ONLINE APPENDIX

John S. Ahlquist and Ben Ansell. "Unemployment Insurance, Risk, and the Acquisition of Specific Skills: An Experimental Approach." *Journal of Political Institutions and Political Economy*

6 Model with Risk Aversion

Would allowing for risk aversion alter the fundamental predictions from Section 2? To interrogate this possibility we revise the model and assume a concave utility function over income with linear effort costs. We begin with a general utility function $U(.)$ such that $U'(.) > 0$ and $U''(.) < 0$ before parameterizing this as $U(x) = \frac{1}{\alpha}(x)^{\alpha}$.

As in the main text, we solve the worker's maximization problem first by deriving their optimal effort in the second round, then their optimal effort in the first round, and finally their choice of investment. We parameterize the effect of investment on wages as $(1+i)we$ - i.e. returns to effort are multiplied by the wage followed and then $(1+i)$ where i reflects the chosen level of investment. The cost of investment, as above, is $\gamma(i)$. For tractability, this term enters utility additively. In the case where the choice over investment is discrete then $i \in \{0, \hat{i}\}$ with consequent costs of $\gamma(i) = \{0, \gamma(\hat{i})\}$ but this setup generalizes to a continuous choice of i and allows us to see how exogenous parameters such as b and p affect i^*. Overall utility W at $t = 1$ can be written as:

$$\begin{aligned} W = U\big((1+i)we_1(i)\big) - c(e(i)) + (1-p)\Bigg(U\big((1+i)we_2(i)\big) - c(e_2(i))\Bigg) \\ + p\Bigg(U\big(b(1+i)we_1(i)\big)\Bigg) - \gamma(i) \end{aligned} \tag{8}$$

We begin by optimizing the choice of effort in the second round e_2, which solves $(1+i)wU'\big((1+i)we_2^*(i)\big) = c'(e_2^*(i))$. This simply equates the marginal benefit in terms of wages earned to the marginal cost of effort. We then turn to optimize effort in round one. A similar outcome emerges except we now need to take account of the fact that with probability p the worker will become unemployed in round two and earn only a share b of their round one earnings. So round one effort affects both current earnings and future benefits (but not future effort in round 2 if employed). The choice of e_1 solves $(1+i)w\Bigg(U'\big((1+i)we_1^*(i)\big) + pbU'\big((1+i)bwe_1^*(i)\big)\Bigg) = c'(e_1^*(i))$.

Notice that in this case marginal costs of effort are set to equal the *sum* of the marginal wage benefits in round one and the marginal increase in unemployment benefits (proportional to round one earnings) in round two.[32]

We can now turn to the initial investment decision. We note that the effect of i on the effort choices $e_1^*(i)$ and $e_2^*(i)$ cancels out through the envelope theorem since both of these effort choices are already being set optimally.[33] This leaves the following equation as the first derivative of W with respect to i.

$$\begin{aligned}\frac{\partial W}{\partial i} &= we_1^*U'\big((1+i)we_1(i)\big) + pbwe_1^*U'\big(b(1+i)we_1(i)\big) \\ &\quad + (1-p)we_2^*U'\big((1+i)we_2(i)\big) - \frac{\partial \gamma}{\partial i}\end{aligned} \tag{9}$$

The equation can be interpreted as follows. There are three positive effects of making the investment: on round one income, on round two income - if unemployed - as unemployment benefits derived from round one income, and on round two income - if employed. There is a negative effect that is simply the cost of investment. To interpret the effects of p and b on investment choices we need to parameterize the utility function. We do so using a simple concave function $U(x) = \frac{1}{\alpha}(x)^\alpha$. With this in place we can rewrite the derivative as

$$\frac{\partial W}{\partial i} = (1+i)^{\alpha-1}(we_1^*)^\alpha \Big[(e_1^*)^\alpha(1+pb) + (1-p)(e_2^*)^\alpha\Big] - \partial\gamma/\partial i \tag{10}$$

Using this setup we can show that the cross-derivative $\frac{\partial W^2}{\partial i \partial b} = w^\alpha (e_1^*)^\alpha p > 0$. That is, higher unemployment benefits make the marginal utility of investing higher—benefits encourage investment. A similar result holds if solving for i^* and examining $\partial i^*/\partial b$.

For the risk of unemployment the story is more mixed—here we see that $\frac{\partial^2 W}{\partial i \partial p} =$

[32]The impact on round one effort of the probability of losing work and the size of unemployment benefits is as follows. $\partial e_1^*/\partial p > 0$ because a greater risk of unemployment means a higher chance of all your round two earnings coming from unemployment benefits proportional to round one effort). $\partial e_1^*/\partial b \gtreqless 0$ because this effect related to unemployment is counteracted by diminishing marginal returns to income - and hence $\partial e_1^*/\partial b > 0$ if $U'((1+i)bwe_1^*) > -(1+i)bwe_1^*U''((1+i)bwe_1^*)$. Writing $(1+i)bwe_1^* = x$ this can be rewritten as $U'(x) > -xU''(x)$ or $1 > -xU''(x)/U'(x)$ where the RHS is the definition of relative risk aversion (RRA). Hence provided the RRA is less than one, higher benefits ought to induce higher effort in round one.

[33]For example the effect of $\partial e_1^*/\partial i$ in $\partial W/\partial i$ cancels out because it enters as follows $\partial e_1^*/\partial i\big[(1+i)wU'((1+i)we_1^*) + pb(1+i)wU'((1+i)we_1^*) - c'(e_1^*)\big]$. From the optimality conditions for e_1^* we know that the term between the square brackets cancels out. The same applies to the part of $\partial W/\partial i$ that relates to $\partial i/\partial e_2^*$.

$w^{\alpha}\left[b(e_1^*)^{\alpha}-(e_2^*)^{\alpha}\right]\gtreqless 0$, which clearly depends on the effort exerted in round two versus the effort exerted in round one, multiplied by the size of the unemployment benefit. Finally, for a given i^*, the cross derivative $\frac{\partial^2 i^*}{\partial b \partial p}$ is positive since this enters only through the positive impact on investment in terms of unemployment benefits.

Accordingly we have produced the following comparative statics: we expect investment to be higher where unemployment benefits are more generous and for this effect to be increased when risks of unemployment are also high. The effect of unemployment risk on its own depends on effort choices, but is more likely to be positive where unemployment insurance generosity is higher. These results conform to those in the main text.

If we move to a more general utility framework where we do not explicitly parameterize $U(.)$ then we can show that for all workers with a relative risk aversion less than 1, an increase in b will induce higher levels of investment (that is, the impact of higher unemployment benefits in round one on $\partial W/\partial i$ will be larger than the decreased desire to invest due to the curvature of the utility function). Since at levels of RRA>1 we end up with insurance motivations dominating over redistributive ones in ways that do not find empirical support (see the discussion in Iversen and Soskice (2001) of the Moene-Wallerstein model), broadly we expect the effect of higher unemployment benefits on investment choices to be positive for risk-neutral or reasonably risk-averse individuals.[34]

7 Choosing Effort and Investment with Option of Waiting

In Section 2.2 we briefly discuss a simple multiple period model where agents can choose to wait when unemployed rather than take the general skills job when offered. In this section we show how effort and investment are chosen in a steady-state setup where agents are in the unemployed state with probability p, in the specific skills job with probability $(1-p)(1-q)$ and the general skills job with probability $(1-p)q$. We compare two states of the world - one where agents always take any offered job and one where they never take the general skills job and claim unemployment benefits until re-offered the specific skills job.

[34]This can be derived by examining di^*/db. Using the implicit function theorem, the sign of this derivative depends on $pwe_1^*U'((1+i)bwe_1^*) + pb(1+i)(we_1^*)^2U''((1+i)bwe_1^*)$. We can simplify this to $U'((1+i)bwe_1^*) + (1+i)bwe_1U''((1+i)bwe_1^*)$. Substituting $(1+i)bwe_1^* = x$ we note that this expression will be greater than zero if $U'(x)+xU''(x) > 0$ and we can rearrange this to $1 > -\frac{xU''(x)}{U'(x)}$. Since the RHS of this expression is the standard notation for relative risk aversion we have shown that $di^*/db > 0$ if $RRA < 1$.

We assume that unemployment benefits reflect the expected wage across both jobs (if taken) given these probabilities: hence if the agent always takes any job offered, unemployment benefits will be $b(qw_g(e_g^*) + (1-q)w_s(e_s^*))$ and if the agent always refuses general skills jobs they will be $bw_s(e_s^*)$. We allow agents to choose different levels of effort for each job e_s^* and e_g^* but effort in each job is constant across periods (i.e. it is steady state optimal effort). As before investment costs $\gamma(i)$, where $\gamma'(i) > 0$ and $\gamma''(i) > 0$, and effort costs $c(e)$, where $c'(e) > 0$ and $c''(e) > 0$.

As before specific skills earnings depend on effort e_s and the investment choice i, such that $w_s(e_s, i) = (1+i)we_s$ where w is a flat rate wage per unit of effort expended. Likewise, general skills wages (which are unrelated to the investment) are $w_g(e_g) = we_g$ where w is the same flat rate wage per unit of effort as before.

Since it is a steady state model, agents either always or never wait. The choice of whether to always or never wait corresponds to the results in Section 2.2 so we do not repeat that here. Below we show how effort and investment choices are determined in each scenario and note comparative statics.

Always Wait Agents who always wait never take the general skills job when unemployed and consequently receive bw_s. Their utility can be written as follows:

$$W_{AW} = \Big((1-p)(1-q) + pb + (1-p)qb\Big)w_s(e_s, i) - c(e_s) - \gamma(i) \tag{11}$$

We begin by deriving the equation for their choice of steady-state optimal effort e^*.

$$\frac{\partial W_{AW}}{\partial e_s} = \Big((1-p)(1-q) + pb + (1-p)qb\Big)\frac{\partial w_s(e_s, i)}{\partial e_s} - c'(e_s) \tag{12}$$

Noting that since $w_s(e_s, i) = (1+i)we_s$, we can simplify to $\partial w_s(e_s, i)/\partial e_s = (1+i)w$, and can take the first order condition to define e_s^* as:

$$\Big((1-p)(1-q) + pb + (1-p)qb\Big)(1+i)w = c'(e_s^*) \tag{13}$$

This effort choice equation provides us with some simple comparative statics. Because $c(e_s)$ is convex, it follows that optimal effort choice in the skilled task is rising in investment i, base wages w, and the generosity of unemployment insurance b, falling in the probability of receiving the general skills job q, and not increasing in the probability of unemployment p (this differs slightly from the simpler model in the main text because in the steady state agents are not employed for sure in round one).

As for investment choice, we now maximize utility with respect to i.

$$\frac{\partial W_{AW}}{\partial i} = \left(b(p+(1-p)q)+(1-p)(1-q)\right)\left[\frac{\partial w_s(e_s^*, i)}{\partial i} + \frac{\partial w_s(e_s^*, i)}{\partial e_s^*}\frac{\partial e_s^*, i}{\partial i}\right] - \gamma'(i) \quad (14)$$

Note following Section 6 that by the envelope theorem, optimal effort choice already satisfies the FOC w.r.t. to investment, so $\partial e_s^*/\partial i = 0$. As above $w_s(e_s, i) = (1+i)we_s$. We make these simplifications and find the following first order condition for optimal investment in the Always Wait condition: i^*_{AW}.

$$\left(b(p+(1-p)q)+(1-p)(1-q)\right)w = \gamma'(i^*_{AW}) \quad (15)$$

Recalling that $\lambda(i)$ is convex, we see that investment is increasing in unemployment generosity and in the wage rate. Investment is decreasing in the probability of being offered the general skills job, as expected. Finally investment is also decreasing in the probability of unemployment (as above, the absence of first round for-sure employment, produces a difference from the two period model). As in the two period model, the cross-derivative of b and p is positive ($\partial^2 i^*/\partial b \partial p > 0$) - higher unemployment risk amplifies the positive effects of unemployment generosity on investment.

Never Wait We now turn to the case where the agent always takes whichever job they are offered. In this case, the unemployment replacement rate is based on expected steady-state income as noted above. We start with the basic utility equation, noting that we now have two costs of effort (for each task).

$$W_{NW} = pb[qw_g(e_g)+(1-q)w_s(e_s,i)]+(1-p)qw_g(e_g)+(1-p)(1-q)w_s(e_s,i)-\gamma(i)-c(e_g)-c(e_s) \quad (16)$$

We now have two effort equations, where we simplify noting that $\partial w_g(e_g)/\partial e_g = w$ and $\partial w_s(e_s, i)/\partial e_s = (1+i)w$.

$$\frac{\partial W_{NW}}{\partial e_g} = wq(pb + (1-p)) - c'(e_g) \quad (17)$$

$$\frac{\partial W_{NW}}{\partial e_s} = w(1+i)(1-q)(pb + (1-p)) - c'(e_s) \quad (18)$$

We obtain first order conditions for optimal effort in the general and specific skills task.

$$wq(pb + (1 - p)) = c'(e_g^*) \tag{19}$$

$$w(1 + i)(1 - q)(pb + (1 - p)) = c'(e_s^*) \tag{20}$$

Both types of effort are increasing in unemployment benefit generosity and the wage rate. Effort in the general skills task is increasing in the probability of receiving it and weakly decreasing in the probability of unemployment. Effort in the specific skills task is increasing in the presence of the investment but decreasing in the probability of receiving the general skills task and weakly decreasing in the probability of unemployment.

We finish by examining the choice of investment in the Never Wait condition.

$$\frac{\partial W_{NW}}{\partial i} = \Bigg(pb(1 - q) + (1 - p)(1 - q)\Bigg)\left[\frac{\partial w_s(e_s^*, i)}{\partial i} + \frac{\partial w_s(e_s^*, i)}{\partial e_s^*}\frac{\partial e_s^*, i}{\partial i}\right] - \gamma'(i) \tag{21}$$

Again using the envelope condition to set the derivative of effort with respect to investment to zero and noting that $\partial w_s(e_s, i)/\partial e_s = (1 + i)w$, we simplify and take the FOC to find the optimal investment choice in the Never Wait condition: i_{NW}^*.

$$\Bigg(pb(1 - q) + (1 - p)(1 - q)\Bigg)w = \gamma'(i_{NW}^*) \tag{22}$$

For agents who never wait, investment is higher if unemployment generosity is higher or if the wage rate is higher. Investment is lower if the probability of receiving the general skills job is higher or if the probability of unemployment is higher. Finally, as above, the cross-derivative of benefit generosity and unemployment risk is positive: $(\partial^2 i^*/\partial b \partial p > 0)$ - higher unemployment risk increases the positive effects of unemployment generosity on investment.

In sum, a steady state model of specific and general skills jobs produces very similar expectations to our simpler model in Section 2. Our core finding that higher unemployment generosity increases both effort and investment holds up in both extreme scenarios, where agents always or never wait. We also find that the positive effect of generosity on both effort and investment itself is increasing in unemployment risk, as in the main text. Similarly investment is lower where the probability of receiving the general skills job is higher. The role of unemployment risk, which has either negative or positive effects in the simple model, depending on parameter values, is weakly negative in the steady state setup since there is no first round guaranteed employment.

8 Randomization & covariate balance

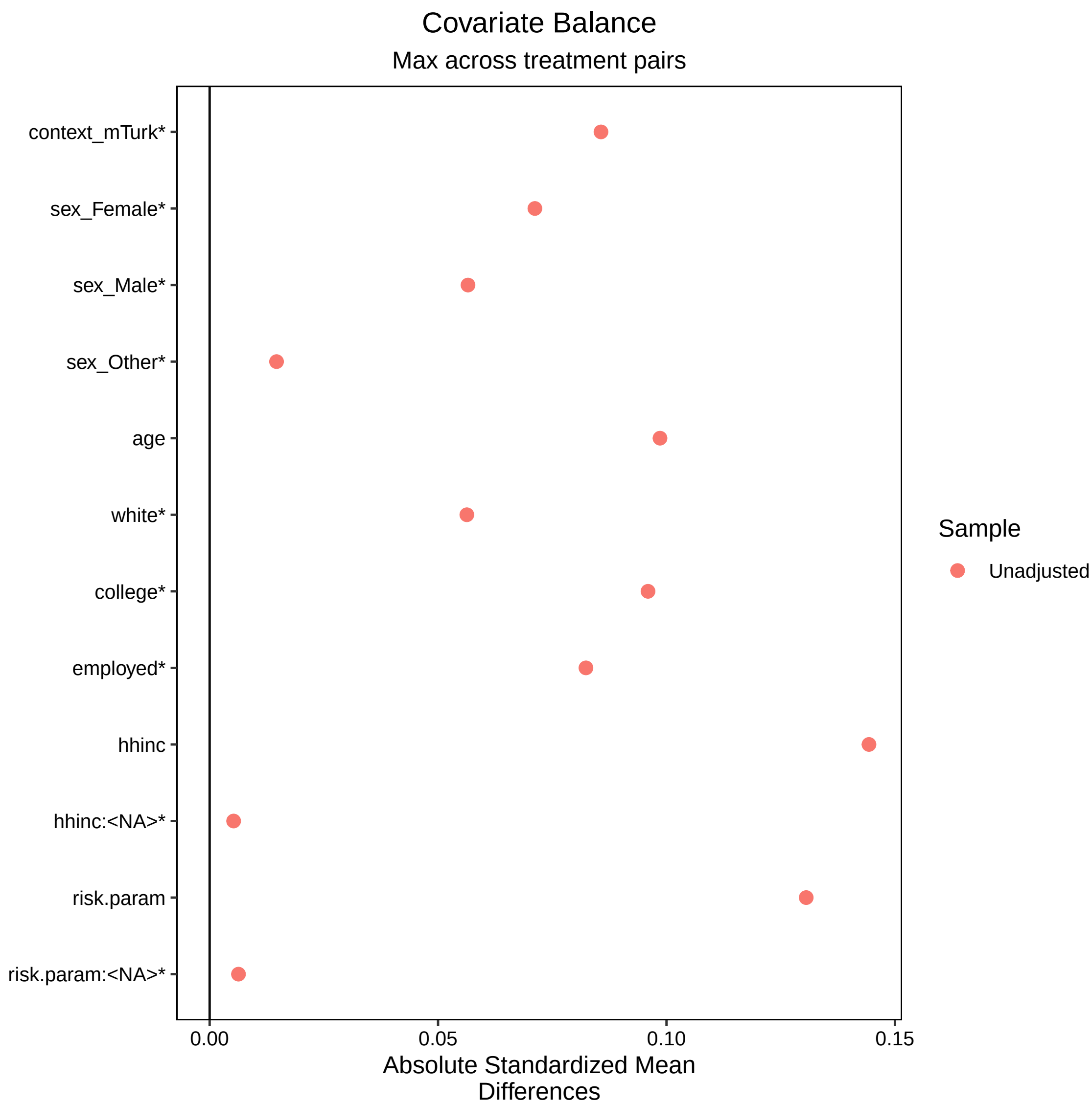


Figure 5: Standardized differences in means for covariates. Each point represents the maximum difference between the mean of a covariate in one treatment condition and the mean of that covariate in all other experimental conditions.

9 Investment behavior

9.1 *differences in proportions by treatment*

Table 4 formally compares the difference in proportions of subjects investing in skills for each treatment to the others, displaying p-values with Benjamini-Hochberg FDR corrections for multiple comparisons. Values in parentheses are unadjusted p-values. Adjusting for multiple comparisons, the only difference between High Generous and High None cross conventional thresholds whereas the unadjusted p-values indicate that the High Minimal treatment is distinct from High None, the Low Generous from High None, and the High Generous from Low Minimal, in all cases with the former treatment producing higher probabilities of investment than the latter.

Table 4: p-values for differences in the proportion of subjects choosing to invest, adjusted to control the false discovery rate for multiple comparisons. Values in parentheses are uncorrected p-values

	LowNone	LowMinimal	LowGenerous	HiNone	HiMinimal
LowMinimal	0.748(0.698)				
LowGenerous	0.369(0.219)	0.202(0.081)			
HiNone	0.369(0.211)	0.625(0.472)	0.068(0.009)		
HiMinimal	0.625(0.5)	0.369(0.221)	0.724(0.628)	0.121(0.032)	
HiGenerous	0.202(0.079)	0.105(0.021)	0.786(0.786)	0.017(0.001)	0.49(0.327)

9.2 *Detailed & alternative models for investment*

9.2.1 Linear probability models

Table 5: Linear Regression for Investment Choice (detailed results)

	base (categorical)	base (linear)	interacted	context	covariates
low-minimal	-0.03				
	(0.06)				
low-generous	0.09+				
	(0.05)				
high-none	-0.09*				
	(0.04)				
high-minimal	0.05				
	(0.04)				
high-generous	0.12***				
	(0.03)				
unemployment rate		0.04	-0.21	-0.07	0.07
		(0.23)	(0.31)	(0.27)	(0.22)
UI generousity		0.20***	0.06	0.28***	0.19***
		(0.04)	(0.12)	(0.04)	(0.05)
generosity × rate			0.78		
			(0.54)		
mTurk				-0.03	-0.03
				(0.09)	(0.04)
rate × mTurk				0.21	
				(0.40)	
generosity × mTurk				-0.12	
				(0.07)	
female					0.00
					(0.04)
age					0.00
					(0.00)
white					-0.02
					(0.03)
urban					0.02
					(0.04)
college degree					0.07+
					(0.04)
income					0.01
					(0.02)
risk aversion					-0.08***
					(0.02)
unemployed					0.08
					(0.08)
n	694	694	694	694	691
BIC	976.9	961.5	967.0	979.3	999.3

standard errors clustered by context-treatment in parentheses.

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Table 6: Linear Regression for Investment Choice (robust standard errors)

	base (categorical)	base (linear)	interacted	context	covariates
low-minimal	-0.03				
	(0.07)				
low-generous	0.09				
	(0.07)				
high-none	-0.09				
	(0.06)				
high-minimal	0.05				
	(0.06)				
high-generous	0.12+				
	(0.06)				
unemployment rate		0.04	-0.21	-0.07	0.07
		(0.24)	(0.36)	(0.41)	(0.25)
UI generousity		0.20***	0.06	0.28**	0.19***
		(0.06)	(0.15)	(0.10)	(0.06)
generosity × rate			0.78		
			(0.77)		
mTurk				-0.03	-0.03
				(0.11)	(0.04)
rate × mTurk				0.21	
				(0.51)	
generosity × mTurk				-0.12	
				(0.12)	
n	694	694	694	694	691
BIC	976.9	961.5	967.0	979.3	999.3

HC3 standard errors in parentheses.

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

9.2.2 Logistic regression

Table 7: Logistic Regression for Investment Choice

	base (categorical)	base (linear)	interacted	context	covariates
low-minimal	-0.14				
	(0.23)				
low-generous	0.41+				
	(0.23)				
high-none	-0.37*				
	(0.15)				
high-minimal	0.22				
	(0.18)				
high-generous	0.54***				
	(0.14)				
unemployment rate		0.19	-0.90	-0.34	0.33
		(1.04)	(1.30)	(1.14)	(1.02)
UI generousity		0.91***	0.23	1.32***	0.89***
		(0.20)	(0.55)	(0.19)	(0.23)
generosity × rate			3.71		
			(2.40)		
mTurk				-0.14	-0.12
				(0.38)	(0.20)
rate × mTurk				0.94	
				(1.72)	
generosity × mTurk				-0.60+	
				(0.33)	
n	694	694	694	694	691
BIC	926.9	911.2	916.7	928.8	949.5

standard errors clustered by context-treatment in parentheses.
+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 8: Logistic Regression for Investment Choice (classical standard errors)

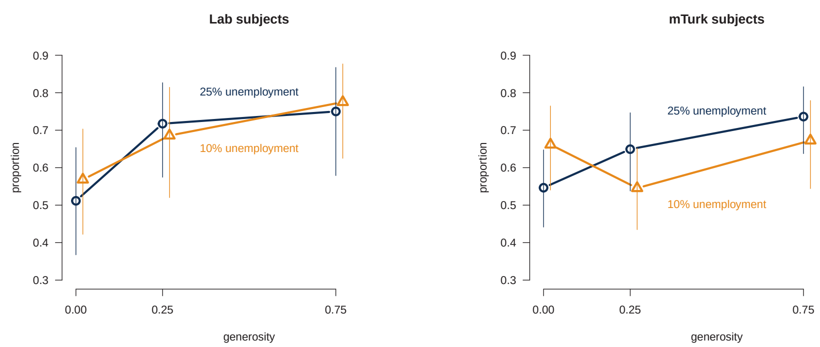
	base (categorical)	base (linear)	interacted	context	covariates
low-minimal	-0.14				
	(0.28)				
low-generous	0.41				
	(0.30)				
high-none	-0.37				
	(0.27)				
high-minimal	0.22				
	(0.28)				
high-generous	0.54+				
	(0.29)				
unemployment rate		0.19	-0.90	-0.34	0.33
		(1.07)	(1.50)	(1.85)	(1.09)
UI generousity		0.91***	0.23	1.32**	0.89**
		(0.27)	(0.69)	(0.48)	(0.27)
generosity × rate			3.71		
			(3.55)		
mTurk				-0.14	-0.12
				(0.47)	(0.19)
rate × mTurk				0.94	
				(2.27)	
generosity × mTurk				-0.60	
				(0.58)	
n	694	694	694	694	691
BIC	926.9	911.2	916.7	928.8	949.5

standard errors in parentheses.

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

9.3 Investment behavior by experimental context

In this section we reproduce our main analysis of the investment decision, but broken out by experimental context. Figures 6 displays the proportion of subjects choosing to invest in skills by treatment groups and by experimental context. Tables 9 and 10 display the p-values for the pairwise differences in proportions. As expected, the smaller samples increase uncertainty and there are some differing patterns in the minimal UI treatment between lab and mTurk samples. But the core finding that subjects in the generous UI condition were more likely to invest remains.



(a) pooled across risk (b) pooled across UI levels

Figure 6: The proportion of subjects investing in skill acquisition as a function of experimental treatments, broken out by experimental context (lab v. mTurk).

Table 9: p-values for differences in the proportion of subjects choosing to invest, lab subjects only. Values adjusted using the Bejamini-Hotchberg correction to control false discovery rate for multiple comparisons. Values in parentheses are unadjusted p-values

	LowNone	LowMinimal	LowGenerous	HiNone	HiMinimal
LowMinimal	0.76(0.4)				
LowGenerous	0.28(0.08)	0.9(0.54)			
HiNone	0.94(0.75)	0.45(0.19)	0.28(0.02)		
HiMinimal	0.45(0.21)	1(0.95)	0.94(0.72)	0.28(0.08)	
HiGenerous	0.45(0.16)	0.94(0.76)	1(1)	0.28(0.06)	1(0.95)

Table 10: p-values for differences in the proportion of subjects choosing to invest, mTurk subjects only. Values adjusted to control the false discovery rate for multiple comparisons. Values in parentheses are uncorrected p-values

	LowNone	LowMinimal	LowGenerous	HiNone	HiMinimal
LowMinimal	0.47(0.22)				
LowGenerous	1(1)	0.47(0.19)			
HiNone	0.47(0.21)	1(1)	0.47(0.18)		
HiMinimal	1(1)	0.47(0.25)	1(0.92)	0.47(0.24)	
HiGenerous	0.61(0.41)	0.12(0.02)	0.7(0.51)	0.12(0.01)	0.49(0.29)

Table 11 reproduces the models displayed in Table ??, but separated by experimental context. There are some apparent differences across the two populations. The difference between the UI generosity coefficients across the two sample populations is not distinguishable from zero at conventional thresholds.

Table 11: Linear Regression for Investment Choice by experimental context

	base	covariates	base	covariates
unemployment rate	-0.07	0.00	0.14	0.16
	(0.41)	(0.42)	(0.31)	(0.31)
UI generousity	0.28**	0.26*	0.16*	0.15*
	(0.10)	(0.10)	(0.07)	(0.07)
Context	lab	lab	mTurk	mTurk
n	240	238	454	453

HC3 standard errors in parentheses.

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

10 Waiting

Figure 8 displays whether subjects ever waited by treatment status. We see that between one sixth and one third of lab subjects who had the opportunity chose to voluntarily extend their spells of unemployment. As expected, a greater proportion of subjects in the high risk treatment chose to wait. The uncertainty around these

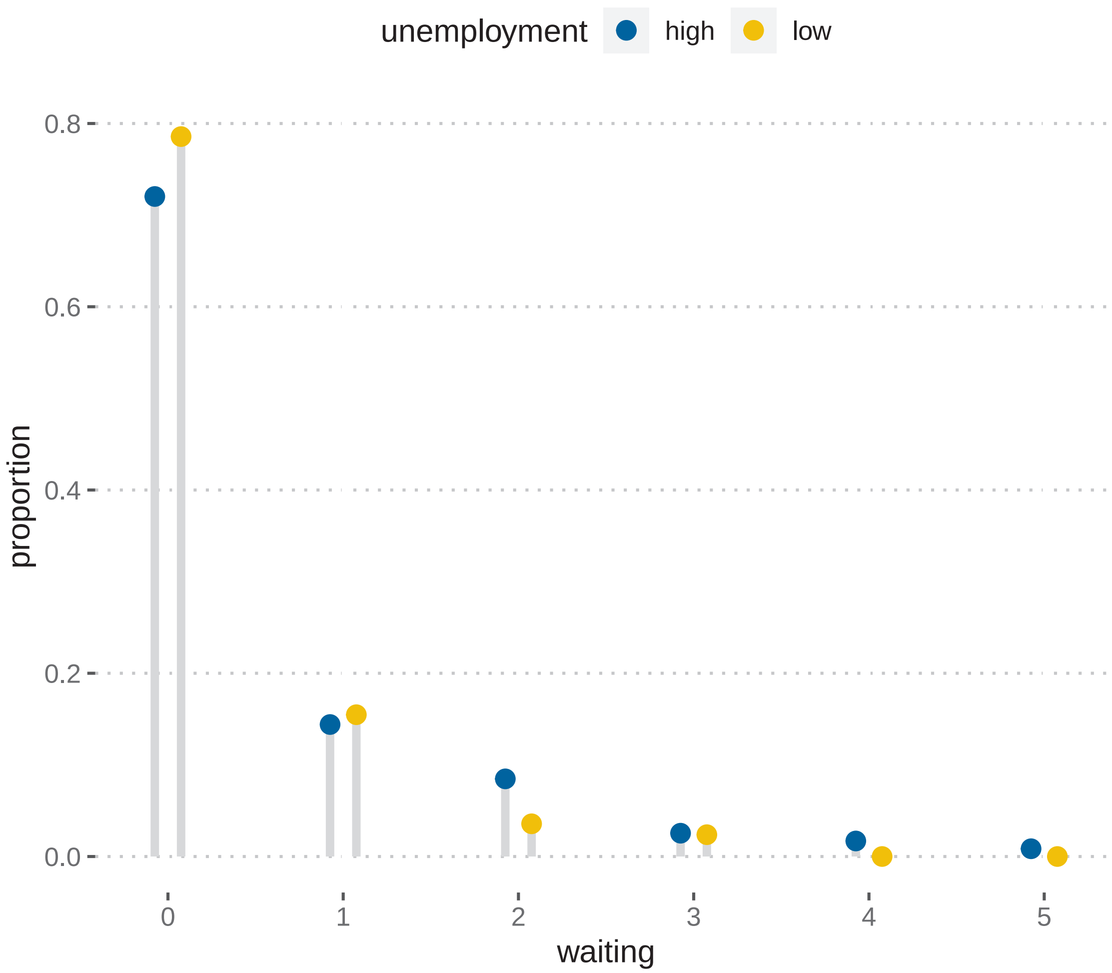


Figure 7: The distribution of the number of foregone employment offers by unemployment risk among lab subjects who have at least one spell of unemployment.

proportions is substantial; none of the pairwise differences in proportions within risk strata cross conventional significance thresholds.

In Table 12, we examine both waiting variables in a regression context. We employ logistic regression for the binary variable (columns 1-3) and Poisson regression for the counts (columns 4 and 5).[35] Because Figure 8 indicates that there may be a nonlinear

[35]There was no evidence of overdispersion or zero inflation in the count variable.

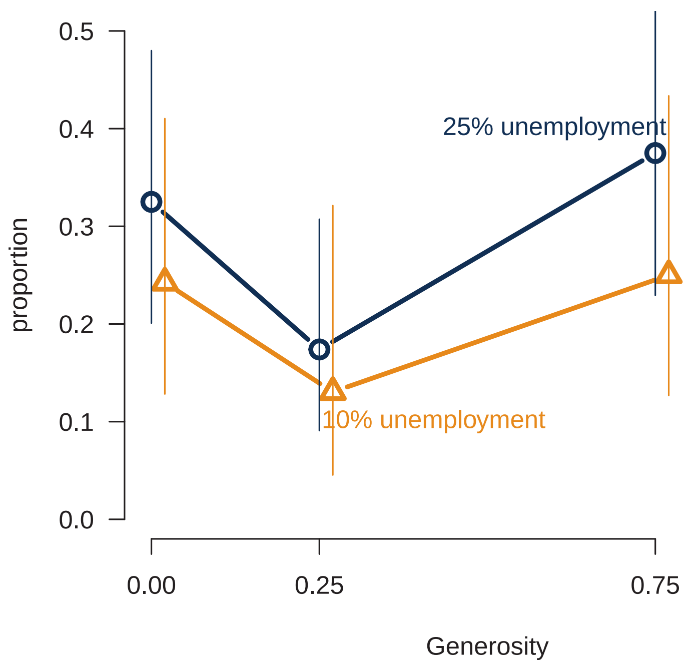


Figure 8: Proportion of lab respondents having had at least one spell of unemployment who chose to extend their unemployment by rejecting a round of work at least once. Vertical bars are 95% binomial confidence intervals.

relationship between generosity and waiting and given the interest in the generous UI condition specifically (see below), we enter the generosity variable categorically here. In the first logit model, we include only the experimental treatments without accounting for the number of opportunities to wait induced by unemployment risk; these results mirror those in Figure 8.

In the subsequent specifications we condition on the number of employment offers received.[36] Comparing the first two specifications, we see that subjects in the high risk treatment were *less* likely to wait than those in the low risk treatment, conditional on actual exposure to unemployment spells.

[36]We use log employment offers in the Poisson specification, as is standard when accounting for the size of the exposure window. We do not constrain the coefficient on this term.

Table 12: Regression Analyses for Waiting

	logistic Ever Rejected			Poisson Number of Rejected	
	(1)	(2)	(3)	(4)	(5)
Minimal UI	-0.81^{*}	-0.72	-0.71	-0.03	-0.16
	(0.42)	(0.52)	(0.56)	(0.28)	(0.30)
Generous UI	0.15	0.19	0.38	0.17	0.15
	(0.38)	(0.47)	(0.50)	(0.26)	(0.28)
High risk	0.46	-1.08^{**}	-0.95^{*}	-0.67^{***}	-0.60^{**}
	(0.34)	(0.48)	(0.50)	(0.26)	(0.27)
emp. offers		1.32^{***}	1.32^{***}		
		(0.21)	(0.22)		
Female			0.08		-0.22
			(0.45)		(0.24)
Age			0.03		0.02^{*}
			(0.02)		(0.01)
White			-0.32		-0.02
			(0.48)		(0.25)
Urban			-0.19		-0.17
			(0.48)		(0.27)
College			-0.32		0.10
			(0.48)		(0.25)
Risk aversion			0.44		0.28
			(0.36)		(0.20)
unemployed			-16.42		-15.65
			(1,499.18)		(1,273.14)
income			-0.03		0.07
			(0.19)		(0.11)
log cont				2.77^{***}	2.78^{***}
				(0.28)	(0.31)
Constant	-1.17^{***}	-3.68^{***}	-4.53^{***}	-3.35^{***}	-4.13^{***}
	(0.33)	(0.57)	(1.31)	(0.42)	(0.71)
N	202	202	200	198	196
AIC	229.24	166.56	171.99	248.85	246.09

$^{*}p < .1$; $^{**}p < .05$; $^{***}p < .01$

Turning to the Poisson specifications we see a similar pattern. The expected number of waiting counts is twice as large in the low risk condition compared to high risk. Across both the logit and Poisson models, there is no evidence that UI generosity affects waiting regardless of whether we include covariates. Crucially, we find no evidence that the generosity of the UI regime affects waiting behavior in our lab experiments.

11 Task effort

We measure task effort as the number of accurate responses in a round, averaged over all employed rounds.

Figures 9, and 10 display box plots for effort by unemployment risk, and unemployment insurance. Simple t-tests show a statistically significant increase in effort among individuals who face lower unemployment risk or who made the investment but no noticeable differences among individuals who received different treatments for unemployment insurance.

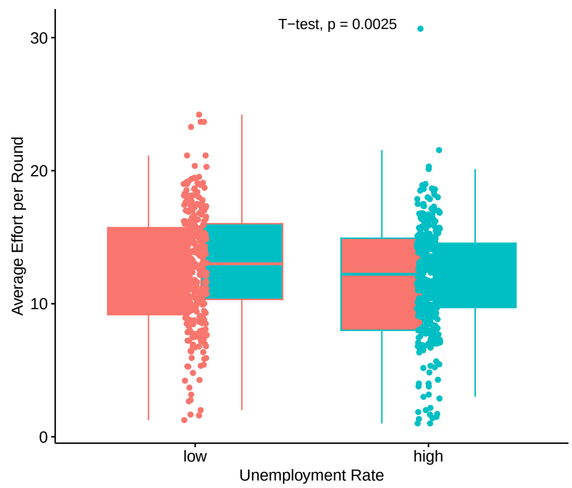


Figure 9: Effort by Unemployment Risk

Table 13 displays OLS regressions of task effort on experimental treatments and covariates. We see a large negative effect for risk but no relationship with UI generosity

We know that the investment decision is in part predicted by the different treatments randomly assigned to various levels of unemployment risk and insurance. Figure 11 displays boxplots of effort by investment choice. There is some evidence that those choosing to invest worked harder at the tasks. This provides a segue into the mediation analysis below.

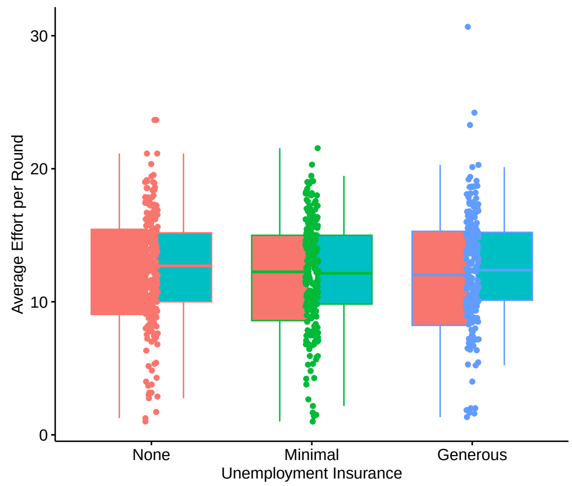


Figure 10: Effort by Unemployment Insurance

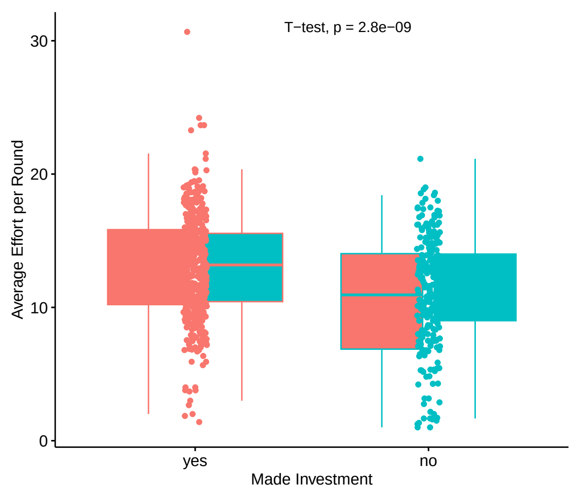


Figure 11: Effort by Investment Choice

Table 13: OLS regression on average task effort

	(1)	(2)
UI generosity	0.17	−0.003
	(0.50)	(0.45)
Unemployment risk	-6.34^{***}	-5.50^{***}
	(2.07)	(1.87)
mTurk		-1.78^{***}
		(0.33)
Female		−0.20
		(0.29)
Age		-0.09^{***}
		(0.01)
White		1.29^{***}
		(0.34)
Urban		−0.42
		(0.33)
College		−0.06
		(0.30)
Risk aversion		-0.82^{***}
		(0.21)
income		0.37^{***}
		(0.13)
unemployed		0.50
		(0.59)
Constant	13.42^{***}	16.53^{***}
	(0.43)	(0.77)
N	692	689
Adjusted R^2	0.01	0.20

$^{*}p < .1$; $^{**}p < .05$; $^{***}p < .01$

12 Mediation Analysis

In conducting mediation analysis, our model for investment is a logit regression that includes risk aversion and whether the respondent has a college degree as covariates along with the experimental treatments. For the waiting outcome, we use a logit model including the experimental treatments, the number of offers, and investment choice. For the effort outcome we use OLS regression with experimental context, age, and risk aversion as covariates along side the treatments.

In Figures 12 and 13 we display the estimated average direct, mediated, and total effects of unemployment risk (left panel) and unemployment insurance (right), respectively, on the binary waiting variable (12) and task effort (13). Unemployment risk produces a large and significant negative effect on both waiting and effort; there is no evidence that skill investment mediates either relationship. Interestingly, however, we find that although UI generosity has a null total effect on both outcomes, investing in skills produces a small *negative* effect on whether subjects sit out and a positive effect on task effort. Both these effect are distinguishable from 0, although the significance of the effect on waiting is marginal with respect to conventional thresholds ($p \approx 0.054$).

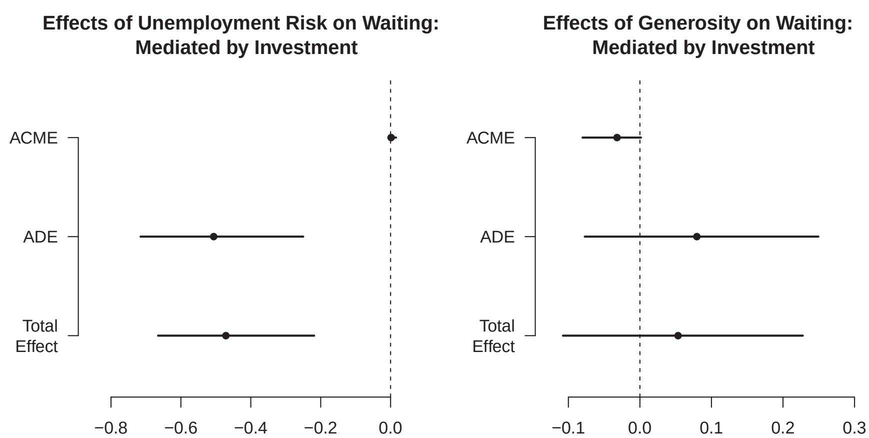


Figure 12: Mediation analysis of skill investment on waiting behavior. Horizontal bars are 95% quasi-Bayesian confidence intervals.

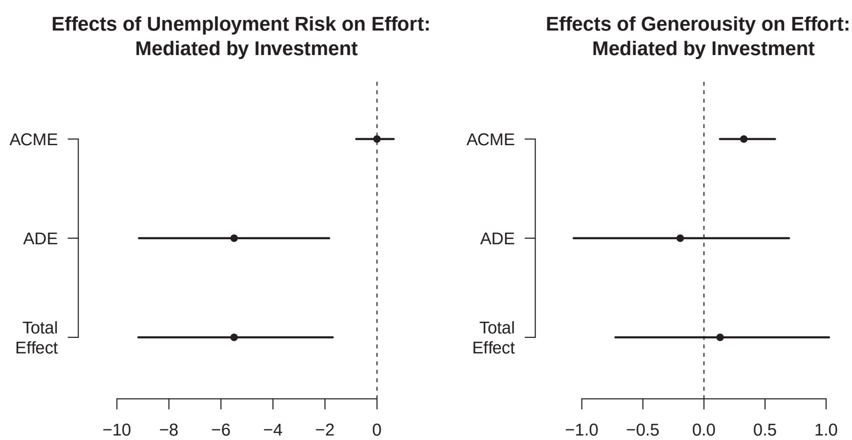


Figure 13: Mediation analysis of skill investment on task effort. Horizontal bars are 95% quasi-Bayesian confidence intervals.