and honestly as possible.

- [ ] I chose System A (a minimum wage of $10.10) in at least one choice opportunity
- [ ] I chose System B (no minimum wage) in at least one choice opportunity

>>

English

Again, please consider the choices you made.

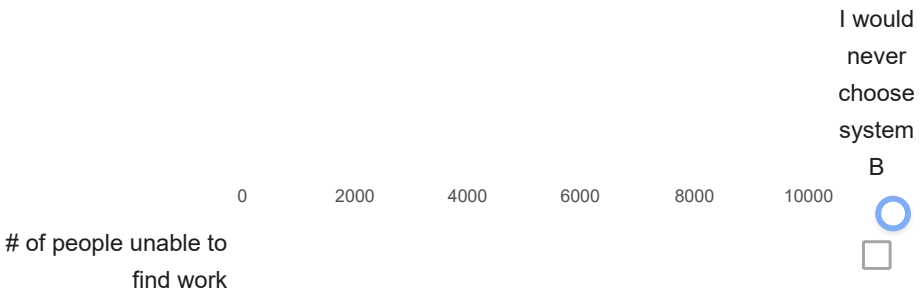
Please check all of the below sentences that apply to your choices, as truthfully and honestly as possible.

- ○ I would have never chosen System A (a minimum wage of $10.10) regardless of the number of workers who were able to find work
- ○ I would have never chosen System B (no minimum wage) regardless of the number of workers who were able to find work
- ○ None of the above

>>

English

Suppose **10,000** people were unable to find work under System A (minimum wage of $10.10). Please use the slider below to select a numerical answer to complete the missing part of the following statement: I would be willing to choose System B (no minimum wage) instead of System A if the number of people unable to find work was less than _____.



>>

English

As mentioned earlier, we will share the findings of this study with the general public and policy makers by sending them to major national newspapers for publication as an op-ed.

To what extent do you believe that policy makers **will** take your opinion about the minimum wage into consideration?

- ◯ Not at all
- ◯ Very little
- ◯ Little
- ◯ Somewhat
- ◯ Very much

To what extent do you believe that policy makers **should** take your opinion into consideration?

- ◯ Not at all
- ◯ Very little
- ◯ Little
- ◯ Somewhat
- ◯ Very much

English

In this section of the survey we ask that you provide some socio-demographic information.

Thank you for helping us collect accurate information.

What is your age?

Are you...

- ○ Male
- ○ Female

In which state do you currently reside?

Which statement best describes your current employment status?

- ○ Working (paid employee)
- ○ Working (self-employed)
- ○ Not working (disabled)
- ○ Not working (temporary layoff from a job)
- ○ Not working (retired)
- ○ Not working (looking for work)
- ○ Not working (other)

- ○ Prefer not to answer

What is the highest level of school you have completed or the highest degree you have received?

- ○ Less than high school degree
- ○ High school graduate (high school diploma or equivalent including GED)
- ○ Some college but no degree
- ○ Associate degree in college (2-year)
- ○ Bachelor's degree in college (4-year)
- ○ Master's degree
- ○ Doctoral degree

- ◯ Professional degree (JD, MD)

Information about income is very important to understand. Please indicate the answer that includes your entire household income in 2017 before taxes.

- ◯ Less than $10,000
- ◯ $10,000 to $19,999
- ◯ $20,000 to $29,999
- ◯ $30,000 to $39,999
- ◯ $40,000 to $49,999
- ◯ $50,000 to $59,999
- ◯ $60,000 to $69,999
- ◯ $70,000 to $79,999
- ◯ $80,000 to $89,999
- ◯ $90,000 to $99,999
- ◯ $100,000 or more
- ◯ Prefer not to answer

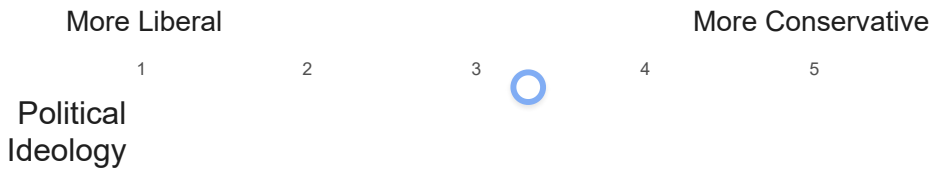
To which racial group do you most identify?

- ◯ White
- ◯ Asian

- ○ Black or African American
- ○ Native Hawaiian or Pacific Islander
- ○ American Indian or Alaska Native
- ○ Other

Here is a 5-point scale on which the political views that people might hold are arranged from more liberal (left) to more conservative (right).

Where would you place yourself on this scale?



What is your religious affiliation?

- ○ Athiest/Agnostic
- ○ Christianity
- ○ Judaism
- ○ Islam

- ◯ My affiliation is not listed
- ◯ No religious affiliation

Have you donated money to or volunteered for a non-profit or charitable organization in the past 2 years?

- ◯ Yes
- ◯ No

Do you think of yourself as closer to the Republican or Democratic Party?

- ◯ Republican
- ◯ Democratic
- ◯ Neither

Have you ever worked in a position where your hourly wage was equal to the minimum wage?

- ◯ Yes, my current job pays minimum wage.
- ◯ Yes, a previous job paid minimum wage.
- ◯ No

Is any member of your immediate family currently working in a position that pays minimum wage?

- ◯ Yes
- ◯ No
- ◯ Unsure

>>

English

Please indicate your level of agreement with the following sentence:

Some aspects of human life are sacred and should never be violated regardless of the possible material gains.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
○	○	○	○	○

Please indicate your level of agreement with the following sentence:

Allowing people to experience suffering in order to maintain an ethical principle is morally wrong.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
○	○	○	○	○

Please indicate your level of agreement with the following sentence:

People should have the freedom to do things that offend others' morals so long as no one is directly physically or financially harmed.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
○	○	○	○	○

Consider the following scenario:

Suppose a viral epidemic is killing millions of people around the world. The virus is fatal in every case: once someone contracts the virus they cannot be saved but the virus takes several days to kill a person. A doctor has developed two substances. One is a vaccine and the other is a deadly poison. Due to a clerical error, the doctor is not sure which is which. The doctor is taking care of two patients who have the fatal virus.

The only way to identify the vaccine is to inject each patient with one of the two substances. If the doctor injects the substances one of the patients will die immediately from the poison. However, because the doctor will know which substance is the vaccine, millions of other lives will be saved.

Please indicate your level of agreement with the following sentence:

The doctor should inject the substances into the patients.

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
○	○	○	○	○

>>

English

We are planning to contact some of the respondents to this survey sometime in the next 4 to 6 weeks to complete a similar type of survey. If you are interested in being contacted, please indicate below. If you are recontacted and choose to participate, your participation will be compensated.

- ○ Yes, I am willing to be contacted again
- ○ No, I am not willing to be contacted again.

If you have any feedback on our survey (typos, errors, general comments, and so on) please let us know. You can type your comments into the text box below.

>>

Thank you for completing our survey. Your response has been recorded.

Your MTurk completion code is: 1234567890

Please copy and paste the completion code into the space provided in the mTurk HIT to ensure your prompt payment.

B Practical Experimental Details

This appendix describes describes participant recruitment, pre-testing, payments and earnings, time taken, along with the results of various checks on participants' attention.

B.1 Recruitment

Participants were recruited via Amazon's mTurk platform. On this platform, "requesters" can pay people to perform relatively short human intelligence tasks (HITs). These tasks include data entry, audio transcription, and so on. In addition, the platform is used for marketing surveys and experiments.

B.2 Pre-testing

We completed a round of pretesting in August of 2018. To be precise, we did two pretests, one involved gathering and paying for 50 responses to check our survey instrument was working as intended. Then, we gathered 250 responses to estimate the effect size of interest and to understand if the parameters would generate enough variation in the data. None of the data gathered in the pretest phase is presented in the main body of the paper.

The pretest version of the survey allowed the unemployment rate to vary randomly in System A between 4%, 6%, 8% and 10%. For System B, the rate varied between 4% and 6% (presented to participants as X out of 100,000 who want to work are unable to find a job). Participants were given three choice scenarios with the unemployment rate randomly drawn for each system. From this, we found that in order to overcome the mean repugnance between A and B, respondents needed about a 5,000 (5 percentage point) difference in employment. For that reason, about 15% of our respondents in the pretest faced three choice scenarios where all three were redundant - either the unemployment rate in system B was the same or worse than A. That is, due to the randomization they never observed a scenario where A was "worse" than B.[B.1] In addition, many experimental participants observed situations where unemployment in System B was always much lower than System A.

[B.1] There are eight possible pairings, the unemployment rate in system B was the same or worse than A in three of these eight pairings.

To avoid these extremes, we altered the survey design to set System A's unemployment level at either 8% (8,000 out of 100,000 workers) or 10% upon entering the survey. We then asked the respondent to compare System A to System B in four scenarios. In the first scenario, the unemployment rate for System B was 8%, in the second it was 6%, in the third it was 4%, and it was 2% in the final scenario. This ensured everyone saw a situation where the unemployment difference between System A and B was small and one where it was not.

B.3 Earnings and Time Taken

The average respondent took just over 12 minutes to complete the survey. The median respondent took 10 and a half minutes. Each respondent was paid $1. The average time is inflated significantly by outliers in the right tail of the "time taken" distribution. For example, one respondent took over 2 hours and 40 minutes to complete the survey. It is likely that this person did not spend that time focused on the survey. Indeed, given 25% of reliable survey respondents took less than 8 minutes to do the survey, we suspect that the time taken to do the survey is artificially inflated for reasons that are unrelated to the survey's length (such as working on other short mTurk tasks or due to interruptions from phone calls, social media, bathroom breaks, and so on). Lastly, dropping those above the 95th percentile of the time distribution (a survey completion time of about 26 minutes) brings the median time to completion to 10 minutes and 7 seconds and the mean to 10 minutes and 55 seconds.

B.4 Attention Checks

There are several attention checks built into the survey. We consider two of these to be relatively strong and three of them to be somewhat weaker. The stronger checks ask respondents (1) to recall if they ever chose each system and (2) if they would never choose either of the systems. They fail the first check if they cannot accurately recall if they chose System A or B across the various choice scenarios. They fail the second check if they claim they would never choose one of the systems but actually did choose one of those systems in at least one choice scenario. We eliminate anyone who fails both of these checks. Therefore, Table B.1 reports on the "pass" and "fail" rates in the various attention checks for only 2,219 responses.

Table B.1: Checks on Attention and Reliability

Reliability Check	Description	Pass	Fail
1	Cannot recall own choices	2,035	184
		91.7%	8.3%
2	Claims they would never choose a system which they did choose	2,033	186
		91.6%	8.4%
3	Choices Correspond to Desirability Rating of each system	1,656	563
		74.6%	25.4%
4	Suggested they would choose System B for some level of employment but did not do so in the experiment	2,135	84
		96.2%	3.8%
5	Choices reflect monotonic preferences	2,139	80
		96.4%	3.6%

The table reports how many respondents passed or failed five checks on attention, response reliability, and consistency. Statistics are reported for 2,219 respondents. This total excludes those who failed both the first and second reliability checks listed above plus those who appear to have taken the survey more than once based on their IP address.

The stronger checks on attention are presented first in the table. Among those who did not fail both of those reliability checks, there remains a small minority who failed one of them. However we keep these responses in our data because many of those who fail one of the strong checks do not fail any of the other weaker three tests. In any case, the estimates presented in the paper are almost identical if we exclude those who fail just one of those strong checks. Indeed, including those who fail both of our stronger checks does little to alter the estimates.

The third reliability check in the table examines if participants chose the system they rated as most "desirable." Given the loaded and subjective meaning of that term, we do not consider "failing" this check to be a major concern. A person could consider System A as "most desirable" but chooses System B due to its employment consequences.

Reliability check number four examines respondents' answers to our "switching" question. In the survey, towards the end, our "switching" question asks respondents to choose (on a

sliding scale) the level of unemployment that would be required to get them to switch from System A (the level of unemployment for A was fixed for a given respondent but varied across respondents between 8,000 and 10,000). A respondent fails this check if they choose some number in this question that implies that they should have chosen System B in the survey but did not. The data shows that 96.2% of respondents passed this test.

The fifth reliability check examines inconsistent preferences. There are four binary choices for each participant, leading to 16 combinations of choices. Eight of these 16 potential routes through the experiment reflect consistent preferences in the sense that the participant always answers the same choice in each scenario or switches from System A or B to the other, only once. A respondent therefore fails this check if their responses do not respect monotonicity. For instance, a respondent who chooses A, then B, then A again is potentially unreliable. The data shows that 96.4% of respondents' sets of choices respect monotonicity.

Table C.1: Logit Estimates

	(1) P(Chose A)	(2) P(Chose A)	(3) P(Chose A)	(4) P(Chose A)	(5) P(Chose A)	(6) P(Chose A)
Difference in Unemployment Rate	-0.0402***	-0.0426***	-0.0400***	-0.0403***	-0.0425***	
	(0.00188)	(0.00162)	(0.00186)	(0.00185)	(0.00160)	
Difference in Repugnance	-0.00431***	-0.00431***	-0.00456***	-0.00434***	-0.00461***	-0.00431***
	(0.000180)	(0.000179)	(0.000188)	(0.000178)	(0.000186)	(0.000180)
Difference in Unemployment Rate = 2%						-0.106***
						(0.0118)
Difference in Unemployment Rate = 4%						-0.200***
						(0.0130)
Difference in Unemployment Rate = 6%						-0.272***
						(0.0136)
Difference in Unemployment Rate = 8%						-0.322***
						(0.0189)
System A = 10,000		0.0298*			0.0312*	
		(0.0171)			(0.0168)	
Min Wage Observed = $10.10			-0.0301		-0.0367	
			(0.0240)		(0.0227)	
Min Wage Observed = $15			-0.112***		-0.112***	
			(0.0241)		(0.0230)	
Equal Race and Gender Effects				0.0102	0.0141	
				(0.0224)	(0.0221)	
Unequal Race and Gender Effects				-0.118***	-0.115***	
				(0.0190)	(0.0189)	
No. of Choices	8,492	8,492	8,492	8,492	8,492	8,492
No. of Respondents	2,123	2,123	2,123	2,123	2,123	2,123

*** Significant at the 1% level; ** Significant at the 5% level; * Significant at the 1% level. Standard errors are clustered at the respondent level.

C Logit Estimates

A linear probability model allows us to easily present our data and findings. For completeness, Table C.1 reports post-estimation marginal effects from a binomial logit estimation. The estimation procedure uses maximum likelihood to find the β's which best predict outcomes. In the estimating equation, the variables are the same as in Section 4 of the main body of the paper but ϵ_{ic} takes on a logit distribution. Note that the outcome variable is 0 or 1 (where choosing System A = 1). In each column, we re-estimate the corresponding specification from Table 1 in the body of the paper but do not report the marginal effects for the interaction terms.

The coefficients must be multiplied by 100 to be interpreted as percentage point changes. That is, in the first column, a one percentage point difference in the unemployment rate between the two systems is associated with a 4.02 percentage point reduction in the probability of

choosing System A. In each specification, the estimates are remarkably similar to the main estimates in the body of the paper.

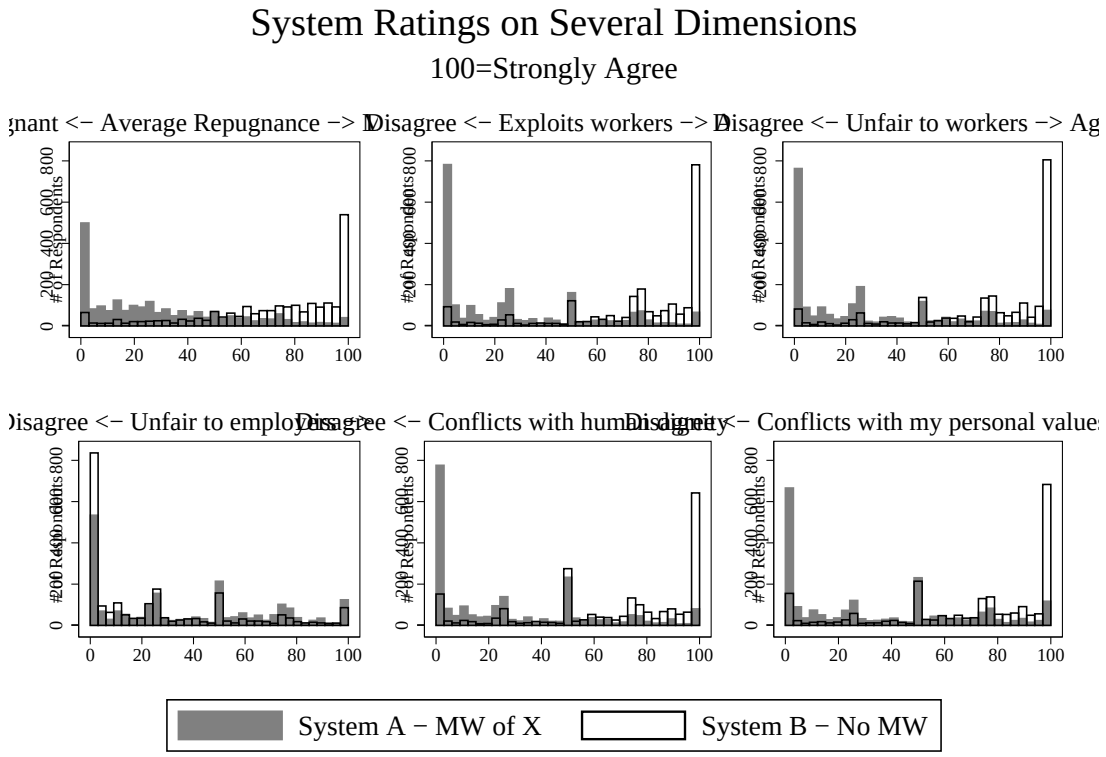


Figure D.1: Ratings of System A (minimum wage of $X) and System B (no minimum wage) on Moral Dimensions.

D Additional Sample Characteristics

D.1 Repugnance Ratings

Figure D.1 illustrates the rating of each system on the five dimensions of morality described earlier. As a reminder, each respondent rated each aspect of each system on a scale from zero to 100. The order in which respondents viewed the two alternative systems was randomized.[D.1] A clear pattern can be seen. For the exploitation, unfairness to workers, human dignity, and personal values morality questions System B (no minimum wage) was viewed less favorably than System A (minimum wage of $X). For example, just under 800 of the 2,219 respondents viewed System A as completely fair and not exploitative (these respondents stated "strongly disagree" with the statements "[T]his system is unfair to workers" and "[T]his system exploits

[D.1] Unfortunately, we did not set the Qualtrics system to record the order of presentation for this randomization.

workers"). In contrast, about the same number of respondents viewed System B as maximally unfair and exploitative. The exception to this pattern is in the "unfair to employers" question. There, the two systems were not viewed much differently: the distribution of responses to the question suggests System B was perhaps viewed a little fairer to employers. For that reason, the "average repugnance" score is generated as the average of the exploitation, unfairness to workers, human dignity, and personal values morality questions. Estimates which use any one (rather than the average) of these four measures of moral concerns produce very similar findings. In addition, including "unfairness to employers" in the measure of average repugnance changes little. If anything, because it brings the "averages" slightly closer together, it increases the sensitivity of our estimates to differences in repugnance ratings. See Appendix D for a complete breakdown of how each system was viewed, particularly as a function of the minimum wage observed ($7.25, $10.10, or $15) and self-reported political party affiliation.

D.2 Geographic Representation

Figure D.2 illustrates the ratio between the percent of all responses from a given state in our sample relative to that state's share of the U.S. population in 2017 as reported by the Census Bureau. Most states are reasonably represented but states such as Oregon and Delaware are over- and under-represented, respectively. Note that our main findings are robust to excluding any state which was more than 20% over- or under-represented (that is, omitting any state with a 1.2 to 1 ratio of response share to population share and/or omitting those with a .8 to 1 ratio).

D.3 Detailed Repugnance Ratings

Table D.1 reports the repugnance ratings for each system. First, it presents ratings for System A as a function of the minimum wage observed. Notice that the ratings of each system are very responsive to minimum wage observed with the system with a $15 minimum being markedly less problematic in four of the five moral dimensions. The exception to the pattern is in how higher minimum wages are unfair to employers. These System A ratings should be compared to the ratings for System B (which eliminates the minimum wage). Even a system with a $7.25 minimum wage is viewed very differently to one with no minimum wage.

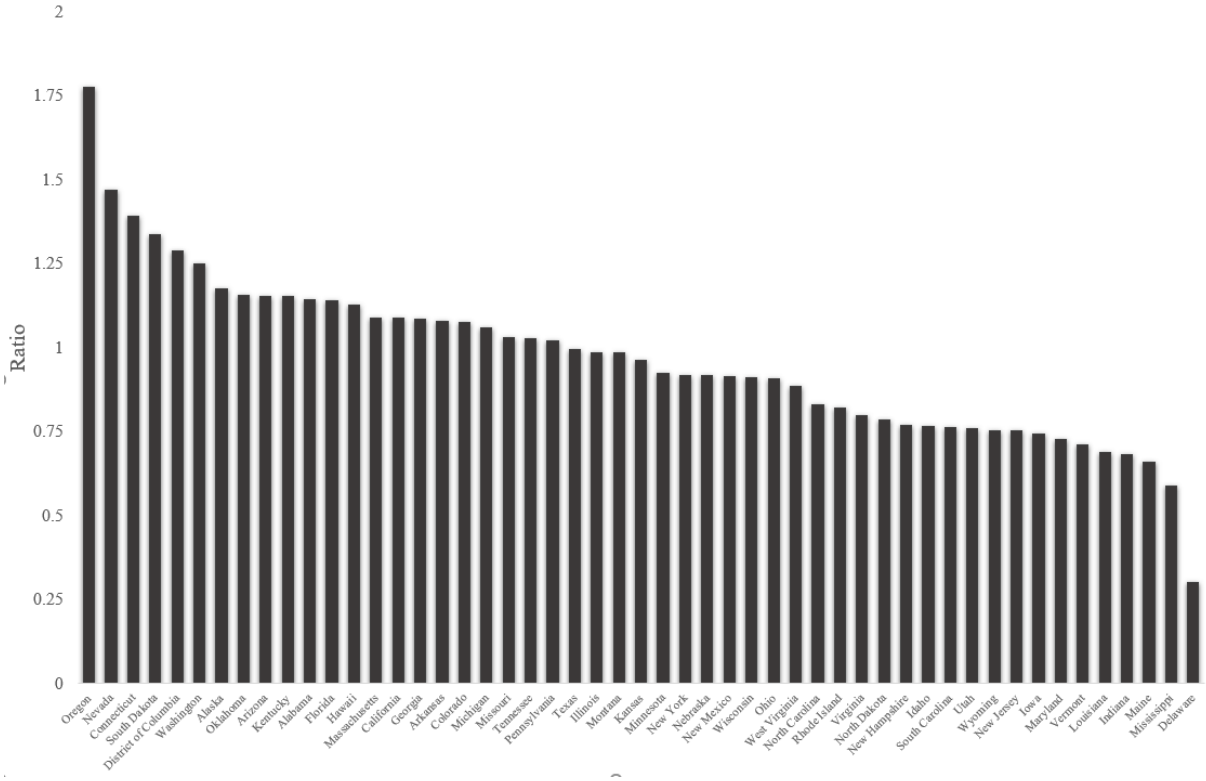


Figure D.2: Ratio of Representation: Experiment Participants vs. U.S. Population

The table then presents the ratings for each system as a function of reported political affiliation. Unsurprisingly, respondents who see themselves as closer to the Democratic Party drive a lot of the difference in ratings between the two systems. However, Republicans also tend to report that System B (relative to System A) is more exploitative, unfair to workers, disrespectful to human dignity, and is in conflict with their personal values. The responses for those who claim to be affiliated with neither party tend to lie between the score for the typical Democrat and Republican respondent. This pattern provides additional confidence in the reliability of our respondents' answers to the survey's demographic questions.

D.4 Do People Believe their Responses Matter?

In the third stage of the experiment, to examine the degree to which participants believe their responses matter, we remind participants of our intention to heavily publicize our findings and ask respondents if policy makers *will* be interested in our findings and if they *should* be

Table D.1: Detailed Repugnance Ratings

	System A				System B
Min Wage	\$7.25	\$10.10	\$15	All	No Min Wage
Count	446	880	893	2,219	2,219
Exploits Workers	49.4	26.8	16.6	27.2	75.6
Unfair to Workers	50.0	26.6	18.1	27.9	74.4
Unfair to Employers	24.9	33.2	48.5	37.6	25.1
Fails to Respect Human Dignity	48.3	26.5	19.3	28.0	67.8
Conflicts with Personal Values	48.8	30.4	30.7	34.2	69.5

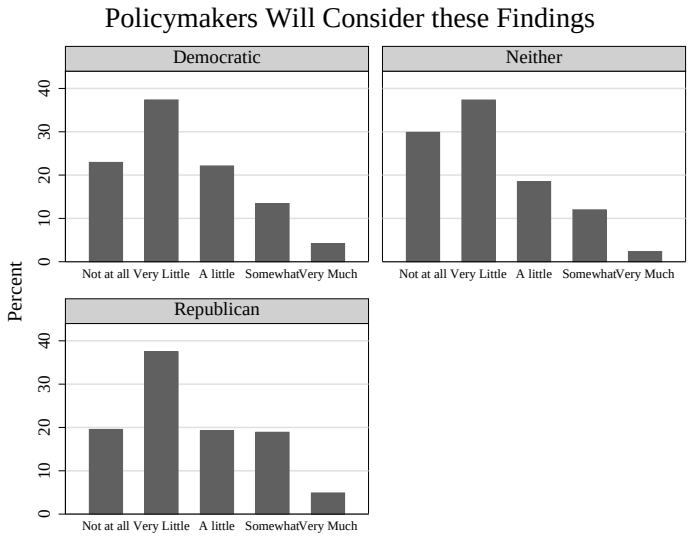
	System A				System B			
Political Affiliation	Democrat	Republican	Neither	All	Democrat	Republican	Neither	All
Count	1,095	614	510	2,219	1,095	614	510	2,219
Exploits Workers	26.1	27.4	29.4	27.2	82.6	64.8	73.4	75.6
Unfair to Workers	26.6	28.1	30.5	27.9	83.0	62.4	74.9	74.4
Unfair to Employers	29.5	52.0	37.8	37.6	23.0	28.8	25.0	25.1
Fails to Respect Human Dignity	25.9	29.9	30.1	28.0	76.7	54.6	64.6	67.8
Conflicts with Personal Values	28.4	43.5	35.4	34.2	78.8	56.3	65.4	69.5

Table reports breakdown of repugnance by minimum wage observed and reported political affiliation.

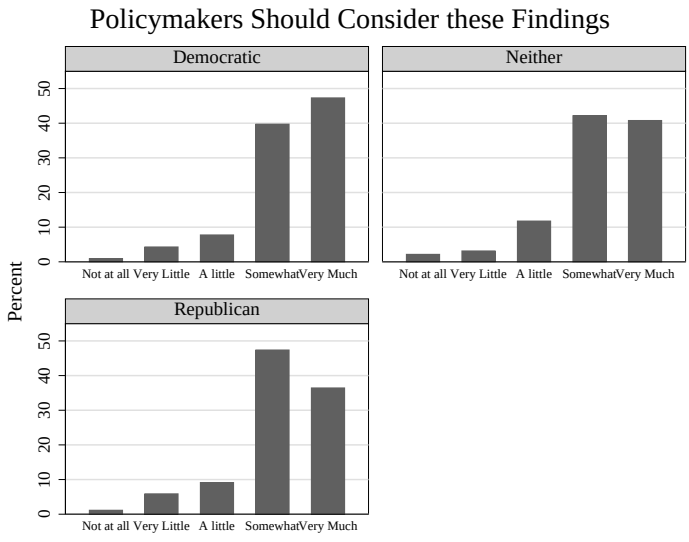
interested in these findings. Figure D.3 provides the breakdown of respondents answers to those questions. It is clear that most respondents do not believe their voice will be heard. However, over 83% of respondents feel that their voice *should* be heard. This provides some additional confidence in the reliability and trustworthiness of our survey responses.

D.5 Sample Characteristics by Political Affiliation

Table D.2 reports on the demographic characteristics we gathered for the 2,219 participants with valid responses. As we have a convenience participant group, they are not representative of the U.S. population. In particular, the table illustrates that the sample was predominantly



(a) Policymakers Will Consider these Findings



(b) Policymakers Should Consider these Findings

Figure D.3: Beliefs on the Effect of Study on Policymakers

democratic-leaning. In addition, while there are respondents from every state, there is a mild west coast bias in the sample. Part of this is due to population: California appears most frequently but we should expect this given California is the U.S.'s most populous state. However, it is over-represented in our data (by about a 1.1 to 1 ratio). States such as Oregon (1.77 to 1) and Nevada (1.47 to 1) are also over-represented relative to their population. We suspect that this pattern partly arises because we began gathering our data late in the evening on September 7th, 2018. We expected the data gathering process to take 24 to 48 hours and, therefore, the starting time to matter little to the composition of our sample. To our surprise, the data gathering process took just under 12 hours. For Californians, and others on the west coast, this time period was roughly 5pm to 5am. For east coast mTurkers, this was 8pm to 8am. Without knowing in advance how long it will take to gather a given amount of data, it is unclear when the "ideal" time to begin data collection would be. Sensitivity analyses which remove or separately control for over and under-represented states or political groups can address these kinds of imbalances. For a complete breakdown of the geographic representation of our respondents relative to the U.S. as a whole, see Figure D.2.

D.6 Characteristics of Switchers and non-Switchers

Table D.3 lays out the demographic characteristics of the sample for those who always chose System A, those who switched, and those who always chose System B. It is comparable to Table D.2, which lays out the demographic characteristics of the sample by political affiliation. The first thing to notice is that the division into the three categories "compresses" the data. That is, relative to the differences as a function of political affiliation, the differences observed across the groups as a function of their choices, is "smaller." For example, the self-rated political "score" (on a scale of 1 to 5, where 1 is most liberal) was 1.9 for Democrats and 4.0 for Republicans in Table D.3. In contrast, these numbers are 2.4 for those who always choose System A and 3.2 for those who always choose System B.

A notable exception to that pattern is in labor market experience. Those who always chose System B tend to report earning more income and have less experience with minimum wage jobs. It is true that those who chose System B are more likely to report a religious affiliation the

difference between the groups is less pronounced than the difference across political affiliation. A similar pattern applies to self-reported race.

Table D.2: Selected Demographic Characteristics of Experiment Participants

		Democratic	Republican	Neither	All
Count		1,095	614	510	2,219
Demographics	Age	36.2	39.3	35.8	36.9
	Std. Dev.	11.4	12.8	11.1	11.8
	% Male	45.2%	52.1%	51.1%	48.5%
	White	71.8%	87.0 %	68.6%	75.3%
	Black	12.9%	3.1%	10.8%	9.7%
	Other	15.3 %	9.9 %	20.6%	15.1%
Politics	Liberal-Conservative Scale	1.9	4.0	2.8	2.7
		Note: 1= Strongly Liberal and 5 = Strong Conservative			
Self-Reported Income	<$20,000	11.3%	10.4%	17.0%	12.3%
	$20,000 to $60,000	50.5%	45.5%	49.2%	48.8%
	$60,000 to $100,000	25.3%	27.0%	24.4%	25.6%
	$100,000 or more	12.9%	17.0%	9.4%	13.3%
Education	Less than High School	0.5%	0.2%	0.8%	0.5%
	High School or Some College	41.6%	44.0%	52.55%	44.8%
	Bachelor's Degree	41.6%	38.6%	34.3%	39.1%
	Graduate Degree	16.4%	17.3%	12.4%	15.7%
Religion	Christian	39.3%	75.4%	36.3%	48.6%
	Other	8.9%	3.4%	9.2%	7.8%
	Atheist/Agnostic/No Affiliation	51.9%	21.2%	54.5%	43.7%
Morality Questions	Some Values are Sacred	4.4	4.3	4.4	4.4
	Suffering for a Principle is Wrong	3.9	3.5	3.7	3.7
	Freedom from Interference	3.5	3.4	3.6	3.5
	Vaccine Injection	3.5	3.5	3.4	3.5
		Note: 1= Strongly Disagree and 5 = Strongly Agree			
Min Wage Experience	Currently Works for Min Wage	7.5%	5.9 %	14.0%	8.9%
	Ever Worked for Min Wage	70.8%	69.8%	65.6%	69.1%
	Never Worked for Min Wage	21.7%	24.3%	20.4%	22.0%
Location	Number of States (incl PR and DC)	51	48	49	52
	Most Common	California (13.3%)	California (11.6%)	California (14.9%)	California (13.2%)
Repugnance	Average for System A	26.8	32.2	31.3	29.3
	Average for System B	80.3	59.5	69.6	72.1

Note: Data refers to 2,219 valid responses. See Appendix B for more on what is considered a valid response.

Table D.3: Selected Demographic Characteristics of Experiment Participants

		Always A	Switcher	Always B	All
Count		921	696	602	2,219
Demographics	Age	37.6	35.7	37.4	36.9
	Std. Dev.	12.1	11.3	11.7	11.8
	% Male	49.6%	45.5%	50.2%	48.5%
	White	78.6%	72.4%	73.4%	75.3%
	Black	8.6%	11.8%	9.0%	9.7%
	Other	12.8 %	15.8%	17.6%	15.0%
Politics	Liberal-Conservative Scale	2.4	2.8	3.2	2.7
		Note: 1= Strongly Liberal and 5 = Strong Conservative			
Self-Reported Income	<$20,000	13.5%	12.8%	10.0%	12.3%
	$20,000 to $60,000	49.8%	49.6%	46.4%	48.8%
	$60,000 to $100,000	25.9%	25.3%	25.3%	25.6%
	$100,000 or more	10.8%	12.4%	18.2 %	13.3%
Education	Less than High School	0.3%	0.6%	0.5%	0.5%
	High School or Some College	43.2%	46.8%	44.7 %	44.8%
	Bachelor's Degree	40.3%	37.6%	39.0%	39.1%
	Graduate Degree	16.2%	14.9%	15.7%	15.7%
Religion	Christian	43.5%	50.3%	54.3%	48.6%
	Other	6.3%	8.5%	8.1%	7.8%
	Atheist/Agnostic/No Affiliation	50.2%	41.2%	37.6%	43.7%
Morality Questions	Some Values are Sacred	4.5	4.4	4.3	4.4
	Suffering for a Ethical Principle is Wrong	3.8	3.8	3.5	3.7
	Freedom from Interference	3.6	3.4	3.5	3.5
	Vaccine Injection	3.4	3.5	3.5	3.5
		Note: 1= Strongly Disagree and 5 = Strongly Agree			
Min Wage Experience	Currently Works for Min Wage	11.29%	8.05%	6.3%	8.9%
	Ever Worked for Min Wage	69.1%	69.5%	68.8%	69.1%
	Never Worked for Min Wage	19.7%	22.4%	24.9%	22.0%
Location	Number of States (incl PR and DC)	51	52	52	52
	Most Common	California (13.1%)	California (13.3%)	California (13.3%)	California (13.2%)
Repugnance	Average for System A	27.9	25.7	35.7	29.3
	Average for System B	85.7	72.9	50.3	72.1

Note: Data refers only to the 2,219 valid responses. See Appendix B for more on what is considered a valid response.

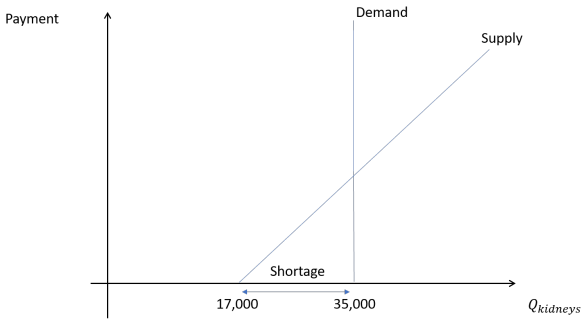
E Relationship to Elias, Lacetera, and Macis's work on Payments for Kidneys

The experiment we use in this paper is similar to Elias et al.'s approach to examine public support for payments to kidney donors. Elias et al.'s experiment asked participants to consider the three systems depicted in Figure E.1. Their baseline system (System A) is depicted in Figure E.1a. It, System A, precludes payments for kidneys. They then offer experimental subjects two ways to move away from that baseline - private or public payments for kidneys. Private payments allow for an upward movement along the kidney supply curve (Figure E.1b). Public payments also enforce a $0 payment (from recipients) but cause a rightward shift in supply due to the effects of the public subsidy.

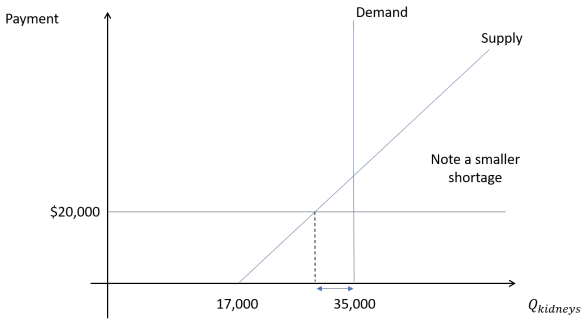
These systems were described to experiment participants in language that was easy to understand without training in economics. Participants were then asked to rate the systems on six dimensions of repugnance. These included whether or not the system was coercive, exploitative, fair to donors, fair to recipients, against human dignity, and against their personal values. The participants were presented with triplets of information on the ability of each system to procure kidneys only after they had rated the repugnance of the systems. The researchers presented individuals with several random combinations of efficiency to help them elicit what efficiency gains were required for a participant to accept a system they viewed as repugnant.

Elias et al. find that their respondents are willing to tolerate payments to kidney donors for relatively mild increases in number of kidneys procured, particularly when the payment is made from a third party rather than the payment coming from the recipient. That is, people seem to only find payments from recipient to donor repugnant, and not payments *per se*.

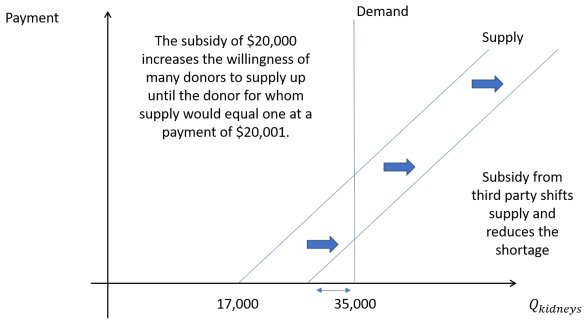
Elias et al.'s task was simplified by the reasonable assumption that the quantity demanded of kidneys is fixed. They also abstract from a general welfare analysis by focusing only on the ability of each system to procure kidneys for those who need them. For example, Elias et al. explain to participants that a public subsidy would be paid from savings on Medicare and Medicaid dialysis treatment costs. This ensured that participants could focus on the trade-off



(a) System A - No payments



(b) System B - Payments of $20,000



(c) System C - Subsidy of $20,000

Figure E.1: Systems of Elias et al.'s Choice Experiment on Kidney Donations

The three systems presented to participants in Elias et al. are graphically depicted in the above supply and demand diagrams. System A represents a system with no payments (voluntary donations only) and a large shortage. System B allows payments and reduces the shortage. The effect of this reduction was varied at random both within and across participants. System C reinstates the price ceiling at zero but subsidizes donors. This shifts supply out to the right so that more people are willing to give a kidney to someone who pays zero for that kidney. Again, the effect of the reduction in the shortage of kidneys was varied both within and across participants. Note that this order of presentation switches System B and C from their experiment.

between repugnance and efficiency for each system rather than considering the cost to the taxpayer or other unintended consequences.

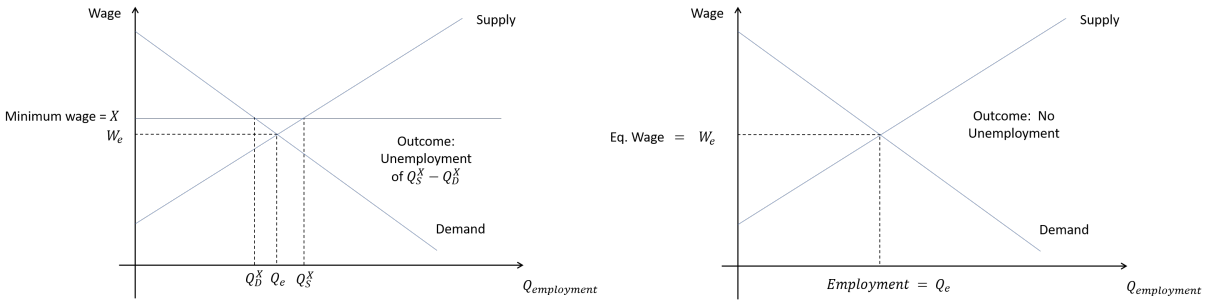
For this paper's experiment, restricting participants' focus to the employment effects of minimum wages is more challenging. The best illustration of the problem comes from the optional comments participants provided. In the comments, some participants defended their choices by explaining that other policies could be implemented to deal with unemployed

workers. The participants in Elias et al.'s experiment can't make these kinds of claims. Further, some participants suggested their answers would be contingent on the size of the social safety net provided. Others inserted their own dynamic equilibrium analysis along the lines of "a higher minimum wage would encourage education and skills training" or "higher wages for employed workers would lead to higher spending and job creation." It could be argued that these comments suggest a more consequentialist view of the issue than our findings suggest. At the same time, there is a difference between being able to offer an explanation for a particular choice and being willing to make a different choice if that explanation doesn't work out as imagined.

To keep the experiment as simple as possible (but no simpler), we restrict our experimental variation to only two systems. Each system mirrors one of the systems in Elias et al.'s set up but a key difference is that the systems are designed to create a different quantity demanded rather than quantity supplied. We considered adding a third system where the inefficiency caused by minimum wages is mitigated by a demand side subsidy to employers. This has merit as a test of the source of deontological preferences. That is: are workers paid too little or are employers not paying enough? A subsidy to workers from a third party (such as government) could solve one of those problems but does not solve the other.

To mirror Elias et al., our third system would have to reinstate a minimum wage while employers are encouraged to hire workers via a subsidy. The simplest, but not simple, version of this would be a demand-side payroll subsidy paid to employers who hire workers. Alternatively, we could encourage a change in labor supply via something like the Earned-Income Tax Credit. Under such a system, workers would take home the mandated minimum wage but part of that would come from a tax credit. Explaining the details of this approach to participants in a way that allows them to easily compare it to the other systems is not trivial. In addition, it's not clear where the money would come from for such a system: there is nothing comparable to the savings from reduced dialysis spending that Elias et al. proposed as a source of funds for third-party subsidies in the kidney market.

Ultimately, we decided against this approach because a third system has less bite here compared to the Elias et al. approach. In Elias et al.'s experiment, varying the identity of who



(a) System A - Minimum wage at X

(b) System B - No Minimum Wage

Figure E.2: Alternative Labor Market Systems

The systems presented to participants in our choice experiment are graphically depicted in the above supply and demand diagrams. System A represents a system with a binding minimum wage, implying some level of unemployment. System B eliminates the minimum wage. The employment effect of this change in the minimum wage was varied both within and across participants. Note that $X is randomly chosen to be either $7.25, $10.10, or $15 with probabilities of 20%, 40%, and 40% respectively.

pays makes sense because payments are currently not allowed and payment from a third-party might be a crucial component in the kidney payment debate. It makes less sense for this paper to pursue such an alternative: payment from an employer and from the government are clearly already morally permissible. Having just two systems allows participants to focus on the trade-off we are interested in examining.[E.1] Each of the systems presented to our experimental participants are depicted in Figure E.2.

[E.1] In a future extension, we intend to examine if preferences on this issue are caused by workers being paid too little or if employers are viewed as not paying enough. Specifically, we are working on a version of our experiment where we ask respondents to consider policy options for boosting low-skill workers wages where the responsibility for paying those wages varies between employers and government. These will be compared only to a minimum wage policy rather than both a minimum wage policy and a laissez-faire labor market.