

Rise of the Robots: Effects of Technological Automation on Societal Freedom  
by  
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# Chapter 1: Freedom

## Why freedom?

Technological automation will have many effects on the way our society is structured, and the relationships between the people who compose it. We can measure the changes quantitatively - such as the the increase in inequality, in GDP, in underemployment, or in percent of workers who are in poverty. We can study the changes qualitatively, by discussing the sociological implications of working in retail rather than manufacturing or of widespread unemployment in the community. Or we could discuss the effects on individual privacy that would result from the increasing power of big 4 technology companies (Apple, Google, Facebook, Amazon).

However, my goal is to not simply explore the effects of automation - more knowledgeable authors have written extensively about the subject. Rather my goal is to build on their work, and combine it with scholarship in the field of philosophy to make interpretations of these changes. I hope for this thesis to serve as a sort of philosophical scorecard. Societal changes are analyzed and interpreted through a normative lens of freedom, and then some solutions are proposed to increase that freedom.

I want this work to be relevant to contemporary political issues, so I will focus this normative evaluation on a word that seems to pervade American political rhetoric: freedom. Philip Pettit remarked that “there are many languages of legitimation present

in the world of democratic politics today...all of them share a common idiom of freedom or liberty".<sup>1</sup> More specifically, when people say that they want a polity or political community to be free, what do they mean by that? What kinds of freedom are there, and what kinds are important? That is the focus of this chapter. After answering that, I go on to ask: how will automation affect that freedom? How do we mitigate any negative effects?

In Chapter 2, I outline the effects that automation will have on the job market. I find that the number of jobs will not decrease overall, but the quality of those jobs will polarize into low-skill, manual jobs and high-skill abstract jobs. In Chapter 3, I outline a conception of good and bad jobs, based on health benefits, pay, and hours, and find that manual jobs are bad jobs, while abstract jobs are generally good jobs. In the fourth chapter, I look into civic republican thinking on markets, specifically the ability to use exit as an anti-power against domination. I once again find that manual jobs fail to provide the person working with the job sufficient protection against domination. In the conclusion, I outline some policy proposals that could help increase freedom for those in the fast-growing manual jobs segment.

The remainder of this chapter is dedicated to expanding on the notion of freedom, or liberty (both terms are used interchangeably in philosophical literature, see Carter). In particular, I focus on three conceptions of liberty outlined in Elizabeth Anderson's book *Private Government*: negative liberty (freedom from interference), positive liberty (freedom to do something, or freedom of opportunity), and republican

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<sup>1</sup> Pettit, Philip. *Republicanism: a theory of freedom and government*. OUP Oxford, 1997, 6.

freedom (freedom from arbitrary control or freedom from domination).<sup>2</sup> Note that “republican” does not refer to the Republican Party in U.S. Politics.

Some keywords that distinguish the different types of freedom are control and interference. As we will see, Berlin’s negative liberty implies lack of interference on an individual, positive freedom (by the capabilities approach) implies some sort of control over one’s life and the control to pursue what is valuable, and republican freedom implies a lack of control and interference over an individual.

## Negative Freedom

An influential account of liberty can be traced to Isaiah Berlin, who was the first to put forth a dichotomy between negative and positive liberty. He uses the example of a motorist who encounters a crossroads. They can choose to go to the left, or to the right, and in this case they choose the left. This person has negative liberty because they are free from interference. No one is preventing them from going right (there is no roadblock, no signs, or restrictions on travel). This lack of interference is referred to as negative liberty, the freedom from interference.<sup>3</sup>

Now let’s make this more interesting. The motorist in question is a promising member of the Marquette Symphony Orchestra,<sup>4</sup> holding the first chair in upright bass.

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<sup>2</sup> Anderson, Elizabeth. *Private government: How employers rule our lives (and why we don't talk about it)*. Princeton University Press, 2017, 84.

<sup>3</sup> Carter, Ian, "Positive and Negative Liberty", *The Stanford Encyclopedia of Philosophy* (Summer 2018 Edition), Edward N. Zalta (ed.), URL = <<https://plato.stanford.edu/archives/sum2018/entries/liberty-positive-negative/>>.

<sup>4</sup> Marquette is the largest city in Michigan’s upper peninsula (U.P.). The U.P. as a whole only contains 3% of Michigan’s population.

However, this motorist also has a nasty tobacco addiction. The choice he has to make is between going to the tobacco store (the left path), or to the right to make it to the last ferry across to the lower peninsula, so he can audition for the symphony in the big city (Detroit). The motorist makes the same choice as before, deciding to go to the left path.

Now, let us assume that absent the tobacco addiction, the motorist would want to go to the right, in order to make it in the big city (there are only so many opportunities for an upright bass player in the Upper Peninsula). I could argue that this motorist does not have negative liberty - the addiction is interfering with his ability to make the choice he wants to make. Or, I could argue that the motorist does indeed have negative liberty, as he is free from external interference. However, I could also argue he lacks positive liberty, vaguely defined as some sort of control over something. In this case, he can not realize his true dreams of being the best upright bass player in the State of Michigan, and thus he is not free.

The fact that I can interpret this situation as an absence of negative liberty and absence of positive liberty suggests that perhaps the dichotomy between the two is not as strong as Berlin makes it sound. Indeed, philosopher Gerald MacCallum argues that there is actually one conception of liberty, to which both negative and positive liberty thinkers converge. His argument will not be covered in this paper, but I encourage the reader to see the references if they are interested.<sup>5</sup>

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<sup>5</sup> MacCallum, G. C. Jr., 1967, 'Negative and Positive Freedom', *Philosophical Review*, 76: 312–34, reprinted in Miller 1991.

## Positive Liberty

The reader may have noticed that I said positive liberty is “vaguely defined” as some sort of control. This vague definition is not laziness, as the interpretations of positive liberty have varied and is never really solidified. Is positive liberty complete control over one’s environment? Is it the ability to carry out all of one’s dreams without interference? Can it impede on other’s negative liberty? In response to these open questions, Elizabeth Anderson writes that “‘Positive liberty’ has been taken to mean so many things that it’s an incoherent jumble”.<sup>6</sup>

Anderson proposes to eschew the classic negative/positive liberty distinction in favor of a different dichotomy - liberty as opportunity and liberty as domination. These are taken in turn.

## Freedom as Opportunity - Capabilities Approach

Anderson defines liberty as opportunity as similar to the economist’s “opportunity set.” That is, “all of the options available to one, which are inside one’s budget constraint and whatever other constraints” apply to them. It outlines the options that are effectively available to someone, given their abilities, skills and resources.

To illustrate this, consider a sustenance farmer in rural Quebec in the 1940s,

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<sup>6</sup> Anderson, Elizabeth, “So You Want to Live in a Free Society (2): Two Concepts of Liberty”. Left2Right. June 3, 2005. Accessed February 5th, 2019. URL = <[https://left2right.typepad.com/main/2005/06/so\\_you\\_want\\_to\\_.html](https://left2right.typepad.com/main/2005/06/so_you_want_to_.html)>



before the Quiet Revolution overhauled Quebecois society.<sup>7</sup> Due to a lax regulatory regime, the farmer may be very negatively free - the government plays a minimal role in the affairs of the farmer. However, due to the economic reality of being a sustenance farmer in a historically underdeveloped Canadian province around the time of World War II, the opportunities available to our *agriculteur* are limited. For example, he may not have indoor plumbing or electricity, may not afford a car, vacations, or may have never even left the province, let alone Canada. Thus, while we can say the farmer enjoys a level of negative liberty, if all that liberty allows him to do is farm and drink, then we would intuitively not say that he is very *free* as a whole due to his lack of opportunities.

That intuition underlies that freedom as opportunity conception. Theorists Amartya Sen and Martha Nussbaum have taken that a step further, by proposing what they call the capabilities approach.<sup>8</sup> This theoretical framework contains two normative claims. One, the freedom to achieve well-being is “of utmost moral importance.” Second, the freedom to achieve well-being should be understood in terms of “capabilities” - people actual ability to act on and be what they believe to be valuable, or “functionings.”

Functionings are “beings” and “doings.” Beings are the “various states of human beings.” Being well nourished, being malnourished, being in a nice house, and being in a not-so-nice house are all “beings.” Doings are activities that people can undertake.

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<sup>7</sup> For an excellent and freely available movie set in Quebec during this time, search for “Mon Oncle Antoine” (My Uncle Anthony) on YouTube.

<sup>8</sup> Robeyns, Ingrid, “The Capability Approach”, The Stanford Encyclopedia of Philosophy (Winter 2016 Edition), Edward N. Zalta (ed.), URL = <<https://plato.stanford.edu/archives/win2016/entries/capability-approach/>>.

Some doings include voting, having a baby, traveling to Spain, eating Pizza, doing drugs, eating animals or growing a plant. Note that no judgement is made on the doings or beings listed above - they are not evaluations but rather concepts to refer to certain things. The various functionings may have differing moral weight depending on which normative theory is used. Capabilities can be understood as “real freedoms or opportunities to achieve functionings.” For example, traveling to Spain is a functioning, but my ability or opportunity to travel to Spain is the capability.

Does this imply that the capabilities approach is a subjective approach, because it is predicated on what people believe to be valuable? First, it must be understood that this approach is a response to previous international development frameworks, which have focused almost exclusively on income. Income is important, but it is ultimately a means to an end. The ends will vary depending on the person - for women, it may be to exercise autonomy, or for people living under a repressive dictatorship, the ability to speak freely. The intuition that Sen is trying to get at is that money may not be directly applicable in realizing those functionings, but they are still important functionings. By situating it from the perspective of the person, Sen forces us to take an interpersonal analysis of individuals. That is, the ability of each individual (capability) to do the things which they so desire (functionings) becomes the focus of consideration. For proponents of this approach, policies should be evaluated on their effect on people’s capabilities. In the case of health, it would ask if a policy would allow people to realize the capability to be healthy, with adequate sanitation, access to doctors and medicine, and sufficient medical knowledge. By focusing on the individual, we incorporate the immense diversity

of people and desires, and acknowledge that income is not sufficient to enable people to do what they want to do.

Within analytical, normative philosophy, Robeyns contends there are “roughly two different types of answers’ to the question: ‘What is the point of doing political philosophy?’” The first strand, the truth seeking strand, believes that the point should be to find the truth, often employing a very abstract analysis, not making compromises that would make it more applicable to public policy and day to day life. G.A. Cohen is one such proponent of this view.

The other strand is the “practical one” which believes that political philosophy should be direct or indirect guidance for our actions. This strand still tries to respect truth, but is willing to take into account constraints on our world, such as feasibility, facts about the world and limitations of human nature, and the relative scarcity of resources. This helps push analyses forward to make practical recommendations. The capabilities approach takes the latter approach, and the reader should understand this in that context. Furthermore, I strive for this thesis as a whole to fall into the practical, rather than purely truth-seeking category.

The advantage of this approach is that we can focus on the ends, acknowledging that there may be many means to get there. Some other distributive approaches might focus on how much money someone has. While income and resources are important to realize many ends, it may not be enough on its own if the functioning in question is being in a society free of racism or homophobia. In that case, improving people’s capability to achieve that functioning involves a social change, a much different means

to improving people's lives than simply money.

Returning to our *agriculteur québécois*, a capability approach method to improving his situation may begin by looking at the status quo, and his capabilities under it. As said previously, they are very limited. Then we may look at proposals on the table, and compare their effect on capabilities with the status quo. For example, rural electrification has the effect of improving the farmer's capability to educate themselves (by being able to read at night), to buy less expensive electric based appliances, and reduces the risk of health complications from coal fired heating or the danger of home loss from an unattended candle used for lighting. This proposal is clearly an improvement under the capabilities approach, and can be taken to improve positive freedom, so we would advocate for it. Note that rural electrification is just one means of achieving the ends of more opportunity. We could have easily paved all the roads in the Eastern Townships of Quebec, or given each farmer \$10,000 CAD. Either one of those measures would have accomplished the end goal of increasing the opportunity freedom of the farmer, by expanding their capabilities to accomplish the functionings they value. For example, with the money or the electricity, they could now spend their Saturday mornings watching cartoons.

Compare that to a proposal to seize all farmland in the town and sell it to an American company, so that they can open an asbestos mine there. The farmer would receive a below market amount for their property and would have to work in the mine as a source of income (which pays less than farming and is more dangerous). This is clearly a reduction in capabilities of the farmer, and thus would not be an extension of

positive freedom.

This approach is concerned with control - control over resources or goods that allow people to accomplish a functioning of their preference. Freedom as opportunity has great relevance to the current project. In the wake of automation, we want people to be free to do things they care about, wonderfully conceptualized by the capabilities approach. There is a tremendous difference in the freedom (as opportunity) of someone who enjoys the income of a technology executive and someone who is collecting meager unemployment benefits after being automated out of a blue collar factory job. Freedom as opportunity can capture this distinction.

At the same time, there is another form of freedom that is relevant. For example, perhaps that factory worker is forced to go work for the only employer left in town, at an Amazon fulfillment center. Because their boss knows that they have no other options (and unions fail to provide another form of bargaining power), they force their employees to work long shifts, without bathroom breaks, and at odd and precarious hours. Amazon may dictate their schedule at will, and failure to abide by that results in termination. The lack of freedom that this person has can be attributed to the control that their employer has over them, and the ability of that employer to interfere in the employees life (also a primary focus of Elizabeth Anderson's book). The next form of freedom, freedom as non-domination, is another valuable tool we can use to make sense of the changes that are happening in the economy.

## Republican Freedom

Contemporary civic republicans such as Pettit would argue that freedom from interference does not accurately capture the intuition of liberty. Rather, it should be freedom from domination. Specifically, republicanism demands that people be free from domination by arbitrary, uncontrolled power. Pettit contends that “a person or group enjoys freedom to the extent that no other person or group has ‘the capacity to interfere in their affairs on an arbitrary basis’” (Lovett).<sup>9</sup> More specifically, x has dominating power over y to the extent that: (a) they (X) has the capacity to interfere, (b) on an arbitrary basis, (c) in certain choices the other, (Y) is in a position to make.

### Three Clauses of Domination

For the first clause, Pettit clarifies by saying that an act of interference must make you worse off, not better off. There may be a potential objection about what “worse off” means, or paternalism, to be addressed below. This then excludes the set of cases in which an agent may help someone else through their arbitrary involvement in the other’s affairs. Interference must be more or less intentional in character. If I fall in your path accidentally or compete for the same scarce goods, it does not count as a form of interference. Furthermore, the agent’s capacity to interfere must be an actual capacity to interfere, ready to be exercised. For example, if someone asks someone

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<sup>9</sup> Lovett, Frank, "Republicanism", The Stanford Encyclopedia of Philosophy (Summer 2018 Edition), Edward N. Zalta (ed.), URL = <<https://plato.stanford.edu/archives/sum2018/entries/republicanism/>>.

else if they can play the piano, and the response is “I don’t know, I haven’t tried”, then that response is not an actual capacity to interfere.

Pettit conceptualizes interference by introducing the idea of the agent’s choice set. That is, the range of options presented as available to the agent, the expected payoffs that the agent assigns to the aforementioned options, and the actual payoffs or outcomes that result from that choice. Thus, interfering behaviors (coercive or manipulative) are intended to “worsen agent’s choice set by changing range of options available, altering expected payoffs assigned to the options, or by assuming control over which outcomes will result from which options and what actual payoffs, therefore, will materialize”<sup>10</sup>.

Pettit previously contended that interference needs to make you worse off, not better. Under the allegory of the choice set, someone would be made better off if an interfering agent actually *expanded* the range of options that an individual has. This would imply an expansion of freedom, opposite the concerns of republicans that a dominating agent reduces freedom. For this reason, I believe Pettit claims that interference has to make you worse off - otherwise it would make you more free. A paternalistic objection may follow about what “better off” or “worse off” means, and who makes that judgement. To rectify that, I contend that “worse off” is from the perspective of the one being interfered with. I do not believe that this will distract too much from Pettit’s main thesis about freedom as non-domination.

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<sup>10</sup> Pettit, Philip. *Republicanism: a theory of freedom and government*. OUP Oxford, 1997, 53.

The second clause says “on an arbitrary basis.” What makes the act of interference arbitrary? Pettit says then it is subject to the “arbitrium”, the decision/ judgement of agent’s pleasure. In other words, the act of interference is under the control of the agent. More specifically, the choice is taken “chosen or rejected without reference to the interests, opinions, of those affected”<sup>11</sup>. The agent is not forced to track the interests of what those others require according to their own judgement.

Pettit notes that something may be arbitrary in procedure, but actually ends up coinciding with what the affected person desires. For example, I may want to install x as the president of the local school board, not because I know that x wants to be president of the school board, but because I know I can control x without having to put myself in the spotlight. Thus I may interfere by causing his opponents to drop out (or donate funds to his campaign), which ends up supporting x’s desires to become school board president.

Interference is non arbitrary when it is “Forced to track the interests and ideas of the person suffering the interference.” In the case that the agent can not track all of the interests of the affected (or when that is impossible), they must at least track the relevant ones. The arbitrariness of interference, furthermore, is not binary. Interference is not either arbitrary or non-arbitrary; it can be more or less arbitrary. In this thesis, the focus will not be on eliminating all forms of arbitrary interference, but rather choosing the societal arrangement that will minimize the arbitrariness of interference, by forcing the interests of the interfered to be taken into account. The third clause is that of certain

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<sup>11</sup> Ibid., 55.



choices. Agents may have arbitrary interference in some decisions of others, but not necessarily all of them. This relates to the previous statement in which the range of control of X over Y's choices may be lesser or greater - it is not binary.

Pettit includes an extra condition that he contends will likely be fulfilled if the other 3 are fulfilled, that is, "it will be a matter of common knowledge among the people involved, and among any others who are party to their relationship - that the three basic conditions are fulfilled in the relevant degree"<sup>12</sup>. In other words, no one will disbelieve that everyone believes this.

To this, I bring forth an objection that not everyone realizes that someone else has arbitrary control over them (or that they are being exploited). Consider an example of a husband and wife, in which both halves of the couple enjoy more or less equal freedom from each other. The man earns the most income in the family, and has access to the family's finances and credit cards. Now imagine that in all other cases, he is a model husband, except for when his wife wears the color orange. If she ever decided to wear the color orange, he would withdraw funding or otherwise force her to stop. This would likely fall under an act of arbitrary interference, because the husband is not forced to track the interests of the wife in the color of outfits she wears.

However, let us imagine that at the time of their marriage, she was not aware of this peculiar hatred for the color orange, and neither was anyone surrounding the couple. In fact, the issue won't come up until she actually tries to buy an orange dress. Despite that, the conditions for arbitrary interference still exist. The husband has the

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<sup>12</sup> Ibid., 59.

capacity to interfere (through control over money), on an arbitrary basis (he does not track her interests), in certain choices (what color clothes to buy). All three conditions are fulfilled, though it is not common knowledge among the people involved (except for the husband), and amongst any others who are party to their relationship.

While I agree that the other three conditions do indicate arbitrary interference, I do not think that they imply that people are being dominated. In fact, in the next section I discuss how much control large technology companies have over others when people may not realize it.

This description of freedom may be confused with negative liberty, absence of interference. However, there is a distinction. To illustrate this, consider a slave with a benevolent master. In his day to day affairs, the master allows the slave to do as he pleases. Under the view of liberty as non-interference, this slave is free. His choices are not being interfered with. However, the institution of slavery means that at any point, and for any reason, the master could choose to compel the slave to do whatever the master wishes, subject to no input or control from the slave himself. Berlin's conception of liberty would say that this slave is free, while Pettit's would say he is not. Freedom as non-domination seeks to exclude this case. X is not free from Y until Y has no arbitrary, uncontrolled power in X's affairs.

Pettit also says that his view of freedom is neither negative or positive. It is “negative to the extent that it requires the absence of domination by others, not necessarily the presence of self-mastery, whatever that means.” However, it is “positive to the extent that it needs something more than the absence of interference, it requires

security against interference, in particular against interference on an arbitrary basis”<sup>13</sup>.

Pettit also makes a note on “consenting” to interference, whether it be in the form of a contract or in a democratic system of majority rule. To that he says that consent alone is not sufficient as a guard against arbitrariness. For example, you could sign a document permitting Uber to decide when and where you receive rides, but that decision could still be arbitrary if they are not forced to track your interests in determining where those rides go. However, he says that “non arbitrariness in the exercise of a certain power is not actual consent to that sort of power, but the permanent possibility of effectively contesting it”<sup>14</sup> (63). In other words, if you consented to the arrangement with Uber, but had the means through an outside body (or via a neutral arbitration process) to contest Uber’s decision to give you any ride they please, that would cause it to be non arbitrary, not simply consenting to the arrangement.

It is possible to have domination without interference, and interference without domination. Both will be taken in turn. As the slave example alluded to, a slave with a benevolent master may enjoy little to no interference. However, this does not mean they are not dominated - at any point, the master may decide to interfere in the affairs of the slave, and the slave has no safeguard against this. Similarly, perhaps a colonial power has taken control of a territory, and decides not to interfere in the affairs of the local population. However, this decision to not interfere is not because of the interests of the subjugated population (so it is not arbitrary), but because the colonial power believes in a *nobless oblige*, that they have a duty to treat the locals well. This is still domination,

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<sup>13</sup> Ibid., 51.

<sup>14</sup> Ibid., 63.

because at any point if the colonial rulers decide to change their mind, the subjects can do nothing to stop them. Pettit sums this up by saying “someone can be in a position to interfere with me at their pleasure, even while it is very improbable that they will actually interfere”<sup>15</sup>.

Similarly, one can interfere without dominating. The key distinction here is that the interference must be non-arbitrary, that is, the one being interfered with has some way of forcing the person doing the interference to track their interests, or to limit the scope of their power in some way. For example, a police officer may interfere with you when they pull you over, or the town council when they prohibit you from leaving abandoned cars in your yard. In both cases, you still have input or control over the agent doing the action (you could contest the traffic stop in court, or petition legislators to increase the speed limit; for the second, you can vote for looser regulations). This renders these cases a form of legitimate interference - though it is interference in the classically liberal sense, you in principle have power over them and a means to make them respect your will.

## Non - Domination

Pettit outlines two strategies for non domination, defined as the absence of domination in the presence of other people (in contrast to isolation, in which there is no domination due to there not being anyone around). The first is a system of reciprocal power, in

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<sup>15</sup> Ibid., 64.

which we make the resources of the dominator and dominated more equal. “Ideally, a previously dominated person can come to defend themselves against any interference on the part of the dominator”<sup>16</sup>. This option is not very realistic in this idealistic, defensive form. To level the resources of the dominated and dominator to the point at which the dominated can defend themselves would require a massive restructuring of our society, one that is not likely to happen.

The second option is a constitutional provision. The point is to remove the power of arbitrary interference from both agents by giving some of the power to an independent body, which takes the interests of both the dominated and dominating into account. If this third party can avoid becoming arbitrary themselves, then this could be effective in reducing domination. This could take the form of a third party arbitrator, or a government through the passage of laws or regulation over certain domains.

Pettit notes that non domination is a form of power in itself. - rather than being the absence of domination. If you recall the colonial example, it is not sufficient for the colonial power to not interfere in the affairs of the colony. The colonists are only free from domination when they have protection against the colonial power’s ability to interfere in their affairs. This could be accomplished by a strong military presence, self-government, or sympathetic factions in the colonial power’s domestic political system. Non domination “a control that a person enjoys in relation to their own destiny and such control constitutes one familiar type of power: the power of the agent who can prevent various ills happening to them”<sup>17</sup>.

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<sup>16</sup> Ibid., 67.

<sup>17</sup> Ibid., 69.

Finally, Pettit addressed the “common knowledge” of non domination. Similar to how he contends that the presence of domination is something that will be well known, the lack of domination is also something known amongst relevant parties. This connects non domination with “subjective self-image and intersubjective status.” In other words, non domination is also a state of self-image and perception of an agent by other agents. It is a state of being able to look other people in the eye and know, that you both know, that you can pursue choices with their dominating control. You do not have to live in fear or deference of the other. You are confident that their non interference is not due to their grace or mercy, but do their inability to interfere. You are an individual, a person in your own legal and social right. In the words of Berlin, freedom is “alteration of attitudes towards me” such that society acknowledges and knows your freedom.

## Conclusion

We have discussed various conceptions of freedom, including negative freedom (freedom from interference), positive freedom (freedom to do, control over resources), and republican freedom (freedom from interference and control against domination). In the next chapter, I will explore major effects of technological automation on the relationship between employers and employees, and how that fares for freedom.

Both freedom as opportunity and freedom as non-domination are important, because without both we are not truly free. Let us return to the example of the slave with the benevolent master. The slave enjoys non-interference, but we would not say

he/she is free. The master can at any point choose to dictate the actions of the slave, rendering them unfree in the sense of non domination. Due to the institutions of the society they live in (such as the Antebellum South), the slave enjoys very little freedom as opportunity. They will likely work on a farm for their lives, and even if they are made free they have very little potential for societal advancement due to social and legal barriers. To make this slave truly free, they must be liberated from the control of their masters, and social and legal barriers to their involvement and advancement in greater society must be dismantled. Without restoring the slave's freedom as non domination and freedom as opportunity, he/she are not yet free.

For this reason, I will proceed to use both freedom as non domination and freedom as opportunity as ways to understand the changes that automation will bring in society. Because of personal interest in exploring the extent of freedom as non-domination, I may tend to rely on that more heavily, but rest assured that appeals to both forms of freedom will be made. The next section involves an economic exploration of the effects of "automation" on the labor market.

# Chapter 2: Effects on Jobs

In this section, I evaluate contemporary economic research on the effects of technological automation and change on the U.S. labor market. In the short term, I find that jobs will continue to exist (fears of mass unemployment in the short run are not justified), but the quality of said jobs will be drastically different.

## Short Term

In the short term, fears of jobs being lost are unfounded, as new jobs will be generated to take their place. However, the quality of these new jobs will vary.

## Number of Jobs

A common fear of automation is the loss of jobs. An oft cited study by Frey and Osborne concludes that “47% of total US employment is at risk.” They calculate this figure by considering 702 occupations, and using statistical processes to estimate the risk of each job being eliminated by automation.<sup>18</sup> This figure is further reinforced by a McKinsey report, which concludes that up to 50% of current work activities could

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<sup>18</sup> Frey, Carl Benedikt, and Michael A. Osborne. “The Future of Employment: How Susceptible Are Jobs to Computerisation?” *Technological Forecasting and Social Change* 114 (January 2017): 254–80. <https://doi.org/10.1016/j.techfore.2016.08.019>.



theoretically be automated. In the worst case, 30% of occupations will be fully automated by 2030<sup>19</sup> (Manyika et al.).

These statistics are often cited as cause for concern, but some economists, like David Autor, argue that we will not all be unemployed in the near future.<sup>20</sup> Autor argues that historically, automation has not net reduced jobs. He contends that in the future, it will also not net wipe out jobs because new jobs will be created to take their place, keeping the number of jobs roughly constant. It seems intuitive that certain forms of technology (such as the tractor) will substitute for certain forms of labor (farmhands). However, it can increase the productivity of labor as well. The remaining farmhands are now much more productive with enhanced technology. The now unemployed farmhands are now available labor, and can go into new jobs (perhaps packaging cereal made from those same grains).

Thus, while technology can substitute for labor, it ends up augmenting the productivity of that labor and increasing demand for it. New jobs are created with the labor that is freed up from doing that task, as was seen previously when the U.S. shifted from having its workforce mostly in agriculture to industry to now the service economy. In response to Frey and Osborne's statistic, Autor would say that while the majority of the jobs we have right now could be automated, that statistic fails to take into account

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<sup>19</sup> Manyika, James, Susan Lund, Michael Chui, Jacques Bughin, Jonathan Woetzel, Parul Batra, Ryan Ko, and Saurabh Sanghvi. "What the Future of Work Will Mean for Jobs, Skills, and Wages: Jobs Lost, Jobs Gained | McKinsey." Accessed November 1, 2018. <https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages>.

<sup>20</sup> Autor, David H. "Why Are There Still So Many Jobs? The History and Future of Workplace Automation." *Journal of Economic Perspectives* 29, no. 3 (August 2015): 3–30. <https://doi.org/10.1257/jep.29.3.3>.

jobs that might come about in the future - ones that we might not even be able to think of. As an example, not many people in the 1960s (another era of anxiety over automation) would have been able to guess that the top five publicly traded companies in 2018 would be technology companies, and that one of them (Facebook), would employ thousands of people on a digital product. Facebook doesn't even "make" anything in the sense that an automaker or manufacturer in the 1960s would.

To see how this could be the case, Autor provides the example of bank tellers. Despite ATMs being introduced in the 1970s, the number of bank tellers actually slightly increased from 1980 to 2010. ATMs reduced the cost of opening a new branch, increasing the number of branches and therefore tellers. Secondly, tellers began taking on a "relationship banking" role, operating as salespeople instead of strictly tellers. Though this example can not be generalized to every instance of fear over technology taking jobs, it does illustrate one way in which automation can actually increase jobs, which may seem counterintuitive.

### Quality of Jobs

As explored in a paper by David Autor, it is likely that the number of jobs is not decreasing overall. As jobs are replaced by automation, new jobs are created to take its place. However, the quality of the new jobs can vary. Jobs that are composed of routine tasks are easily automated. Jobs composed of non-routine tasks, either of the "manual" and "abstract" variety, are the categories of jobs that are growing. Many of these "manual" task heavy jobs are not good jobs, which I discuss further in the next section.

In order for us to understand how technology replaces jobs, we need to understand how computers work. In order for a computer to automate a task, we have to explicitly outline the steps a computer needs to take to do it. Computers can't make the kind of cognitive leaps that humans can. If I tell another human to grab me some water, they know that they should get a glass from the kitchen, fill it up with water, and bring it to me. They don't need to be told not to fill it up the cup with toilet water, or that they need to put the water in a cup, or that they shouldn't use a large bowl for a cup, because we can use context to understand what the person really meant.

Computers aren't like that. Computers are more like Amelia Bedelia, the title character of the *Amelia Bedelia* children's series. The series involved Amelia misunderstanding common tasks because she took them literally. If someone told her to put out the lights, she would literally put them outside. Computers are similar in the sense that unless you tell them what to do step by step, they can't do anything. You have to tell a computer to go to the kitchen, pull a cup out of the cupboard, go to the sink, turn on the faucet, put the cup under the faucet and so on. But even that level of generality would be far too general for a computer. In reality, I would have to program the individual arm movements down to the millimeter, and ensure that nothing about the environment changed between when I set it up and when I asked the robot to get water. If anything did change, the robot wouldn't be able to adapt on the fly. It would be pretty much useless outside of highly regimented, unchanging situations. As of writing, there isn't a robot I know of that can do this task with as much flexibility as a human.

Since you have to outline each task explicitly, automation is pretty much limited to the category of tasks for which we can explicitly outline the steps you need to take in

order to complete the task. Something like adding two numbers together, or using a stack of invoices to calculate credits and debits in accounting. This category of tasks are called routine tasks. The other category are non-routine tasks. Routine tasks are those that are explicit and codifiable, and thus can be meticulously outlined by a programmer. Bookkeeping, clerical work, and a physical movement conducted in an unchanging environment are all routine tasks. Due to this, employment in the clerical and administrative fields (which are jobs that contain a great deal of repetitive, routine tasks) has dropped substantially as computers have become cheaper.

However, most of the jobs that are composed of routine tasks tend to be more middle class jobs. It's worth mentioning that automation alone can't explain the decline of the American middle class. If we take the case of manufacturing in Detroit, we see that while automation played a great part in reducing employment, it was also the desire of management and executives to cut down labor costs and escape union control. Newly automated plants, and the movement of factories first to the American South, then the Global South, allowed the Big Three to significantly cut costs and increase profits. The massive investment required of the automation of that time also made smaller automakers uncompetitive.<sup>21</sup>

The fields mentioned above are easy to automate because we understand explicitly how they are done. Take accounting, for example. It follows laid out rules and procedures that humans have developed. We can clearly outline all the rules and logic associated with accounting for a computer. Computers require this level of explicitness

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<sup>21</sup> Sugrue, Thomas J. *The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit - Updated Edition*. Princeton University Press, 2014.

in order to do a task (machine learning is a recent exception to this, discussed below).

The non-routine tasks are different. Many of the tasks in this category are things that humans didn't develop (like accounting), but rather evolved. So it's hard for us to outline specific rules that govern those processes, we kind of just "know" how to do it. It's similar to how you can tell when someone learning English made a mistake, but unless you already understand English grammar well, you might not be able to tell the learner what rule they violated to have made a mistake. In order to understand that ability at the level needed for automation, we would have to reverse engineer these processes. This is referred to as Polanyi's paradox. It's named after Karl Polanyi, who observed "We know more than we can tell." Tasks that are difficult to automate are those that involve flexibility, judgement, and common sense. The example of telling a friend to get water involves all three of these skills, making it very hard to automate. It also means people whose job it is to get water for their friends probably have job security, at until a water getting robot is invented (or the person requesting the water just gets less lazy).

One way to overcome the challenge described by Polanyi's paradox is machine learning. In machine learning, a computer algorithm is fed training data that is used to "train" the model. For example, you might input a thousand images, some of which are of chairs and some of which are not chairs. You would tag each image as chair / not chair, and the algorithm would use this data to develop an internal set of rules. These rules could determine whether a new image, that is has never seen before, is a chair or not a chair. The computer essentially reverse engineers chair-ness, kind of guessing what makes something a chair or not a chair.

Machine learning may succeed in automating some non-routine tasks that were previously difficult to engineer. For example, there are now softwares that can evaluate a user's resume for points of improvement, something that could only be done by humans a few decades ago. At the time of writing, machine learning technology is still relatively new. Scholarship on automation has not yet caught up to advances in technology, and it remains to be seen if machine learning will end up automating tasks we previously believed to be non-routine and safe from automation.

Assuming that non-routine tasks will continue to be difficult to automate, due to the Polanyi's paradox, we can break them down into two further categories - abstract tasks, and manual tasks. Note that many jobs contain a variety of abstract tasks and manual tasks. A doctor needs to perform manual tasks to take readings of a patient, but performs abstract tasks to use that information to come to a diagnosis. No job is solely composed of manual tasks, abstract tasks, nor is any job solely composed of routine or non routine tasks. In reality, every job is a bucket of tasks. In certain jobs, that bucket may generally be non-routine abstract tasks, and in other jobs, it may be primarily routine tasks. For the sake of this paper, I will refer to jobs that are primarily composed of manual tasks to be manual jobs, and those that are primarily composed of abstract tasks to be abstract jobs.

Abstract tasks involve problem solving capabilities, intuition, creativity, and persuasion, require "high levels of education and analytical capability", and reward "inductive reasoning, communications ability, and expert mastery." A management consultant, a trial lawyer, software engineer or academic researcher fit this category.

Manual tasks require "situational adaptability, visual and language recognition,

and in-person interactions.” Food preparation and serving, janitorial work, grounds cleaning and maintenance, in person healthcare assistance or home aides, and security work all constitute manual jobs. Although these are jobs that do not require formal education for humans (the more menial tasks may be sometimes referred to as “unskilled labor”) they are incredibly challenging to automate because of Polanyi’s paradox.

Autor contends the distribution of jobs in society will polarize to lower skill, lower wage jobs and higher skill, higher wage jobs with less people working in traditionally “middle class” jobs. These lower skill, lower paid jobs will roughly correspond to manual task intensive jobs, while the high skill, higher wage jobs would roughly correspond to abstract task intensive jobs.

Frey and Osborne reach a more extreme conclusion, saying they find a negative relation between the wage of a job and its educational qualifications, and its likelihood of being automated. In other words, they find that even the low skill, low wage manual task heavy jobs are at risk of being automated, and that the higher wage “abstract” jobs are the safest from automation. Note that their study was the one that evaluated 702 jobs in existence today, not taking into account the new manual and abstract jobs that Autor argues will be produced.<sup>22</sup>

As is the case in any social science, there are going to be exceptions to this rule. A master carpenter with 20 years of experience is a job that has many manual tasks associated with it, but master carpenters still have years of education and can make

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<sup>22</sup> Frey and Osborne, *“The Future of Employment”*

well over \$100,000.<sup>23</sup> An self taught software engineer at a bootstrapped startup may have no formal education<sup>24</sup> and engage in a variety of abstract tasks, but may be making well under \$30,000 a year. However, this is not a public policy thesis. For the purpose of making philosophical commentary, I will assume that this trend is generally true. Meaning, in general, manual task intensive jobs require little formal training and receive lower wages, while abstract task intensive jobs generally require more formal training and receive higher wages. This assumption is partially defended, on the grounds of wage, in the next chapter with data.

## Good Jobs and Bad Jobs

It's clear from Autor's research that there are going to be drastically different types of jobs in the future. Thus, the next question is how should we feel about this change in the distribution of jobs? If we are to assume that those who are currently in middle class jobs, and those who would enter them due to lower educational attainment will move to manual jobs, are we to see this as "good" or "bad"?

It's hard to say that a job is good or bad, because those are inherently subjective

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<sup>23</sup> This is actually further evidence for the power of unions as a solution to this problem, discussed in Chapter 5.

<sup>24</sup> One could actually argue that being self taught is actually indication of a tremendous amount of skill. In this case, I generally equate "skill" with some degree of formal education, because this is the path that many abstract task heavy professions require.



criteria and people may have different opinions on what those words mean. Yet it seems intuitive that some jobs may be more desirable than others. Consider a white collar, marketing analyst (abstract) role that pays \$65k, has a forty hour work week, and provides the employee with health and dental benefits. An employee at this firm has opportunities for advancement (into a managerial or VP role), has time to take care of a family, and has disposable income to enjoy life. They may derive satisfaction from their work, and see a forward career trajectory.

Contrast that job with a job at McDonald's or a similar fast food restaurant (manual) , where employees work for minimum wage with unpredictable hours, and few benefits. They may need to work two jobs in order to make ends meet (far exceeding the 40 hours of the corporate employee), may not have much free time for family or friends, and lack disposable income to enjoy what little free time they have. They may find little satisfaction in their work, which is often repetitive and unchanging, and find little room for advancement to more comfortable and better paying opportunities within the same firm.

This intuition is important, because it has implications for our response to automation. Let's say we could create either 100 of the former, abstract jobs or 100 of the latter, manual jobs. If we assume that the same group of people could get either job, we would likely want to create 100 of the former, suggesting a distinction. The problem with automation is that many of the new jobs being created are of the latter, non ideal type. A Brookings paper (also co authored by Autor) found that many of the new jobs created to replace automated jobs are low-wage, service sector jobs.

These jobs, which may be numerous, are not ideal to readily absorb the middle

class professionals who lose their jobs to automation. Many of these service sector jobs are physically demanding, thus they are unsustainable for those with disabilities, poor physical fitness, or the elderly. Policy that assumes that all unemployed people are to take one of these jobs is insufficient as a solution to automation.

As a caveat, this an extreme example. There are many jobs that fall under the “manual” category, such as a mall security officer or barber, that generally work 40 hour work weeks, have some benefits, and earn decent pay. There are some “abstract” jobs like investment banking or management consulting that demand 80-100 hour weeks.

The purpose of this example isn't to argue that every abstract job is great and every manual job sucks, but rather to argue that it's not just *job* creation that matters, it's *good job* creation. Good jobs, which pay more and have more benefits, generally lean towards the abstract category. Since abstract jobs require high educational attainment compared to a manual job, the per capita human capital investment (and monetary investment) needed to have people obtain good jobs is higher than the one needed for people to just obtain a job. This is an intuition that will be further developed in the next chapter.

# Chapter 3: Bad Jobs, Good Jobs

Autor's research has shown the variation in quality of jobs caused by automation. This chapter attempts to build a conception of "good jobs" and "bad jobs" based on freedom as non domination, and the capabilities approach. I focus on three aspects of work: health benefits, pay and hours. I restrict my analysis to full time work (defined as 2,080 hours per year). Finally, I evaluate manual and abstract jobs based on whether they are good jobs or bad jobs.

## Health Benefits

According to the Census Bureau, in 2017, 91.2% of Americans were covered, for at least part of the year, with health insurance. Employer provided health care was by far the most common way to obtain it, at 56.0% of those covered, followed by Medicaid (19.3%), Medicare (17.2%), direct-purchase coverage (16.0%) and military coverage (4.8%). Direct purchase refers to plans that were purchased by an individual from an exchange or private insurance company.<sup>25</sup> Medicare is the government's insurance plan for seniors (65+), and Medicaid is for low-income adults and children. Eligibility for Medicaid depends on the state, but can reach as high as 133% of the federal poverty level. In Michigan, to enroll in the Healthy Michigan Plan (a different state sponsored health insurance for low income individuals), income must be at or below 133% of the

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<sup>25</sup> United States. Census Bureau. *Health Insurance Coverage in the United States: 2017*. Washington, D.C., 2018. <https://www.census.gov/library/publications/2018/demo/p60-264.html>

federal poverty level. This is \$16,000 for a single person, or \$33,000 for a family of four<sup>26</sup> (Michigan.gov).

That means that unless you are elderly or in the military, you must purchase care from your employer, from a private exchange, or enroll in Medicaid if you qualify. In Michigan, Medicaid eligibility ends at \$16,000 for an individual. If you work a minimum wage job (\$9.45 in Michigan), and work full-time (defined by the BLS as 2,080 hours per year), then your gross individual income of \$19,655 would preclude you from obtaining Medicaid. You could maintain eligibility if you are the sole breadwinner of a family of four, but that little income would provide issues in other ways. So, for most people working full-time jobs, the two major options for health insurance are either employer provided, or direct purchase through an exchange. An employer could directly provide the option to provide health insurance, or provide a stipend or additional compensation for the employee to purchase it directly. I consider both cases the same. In other words, a job providing healthcare is one that either directly provides it, or provides enough income for the recipient to purchase it on their own.

In a perfect world, people would either have enough income to purchase health insurance on their own, or the government would provide everyone with health insurance or medical coverage. However, we do not live in that perfect world. In the short term, health insurance must either be purchased by an individual, or provided by their employer unless they are very poor or elderly. Thus, the burden falls on employers to either provide health insurance, or provide a high enough wage to allow an individual

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<sup>26</sup> United States. Michigan. Healthy Michigan Plan. *Healthy Michigan Plan / Who Is Eligible*. Lansing, MI: 2018. <https://www.michigan.gov/healthymiplan/0,5668,7-326-67874---,00.html>.

to purchase health insurance on their own. To promote freedom as non-domination as well as freedom as opportunity, employers must provide healthcare benefits to workers. If an employee does not have health insurance (or can not afford it), and becomes sick, then they must pay for the cost of treatment out of pocket (putting themselves in debt), or rely on the goodwill of others through charity.

In the case of debt, they are then subject to a form of domination. Your debtors have control over your life. In some states, they can seize portions of your paycheck. They can possess property. In this case, the control can be seen as arbitrary. No one decides to get sick, and thus the debt resulting from a hospitalization is morally arbitrary. To expand, getting sick is essentially a form of bad luck. You may contract a disease by no fault of your own, or break an arm or leg in a normal game of football. You may contract cancer, by no immediate fault of your own. Health tragedies affect everyone, and generally do not care who “deserves” to get sick. Thus, the costs associated with being sick are morally arbitrary.

Contrast this with a prison sentence carried out for murdering someone in cold blood. Prison is a blatant form of domination, forcing both monetary and non-monetary costs on the prisoner (lost income, strained social relationships, etc.), but the power to restrict the affairs of the convict is not morally arbitrary. They made the choice to kill (assuming lack of coercion), and thus are subject to controlled power (insofar as they had control over whether or not they got into that situation).

Alternatively, If the person must then rely on charity, then they are still subject to the will of an “arbitrary, uncontrolled power”. The charity dispensing the funds has the sole discretion to pay for the healthcare (or not pay at all). The patient to receive the

funds does not have control over the charity's decision to pay for medical care, in most cases. The charity is also not obligated, legally or otherwise, to track the interests of a particular individual. In general, this charity may be required to disburse funds for healthcare relief to maintain non-profit status, but they are usually not legally required to provide relief for *every* uncovered individual. Hospitals are an exception, as the 1986 Emergency Medical Treatment & Labor Act (EMTALA) requires all Medicare-participating hospitals to examine and treat an emergency medical condition (EMC), which includes active labor. They are also required to stabilize the patient, regardless of their ability to pay. However, this only applies to emergency care and not preventative or primary care.<sup>27</sup>

Thus, the patient's welfare is dependent on the arbitrary will of others. If the charity chooses to disperse the funds, the patient will be able to continue their life unimpeded. If the charity chooses not to disperse the fund, the patient either fails to receive medical care, or must put themselves under a significant debt burden, neither of which are ideal from an avoidance of domination point of view.

Some may still object that disease is not a moral agent. Furthermore, disease is part of nature, and can be attributed to bad luck. Should health institutions be morally held for domination caused by the disease? Certainly, they did not cause the disease, why should they (or by extension employers who fail to provide health insurance) be credited with the domination of a natural, non-moral entity? To illustrate this example, consider World1, in which one person (Mr. Water) has control over all groundwater.

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<sup>27</sup> United States. Centers for Medicare and Medicaid Services. *Emergency Medical Treatment & Labor Act (EMTALA)*. Baltimore, MD: 2012. <https://www.cms.gov/regulations-and-guidance/legislation/emtala/>

Everyone is free to collect rainwater, and usually World1 gets enough rain for no one to have to rely on Mr. Water to get water. Every human obviously needs water.

Consider one year, in which it does not rain, so the rest of the World1 citizens can not collect rainwater. They are now at the mercy of Mr. Water, and they are at his mercy because of bad luck. Weather, once again, is not a moral agent. Yet, Mr. Water can be held responsible for his domination over others despite this. He has total control over others, and can significantly reduce their choice set (to zero, if they die of dehydration), totally arbitrarily. This fits the definition of capacity to arbitrarily interfere, even though the circumstances that led to his capacity to interfere were not caused by a moral agent, and were the result of bad luck. The only reliable way of rectifying this situation is by expanding access to the water, perhaps with some sort of insurance that would help pay for Mr. Water's exorbitant water rates in the event of a drought, or by the government providing everyone with access to the water.

The parallels can be drawn between this and health insurance/disease. Mr. Water is the health industry, and the drought is someone being inflicted with a disease, possibly due to no fault of their own. Health insurance, though far less preferable to simply having less expensive healthcare, is like water insurance. The government providing access to water is the same as government sponsored healthcare, or universal healthcare. If we assume that health insurance will continue to be provided how it is today (primarily through employers or insurance exchanges), then employers do have an obligation to provide healthcare to their workers. Of course, in a more perfect world we would see healthcare provided by the government or provided detached from a particular employer. However, for the purpose of the world we live in at

the moment, employers must provide healthcare.

## Pay

A good job will have good pay, and this argument can be defended in three different ways. The first is an argument from freedom as opportunity. The second is an argument from freedom as domination, as a way of developing antipower. The third is an argument of redistributive justice. By good pay, I mean more specifically disposable income. That is, the money that a family has left after paying taxes, rent, or monthly expenses.

I hesitate to specify a minimum level of income, as a baseline. This is not a public policy paper, nor am I well versed in contemporary public policy and economic techniques to specify a minimum number. However, we can use the capabilities approach to determine which capabilities are important, and reason what level of income would permit people to exercise a basic level of those capabilities. Recall that the capability approach conceptualizes functionings and capabilities. Functionings are either “beings” (states such as healthy or sad) or “doings” (activities such as going to the park). Capabilities are the real ability of individuals to accomplish the functionings they have reason to value.

The capabilities approach provides an individualistic normative framework by which to evaluate development. However, as Martha Nussbaum and Ingrid Robeyns have pointed out, Sen has refrained from endorsing a specific list of capabilities. He instead endorses a procedure by which individuals should be empowered to generate a



list of capabilities appropriate for the context. Nussbaum outlines a list of capabilities, a “moral to-do list” that she believes is important. Robeyns proposes five criteria for the selection of capabilities, and then uses that to propose a list of capabilities for the conceptualization of gender inequality in post-industrialized Western society. They are, life and physical health, mental well-being, bodily integrity and safety, social relations, political empowerment, education and knowledge, domestic work and non market care, paid work and other projects, shelter and environment, mobility, leisure activities, time-autonomy, respect and religion.<sup>28</sup> Robeyns’ paper follows with a much more substantial justification of those basic capabilities, which is out of the scope of this paper. Many of these capabilities, though intended for discussions on gender inequality, are relevant for our discussion. However, assuming that income is sufficient by itself to reach those capabilities misses the point of the capabilities approach - to recognize that life and one’s opportunity is much more than income. Nevertheless, there is some baseline level of income that is necessary (but not sufficient) for these capabilities. For conceptual purposes I refer to it as the necessary minimum income (NMI).

The federal poverty guidelines, while not an absolute measure, may serve as a good heuristic for a NMI. Poverty guidelines were originally developed by taking the cost of a minimum food diet for a family, then multiplying by three to account for other expenses. This calculation was originally done in 1963-1964, and has been updated using the Consumer Price Index to track inflation.<sup>29</sup> This approach has some problems

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<sup>28</sup> Ingrid Robeyns, *Sen’s Capability Approach and Gender Inequality: Selecting Relevant Capabilities* (Feminist Economics, 2011), 71.

<sup>29</sup> United States. Census Bureau. The History of the Official Poverty Measure. Washington: Census Bureau. <https://www.census.gov/topics/income-poverty/poverty/about/history-of-the-poverty-measure.html>

(the multiply by three rule may be outdated, other expenses such as rent and internet may have increased proportionally to the share of food), but at the very least it provides us a lower bound on the NMI. In other words, being above the poverty line does not mean you reach an NMI, but being below it means you certainly cannot. Being below the poverty line implies an inability to meet your basic expenses (based on the original calculation).

From the perspective of freedom as opportunity, more disposable income increases the range of opportunities a family or individual has. For example, if I found skiing to be valuable, and a higher salary would allow me to ski more on the weekend as well as purchase more equipment, then a higher income has given me more freedom (as opportunity) and capability to accomplish that end. With more disposable income, they can accomplish more things that are important to them, such as a weekend camping trip or cooking classes.

Amartya Sen speaks about the difference between a formal right, and actually being able to benefit from that formal right. Disposable income would allow people to pursue their formal rights to political participation, by allowing them to donate. It would allow them to pursue their formal right to education, by giving them the money to take weekend classes or enroll their children in test preparation. Either way, it enhances the desired functioning that people can be active citizens and take full advantage of their rights. With additional income from a well paying job, they have the means to accomplish that functioning. In other words, their capabilities have improved.

In terms of exit, sufficient salary (that allows individuals to accumulate savings, or a “rainy day fund”) more easily allows them to change jobs in the event that their current

employer is not treating them well. Consider the case in which an individual, A, is working a minimum wage job under the purview of another agent, B. B is arbitrarily interfering in the affairs of A. Perhaps she gives him unrealistically high standards in work, or guilts him into working more hours because she knows he has no other options. A would like to leave this firm for another, but the slow economy in his area, coupled with the low salary that prevents him from accumulating savings, means that he will likely not be able to sustain himself until he finds another job. Perhaps he must take on debt (which, as discussed above, is not ideal) or rely on the goodwill of family or friends (once again, relying on the arbitrary will of others) in order to successfully exit. By contradiction, it seems as if a baseline level of salary is necessary to secure freedom from domination, by means of exit as discussed by Taylor.

#### Hours

Similarly, a good job would not compel the employee to work excessive hours, against their will. Similar to the issue presented in the last section about pay, the actual number of hours could vary greatly on individual need. A single man in his 20's, whose only valued functionings outside of work are grabbing a beer with his friends, would need very little free time to have capability to achieve that, less than an hour a day. On the other hand, a single mother raising three kids may have several functionings she values: raising her children, participating in a religious activity, or playing tennis with her friends. She would require a little more free time to have the capability for that functioning. I conceptually refer to this amount of free time as the necessary minimum

leisure (NML) to go along with the NMI (necessary minimum income). Just like NMI, it is not sufficient to guarantee Robeyns' capabilities, but they probably can not be realized without them.

NML will depend on context, but for those who want a concrete number for this discussion, I choose 40 hours per week. This is the standard for full-time work provided by the Bureau for Labor and Statistics, and is a useful starting point (but by no means a definitive end point) for our discussion. It should allow people to achieve some of Robeyns' capabilities, such as leisure activities, engage in domestic care, participate in political activities if they so choose, and engage in religion amongst others.

The phrasing "against their will" likely requires more philosophical rigor, but the general intuition is that sometimes people want to work more hours for their own enrichment, or to achieve the functionings they find valuable. For example, I may choose to work 55 hours this week in an hourly position so that I can take a day off next week and go skiing.

However, if the employee is regularly working excessive hours not because they want to, but because their employment compels them to, then that is problematic from the perspective of freedom. If someone needs to work 70-80 hours in order to meet that minimum level of income, then they do not have the time nor the energy to enjoy basic capabilities or take part in civil and political life. They do not have the freedom to live life according to their goals, wishes and desires, an infringement on their freedom of opportunity and capabilities.

Another concern regarding good jobs and hours is scheduling. The hours an employee works is often up to the discretion of their manager. According to Charles

Taylor, this managerial discretion is not arbitrary if a) I anticipate benefitting from it b) I have numerous exit opportunities in case I do not benefit c) managerial discretion is bounded by mutually understood customary and contractual rules. As mentioned in a discussion of Taylor, condition a is taken to mean a long term increase in freedom as opportunity.

In the case of abstract or middle class jobs, in which individuals have a predictable schedule, these conditions are generally met, assuming they have exit opportunities (fulfilling condition b). To work a standard 35-40 hour workweek is well within “mutually understood customary and contractual rules”, fulfilling condition c. That leaves us with the problem of condition a, that the employee anticipates benefitting from it. In certain fields, people may work hours that are above the standard 35 to 40 hr workweek. Investment banking or management consulting are examples. Some investment banking shops require their employees and associates to work in excess of 80 hours per week. For consulting, the norm may be around 60 hours. However, in both circumstances the employees may see a benefit to working what would otherwise be considered ridiculous hours. For both industries, exit opportunities are unmatched and entry level salaries are very high for college graduates. Thus, employees see a benefit to this (it is a voluntary decision) and the risk of arbitrary interference is lessened. This point is expanded further in the next section.

However, manual jobs like retail and service may not enjoy this level of predictability. Managers are able to schedule shifts for whenever is most ideal for the business, but not necessarily for the employee. Managers may take preferences into consideration, but if manual job employees can not easily exit (and low savings from low

paying jobs may cause this), then the managerial discretion to schedule employees at any time becomes arbitrary. An inconsistent or unpredictable schedule also reduces freedom as opportunity - you can not commit to recurring commitments such as class because you may be scheduled to work that day in the future.

Thus, to avoid domination and to maximize freedom of opportunity, good jobs must have either a predictable, 40 hour work week, or some other consistent schedule. If an employee anticipates future benefit from working over 40 hours, or non-standard hours, then this condition can be violated and the additional work still be non-domination on the grounds of the individual benefitting.

#### Taking "Bad Jobs"

Consider the non profit sector, where people regularly receive salaries in the \$30 to \$40 thousand dollar range. Also consider fields such as investment banking and consulting, where employees may be compensated well, but are expected to work in excess of 60-80 hours per week. Despite this, many people regularly enter these fields, and obtaining a position in either can be very competitive. A concern may be that freedom might demand us to not allow people to take these jobs, even if people wanted to work them. Luckily, both freedom from domination and freedom of opportunity carve out exceptions for people who willfully take jobs such as these.

Republicans are fearful of arbitrary, *uncontrolled* power. If someone was required to work 100 hours a week because they had no other options for employment (and no option to leave the labor market entirely, because there is no Universal Basic Income),

then they would be subject to uncontrolled power. However, if they entered the job by choice, then that implies that it is controlled, rather than uncontrolled power. Investment banking and consulting are incredibly competitive, meaning that many people who do end up there are talented and could be at other companies with better work life balance. In fact, it is very common for people to stay in these companies for 2-3 years and then find a more relaxed job. Thus, the possibility of *exit* and choice is available - the employer has far less power over them precisely because they can walk out the door at any moment. Thus, this becomes less concerning for republican thinkers. In fact, Taylor argues for exit based policies such as these in order to increase freedom.

For freedom of opportunity, it is important to understand that a minimum income is merely a means to an end. For most cases, higher incomes increase opportunity. With more money, you can do more things. Thus, they represent an increase in people's substantial freedom or real opportunity. However, the aim of freedom of opportunity is that people have the means (capability) to do what they want (functionings). Thus, if what someone really wants to do is to work at a non-profit, then a low income from working at that job does not impede their real opportunity to accomplish that desire. In fact, demanding a higher income actually reduces their real freedom, since the non-profit likely can not afford to pay them that higher rate. Thus, freedom of opportunity would also not object to the choice of a young college grad to work at Goldman Sachs or the Peace Corps.

Are Abstract Jobs and Manual Jobs "Good Jobs"?

The following is an analysis of abstract and manual jobs, using Autor's classifications. The table below (taken from Autor), details 10 major occupation groups and their occupational growth between 1979 and 2012.<sup>30</sup> The leftmost occupations are service occupations, including personal care, food/cleaning service, and protective service. They are defined by the census bureau as "jobs involving helping, caring for or assisting others." These correspond to mostly manual jobs, and the majority of workers in these professions have no post-secondary education and receive hourly wages lower than the other occupations. Despite the fact that they receive low pay and have low educational requirements, this is the category of jobs that have been rising most rapidly.

The next four occupations correspond to middle skill professions, with "sales; office and administrative support; production, craft and repair; and operator, fabricator, and laborer." The first two professions are disproportionately held by "women with a high school degree or some college."<sup>31</sup> The final three professions, technicians, professionals and managers, are highly educated and highly paid.

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<sup>30</sup> Autor, "Why are".

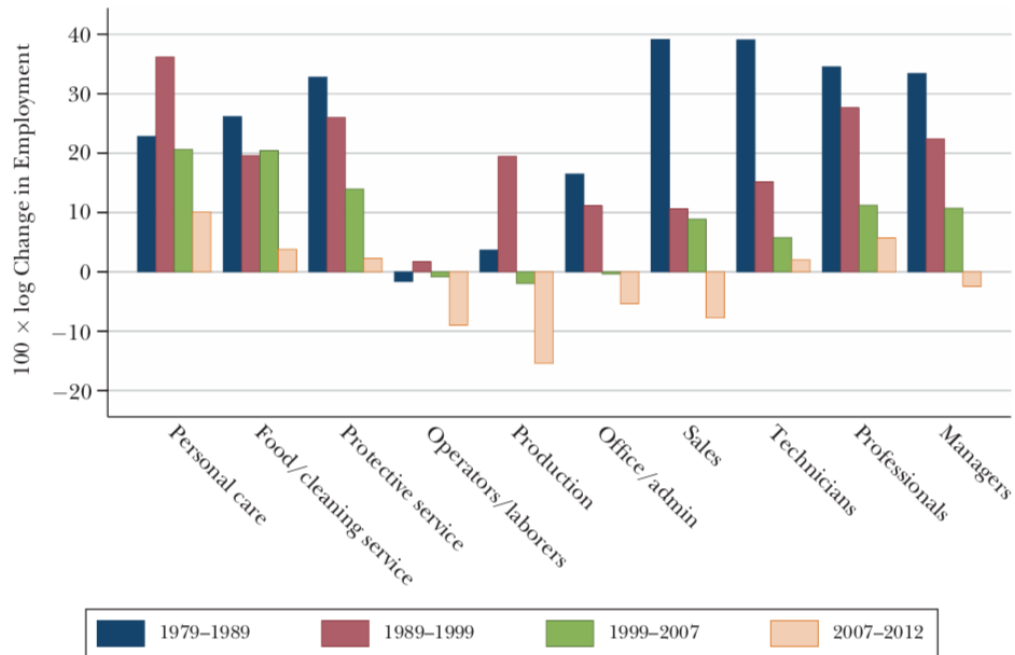
<sup>31</sup> Acemoglu, D., & Autor, D. (2011). Skills, tasks and technologies: Implications for employment and earnings. In Handbook of labor economics (Vol. 4, pp. 1043-1171). Elsevier.



Figure 2

**Change in Employment by Major Occupational Category, 1979–2012**

(the y-axis plots 100 times log changes in employment, which is nearly equivalent to percentage points for small changes)



Sources: Author using data from the 1980, 1990, and 2000 Census IPUMS files, American Community Survey combined file 2006–2008, and American Community Survey 2012. The sample includes the working-age (16–64) civilian noninstitutionalized population. Employment is measured as full-time equivalent workers. Notes: Figure 2 plots percentage point changes in employment (more precisely, the figure plots 100 times log changes in employment, which is close to equivalent to percentage points for small changes) by decade for the years 1979–2012 for ten major occupational groups encompassing all of US nonagricultural employment. Agricultural occupations comprise no more than 2.2 percent of employment in this time interval, so this omission has a negligible effect.

The Bureau of Labor and Statistics divides occupations into 23 categories, with categories most readily mapping onto Autor’s classification system as follows. I was not able to find the exact classification system used by him in either the 2015 or 2010 articles, yet it is clear certain jobs command higher salaries than others. Managerial occupations earned an average of \$119,910 in 2017, Business and Finance \$76,330, Legal \$107,370 and Education, training and library occupations at \$55,470. These are all higher wage, more abstract task intensive jobs. From the perspective of salary, they

are clearly “good jobs” in that they provide a sufficient salary.

Contrast that with professions that are considered more “manual” tasks. Healthcare support occupations earned \$31,310 (hourly \$15.05), food preparation and serving earned \$24,710 (hourly \$11.88), building and grounds cleaning and maintenance occupations \$28,930 (hourly \$13.91), and personal care \$27,270 (hourly \$13.11) for an average wage of \$28,055.<sup>32</sup> For a two person household, this is a level between 150% - 200% of federal poverty guidelines, and between 100% to 133% of federal poverty guidelines for a four person household (recall that we used the poverty guidelines as a lower bound on NMI).<sup>33</sup>

However, BLS statistics calculate annual wages by taking the listed hourly wages, and assuming year-round, full-time employment of 2,080 hours (52 weeks at 40 hrs/week). In other words, some workers may actually take home less, if they are employed on a part-time basis or are not scheduled for certain shifts. For example, a food service worker who only works 25 hours a week would take home \$11,880 before taxes, well below the federal threshold for poverty. This presents a plausible argument that manual professions, which are growing the fastest, are generally bad jobs when it comes to salary (as in, they could be better jobs).

These manual task jobs pay less than middle skill jobs. Autor has argued that much of the job growth in the lower skill jobs is due to people who were in middle skill

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<sup>32</sup> United States. Census Bureau. *Full-Time, Year-Round Workers and Median Earnings: 2000 and 2013-2017*. Washington: U.S. 2019. <https://www.census.gov/content/census/en/data/tables/time-series/demo/industry-occupation/median-earnings.html>

<sup>33</sup> United States. Department of Health & Human Services. Office of the Assistant Secretary for Planning and Evaluation. *Frequently Asked Questions Related to the Poverty Guidelines and Poverty*. <https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty>

jobs (or would have gone into middle skill jobs) being forced to move into low skill jobs to automation and lack of qualifications for abstract job. Thus, while it may be weaker to argue that these jobs are “bad jobs” by themselves on basis of salary, it is clear to see that the transition from middle class jobs to manual jobs is a transition from a better job, to a worse job (to use comparative rather than an absolute analysis).

On the note of employer provided healthcare, those in the service industry had the lowest access rate (% of employers who provide their employees health insurance) at 39%, and participation rate (% of employees in industry who participate in employer health insurance plans) at 23%. Abstract jobs, such as management, business and finance had the highest access rate (95%) and highest participation rate (73%).<sup>34</sup> Based on the criteria of employer provided healthcare, many manual jobs also fail on the criteria of being a good job, while many abstract jobs are good jobs on this basis.

The BLS does not keep detailed information on the scheduling or hours worked for each occupation, but a report from the Economic Policy Institute may be able to shed some light on the phenomena of inconsistent scheduling. According to a study by Lambert, Haley-Lock, and Henly, “many employers are adopting a human resource strategy of hiring a cadre of part-time employees whose work schedules are modified, often on short notice, to match the employer’s staffing with customer demand at the moment.” These jobs are “disproportionately found in the service occupations and in the retail and wholesale trade and services industries, such as hospitality and leisure,

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<sup>34</sup> United States. Department of Labor. Bureau of Labor Statistics. *95 Percent of managers and 39 percent of service workers offered medical benefits in March 2017*. Washington, DC: United States Department of Labor, Bureau of Labor Statistics, 2017. <https://www.bls.gov/opub/ted/2017/95-percent-of-managers-and-39-percent-of-service-workers-offered-medical-benefits-in-march-2017.htm>

professional and business services, and health services.” Furthermore, this precarious employment mostly affects lower income, manual job earners.<sup>35</sup> Though further research is necessary to confirm this decisively, it appears that many manual task jobs are not good jobs from the perspective of predictability of scheduling.

In conclusion, there is evidence to suggest that manual jobs are generally not “good” jobs, while primarily abstract jobs are. This dichotomy may contribute to growing inequality, and from the perspective of freedom as domination and freedom as opportunity. In the next chapter, I explore a paradigm for increasing freedom (as non domination) in the workplace: exit.

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<sup>35</sup> Quoted in Golden, Lonnie. “Irregular Work Scheduling and Its Consequences.” *Economic Policy Institute*, April 9, 2015. <https://www.epi.org/publication/irregular-work-scheduling-and-its-consequences/>.

# Chapter 4: Republicanism and Markets

I begin by exploring a republican perspective on markets, from Robert Taylor. I proceed to briefly discuss managerial discretion, then evaluate the effectiveness of the “exit” paradigm against domination in the wake of technological automation. I argue that exit is not effective for routine and manual jobs, but may be effective for abstract jobs.

## Exit Left - Taylor’s view of the market

Taylor’s 2017 book *Exit Left: Markets and Mobility in Republican Thought* attempts to argue for a celebratory republican view of markets. His argument is as follows. First, republican attitude towards competitive markets is celebratory, and not merely acquiescent. Second, republicans demand markets because they are *essential* for protecting individuals from arbitrary interference. Third, “economic constitutionalism” restrains market power and helps us realize “market freedom” - freedom as non domination in the context of economic exchange. In order to address concerns that republicanism is insufficiently vague to guide policy, he also hopes to show the policy implications of republicanism. He hopes to show it in such areas as labor market reform, antitrust legislation, basic income policies, capitalist demogrants, etc.<sup>36</sup>.

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<sup>36</sup> Taylor, Robert S. *Exit left: Markets and mobility in republican thought*. Oxford University Press, 2017, 48.

## Market Power vs Market Freedom

Taylor begins by exploring market power and the actions of a successful labor monopsonist (a single buyer of labor). He contends that the labor monopsonist will exploit their workers, by paying them a wage that does not come close to their marginal revenue product of labor. In genuinely competitive labor market conditions, this would not be the case as other firms (competing for the same labor) would raise wages as high as they can while remaining profitable, to attract labor. This level would be the marginal contribution to the firm's revenue.<sup>37</sup>

He also contends that the monopsonist would actually encourage unemployment. Then, the employees who are lucky enough to be employed are in a highly precarious position. With no other employers around, and the constant threat of unemployment, they are subject to the treatment of the monopsonist, without being able to push back against their actions. Taylor does concede that monopsony is rare - but its less extreme forms are more common.

He uses the example of the market for nurses, which he calls an oligopsonistic market (in which there are a few companies who are the principle consumers of labor). Specifically, there may be only one hospital in a medium sized town or metro area, or maybe only a few in the nurse's desired location. For example, my hometown of Jamestown, NY has only one large hospital (UPMC-WCA Jamestown). Nurses who don't wish to work for the hospital in our city must either move to Erie, PA (~1hr away) or

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<sup>37</sup> Ibid., 50.

Olean, NY (~50 mins away). Thus, most nurses must put up with the treatment they receive, reducing their possibility for exit.

Of course, the nurses can still exit and move to either of the nearby hospitals. However, contrast their situation with someone in the IT field. Even in our small town, there are more than two dozen companies that employ IT workers - and they are likely in high demand. If an IT worker was receiving poor treatment at one company, their possibilities for exit are much higher and also does not require her/him to give up as much. I.e, they can still be in the same school district, attend the same church, be active in the community. Because of this, the employer knows that they must treat the worker better, because of a credible threat of exit. The same can not be said of the nurse.

This leads into Taylor's example of an alternative to the labor monopsonist: a perfectly competitive labor market. In this market, there is no price discrimination (i.e, equal wages for equal work), plenty of employers, and everyone is a price taker and not a price maker. Pettit says "in a well-functioning labor market . . . no one would depend on any particular master and so no one would be at the mercy of a master: he or she could move on to employment elsewhere in the event of suffering arbitrary interference"<sup>38</sup>. Some policies that can promote this include: frictionless exit and entry to different employers; move to right to work and universal at will employment, a reduction of "licensing cartels" for certain professions (barbers and hairdressers), antitrust policies, and further redistributive policies to exit workplaces.

How these policies would look given our current situation is explored more in-depth in the next section, however one example of a policy that would increase exit is

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<sup>38</sup> Ibid., 52.

an employer-independent health insurance. In the U.S., employers often provide their employees with health insurance. Even if you decide to leave your job, and either purchase your own health insurance or get hired by a company that provides it, there is a gap in coverage that could leave individuals liable for the cost of any treatments. Such a fact of the U.S. health care market means that the fear of losing insurance may prevent “frictionless exit and entry” for labor.

### Market Freedom as Antipower

Taylor goes on to define “market freedom” as freedom as non domination in the context of economic exchange. “Competitive markets are antipower in the precise sense spelled out by Pettit: specifically, in perfectly competitive markets, participants have no capacity to interfere with impunity and at will with the economic interests of other participants”<sup>39</sup>. The reason that participants have no capacity to interfere is that the prices that you can pay individuals are set by the impersonal forces of supply and demand. Functioning, competitive markets are “non manipulable,” no one person has control over it.

Drawing from traditional republican literature on “non manipulable” systems of governments, Taylor lays out the three conditions under which an economic system would have to function in order to be “non manipulable.” The first is the empire of law condition. In this, the rules of the system “should be general and apply to everyone, including the legislators themselves; they should be promulgated and made known in

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<sup>39</sup> Ibid., 54.



advance to those to whom they apply; they should be intelligible, consistent, and not subject to constant change; and so on”<sup>40</sup> (Pettit 1997, 174).” Prices in the marketplace fall under this condition as they apply to everyone (in competitive markets) and they are public and known in advance of purchasing the item (since you often see the price before purchasing something). Prices may not be consistent and may change constantly, but it is known when they do change.

The second is the dispersion of power condition. In this, “powers which officials have under any regime of law should be dispersed” by familiar mechanisms such as the separation of powers, bicameralism, federalism, and international legalism<sup>41</sup>.” Competitive markets fall under this, as they have a large number of buyers/sellers; if each have perfect information then the power in the market is sufficiently dispersed.

The third and final condition is the counter-majoritarian condition. That is, the laws must be insulated from “excessively easy, majoritarian change.” In other words, no group of people has the capacity to exercise arbitrary power. The competitive market, in which each individual is a price taker and not a price maker, follows this. A group of people may be free to lower wages, but with frictionless entry / exit, those employees would then leave and join a company that is paying at the equilibrium wage. If a majority of employers were to successfully form a cabal to pay lower wages, then this condition would be violated. However, a truly competitive market with many employers and employees would likely not allow this. The coordination costs, as well as the prisoner’s dilemma of one company raising the wage slightly to attract more labor makes it

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<sup>40</sup> Pettit, Republicanism, 174.

<sup>41</sup> Ibid., 177-80.

unlikely.

Taylor goes on to say “From a republican perspective, the important question to ask about markets is whether they protect their participants from arbitrary interference and track their interests in both a substantive sense (improving their life prospects) and a procedural one (submitting to both their endorsement and their supervision through a democratic political process). Competitive markets, at least, can meet these conditions and therefore realize freedom as non-domination”<sup>42</sup>.

Taylor entertains some objections. Specifically, there is an objection that since free exit can sometimes fail (some specialized fields may simply have less options for exit), that voice is more important. Voice can include things like regulations that govern employer-employee relationships, unions, collective bargaining, or mandated employee input at the managerial level. Taylor responds to this by saying that voice (in the form of regulations) is simply another form of domination, and prioritizing voice over exit is simply fighting fire with fire.

He outlines that concern further by speaking of “bilateral monopoly”, strong unions and strong employers. This may succeed in reducing domination, but not in eliminating it entirely as the residual mutual interference involved fails to “track the interests and ideas of those who are affected” Even worse, policies like the National Labor Relations Act, which strengthened the power of workers to unionize, may have succeeded in increasing domination in labor markets that were previously competitive. In those markets, unions have tremendous power to dominate the relatively less organized firms. Teacher unions may be an example - market power errs on the side of

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<sup>42</sup> Taylor, Exit Left, 57.

teachers, who may succeed in driving wages and other benefits in their favor at the detriment of school districts and their pupils. When Pettit does support unions, it is usually in the case of monopolistic or oligopolistic labor markets, and is usually historical in nature.<sup>43</sup> In general, Taylor's view towards voice seems as one of hesitation - he generally prefers exit as a more effective means of securing liberty.

### Managerial Discretion

He makes a note about managerial discretion, that is, the necessity of managers in any enterprise to make decisions over others (that could interfere with them), is not necessarily arbitrary. It is not arbitrary if a) I anticipate benefiting from it, b) I have numerous exit opportunities in case I do not benefit, and c) managerial discretion is bound by mutually understood customary and contractual rules. For the IT worker above, a manager putting the worker on a tougher project may not be arbitrary interference if it's within the bounds of acceptable behavior (managers usually dictate project assignments), to the worker's benefit (the increased responsibility sets them up for a promotion), and they have exit (the other dozens of firms that would also employ them).

However, Taylor is somewhat vague on what "benefitting from it" means. Does this mean that every assignment or decision the employee is tasked to do must directly benefit them? Consider that in many enterprises, there are tasks that must be done that no one in particular wants to do. For example, data entry or note taking during

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<sup>43</sup> Ibid., 60.

meetings. However, the work must be done, and sometimes people who are less senior in the organization are tasked to do them. Does the employee not benefit in this case (because the tasks may not be what they want to do). Further questions arise, such as how does one determine what is a benefit? If we are to say that an employee tasked to do any task that they do not want to do is arbitrary interference, then most if not all jobs would violate this condition of non arbitrary managerial discretion.

Instead, I propose that the first condition of benefit refer to a long term increase in freedom as opportunity. That is, not every action that I am tasked to do must directly benefit me. But, if doing those tasks will eventually allow me to advance in my career, have more free time, earn more money, or generally do projects that I find valuable and increase my capabilities, then this condition is fulfilled. Returning to the IT worker above, she is tasked on a tougher project that may sap more of her time in the short run. However, in the long run she may be able to take her pick on other projects she finds interesting, or be in the running for a promotion as mentioned.

The conclusion Taylor draws is the little r republican economic program should be primarily focused on promoting competitive conditions (plurality of informed buyers and sellers, free entry and exit, and price taking rather than price making behavior. Furthermore, republicans should pursue policy that accomplishes this, such as “informational campaigns, labor market reform, aggressive antitrust, capitalist demogrants, and/or a basic income.”

One problem with this is that it does presume “economic agency” - the fact that individuals can conduct themselves as (and have the capability to be) rational economic agents. This may not be true for certain groups, such as the severely mentally disabled,

young children, or the elderly. In that case, exit must be supplanted by voice; either by regulation or participation<sup>44</sup>.

### Effectiveness of Exit?

Taylor seems content in trusting the ability of exit (especially in perfectly competitive markets) to alleviate concerns about domination. He prefers exit over voice, out of a concern that organizations such as unions, may themselves become another form of domination. He does concede that unions may be necessary in oligopolistic labor markets, in which one group (one employer, or a small group of employers) have disproportionate power, as a means of balancing that power. However, in this section I argue that because of the nature of the job market for “manual” jobs, exit is not sufficient to prevent domination.

Before beginning, I must concede that much of this discussion is moot in a truly competitive labor market, one in which there are many employers and many employees. However, since we may never reach that ideal world, the following discussion is a way to argue what we must do in the interim, in order to minimize domination. Furthermore, Taylor mentions that what he argues for resembles a “modified version of ... the Nordic model”, but the connection with republican ideals and those policies (and what those policies would entail in the context of employment change) is not explicit in his book. Thus, the purpose of this section is to fill a theoretical gap for our non-ideal imperfect world with imperfect markets, and a more explicit argument of what policies should

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<sup>44</sup> Ibid., 64.

result from that world, that would serve to reduce domination. This analysis will also focus on the perspective of the employee - absent powerful unions, it seems that the biggest potential source of domination is the employer dominating the employee, not the other way around. The fact that Elizabeth Anderson's book *Private Government* focuses on employers also substantiates this premise.

To begin, there are many factors that complicate an individual's ability to enter and exit our currently existing markets. As mentioned above, health insurance is often tied to an employer and employees face gaps in coverage, or not being covered all together, if they leave their current source of employment. Pension plans may be tied to the employer, and the monetary benefit of staying in a company to take advantage of a pension plan (such as for those closer to retirement) may outweigh the benefit of moving to a company with more freedom as domination, but at the risk of beginning again with a pension plan. The lack of savings, which may be common in a many service industry jobs, means that exit is a risk for many workers, one that could result in them going hungry or without heat. Taylor does propose redistributive policies such as "relocation vouchers" to assist with this concern, and supports programs like the Trade Adjustment Program, which helps displaced workers<sup>45</sup>. However, even in states that offer benefits, bureaucracy and limits to benefits may complicate exit.

There are other non-income factors associated with a job. For many, it gives them a sense of structure, discipline or purpose, compared to an alternative of not working. It may provide them with a circle of friends and social interaction that they would not otherwise receive. They may have built a life around the town in which they

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<sup>45</sup> Ibid., 54.

work, and may have children, spouses, friends, and family that are tied to that town in one way or another, making exit difficult. The fact that Taylor makes reference to relocation vouchers, and to the relatively “mobile teacher population” in a discussion of another labor market<sup>46</sup>, indicates an assumption that in a competitive market, labor will be expected to move around geographically. This seems to ignore the reality that relocation imposes significant costs on individuals, both financially (explicit moving costs), and socially (the cost of needing to adjust to a new location and finding a new support network, kids needing to adjust to new schools).

For Taylor’s proposal of exit (in a perfectly competitive labor market) to be functional, then a worker would need to have a wide variety of options that would resemble the job they are currently in. That is, they have to be about equally as well off if they left, so the employer takes the threat of exit seriously. In other words, the argument for exit as a safeguard against domination is as follows: If my employer, Joe, knows that I would leave in a heartbeat to work for Mark across town if Joe doesn’t arbitrarily interfere in my affairs (i.e., he tracks my interests at least partially), then he will be more likely to make concessions to me in order to make me stay. That assumes that the job Mark offers is as similar to one I am currently in to make the threat of exit credible. If I am worse off in the other job (i.e., it pays far less), then that threat of exit is far less credible and Joe has less incentive to take me seriously. The emphasis given to wage by Taylor can be seen in his example of the opposite of the ideal of a perfectly competitive labor market, in his discussion of monopsony. In it, a company is able to pay workers below their actual marginal contribution to labor, because there is only one

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<sup>46</sup> Ibid., 60.

employer (in the case of Anaconda Mining Company in Butte, Montana), or very few (such as the market for nurses).

The problem with that argument is that focuses too much on income as the relevant factor about jobs, ignoring the non-income factors mentioned above. In order for this model of exit to work, there must be other jobs that do not make me worse off for my threat of exit to be credible. That includes the other relevant factors, such as social factors, health insurance, location, pension etc. If I work for Joe, and he knows that Mark is offering the same amount of money, but my healthcare is through Joe, I have great friends through work (Mark's company may be smaller and a different demographic), and moving to Mark's company involves moving to the other side of the county, then the threat of exit is less credible in Joe's eyes. Unless the salary at Mark's is significantly higher, odds are I (as Joe), don't necessary need to track my employees interests.

Some of these factors (pension plans, low savings, health insurance) can theoretically be addressed. We could live in a world in savings or healthcare does not preclude my exit, and it's possible to have a market in which there are several jobs that I am qualified for, that pay similar, and provide me with healthcare benefits. The difficulty in attaining this ideal comes with the social, location and sense of purpose factors. While there may be other jobs that can provide you a strong social network, in the same area, and with similar sense of purpose (or similar enough to make threat of exit credible), it may sometimes be impossible to have a job that offers the exact same non-income factors. Due to the immense diversity of personality types and interests among individuals, it may be that there is a set of companies in the area that are comparable in



all other factors, but may diverge widely on social factors. Thus, this may be an ideal that could never be reached, and in practicality, can not be reached in many smaller economic areas.

Having concluded that there are more barriers to exit than can simply be solved by increasing income (or a UBI, for that matter), how would we rectify this problem? I contend that in order to use exit to encourage managers and business owners to track the relevant interest of their employees, the cost of domination for employers must be high. This cost of domination can be broken down into the probability of a credible threat times the replacement cost of the individual. The term credible threat is borrowed from De Wispelaere and Birnbaum<sup>47</sup> (2016).

Credible threat captures the intuition that an employee doesn't always need to exit to ensure better treatment, but it simply must be an option for them in the eyes of the manager (for sake of argument, I will refer to the person who has arbitrary control over the employee as the manager). Every market has asymmetries, and current labor markets are no exception. Managers do not always know what options are presented to their employees, and likewise employees do not always know how much demand there is for their labor. We have discussed before that exit to an exactly comparable company (on all factors, income and non-income) is very unlikely, given the many factors that other jobs would have to match.

However, employers do not necessarily know all the relevant jobs. Most rational employers, when faced with a decisions of "how far" they can push their managerial

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<sup>47</sup> Simon, Birnbaum and De Wispelaere, Jurgen, (2016), Basic Income in the Capitalist Economy: The Mirage of "Exit" from Employment, Basic Income Studies, 11, issue 1, p. 61-74.

discretion, will estimate the likelihood that doing so will cause an employee to leave. We can think of this credible threat as a probability, such as 0.5, 0.4 or 0.99. This is partially based on a perception of how much the employee relies on the employer, and how likely they could find another source of sustenance. With policies such as universal healthcare, employee-independent pension plans, and a high enough income to permit an employee to stop working (perhaps with a UBI), then an employer may perceive that probability of an employee to leave to be higher - the manager knows that if the employee leaves, she will not starve or be without healthcare. They may not know that the employee finds purpose in this job, has great friends through it and work-life balance that may not be found elsewhere, but at the very least it increases the credibility of exit. This increase in credibility of exit, may then incentive the employer to track the interests of their employee, lessening the arbitrary nature of their interference and their managerial discretion.

However, the credible threat of exit will not incentivize better behavior by managers if the cost of replacement of that employee is so low. In other words, if it's very easy to get someone else to fill that role, then it's not likely that I as a manager would take the time and effort to track my employee's interests. If this is a labor market in which there are more employers than employees, then that lack of exit may mean that this new employee will put up with my poor treatment because of a lack of options.

Replacement cost can be defined as the cost the company would incur in order to fill the opening in the production process caused by a person's departure. This could be lost revenue, explicit recruiting costs, costs of training, and lost social impact (perhaps this person was an informal mentor to many other employees and was

instrumental in team cohesion). In evaluating the cost of not tracking an employee's interests, the question is not just how credible the threat of exit is, but how high the replacement cost is.  $P(\text{exit})$  could be 1, but if  $C(\text{replacement})$  is \$1, then it's always easier to dominate the employee than to incur the costs of trying to track their interests at all times.

Some things that can cause an increased cost of replacement could be: a labor shortage, specialized talent, proprietary expertise. For example, a PhD in chemistry who is synthesizing very complicated chemicals for a drug company has a very high replacement cost. There may be only a few experts in the particular problem she is working on, and no revenue can be made while the search process for a new chemist proceeds. Perhaps they had a body of proprietary knowledge gained from other research the company has conducted, meaning that even a replacement would be incurring a salary expense but no revenue while they got "up to speed." Maybe there's a salary premium that would be necessary to lure another qualified chemist away from another job. Either way, there is a massive cost associated with the chemist leaving, and most rational employers would do much more to track their interests in managerial decisions. For example, they may allow her time to work on side projects of interest, or provide her with flexible time off policies. Either way, they are much more likely to track her interests.

Contrast that with a cashier at a Wal-Mart in a small rust belt town where the last factory (with lots of routine jobs) just closed. There are few major employers for unskilled labor, and plenty of people who now need jobs. The job doesn't require significant training, and Wal-Mart is confident they could fill the job in a day if they

needed. In fact, they may already have several people who would love to take the job. In this case, Wal-Mart is far more likely to ignore the interests of those employers, even if  $P(\text{exit})$  is high, because the replacement cost is so low. We can consider this combined metric of  $P(\text{exit}) * C(\text{replacement})$ , as the cost of domination.

### Replacement Costs of Manual, Abstract and Routine Jobs

We can see that different levels of jobs have different costs of domination. First, I explore abstract jobs, then routine jobs, and then manual jobs. Following that, I argue that abstract jobs have high costs of domination, manual jobs the next highest, and routine jobs the lowest.

Autor speaks of the employment changes that happened after the late 1970s.<sup>48</sup> The abstract jobs at the top of the skill ladder (professional, technical and managerial) grew “more rapidly between 1980 and 2010 than in the four decades prior.” Routine clerical roles began to shrink, while “low-paid personal services” began to absorb non-college labor. As discussed elsewhere, this results in a “polarization” of the American job market, in which middle-class routine jobs decline in their share of jobs in the economy, while low-skill manual jobs and high-skill abstract jobs, increase in their share.

Technological automation tends to complement high skilled workers, by “dramatically lowering the cost and increasing the scope of information and analysis available to them.” This in turn allows them to specialize even quicker in their field, increasing their competitive advantage. Many of the functions that technology can now

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<sup>48</sup> Autor, “*Why are*” 3-30.

serve tend to displace support occupations such as medical secretaries, paralegals and research assistants.

If the demand for these services is inelastic (demand does not change as price changes), then the increased output would be expected to result in lower expenditures (less wages) on these services. If a doctor is more efficient, then you can pay them less (or hire less of them), to do the same work in less time. However, Autor says that as technology boosts output of a profession, the demand for their services has still moved along with it.

The labor supply for skilled labor is rather inelastic. That is, the number of people who transition into high skilled labor, for every dollar increase in the wages of this labor, is low. This is because many of these professions require several years of schooling (generally an undergraduate degree, and sometimes post-graduate degrees). Although the number of Americans with college degrees has increased, they have not increased at a pace to fulfill demand. For example, there are currently 500,000 open jobs for people with computer science degrees, but not enough people to fill them.<sup>49</sup> This is despite the fact that many software developers and people in the tech industry can make in excess of \$100,000.

This means that the cost of domination in abstract professions remains high, due to the shortage of available labor, and the ease at which people can develop their competitive advantage. The labor shortage, and corresponding high demand, means that the threat of credible exit remains high. Many employers know that their top talent

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<sup>49</sup> Kasulis, Kelly. "The US Desperately Needs Computer Science Majors, so Keep Coding." Mic. July 21, 2017. Accessed April 17, 2019. <https://mic.com/articles/182644/the-us-desperately-needs-computer-science-majors-so-keep-coding#.wvFv nubkx>.

could easily find jobs elsewhere, and so they are more likely to track their interests. The shortage also means that the cost of replacement remains high. Recruiting talent may be expensive, and may involve competing with other firms for the limited talent. Thus, workers in abstract jobs would be the least susceptible to domination. This can be seen by the length that many tech companies go to please their employees, such as free food, generous time off, casual dress codes and more<sup>50</sup> (Warren). Exit can remain an effective way for these employees to wield anti-power against the control of their managers.

The same can not be said of manual jobs. They do not have productivity benefits from information technology, and the demand for their services is relatively price inelastic. That is, there is not more demand for manual jobs as the price of those manual jobs decreases. Even if there are productivity gains in manual style work, it will not necessarily increase expenditures (wages) on them. Although manual work is price inelastic, is it income elastic. That is, as incomes rise, the demand for manual work increases. So technological innovation in other fields, which helps to raise incomes in general, indirectly increases demand for manual work. However, since the labor supply is very elastic (there are few barriers to entry to taking a manual job, since it does not generally require formal education). Autor concludes by saying that the effect on wages may depend on how quickly people enter these industries. Some manual jobs, such as trucking and retail, are facing labor shortages (CBS News) resulting in many companies

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<sup>50</sup> Warren, Katie. "16 mind-blowing job perks that real companies offer." Insider. September 10, 2018. Accessed April 17, 2019. <https://www.thisisinsider.com/best-job-perks-companies-twitter-facebook-google-2018-5>

increasing wages and benefits.<sup>51</sup>

How would this information affect the cost of domination? I contend that the relative elasticity of supply of manual labor compared to abstract labor means that over time, the cost of replacement of manual labor is much lower. Though it is true that some industries are facing shortages, the elasticity of labor means that in order to solve these shortages, companies simply need to increase wages, something entirely within their control. Economic theory says that in the long term, this is what is expected to happen. Thus, the replacement cost of this labor is lower.

However, the supply of abstract labor is wage inelastic. Even if companies raise wages of high skilled jobs, the slowness at which Americans are entering skilled professions and obtaining higher education means that the shortage may persist. In other words, the shortage of labor is something out of the control of many companies, because it requires a cultural, societal and gubernatorial shift towards more people enrolling in graduate degrees. Thus, the replacement cost (the difficulty of finding a replacement employee) remains much higher for skilled labor.

Furthermore, those who opt to exit from manual jobs will often find themselves in similar jobs, a point brought up by Birnbaum and De Wispelaere.<sup>52</sup> If there was domination (because of structural issues) at KFC, it's not likely that exiting to McDonald's (assuming all other things equal) would alleviate that domination. Furthermore, if many workers threaten to exit at once, in an attempt at collective

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<sup>51</sup> Ivanova, Irina. "These are the industries with the biggest labor shortages." CBS News. February 4, 2019. <https://www.cbsnews.com/news/these-are-the-industries-with-the-biggest-labor-shortages/>

<sup>52</sup> Birnbaum, De Wispelaere, Basic Income.

bargaining, then it's possible that it will be difficult for all of them to find new jobs, especially if they are all in the same geographic area. If you also include the fact that many of these employees, due to their low pay, may not have significant savings or reserves for them to survive on during the job search process, then the credible threat of exit will decrease. Thus, because of the low replacement cost and low credibility of exit, it's likely that exit is not an effective safeguard against domination in the short run for manual workers.

For routine jobs, those most at risk of automation, their cost of domination may be even lower. Routine jobs are the group of jobs that are growing at a much slower rate than manual jobs and abstract jobs, and their proportion of US employment is shrinking (see Autor). They also tend to have less educational requirements than abstract jobs (especially for clerical and secretary work). Thus, it is likely that if an employee were to exit a routine, middle class job, then they would have to go to a manual job if they wanted to continue working (further education is also an option, but comes at an expense). This reduces the credibility of exit, because employers know that most rational individuals would rather stay in the better paying, middle class job than go to the lower paying, manual job.

Furthermore, as pointed out in Birnbaum et al, the threat of automation means that for many employers, the replacement cost of an employee exiting may actually be positive! That is, if technology can do the same job as an employee at a fraction of the price, then firms would want to rapidly replace labor for technology, wherever possible (such as in routine jobs). Since technology costs much less than workers, rational managers may see the exit of a manual employee as a net positive for the company, as



they can save on labor expense without costly severance packages, or other costs associated with mass layoffs. Thus, routine jobs seem to be the ones at biggest risk of domination.

In conclusion, abstract jobs have most protection against domination based on the cost of domination (credibility of threat of exit, and cost of replacement), manual jobs have the next level of protection (though it is far lower), and routine jobs have the least protection on the basis of exit. In the next chapter, I explore ways of reducing domination in the workplace.

# Chapter 5: Solutions and Conclusion

In this section, I begin by summarizing the key worries of the previous sections, that new jobs are bad jobs in both the sense of capabilities, and domination. Then, I propose some policies that could make them better jobs (or bring people into better jobs). Finally, I consider the subset of people who, despite the best efforts of them and society, cannot obtain a good job. I propose a sliding scale benefits plan, in place of a Universal Basic Income, to assist those members of society.

## **Summary of Worries**

This thesis began with an exploration of two main conceptions of freedom: freedom as opportunity, exemplified by the capabilities approach, and freedom as non-domination, exemplified by contemporary civic republicans such as Phillip Pettit. Next, we explored current economic trends in the job market. While the total number of jobs are not decreasing, the quality of jobs are polarizing into high skill, abstract jobs, and low skill, manual jobs. The literature also points to a less pronounced polarization of wages.

In Chapter 3, I constructed a conception of “good jobs” and “bad jobs”, using the normative frameworks of freedom established in Chapter 1. This conception takes into account health benefits, pay and hours of a particular job. Because the manual jobs that were surveyed often do not provide health insurance or benefits, often have lower wages, and have less predictable scheduling or more onerous hour requirements, I

conclude that manual jobs do not match our definition of good jobs.

In Chapter 4, I use a republican theory on markets and freedom to analyze manual and abstract jobs. Robert Taylor puts forward “exit” as a safeguard against domination. That is, if workers are able to exit from their employment relations (either by leaving the labor market entirely or by going to another employer), then they will have safeguards against arbitrary interference from their employers. More specifically, the market, and the abundance of price-taking, rather than price-making, firms, renders domination by any one employer or party untenable. I strengthened this conception with the idea of the “cost of domination”, composed of the probability that an individual will exit times the cost the firm would incur to replace that worker. Following an analysis of manual, routine and abstract jobs, I contend that abstract jobs have the highest cost of domination, manual jobs the second lowest, and routine jobs the lowest. Thus, manual and routine jobs are most susceptible to domination.

In both analyses, manual jobs are those at the biggest risk of unfreedom, both from a lack of capabilities and a lack of freedom as non domination. Though those in abstract jobs may also have potential to benefit from freedom enhancing reforms, we seldom worry about the software developer at Microsoft or the lawyer in California when we articulate worries about automation. The fear comes for blue collar workers in routine jobs who must now work at Wal-Mart, Amazon, or McDonald’s for a fraction of their former pay. For this reason, I spend the rest of this chapter exploring reforms to increase the freedom of those in manual jobs.

## Three Avenues of Reform

There are several avenues of improving the freedom of manual job workers. Since we have established that those in abstract jobs are relatively more free, the first method is to move manual job workers into abstract jobs. The second is to reform factors of manual jobs that made them unfree. The third, and most radical, is to abolish the idea of work entirely and provide some sort of basic income. This last category is salient for those who can not be trained, or for those whom reforms in the second category are not sufficient.

One way of moving people into abstract jobs is by using workforce retraining programs. Autor contends that if technological automation must be accompanied by human capital investment (education and training) in order to develop skills that are complemented by technological change.

When worker retraining has been attempted previously (to transition blue collar workers automated out of their jobs into new industries), it has failed for three major reasons. First is that those who need training programs don't know about it, or are excluded from them. The second is that course material tends to be disjointed from the needs of employers, and the third is that job training programs don't ultimately force employers to pay decent wages - unions are cited as a more effective way of accomplishing that.<sup>53</sup>

The NYTimes does cite one example where training has partially succeeded In a community college in New Hampshire, where the program is designed by consulting

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<sup>53</sup> Fadulu, Lola. "America's Perennial Failure At Worker Retraining - The Atlantic." Accessed November 1, 2018. <https://www.theatlantic.com/education/archive/2018/01/why-is-the-us-so-bad-at-protecting-workers-from-automation/549185/>.

employers to see what they need (addressing the second point above). There are several start dates throughout the year, and the program is structured as a 40 hour work week for people who may have been in the workforce for decades.<sup>54</sup>

One objection is that this more effective form of worker retraining is essentially a taxpayer subsidized training program. This may be true - but the type of work that employers are demanding in the abstract field are too complicated to provide on the job training. In the past, it may have been reasonable for a company to spend a few weeks to teach someone how to do one action on an assembly line. But, to teach someone with a baseline level of education to code, or to operate an advanced composition drill, may last several months. Even if we consider this a duty of employers, having them shoulder most of the responsibility of training would introduce inefficiencies that would make it harder for them to be competitive and stay in business, thereby reducing opportunities for in the abstract skills space.

A less objectionable approach may be to expand the range of publicly funded educational opportunities in the form of colleges or technical schools. If finances are no longer a barrier to a degree in Computer Science, or a certificate in welding technology, then it is in theory easier to enter an abstract profession. By extension, we have allowed people to make themselves more free.

This solution seems sufficient for a certain subset of people. Some people will be prepared and apt enough to pursue an education that will prepare them for an abstract jobs. Either they may pursue this path through affordable higher education, or by taking

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<sup>54</sup> Graham, Ruth. "The Retraining Paradox - The New York Times." Accessed November 1, 2018. <https://www.nytimes.com/2017/02/23/magazine/retraining-jobs-unemployment.html>.

advantage of a worker retraining program that prepares them for an abstract role.

Yet this presents questions about the subset of people who are unable to take advantage of these training opportunities. Consider Kerri Uyeno, a 43 year old single mother who participated in the Green Bay retraining program in the Graham article. She graduated the program, and began working. However, she faced challenges with the drastic change in careers, especially later in life. She had conflicts with her supervisors, and then quit. She was encouraged to go back to school and work towards an associate degree, but she said “it was so hard to get through that six months to my certificate...I just didn’t have it in me to get more schooling.”

There are certainly others like Kerri, who find that a late career transition is unsustainable and stressful. The learning curve is immense, and not all people have the same level of education and development to take advantage of them. Consider also those students who attend less resourced public high schools and as a consequence are far less prepared for the demanding education that leads to an abstract job. Some individuals are, for whatever reason that is beyond the scope of this thesis, unable to take advantage of the opportunities that education can present to them. If they are not able to pursue an abstract job, then they must pursue the other category of jobs that will escape automation: manual jobs.

We have considered facilitating entry into the abstract job market as one method of enhancing freedom. We now consider the subset of people who are unable to take advantage of that opportunity. They must rely on reform. There are two strains of reforming manual jobs, in line with Chapter 3 (health benefits, pay, and hours) and

Chapter 4 (the cost of domination).

To reform jobs in the former case, there are several things we can do. First and foremost, decoupling benefits such as health insurance and retirement/pension from a particular employer would go a long way to improve freedom. This enhances the ability of individuals to enter and exit labor markets, and removes the dominating forces of unexpected disease and lack of retirement savings from the equation.

Next up is pay. A possible solution is to increase the minimum wage - this would have the direct effect of increasing the amount of income that those in manual jobs would earn. However, this approach has several drawbacks. The most notable is that minimum wage laws, albeit a subsidy to low-wage workers, funds that subsidy by taxing those same low-wage workers, as argued in a critique by Daniel Shaviro.<sup>55</sup> This tax on low-wage workers reduces the demand for unskilled labor, reducing the opportunities people have to make an income. He advocates instead using transfers to increase the wage of low wage workers. Employment subsidies, in which the government (either through a negative income tax, earned income tax credit, or other method), subsidizes the wage of low income employees may be a more effective method of accomplishing a higher wage for manual workers, as it does not reduce demand for low-wage labor as readily. Either way, a reform that would raise the available income of low-wage manual workers, without reducing the demand for that same labor, is a policy that would serve to increase the freedom of manual jobs.

The next concern is hours. Some manual jobs may require employees to work many

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<sup>55</sup> Quoted in Rogers, Brishen. "Justice at work: minimum wage laws and social equality." *Texas Law Review*, Forthcoming (2014), 8

hours to earn a livable income. However, a wage-increasing reform should address this concern about hours. There is still a concern about unpredictable scheduling. This concern may be addressed by increasing the cost of domination of manual workers, thereby incentivizing employers to consider the needs of their employees.

Recall that the cost of domination is composed of the credible threat of exit, and the replacement cost of an employee. There are many methods to increase the credibility of exit. Moving to affordable public education and retraining is one such way - at the very least an employer knows that their employee may decide to leave the low-wage job market all together and strengthen the credibility of their exit.

Other methods center around increasing flexibility in the labor market and the ease by which employees can transition employers. Taylor outlines several reforms, such as a move to universal right to work, universal at will employment, a reduction in the licensing cartel, anti-trust policies, and some redistributive policies to exit workplaces.<sup>56</sup> The latter can take the form of relocation vouchers or employer decoupled health benefits that make it easier to take time off from work.

Another proposal, by Andrew McAfee and Erik Brynjolfsson, is to recognize the increasing numbers of people who are taking advantage of the gig economy. According to the economists Lawrence Katz and Alan Krueger, the percentage of American workers in "alternative arrangements," including temporary staffing, contracting, and on-call work, increased from ten percent in 2005 to 16 percent in 2015.<sup>57</sup> Current law permits employers to be classified as employees, or independent contractors. Andrew

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<sup>56</sup> Charles Taylor, *Exit Left*

<sup>57</sup> McAfee, Andrew, and Erik Brynjolfsson. "Human work in the robotic future: Policy for the age of automation." *Foreign Aff.* 95 (2016): 139.



McAfee and Erik Brynjolfsson instead propose a new “independent worker” designation, which would not permit overtime pay or unemployment insurance, like independent contractors. However, it would allow workers to benefit from federal anti discrimination laws, the right to organize, and employer withholding for taxes. They also advocate for having benefits that are portable rather than associated with a particular employer. By institutionally recognizing these types of benefits, it makes it easier for people to exit more traditional employment or substitute income from traditional employment with newer, non-traditional arrangement. Many of these non-traditional gigs, such as TaskRabbit, AirBNB, and Uber/Lyft are enabled by advances in technology, and they may be viable exits for workers.

These policies do not directly increase the replacement cost of workers, but may do so indirectly via increased costs of recruiting in the wake of labor shortages. Especially if some sort of basic income is introduced, permitting full exit from the labor market, employers may be more willing to recognize employee needs in fear of having to re-recruit them in a world where they would rather not work than work in the conditions that the employer is providing.

Up until this point, we have looked at policies that promote work, instead of planning for its obsolescence. We have looked at policies that reduce domination and attempt to increase real incomes, as well as improve people’s freedom through low-cost job training to obtain abstract jobs. However, a salient final question is: what if it all doesn’t work? What if after all of that we have a subset of people who cannot take advantage of job training possibilities, people for whom reforms do not increase their opportunity set

nor their anti-power in the face of domination, or those for who the gig economy and decentralized work is not the saving grace it was predicted to be?

The usual answer is a universal basic income. UBI can go by other names, but generally implies an unconditional cash payment to individuals. The amount may be substantial, such as the 2500 francs per month proposed in a Swiss referendum, or it may be a more modest \$10,000.<sup>58</sup> GiveDirectly, a charity working to establish a randomized trial of UBI, defines it as an unconditional, universal payment that provides basic needs for all recipients, and should be guaranteed for the recipient's lifetime.<sup>59</sup>

A key problem with the UBI debate is that there aren't comprehensive trials to measure its results conclusively. GiveDirectly lists 11 UBI experiments, but finds that none fit all criteria needed for an effective test. Namely, the payments needed to be universal, basic (cover basic needs), long-term, and involve a randomized control trial (RCT). Nonetheless, we can still use the results of existing trials to hint at what would happen with a full scale UBI.

One line of reasoning against UBI is that it creates a culture against work, a criticism also levied against welfare programs. In other words, it would incentivize people not to work, and perhaps even to pass an aversion to work through generations. Such view is one taken by Peter Cove and neurobiologist Adam Perkins.<sup>60</sup>

Empirically, the contention that people would not work is unconvincing. The U.S. ran

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<sup>58</sup> Flowers, Andrew. "FiveThirtyEight: What Is Universal Basic Income?" Accessed October 11, 2018. <https://abcnews.go.com/fivethirtyeight/video/fivethirtyeight-universal-basic-income-56067420>.

<sup>59</sup> "GiveDirectly: Research on Cash Transfers." GiveDirectly. Accessed October 11, 2018. <https://www.givedirectly.org/research-on-cash-transfers>.

<sup>60</sup> Cove, Peter. "Against the Universal Basic Income." City Journal, January 8, 2018. <https://www.city-journal.org/html/against-universal-basic-income-15636.html>.

a series of negative income tax (NIT) trials in the 70s. NIT essentially gives money to certain people who do not make enough of it, making it similar (but not identical to) a UBI. The study showed that the hours worked by participants did decline, but only by “5 to 7 percent” for primary workers, and more for secondary workers. With that time, people chose to do other things, such as go back to school. Widerquist, a professor who studied the data, says that “experimenters said that they were unable to find even a single instance of labor-market withdrawal.” What this shows is low income people do not choose to stop working for free money. Instead, they tend to trade some work for leisure (defined as anything not work related), at the margins, but do not stop working all together.

Another objection to a UBI is that people need to work to derive purpose and happiness from life. That is, even if they chose to stop working and live off a UBI, then they would be unhappy without work. Eisenberg and Lazarsfeld studied reported unhappiness associated with unemployment, and found the explanation to be more social than psychological. When unemployed people retired (and thus stopped being “unemployed”), their happiness improved.<sup>61</sup> This supports the idea that we don’t need work to live, removing a barrier to a fully automated future. Furthermore, a possible objection to the UBI (and Welfare) in general, is that recipients would not use it well. A growing body of research generally rejects this claim, finding that cash transfers are generally more effective than directed transfers like EBT<sup>62</sup>.

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<sup>61</sup> Eisenberg, P., and Paul F. Lazarsfeld. “The Psychological Effects of Unemployment.” *Psychological Bulletin* 35, no. 6 (1938): 358–90. <https://doi.org/10.1037/h0063426>.

<sup>62</sup> Yglesias, Matthew. “The Trouble With Food Stamps.” *Slate*, January 10, 2014. [http://www.slate.com/blogs/moneybox/2014/01/10/snap\\_should\\_be\\_cash\\_instead.html](http://www.slate.com/blogs/moneybox/2014/01/10/snap_should_be_cash_instead.html).

Some theorists like Stuart White oppose a universal basic income on the grounds of reciprocity and exploitation. The charge is that a truly unconditional basic income, one which does not require the recipient to work, violates a condition of reciprocity. In other words, if someone receives a basic income, they should do something for society. This “something” is not limited to paid labor, but also other social obligations such as taking care of family or volunteering.<sup>63</sup>

The issue of reciprocity aside, the UBI presents another serious challenge in that it is extremely expensive. A modest annual UBI of \$10,000 for 300 million Americans would cost \$3 trillion a year, almost 100% of federal tax revenue.<sup>64</sup> Furthermore, a UBI doesn’t deliver benefits to those who need it the most. Billionaires and bathroom attendants receive the same exact amount, rendering it ineffective as a need-based, tailored redistributive benefit.

What would be far more effective in increasing freedom for this last group of “untrainables” is a tapered system of benefits. In essence, at a salary level of zero, the government guarantees an annual wage of \$x dollars, in cash. This wage would ideally

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Haushofer, Johannes, and Jeremy Shapiro. “Household Response to Income Changes: Evidence from an Unconditional Cash Transfer Program in Kenya,” n.d., 57.

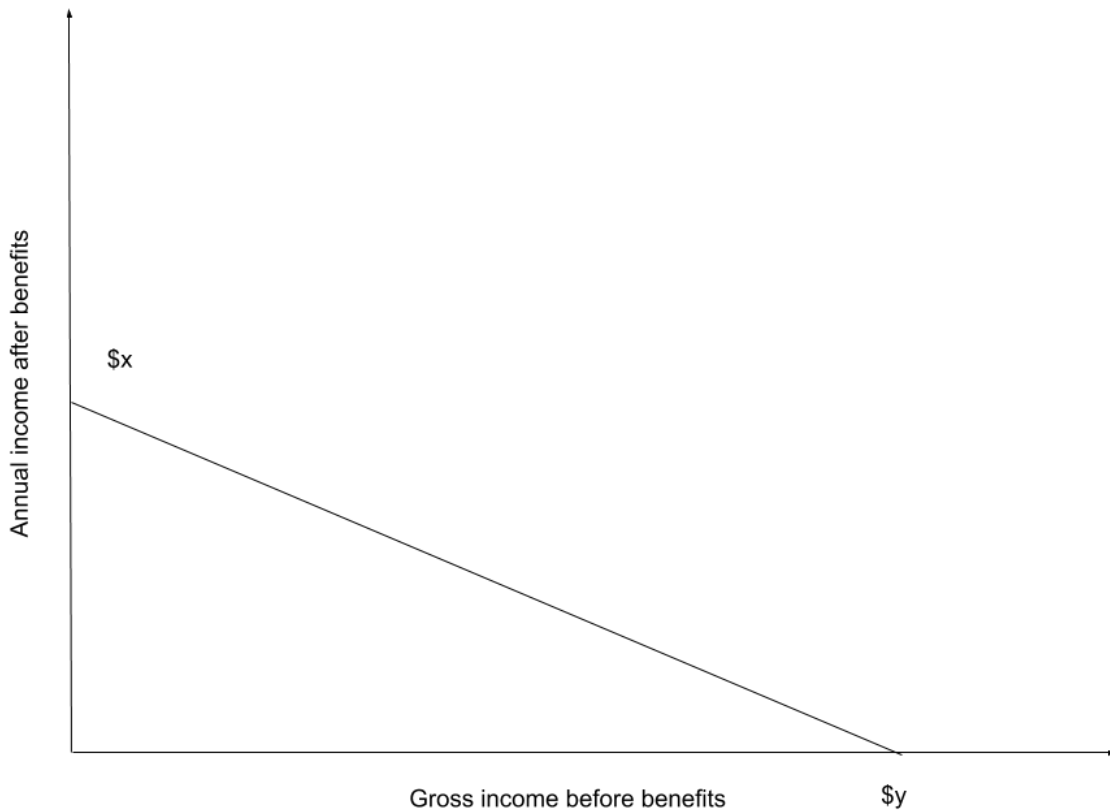
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<sup>63</sup> White, Stuart. “Liberal equality, exploitation, and the case for an unconditional basic income.” *Political studies* 45.2 (1997): 312-326.

<sup>64</sup> Greenstein, Robert. *Commentary: Universal Basic Income May Sound Attractive But, If It Occurred, Would Likelier Increase Poverty Than Reduce It*. Center on Budget and Policy Priorities. September 18, 2017. <https://www.cbpp.org/poverty-and-opportunity/commentary-universal-basic-income-may-sound-attractive-but-if-it-occurred>

be the necessary minimum income, but may be adjusted depending on the context. These benefits taper off until some salary level  $\$y$ , at which point the government dispenses no benefits. This reduces the cost of a UBI, and  $\$y$  can be adjusted as necessary for budget realities. The slope of the line from 0 to  $\$y$  should be a straight line, with not cliffs or drop-offs. At every point on the line, the marginal revenue of an extra hour of labor should always be greater than the marginal cost of lost benefits. In other words, there should always be an incentive to work, because people are always better off monetarily by increasing their work relative to leisure. This proposal could alleviate concerns about reciprocity.



Additionally, this proposal would allow those in manual jobs to augment their existing

salaries with government benefits, not unlike employment subsidies proposed by Shaviro.

## **Conclusion**

Ultimately, any solution to a problem as complex as social change to automation can not be summarized in an undergraduate thesis. In this section, I have proposed (in the abstract) solutions that should theoretically solve the issues I have outlined in Chapters 3 (Bad Jobs, Good Jobs) and 4 (Republicanism and markets). Ultimately, any effective solution will require coordination amongst experts in various fields and disciplines, and a coordinated effort by society to continue to move forward and address the issues that face us. I hope that the reader has gained some insight on how to conceptualize these issues through the lens of freedom, and will use that insight to inform their own views of contemporary political issues, debates, and solutions.

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