
BASIC INCOME VIABILITY:

EFFECTIVENESS OF TARGETING & RESTRICTING WELFARE TRANSFERS

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1 Introduction

On the surface, the idea is simple: to eliminate poverty, give people money. Basic income has the dubious honor of being one of the few policy suggestions which appears simultaneously forward-thinking and exciting or overly simplistic and unrefined at the same time.

Any welfare program which relies on redistribution (which is all welfare not funded fully by state-owned assets) takes wealth deemed “excessive” from some people and gives it to those in need. This puts an onus on the government to use resources effectively and efficiently, and respond to the desires of those who fall both above and below the redistribution point, or the point where personal income is high enough that a person starts receiving less direct benefits from the government than they pay in to the system through taxes.

Therefore, welfare systems must not only have positive outcomes, but their effectiveness must also communicated to convince taxpayers that their money is being used well and is benefiting society to the greatest extent possible. Usually, this means that programs have two broad costs which detract from the monetary value transferred to recipients: a system for controlling how recipients will use the welfare, whether that is in the form of delivering in-kind goods or some form of restricted cash-substitute such as vouchers, and a targeting system for selecting who should be eligible for receiving the benefits.

I argue that current systems spend too much of their budget on restricting who can receive welfare and where they can spend it, because research shows that concerns about workforce dropout and nonessential spending are vastly overestimated.

1.1 Cash-Transfer Welfare Types

Cash-Transfer welfare has historically been implemented in roughly one of three ways: negative income tax, basic income, and universal basic income. I will also draw on studies of pilot programs which consist of a one-time cash transfer, such as the Uganda Youth Opportunities Program,¹ because these studies can offer a different perspective about short and long run effects where there is no expectation that the cash transfer will be ongoing.

1.1.1 Negative Income Tax

Negative income taxes are mathematically an extremely elegant way to express the problem and implement the solution: all one needs is an income tax which hits 0% effective tax rate at the poverty line (or other set point) income level, and then proceeds below zero so that incomes below the poverty line

incur payouts from the government instead of paying in. The mechanism is very easy to understand, predict, and calculate, but does not account for the way humans understand gain and loss.

Rationally, there is no inherent poverty trap—at every income level, earning another dollar increases the money you keep—but because people view paying taxes as a loss, there is a human inflection point at the 0% tax rate point where it feels like earning another dollar would mean taking both the loss of no longer getting a government payout and the loss of now needing to pay taxes. It can be perceived as a loss even though the total money someone is taking home is increasing.

1.1.2 Basic Income (Conditional & Universal)

Basic Income is a simple policy where every member of a group receives a cash welfare payout, regardless of their income. Of course, as their income increases, there is a point where they are paying more in taxes than they are receiving as a basic income, analogous to the 0% tax rate point in a negative income tax. For this reason, many research papers tend to consider Basic Income and Negative Income Tax policies interchangeable, even using the terms interchangeably, as long as the transfer rates and takeback rates are similar—this is an especially common problem in mainstream media.²

I believe basic income and negative income tax should not be treated as equivalent; although these two policies appear equal to the cold, calculating “Homo Economicus” of classical economics, calculating and comparing the net effective transfers overlooks the behavioral and emotional dynamics inherent in the system. Some studies have drawn a difference between basic income and negative income tax by comparing the take-back rates, where under a negative income tax each dollar earned loses less than one dollar in aid and where basic income is reduced by 100% of income earned (\$1 earned is \$1 less received from basic income)³ but I do not think this distinction is either useful or helpful because the taxation rate under basic income can be set at any level, which means it is possible for both policies to have the same effect when the recipient earns each marginal dollar.

Shifting from receiving money from the government to paying money to the government feels like a loss; basic income strategies make this inflection point unseen by separating income from the government and outflows to it such that your inflow never decreases. At the inflection point of a Negative Income Tax you lose your government benefits—which feels extremely negative—but at the inflection point of a Basic Income you keep the full transfer from the government and

the amount you pay in to the government increases slightly. If you need a calculator to find out which side of the line you are on, you will not have an emotional fear of crossing it because you will first see your net income increasing.

Conditional Basic Income policies have a selection mechanism which restricts benefits to a specific group of people, whether randomly for the sake of a study⁴ or based on some identifiable factor as a proxy for need such as thatched versus metal roofs,⁵ or based on a social imbalance such as gender.⁶ This does not generally refer to programs which require specific actions on the part of recipients to keep their benefits (such as a working-hours requirement, or proof that they are seeking employment) because those programs are designed for the dual purpose of incentivising specific action as well as providing resources to make that action easier. Basic income relies on free will and market forces instead of policy to dictate how recipients spend their welfare transfers.

Unconditional or Universal Basic Income would require a state actor to offer all citizens a basic paycheck in lieu of all or most other welfare programs, as part of their citizenship benefits. This has never been attempted at a living-wage level, but programs such as the Universal Unconditional Cash Transfer in Iran have demonstrated that the combination of taxes and universal transfers can significantly reduce income inequality and poverty. Just a year after implementation, the program reduced poverty by 10.5 percentage points and inequality by 0.0854 Gini points.⁷

The benefits of local policy versus federal-level universal policy have been extensively debated. The primary arguments for universal basic income are that it would not induce migratory pressure or social pressure (a policy which favors single mothers might discourage marriage, for example), whereas conditional policies would be able to adapt to changing voter preference in different areas, allow voters to directly support their local communities, and could (according to some researchers) be more efficient.⁸

2 Literature Review

2.1 Around The World and Back Again

The table on the next page is an attempt to visualize the shifting pattern of Basic Income research around the world, from government-funded projects in North America, to NGO funded projects in Africa, to large-scale (but not universal) pilot programs in Latin America and India, to contemporary interest in European and Scandinavian countries. Naturally, as the geography, culture, funding, and decision-makers change, both the justification for and assessment of the programs changes. Table 1 is by no means

complete—there are 119 countries⁹ currently implementing cash-transfer programs—but highlights some of the most significant programs in the literature; programs which were pioneers in new regions or techniques, or were used to test new methodologies for impact analysis.

2.1.1 USA/CAN Negative Income Tax Trials

The first significant wave of interest and support was in the United States and Canada, starting in the late 1960s and running through 1980 or 1981. At its peak from 1977 to 1980 there were 30 to 40 papers published on this topic per year, dropping to five or six in the late 80s and none at all published between 1996-2000. This lines up perfectly with the public battle over the results of the North American negative income tax trials.¹⁰

This block of trials, highlighted in red on the following page, were the first medium-large scale pilot programs intended to test people’s reaction to unearned income. Because these programs were funded by the United States and Canadian governments, they were largely justified and assessed based on the direct economic results. For that reason, most of the research and popular press surrounding these trials were focused on whether basic income would act as a sufficient disincentive to work that people would simply live off of the basic income and drop out of the workforce, which could lead to climbing program costs and the collapse of the system.

The workforce participation concern was real, vocalized, and not limited to basic income; for example, the senator of Hawaii Wadsworth Yee added a one-year residency requirement for all welfare in the state, saying “There must be no parasites in paradise.”¹¹ This speaks to the energy surrounding perceived “freeloaders” at the time, regardless of the welfare strategy—basic income’s fungibility made it an especially easy target. This debate whether or not basic income was just using taxpayer money to pay people not to work quickly came to the forefront and has remained a shadow over every test and pilot program since then.

Unfortunately, as with any politically and emotionally charged issue, the results were far more nuanced than the opinions. Taken in aggregate, most studies of these five negative income tax programs did not indicate that people decided to drop out of the workforce, but they did generally indicate a decrease in working hours especially among female heads of households.¹² This creates a ripe situation for both sides to champion their cause: on one hand, you have a story where people keep working but spend more time raising their children (which could decrease education, law enforcement, and healthcare costs), but on the other you can argue that people are taking advantage of the taxpayer money to take a break.

Table 1: Key Basic Income & Negative Income Tax Programs Timeline

Name	Years	Size	Funding
The New Jersey Graduated Work Incentive Experiment	1968 - 1972	983	USA
The Rural Income Maintenance Experiment	1970 - 1972	729	USA
The Seattle/Denver Income Maintenance Experiment	1970 - 1976	4,800	USA
The Gary, Indiana Experiment	1971 - 1974	967	USA
The Manitoba Basic Annual Income Experiment (Mincome) ¹³	1975 - 1978	1,300	CAN
The Alaska Permanent Fund Dividend ¹⁴	1982 - Cont.	737,438	USA
Great Smoky Mountains Study of Youth / Eastern Cherokee Casino	1993 - 2003	1,420	Priv. ^I
Bolsa Familia Brazil	2003 - Cont.	46 mil ¹⁵	BRA
Oportunidades (Prospera)	2002 - Cont.	4 mil ¹⁶	MEX
Ethiopia, Ghana, Honduras, India, Pakistan, & Peru Multifaceted Programs ¹⁷	2007 - 2011 ^{II}	11,000	NGO
Family Rewards 1.0 ¹⁸	2007 - 2010	2,400 HH	USA
Uganda's Youth Opportunities Program ¹⁹	2008 - 2008	1,177	IGO ^{III}
Namibian Basic Income Grant Coalition ²⁰	2008 - 2015 ^{IV}	1,000	NGO
Pilot Project in Quatinga Velho ²¹	2008 - Cont.	100	NGO
Argentine Universal Child Allowance ²²	2009 - Cont.	3.5 mil	ARG
Iran Universal Cash Transfer ²³	2010 - Cont.	77 mil ^V	IRN
Self-Employed Women's Association & Government of Dehli	2011 - 2011	100 HH	NGO
Madhya Pradesh Basic Income Pilot UNICEF & SEWA ²⁴	2011 - 2012	6,000	NGO
GiveDirectly ²⁵	2011 - 2013	475 HH ^{VI}	NGO
Family Rewards 2.0 ²⁶	2011 - 2014	1,200 HH	USA
Ontario Basic Income Pilot Project	2017 - 2018	4,000	CAN
Y Combinator Oakland 2016	In Progress		Priv.

Group	Funding
60's & 70's North American Negative Income Taxes	North American Governments
Developing World NGO/IGO Programs	Latin American Governments
Latin American Programs	Private funding
	NGO/IGO

I. Funded by the Eastern Cherokee Tribal Government, but through ownership of one business; blurs the governmental/private line.
 II. These are the outside years for all programs, no individual research site ran for more than one year.
 III. Funded by World Bank, administered by Ugandan Government, one-time payout.
 IV. Study closed in 2009, continued to pay until 2012, then from 2013 - 2015 it was funded by the Evangelical Lutheran Church in Namibia
 V. The best reference I can find for this program is that 95% of Iranian households participate, according to Ali Enami and Nora Lustig.²⁷
 VI. This study was done entirely at the household level, randomly given to the mother or father.

2.1.2 NGO Funded Development Programs

After a period of some 25 years without significant research, basic income concepts resurfaced in a different context. Instead of public policy initiatives, these new programs came from NGOs investing in developing nations such as Ethiopia, Ghana, Honduras, Pakistan, Peru,²⁸ India,^{29,30} Namibia,³¹ Kenya,³² and Uganda.^{33,34} These programs are highlighted in green in Table 1, and run roughly between 2007 and 2015. Because these programs had completely different funding sources their goals were completely different from the negative income tax initiatives before them. In that case, the funding was raised from the same country as the benefits were disbursed, so workforce participation was at the fore; but with NGOs using donor money to fund this new wave of projects came a completely different set of concerns. Workforce participation rates do not disappear from the literature, but they are deemphasized compared to other metrics.

For example, one large study working across Ethiopia, Ghana, Honduras, Pakistan, Peru, and India used the following metrics, among others, to judge efficacy:³⁵

1. Financial Inclusion Index
2. Total Time Spent working
3. Physical & Mental Health Indexes
4. Political Involvement Index
5. Women's Empowerment Index

Another project, because it relies on direct donations from individuals and corporations, is even more specific about where its recipients are and are not spending the money. The paper examining GiveDirectly's efforts in rural Kenya examines, among 33 other variables:³⁶

1. Alcohol & Tobacco Consumption
2. Medical & Education Spending
3. Happiness & Depression
4. Female Empowerment Index

This study is especially interesting because it is one of the most "pure" basic income studies; the selection method was families with thatched roofs were split in to treatment and control groups, and the treatment group did not have any restrictions on spending or have to do anything to receive their cash.

While these studies still contain working hours analysis, they emphasize the impact on the whole person and on the whole community. With funding coming from outside sources, the major concern shifted from reduction in working hours to nonessential spending—donors are more worried about how much of their money is being deposited directly in the nearest liquor store than how many hours someone spends running a shop or planting fields.

2.1.3 Latin America, Mexico, Iran

Bolsa Familia, the largest conditional basic income program in the world, covers 11.1 million families, or around 25% of the population of Brazil.³⁷ The goals are accurately target the lowest income quartile of families and make it possible for them to move out of poverty while encouraging pre-natal care, improving vaccination rates, increasing child growth scores, boosting education enrollment and attendance, all while reducing inequality and maintaining the lowest possible proportion of administrative costs. The primary critiques of the program mostly seem to revolve around the potential disincentive to work—whether or not that is borne out by empirical evidence.

In Mexico, the Oportunidades program encourages children to continue education by providing families with a similar income to what their children could earn by working, access to government-provided health care, and a nutrition stipend.³⁸ Oportunidades inspired similar programs in New York (Family Rewards 1.0 & 2.0) but significant differences in scale and ideology resulted in vastly different outcomes.³⁹

In Iran, the most unconditional transfer program^{VII} provides 95% of households with a significant cash transfer. This transfer replaces former subsidies on gas and energy which were found to be regressive, and despite being universal, has lowered both poverty and inequality.⁴¹ The strongest critiques of this program claim it has increased inflation enough to mitigate its positive effect.⁴²

2.1.4 Fears for the Future



The most recent wave of interest brings attention back to national-scale, government funded initiatives, especially in Scandinavian countries, but also in the US and Canada. These programs build on the considerations and lessons learned in previous programs, usually citing their findings and goals directly.⁴³ The new motivation, however, is a fear of job-loss to technology. On the fringes, some even go so far as to suggest that full employment may soon be an unattainable goal and income inequality will skyrocket as people are pushed out of the workforce entirely—this has even become a central part of Democrat Andrew Yang's 2020 presidential campaign.⁴⁴

VII. Since 2014 there have been attempts to restrict the top 30% of earners from receiving TSP for budgetary reasons, but they have not been implemented.⁴⁰

3 Behavioral Economic Model

3.1 Principal / Agent Model

Government (Principal):

$$\text{MAX}_{b,t} W(b, \theta(t), \bar{R}) + L(b, \theta(t), t, \bar{R}) + w(b, \theta(t), t) - v(b, t)$$

Individual (Agent):

$$\text{MAX}_{w,v} I(w, \bar{E}, b, \theta(t), -v) + \beta_1(b, \theta(t))v + \beta_2(b, \theta(t), \bar{E})(-w) - T(w, \bar{E}, b)$$

Total Transfer Received: $b - \underbrace{\theta(t)}_{\text{Admin. Cost}}$

3.2 Variables

Choice Variables

b	Budget for General Welfare
t	Transfer type; % Cash
w	Workforce Participation
v	Non-essential (Vice) Spending

Exogenous Variables

\bar{R}	Cost of Baseline Welfare
\bar{E}	Expected Earning Potential

Endogenous Variables

W	Collective Mean Welfare
L	Inequity Between Mean Welfare and Bottom 5%
I	Total Investable Income
T	Tax Burden
θ	Monetary Value of Program Lost Due to Inefficiency
β_1	Saliency of Immediate Non-Essential Spending
β_2	Saliency of Leisure

3.3 Principal & Agent Selection

I built a principal / agent model because from the perspective of any individual citizen in the system, they are purely reactive to the tax rates and benefits offered them—they do not feel individual agency for selecting these values even though they do vote for them in aggregate.

3.3.1 Principal

My initial reaction was to have taxpayers—those above the transfer inflection point who net pay in to the government more than they receive—as the principal of the model and

have the government as a transparent third party, merely implementing and enforcing the policies that the taxpayers vote for. However, this approach created two problems: Benefits had to be expressed in terms of the individual gain from a societal improvement, and even more significantly, it treated those above the inflection point as a different type of decision maker than those below. To separate those paying in from those receiving would build in the behavioral poverty trap I discussed in §1.1.2, and split the citizens into two opposing categories—eliminating the ability to model any benefits from unity and perceived fairness.

As a result, I have chosen to model the government as a simple actor that cares about societal wellbeing W , workforce participation w , and the inequity between the quality of life of the median person and the lowest 5th percentile. Societal wellbeing is a function of the government's general welfare budget b , the efficiency of how that budget is spent $\theta(t)$, and the baseline welfare programs \bar{R} . In this model, the inefficiency of the welfare budget refers to the portion of that budget spent on overhead administrative expenses such as targeting recipients, sourcing in-kind welfare, or other loss—any money the government spends that does not make it to the welfare recipient in the form of cash or equivalent value in goods. Therefore, θ is a function of t because the more targeted and in-kind a program is, the lower the amount of value transferred to the recipient is. Overall, $b - \theta(t)$ represents the amount of money which goes directly towards the governments goals, here assumed to be reducing income inequality, improving mental and physical health of the population, and increasing the education level of the population. These goals were influenced by my review of published government justification for welfare programs, especially the Government of India Ministry of Finance⁴⁵ for their clearly articulated social goals.

The government is also maximizing the equality of the system by considering the deviation between the quality of life of the 5th percentile least well off and the mean person. This

quality of life is a function of not only the budget, inefficiency, and baseline programs, but also the percentage of in-kind transfers t . This is because cash transfers potentially give people a larger opportunity to misspend their welfare, which could negatively effect people such as small children who cannot make their own decisions. One example would be a child who is put in day care if it is free, but who does not have daycare when the parents are given the equivalent cash value because they decide to allocate it elsewhere.

Finally, the government is concerned with workforce participation, w , because if a program provides a disincentive to work and people decide to simply live off of the welfare, the program will not be sustainable and be unpopular among higher-income taxpayers who see it as unfair even if they do not drop out of the workforce themselves. Likewise, too much non-investment spending among welfare recipients—say on cigarettes or alcohol—will reduce the effectiveness and popularity of the program among higher-income taxpayers.

3.3.2 Agent

The agent responds to the welfare and tax structure set by the government by choosing how much to work w , and how much money to spend on immediate desires and on leisure time $v, -w$. The utility any one individual gets from leisure and non-essential spending is modified with salience weights β_1 & β_2 . These weights capture the same concept: an individual's safety net can alter the importance they place on taking time off or spending on simple pleasures immediate-gratification vices. If individuals place too much salience on these immediate goods, then having a more cash-heavy welfare package could lead to a situation where these people or their dependents could end up worse off—in aggregate, this is measured by the L variable in the government model. The agent also faces the exogenous variable E , which is their expected earning potential. This is determined by factors such as their parent's income level, the persons' experience working, and the jobs they see role models around them taking.

3.4 Traditional and Baseline Welfare

The model contains R , an exogenous variable which represents the cost of providing “baseline” welfare programs.

Traditional, or general welfare programs are programs which provide access to non-emergency services which are accessed by the general public through a free market system. This includes many basic needs such as food, housing, clothing, and education, but also includes programs targeted at easing access to those basic needs during a difficult time, such as unemployment benefits.

For the sake of this paper, a program can only be considered a general welfare program if it replaces or augments a good or service that meets the following criteria:

1. **Access:** For people of sufficient means, there must be realistic, cost-effective access to the good or service through a private-sector provider, such as food from a grocery store or clothes from a department store.
2. **Market Norms:** Pricing of the good or service in the private sector must be dictated by the free market, such that providers are competing, consumers have sufficient choice, and consumers have the freedom and opportunity to make a choice in their moment of need.

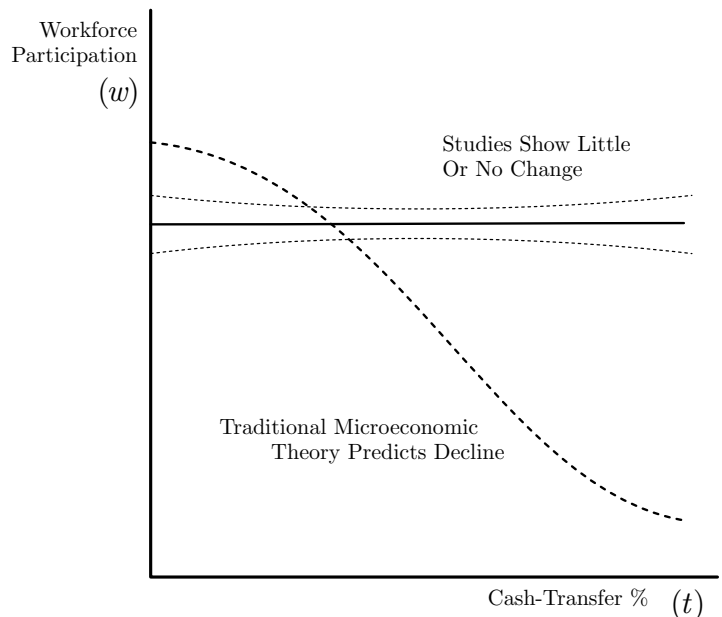
Baseline programs are programs which provide goods and services to people who cannot fully participate in a free-market system, or which provide goods and services where a free market does not exist. Baseline programs should cover services such as child protective services and health care, situations where the market system does not apply due to incapacitation or insufficient free-market offerings.

Because baseline programs have a fixed cost (within the scope of this paper) and no free-market analog, an increase in basic income budget can never completely remove the need for some budget on R without lowering the standard of welfare in the country.

3.5 Elasticity Arguments

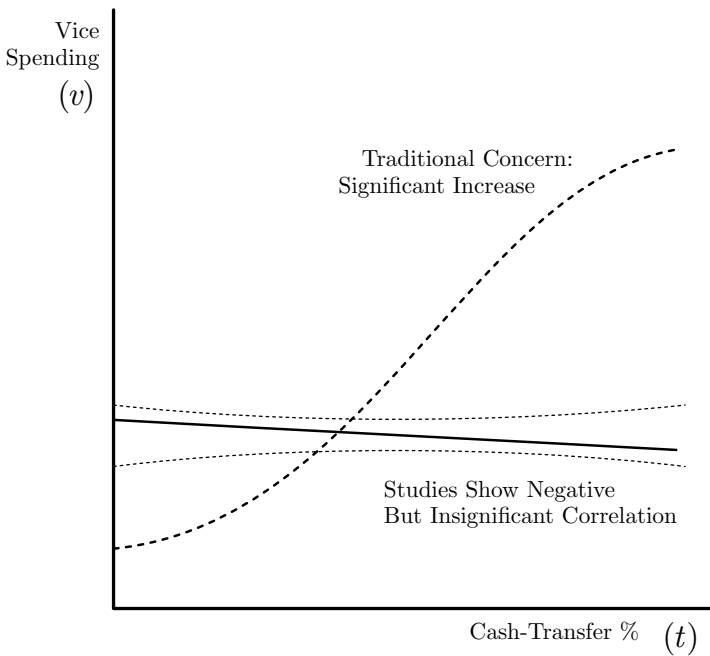
3.5.1 Workforce Participation

As noted in the literature review, one of the longest-standing arguments against basic income is the intuition that it will reduce workforce participation. This makes sense from a purely classical economic standpoint; if someone gains unearned income but their demand for money stays the same, their hours worked will shift back to restore equilibrium.



This classical viewpoint is illustrated by the dashed line above, but this anticipated decline is thoroughly debunked by empirical research. Many studies address this and find similar conclusions,^{46 47 48 49 50} but the best overall summary comes from one of the larger studies which drew on data from programs in Honduras, Morocco, Mexico, Philippines, Indonesia, and Nicaragua. It not only found no statistically significant reduction in hours worked or probability of holding a job, but also found no systematic change in type of employment between recipients and non-recipients.⁵¹ In general, workforce participation is measured in two components: probability of holding a job, and hours worked at that job. To underline the results from their multi-national model, the authors' of the above paper reviewed 23 additional studies, finding one study showing a decrease in probability of work, two showing a small increase (1% and 3%), four not examining probability of work, and the rest showing no impact. However, five of the studies do show a small decrease in hours worked. This means that cash transfers are not encouraging people to quit their jobs, but in some cases are allowing them to work slightly fewer hours.⁵² These studies in the developing world match the findings in the US; the US negative income tax trials showed that some people, especially mothers, chose to work fewer hours, but overall people did not start dropping out of the workforce entirely.⁵³

3.5.2 Non-Essential Spending



In the scope of this model, non-essential or vice spending is any spending done in the current time period which would not be productive in subsequent time periods. This captures

spending on things such as cigarettes and alcohol; goods which feel good in the moment but have no long-term benefit.

Non-essential spending is especially important for donor-funded programs such as those implemented by NGOs in developing countries, but it is also important to voters when politicians suggest government-funded basic income policies. Many voters feel that if welfare recipients are allowed to spend money on vices, they will choose that over investing in education, business, and health—resulting in continuing dependence on welfare.

This was studied most specifically in Kenya during the *GiveDirectly* program. The treatment group (transfer recipients) spend on average \$1 less on alcohol and slightly less on tobacco, but those effects were insignificant. Other consumption categories, however, increased dramatically with recipients spending on average \$2.58 ($p < 0.01$) per month more on medical expenses, \$1.08 ($p < 0.05$) more on education, and \$19.46 ($p < 0.01$) more on food (with 44% of the increase going to proteins like meat & fish).⁵⁴ This not only shows that transfer recipients do not simply spend transfers on alcohol and tobacco, it is also a compelling argument that spending controls (mechanisms to limit recipient spending to specific categories) are very likely more expensive than they are worth. In other words, for most programs $\theta(t) > v$ so more money is spent trying to stop recipients from misspending than would naturally be spent by unrestricted recipients at liquor and tobacco stores.

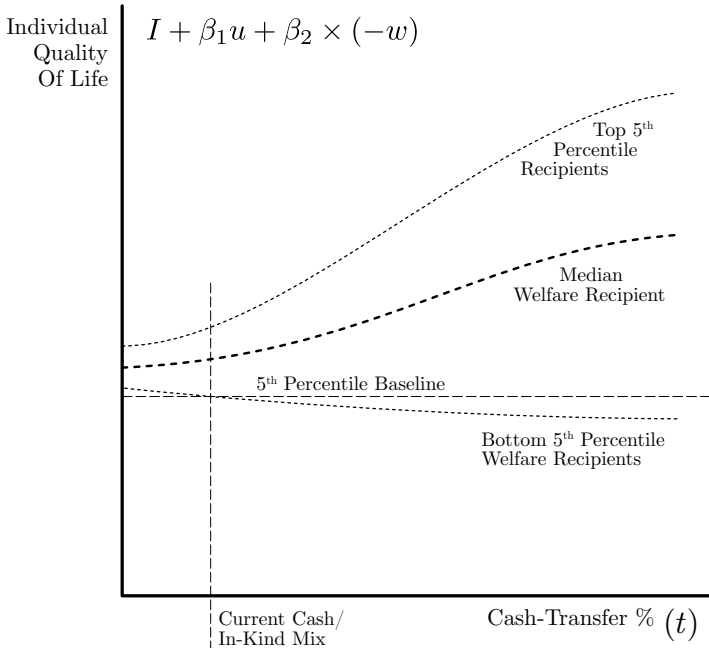
One reason why vice spending might stay constant or even decrease after implementation of a cash-transfer scheme is a shifting perception of personal safety and security; in short, people are more likely to plan for a future that seems more certain. The existence of a trustworthy basic income program shifts people's reference point so that they know they will be able to expect a certain minimum quality of life in the future, making it cognitively easier to choose to invest and plan rather than live as well as possible in the present moment.

This is represented in the model by the β_1 and β_2 coefficients. These indicate the Salience of non-essential spending and the salience of leisure, respectively. The theory is that as people receive less total transfers $\beta - \theta(t)$, they will be less secure in their minimum future quality of life and more likely to value immediate spending and immediate leisure instead of taking the risk that they may have less resources or time in the future.

3.5.3 Lowest 5% Quality of Life

One potential concern with cash-transfers is that removing the guidance of an in-kind or restricted spending program (like food stamps) could hurt the least well-off even as it raises the median quality of life for the society. For example, it is not difficult to imagine that given a control group offered free childcare and a treatment group offered the cash-value equivalent (and access to the same care facility, but for a fee

equal to the transfer they receive) the control group will almost certainly have higher childcare enrollment despite the actual cost to each group being identical (free). The parent may experience higher utility from spending the childcare money elsewhere, but the child might not; and the child has very little if any say over how the family’s transfer is spent.



There are three factors effecting this problem: selecting an appropriate division between baseline and general welfare programs, cost of applying for targeted benefits, and efficiency of providing in-kind, targeted benefits. The first line of support for the bottom 5th percentile is the separation of general welfare—which can be replaced by basic income—and baseline programs which cannot be replaced. In this case, Child Protective Services is the obvious ‘baseline’ program because a child has neither the opportunity nor the autonomy to participate in the free market—the idea of a young child finding, selecting, and transporting themselves to their own child care is absurd. However, it is similarly absurd that CPS could be effective at checking to make sure every child is in sufficient childcare relative to some arbitrary government standard. In cases like these, it is clear that there is a potential for some to fall through the gaps; those who are not so egregiously left behind that mental health, CPS, or general healthcare needs to be involved, but not as well off as they would’ve been in a guided environment.

However, existing strategies for providing childcare are not a magic bullet due to costs of applying and the complexity

and effort required to determine eligibility. Current childcare programs are not as effective as one might hope; for example only 21% of eligible families take advantage of the Child Care and Development Fund (CCDF), at least in part due to burden of enrollment and concern about meeting requirements.⁵⁵ A universal cash transfer would eliminate the burden of enrollment and eligibility requirement, but there is not enough evidence to suggest childcare enrollment would be higher or lower under one system or the other, because we have two effects (to simplify: mental cost of paying for care using cash due to the pain of paying and the endowment effect, against burden of enrollment) of unknown magnitude in opposite directions.

The second is the efficiency argument I will expand in the following section. Due to the cost of administering in-kind and guided spending programs, the monetary value of the benefit recipients actually receive is significantly lower than if they simply were transferred a piece of the welfare budget. This is represented in the model as $b - \theta(t)$. The more accurate question, then is whether a treatment group receiving significantly more (potentially 25%⁵⁶ more in the case of childcare, and 42% more in the case of TANF⁵⁷) than the monetary value of childcare would still choose to purchase less child care than the control group who has access to it for free. This is difficult to study because the question is not whether people will choose to spend more on their children (or grandparents, or their future selves) on average, but instead to see what proportion of the population is worse off.

3.5.4 Efficiency

$$b - \theta(t)$$

One of the most significant differences between cash transfers and other types of welfare is the administration cost. This is a leakage: tax or donor dollars go in, and much less comes out the other side. With donations to charitable organizations, administrative costs play a complicated role in the position and growth of the organization.^{VIII} However, with government programs it is much easier to justify overhead as a leakage.

Government programs are funded through budget allocations of taxpayer money, not donations. As a result, their largest administrative expenses are things such as staff time, procurement of in-kind resources, transportation and distribution of resources, and targeting to identify eligible recipients. These activities do not expand the total budget for the program, unlike in the case of a donation-funded charity, so it is fair to analyze their their performance primarily in terms of the monetary value transferred to targeted recipients, with some room for external concerns such as inflation.

VIII. While administrative overhead costs of charitable organizations is a common metric used to evaluate them, I believe it is an insufficient methodology. While it is obviously good for as much of each donor’s dollar to go to the cause as possible, in many cases it might be possible to have a larger positive impact by spending money on things like fundraising campaigns. Though less of each donor’s dollar is going to the cause, more money overall could be—which makes the organization look worse on paper but increases the work being done for those in need.

Table 2: **Overhead Estimates from the Brookings Institute**

Program	Admin. Cost (%)	All Non-Benefit Costs (%)	Participation Rate (%)
WIC	41.4	41.9	57
post-rebate WIC	27.8	28.1	//
TANF Cash	22.1	138. ^{IX}	46
TANF Broad	15.5	69.9	—
Food Stamps	15.8	16.2	65
Housing	14	14	25
Child Care	8.1	25.7	21
SSI	7.7	7.7	68
School Lunch	2-14	2-14	75
Medicaid	5.1	5.1	66-70
EITC	1.5	1.5	75-86

It is difficult to measure overhead for complex programs because most have multiple functions and multiple deliverables to recipients. For example, the SNAP foodstamps program has costs associated with nutrition education campaigns, which potentially could be justified as a benefit extended to recipients instead of an overhead cost, but since nutrition education is not something commonly purchased on the open market so it is difficult to assign a monetary value to the recipient.

One study that has tried to standardize many of these programs is “The Costs of Benefit Delivery in the Food Stamp Program” by the Brookings Institute.⁵⁸ Table 1 shows their results from assembling and standardizing several studies.

The methodology above is helpful because it creates a fairly consistent definition for non-benefit dollars, but like any method with a similar goal it has shortcomings. In this case, there is insufficient data to account for services and referrals even though they do provide value, which is part of why the WTC program (supplemental nutrition for Women, Infants, and Children) tops the list by such a huge margin. However, it is also interesting to note that the level of targeting employed by a project seems to have a very large impact on the overhead. The WTC is far and away the most specifically targeted program, and EITC (Earned Income Tax Credit) arguably the least targeted since it is simply based on income, marital status, and number of children—data which is already collected for tax purposes.

One of the best programs to compare overhead costs to is Bolsa Familia in Brazil. This program is a cash transfer, so although it is targeted (poor mothers) there are no restrictions on how the recipients can spend the money. Furthermore, it replaced four previous programs, similar to what a basic

income proposal would look like in the United States, and it serves 46 million people—large enough to experience benefits and problems from scale. The difference is significant: Bolsa Familia’s administration costs are just 2.6% of program outlays,^X and 95% of that cost is payment fees for the bank in charge of distributing the funds and maintaining the Cadastro Único database.⁵⁹

This means that out of the above list, only the EITC has lower administrative costs, and the EITC is basically a negative income tax⁶⁰ (altered to provide work incentives—the “Earned Income” part of the program) with a drastically simpler targeting system than the Bolsa Familia Cadastro Único, which has geographical components to target specific regions (and sub-regions within municipalities) as well as targeting individual families based on interviews.⁶¹ Despite this drastically lower overhead, the measurable outcomes of Bolsa Familia have been drastically improved over the outcomes from the four specific programs it replaced.⁶²

3.5.5 Omitted Basic Income Considerations

In reviewing the literature surrounding basic income and cash transfers, I found several concepts which are important but beyond the scope of this model. The first and most significant of these is inflation, especially inflation of day-to-day goods, which could potentially wipe out the progressiveness of the program entirely by resetting the “zero point” of what people are able to pay for basic goods. Iran is the best example to turn to, because it is the only unconditional transfer on the list—wealthy families receive just as much as poorer ones—a system intended to replace a series of energy and bread subsidies (about 21%) which unsurprisingly proved to

X. The first step of data collection and family registration is decentralized to the municipal level; it is unclear from the budget whether or not this cost is included in the administrative data collection costs used to determine the 2.6% overhead number (though the next three steps of enrollment and selection are definitely included in that cost).

be regressive. Initially, the program was extremely successful, reducing inequality of income distribution by 20% and poverty head count ratio by 50%.⁶³ However, a later paper^{XI} (Also written by Ali Enami and Nora Lustig) estimates that over the first five years, a 136.5% increase in prices reduced the real value of the transfer by half.⁶⁴ These authors provide a compelling argument for targeting the Iranian transfer program instead of making it universal, which would reduce the effects of inflation.

However, the funding source for the Iranian program comes from natural resource extraction—the same money used to subsidize energy originally. As a result, the inflation effects could be drastically different from a program funded entirely by taxpayers because it is a closed system. Financially speaking, a universal basic income with a tax take-back mechanism is mathematically the same as targeting the transfer to a specific portion of the population based on income, so the anti-inflationary effect should be the same.

A potentially less important, but nonetheless interesting argument in favor of universal transfers comes from classical-liberal libertarianism. That is, for those who value smaller government with lower intrusion into daily life and personal situations, a universal basic income might be a preferable solution for a necessary baseline of redistribution. The obvious component of this argument stems from the reduction in government bureaucracy in general, but another part is that a universal transfer would drastically reduce government intrusion and data collection because there is no longer any need to differentiate between the “deserving and undeserving poor.”⁶⁵ Not only does this reduce record keeping and citizen tracking, the universality of the system also eliminates the possibility of gaming or manipulation. If everyone gets the same slice of the pie, there is no way to alter your lifestyle or records to try to extract rents from the system.⁶⁶

4 Conclusion

When designing welfare programs, it is tempting to get too caught up in creating systems to shape transfers for maximum targeted effectiveness. However, it is important for lawmakers to realize that each of those systems is expensive, and therefore diminishes the monetary value transferred to recipients. It feels logical that a transfer program intended to help people get food should have a mechanism to restrict benefits to food, but if the cost of that restriction is larger than the amount of the transfer which the recipient would voluntarily spend on non-food items, the restriction is actually decreasing the amount of food benefits received and the program is falling short of its stated goals.

There has been extensive research and analysis of how people choose to spend unrestricted transfers, and the empirical conclusion is that lawmakers tend to overestimate the risks of an unrestricted transfer program—or even ignore evidence outright. In some cases, unrestricted programs have been replaced by more restricted, more targeted programs despite demonstrably worse outcomes for recipients per dollar spent just because the fear of misspent welfare and over-reliance on the system became a political hot-button issue.

The research presented above demonstrates that people do not drop out of the workforce, even when given a significant transfer, and they do not waste transfer money on things like alcohol and tobacco—instead they put it towards food, healthcare, and their children. A basic income, therefore, funded through a restructured income tax, would use these natural behaviors to reduce the taxpayer cost of programs while improving outcomes for welfare recipients.

Further research is needed to determine exactly what level of targeting is most cost-effective, but restrictions (in-kind goods, voucher programs) appear to be almost always a waste of taxpayer money in general welfare programs.

XI. “Fiscal policy, inequality, and poverty in Iran” was published after “The Wrecking Force of Inflation,” but the Fiscal Policy paper was written and submitted before the inflation brief was published.

Notes

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