Basic Income versus Other Transfer Systems

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Introduction

Public discourse about basic income has been rising around the world. Although discussions about systems related to basic income have existed for centuries, few large-scale programs have been implemented. Instead, much of the existing academic literature focuses on developing the underlying theories around basic income and analyzing the results of small programs and trials.

Source: Vox Research

Figure 1. Map of basic income trials (Samuel, 2020).

The idea of a universal basic income has gained a lot of popularity in the United States in the past few years, especially following the proposal of a "Freedom Dividend" from political candidate Andrew Yang in the U.S. 2020 presidential primaries. This recent attention has helped to shed light on the need for further research on the effects of basic income. A basic income, also known as an unconditional basic income or universal basic income (UBI), refers to a series of proposals designed to give money to everyone in a community. Although proposed parameters

vary, most universal basic income models have a few common characteristics. First, there are no means tests. This means that people do not have to earn below a certain income level or prove their neediness to receive the benefits. Additionally, with a UBI, everyone receives the same amount of money — millionaires will receive the same benefit as those in poverty. Next, there are no work requirements — people do not need to be employed to receive benefits. Furthermore, a basic income is paid regularly, rather than one time. Additionally, a basic income is given to individuals rather than households.

Unconditional basic income has been discussed as a mechanism to address a variety of issues, such as alleviating poverty, helping workers displaced by automation, reducing income inequality and wage stagnation, and replacing less-efficient welfare programs. Calsamiglia and Flamand point out that replacing existing systems with a universal transfer would lead to lower benefit provision costs and help to address the non-take-up issue that exists in most programs (2019). Strict eligibility requirements and stigma surrounding receiving public benefits lead to high rates of exclusion of targeted individuals in many existing transfer programs. Additionally, many existing social benefit programs are thought to create welfare traps, in which the withdrawal of means-tested benefits causes there to be no significant incentive to work low-paying jobs. Overall, universal basic income is framed as a potential solution to many societal ailments, and the effectiveness of a UBI largely depends on the intentions behind it.

In this paper, I will give an overview of the literature on basic income, compare it to other transfer systems, and address some of the biggest questions. Additionally, I will discuss some of the recent basic income trials taking place around the world.

Review of the Literature

Universal basic income is often proposed as a replacement for some or all existing transfer programs. Existing programs often have challenges supporting those in need, but a universal program would be able to impact everyone. Additionally, many existing transfer programs are not targeted at low-income individuals. The existing transfers to the top and bottom quintiles of households in OECD countries can be seen in Figure 2.
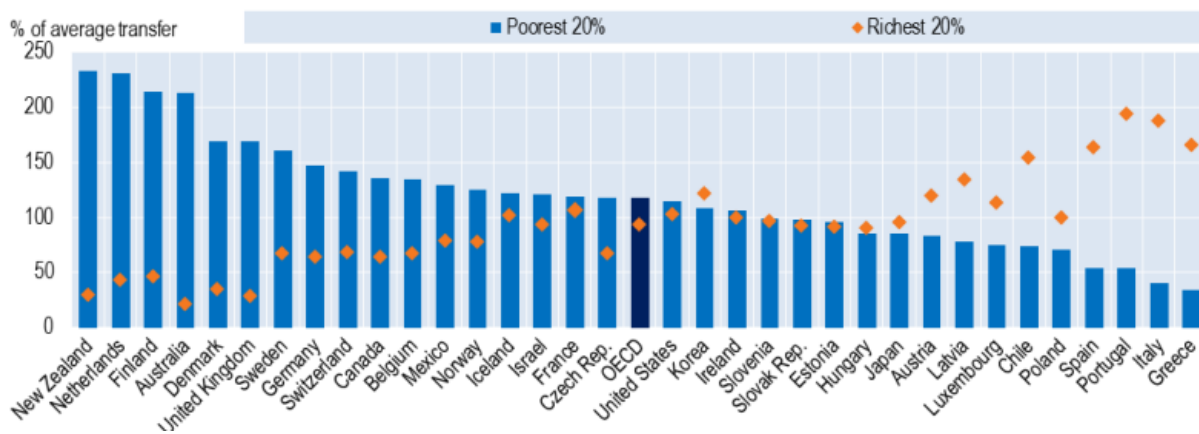

Figure 2. Transfers received by working-age individuals in low and high-income groups (Immervoll, 2017).

Replacing spending on existing benefits with a universal basic income could end up hurting disadvantaged groups and increasing rates of poverty in many countries. In *Basic Income as a Policy Option: Can it Add Up?*, Immervoll shows that a meaningful unconditional payment to everyone would require reducing spending on current transfer programs and increasing taxes (2017). Furthermore, they show that current, non-elderly benefit spending given out as a basic income would be far below the poverty line in all OECD countries. The poverty line in OECD is calculated as 50% of the median income for a given country. In the United States, the poverty threshold for an individual is $13,171 a year (Shrider, Kollar, Chen, & Semega, 2021). Using the

existing budget, low-income individuals that were already receiving benefits would likely

receive far less assistance under a shift to UBI. In many countries, such as France and the United

Kingdom, the author projects that poverty rates would increase under the UBI program
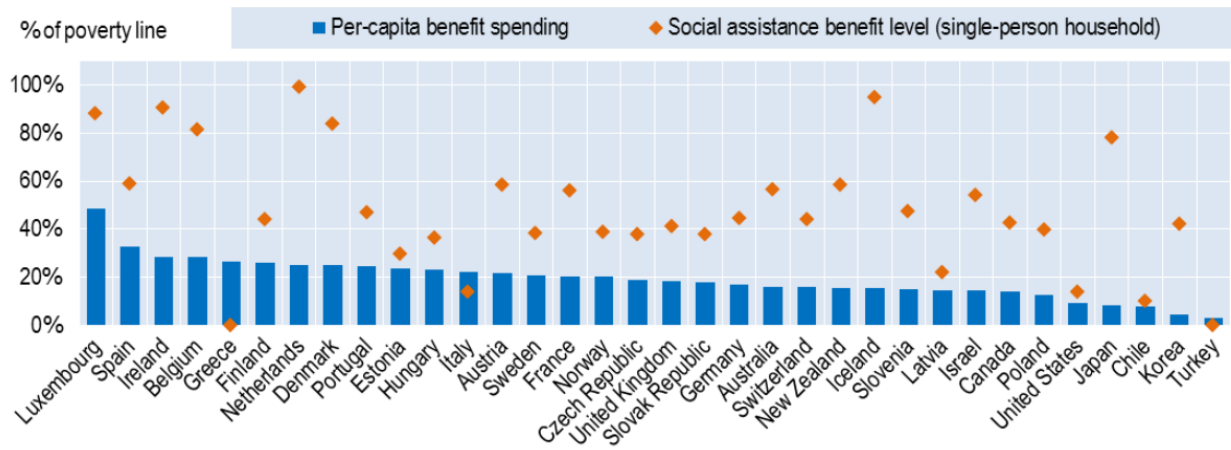
(Immervoll, 2017).

Figure 3. Non-elderly benefit spending per capita and GMI level as a percentage of poverty line

(Immervoll, 2017).

In the United States, there are many different transfer programs that target specific groups

of people. There are cash welfare programs, in-kind benefits, in-work tax credits, public health

insurance programs, disability programs, and social insurance programs. SNAP, Social Security,

and Medicare are some of the more well-known names. In *Universal Basic Income in the United

States and Advanced Countries*, Hoynes and Rothstein compared existing benefit programs to a

hypothetical $12,000 a year UBI (2019). A basic income for every adult citizen would cost over

$3 trillion a year, more than the cost of all existing transfer programs combined. Thus, even if all

existing programs were cut, funding a basic income of this size would require a considerable

increase in revenue. Hoynes and Rothstein find that replacing existing antipoverty programs with

a UBI would lead to a much smaller proportion of the money going to low-income, elderly, and

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disabled individuals (2019). Additionally, less money would go to households with children

compared to the current system. Overall, the researchers find that shifting spending to this

hypothetical UBI would be "highly regressive unless substantial additional funds were put in"

(2019). However, empirical evidence for the long-run effects is yet to be seen since a UBI large

enough to live on has never been implemented on a large scale or in a pilot program in any

advanced country.

Program	Eligibility (E)	Total expenditures (billions)	Number of recipients (millions)
Cash welfare			
TANF	Single parent, work requirements	$7.4	2.8
SSI/elderly	Ages 65+	$5.4	1.2
SSI/children	Under age 18, blind or disabled	$9.3	1.2
In-kind, near-cash welfare			
SNAP	Near universal	$63.6	42.1
School lunch	K–12 children	$12.3	22.0
School breakfast	K–12 children	$4.5	12.5
WIC	Pregnant and postnatal women and children <5	$5.6	7.3
Section 8 and public housing	Universal, but rationed	$26.9	9.4
In-work tax credits			
EITC	Earners, ages 25–64 or with children	$69.8	69.7
CTC	Families with children with earned income	$52.8	105.9
Disability programs			
SSDI	Documented work limiting disability	$142.7	10.4
SSI/disability	Documented work limiting disability	$39.6	5.9
Social insurance			
Social Security retirement	Retirement age, with work history	$680.2	45.5
Social Security survivors	Survivors of deceased with work history	$118.3	6.0
Unemployment insurance	Work history, actively looking for work	$29.9	5.7
Health insurance			
Medicare	Ages 65+ or disabled	$689	57.0
Medicaid	Low income	$368	82.2
CHIP	Children	$14.3	9.2
Total cost			
All programs		$2,340	
All programs, excluding health		$1,268	
All programs, excluding health and Social Security retirement		$588	
Potential UBIs			
Canonical	Ages 18+	$3,025	252.1
Phased out around median income	Ages 18+	$1,512	126.0
Age limited	Ages 18–64	$2,414	201.2

Figure 4. Number of recipients and total expenditures for UBI and select transfer programs in the United States (Hoynes & Rothstein, 2019).

In developing countries, many people do not earn their incomes from large companies or through formal employment. Therefore, incomes, especially for poor individuals, go largely unobserved by the government. This can make it very hard to identify which individuals should qualify for targeted programs. Transfer programs in developing countries sometimes target low-income individuals using proxies for income, such as asset ownership. Unfortunately, this method can lead to high exclusion and inclusion errors. A universal basic income financed through proportional or progressive taxes could address the exclusion errors and potentially redistribute a substantial amount to the poor. In *Universal Basic Incomes versus Targeted Transfers: Anti-Poverty Programs in Developing Countries*, the authors considered the case for a basic income in Indonesia and Peru. They noted that around 87.5% and 79% of incomes fall below the tax exclusion thresholds in Indonesia and Peru, respectively (Hanna & Olken, 2018). Therefore, a universal transfer would deliver the same net transfer very high up on the income distribution. Thus, the authors found that existing targeted transfers deliver far more on a per-beneficiary basis (2018). They concluded that, although many people are incorrectly excluded, existing programs offer substantial improvements in welfare compared to universal transfers.
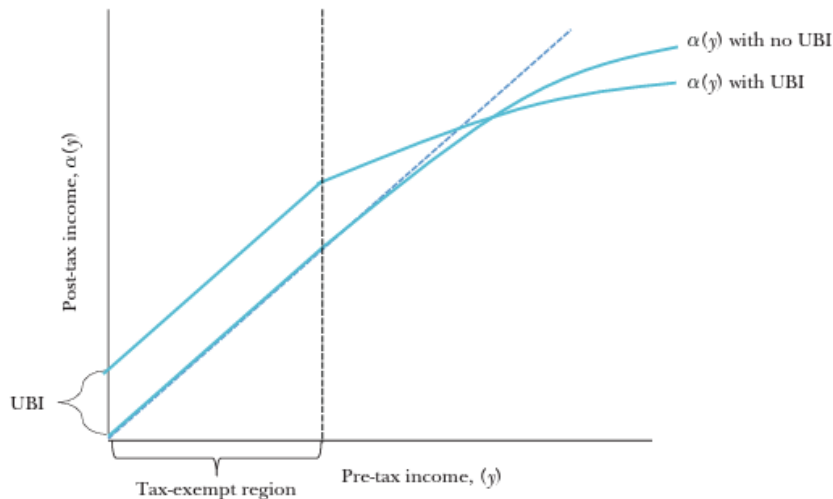
Figure 5. Post-tax income schedules with and without a universal basic income, with a tax-exempt region (Hanna & Olken, 2018).

One of the major concerns surrounding the implementation of a universal basic income program is that it will lead to a large reduction in the general labor supply. An article from De Paz-Báñez and Asensio-Coto reviewed several studies and empirical cases on the relationship between UBI policies and the labor market. They found no empirical evidence that a universal basic income reduces the general labor supply, and in most instances, they saw the opposite effect (2020). However, the authors did find reduced labor supply for some groups and sectors of the economy. They found that, in some cases, a basic income led to reductions in the labor supply from elderly individuals and those with disabilities. Importantly, UBI programs also led to lower rates of child labor. Moreover, in most cases of reduced labor supply, they attributed it to additional time spent on training or care.

Although the long-term effects of a large-scale UBI program have yet to be seen, some small programs can offer meaningful insights. Since 1982, all Alaskans of any age that have resided in the state for at least one year are entitled to an annual payment between $1,000 and

$2,000 (Jones & Marinescu, 2018). Figure 6 shows the amount of the dividend per year since

1982. In 2021, the dividend payment was $1,114 (State of Alaska, 2022). The Alaska Permanent

Fund was created as a response to a large increase in revenue from oil sales in the 1970s. The

fund is invested in a mix of private and public assets, and a fraction of the returns are paid out to

citizens. Therefore, the size of the dividend is mostly independent of fluctuations in the oil

market. In *The Labor Market Impacts of Universal and Permanent Cash Transfers: Evidence*

from the Alaska Permanent Fund, the authors used a difference-in-difference design to test the

effects of the dividend (Jones & Marinescu, 2018). The researchers used a weighted average of

control states that matched on observable characteristics as the counterfactual, because the

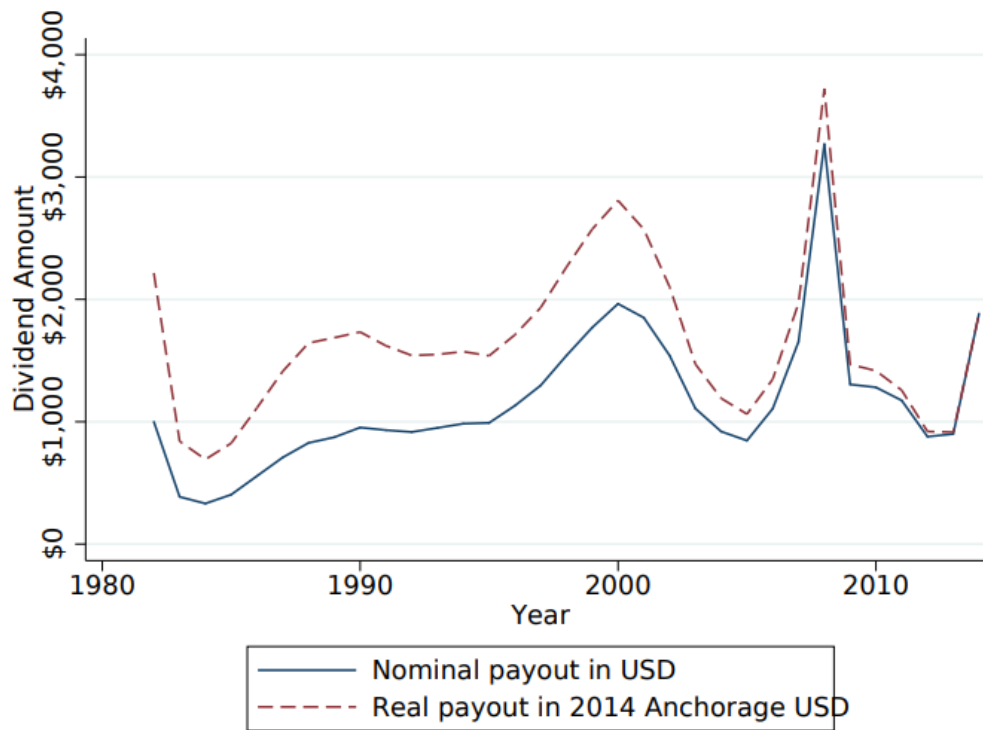dividend was given to everyone in Alaska.

Figure 6. Alaska Permanent Dividend payment from 1982 to 2014 (Jones & Marinescu, 2018).

Prior research suggests that the dividend should reduce employment due to the income effect. However, the authors expected the spending of the dividend to offset most of the decrease in employment. Jones and Marinescu found a 1.8% increase in the share of people employed part-time but found no significant effect of the dividend on the employment rate (2018). The actual and synthetic employment rates over time can be seen in Figure 7. To summarize, their results suggest that a small, unconditional cash transfer does not significantly decrease aggregate employment.
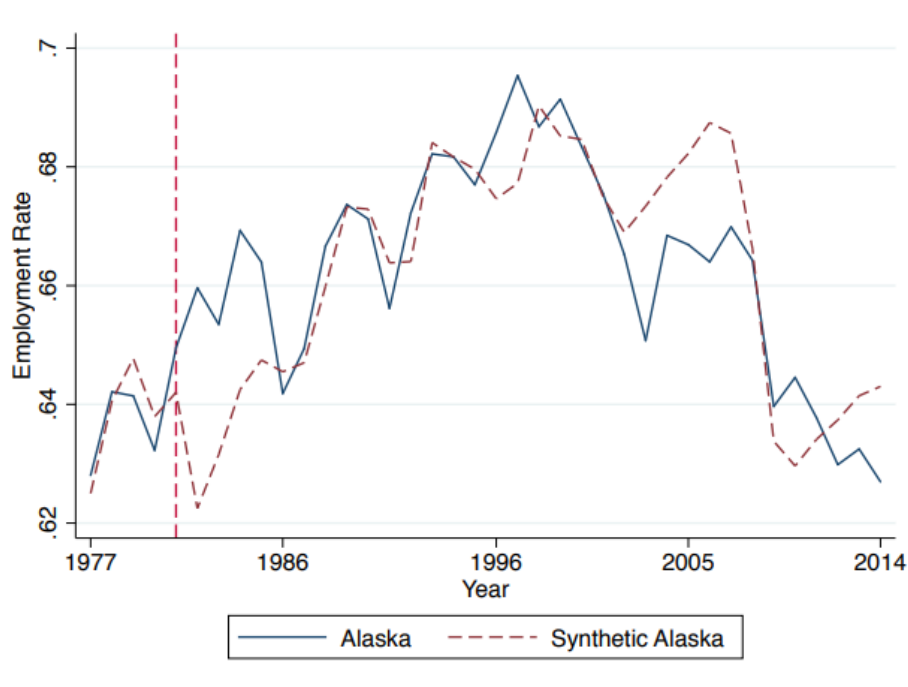

Figure 7. Actual versus synthetic employment rate in Alaska from 1977 to 2014 (Jones & Marinescu, 2018).

A two-year study from Finland looked at the effects of replacing minimum unemployment benefits with a basic income of equal size (around $631) for 2,000 individuals. The study was designed as a randomized field experiment and participation was mandatory (Verho, Hämäläinen, & Kanninen, 2022). Existing programs are often criticized for creating

welfare traps, so researchers were interested in exploring whether switching to a UBI system

would affect employment outcomes. In *Removing Welfare Traps: Employment Responses in the*

Finnish Basic Income Experiment, the researchers hypothesized that the UBI would increase

employment. The authors found that the switch to a basic income had little impact on

employment (2022). Figure 8 shows the employment rates for each group over the span of the
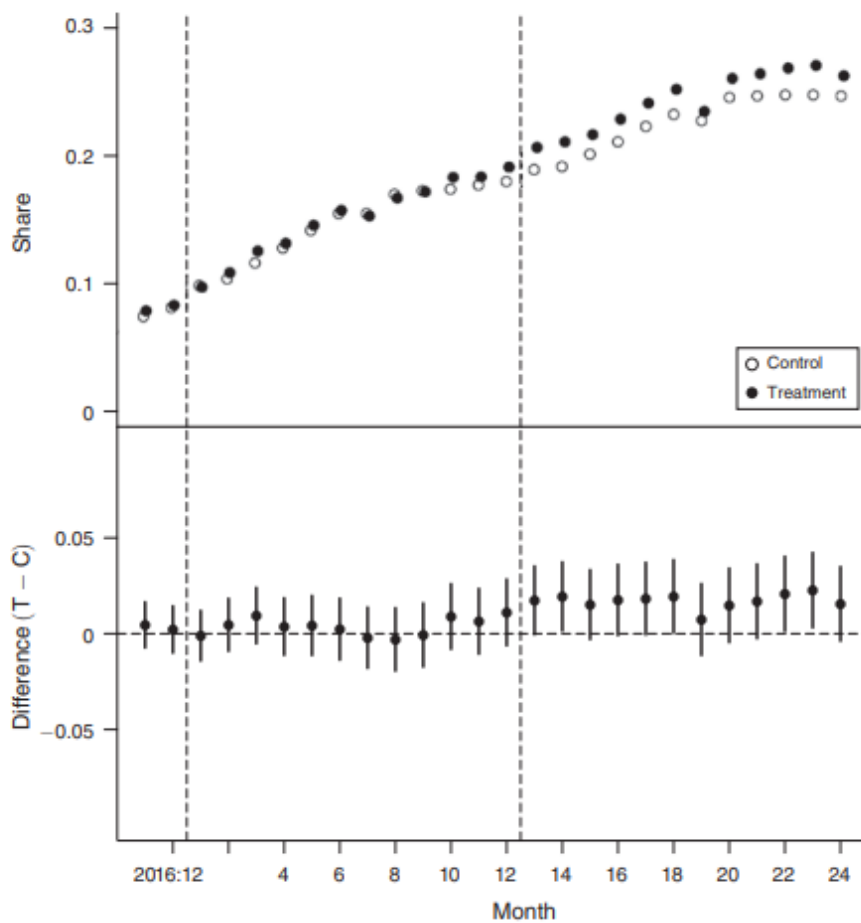
trial.

Figure 8. Employment in the control and treatment groups by month (Verho, Hämäläinen, &

Kanninen, 2022).

In the Finnish study, researchers also compared participants' self-perceived assessments of their health and well-being. Recipients of the basic income reported experiencing fewer health problems, having an increased ability to focus, and having more confidence in their own futures and financial situations compared to the control group (Kangas, Jauhiainen, Simanainen, & Ylikännö, 2019). Figure 9 shows the results of self-perceived measures of confidence in one's own future, financial situation, and ability to influence societal matters. These results suggest that a basic income may have important social effects for low-income individuals. Using more direct measures of health and well-being would make it easier to determine the true social effects of the basic income.

	Confidence in one's own future (%)		Confidence in one's own financial situation (%)		Ability to influence societal matters (%)	
	Test	Control	Test	Control	Test	Control
Poor	6.8	9.8	13.0	19.4	16.0	25.1
Rather poor	7.8	13.2	11.8	16.8	19.5	22.6
Moderate	25.8	30.1	32.4	32.4	31.1	26.5
Quite strong	34.8	30.0	26.3	19.4	17.1	15.5
Strong	23.4	16.2	15.9	10.9	11.8	7.1
Cannot say	1.4	0.7	0.7	1.1	4.6	3.2
χ^2	<.0001		<.0001		<.0001	

Figure 9. Self-perceived estimate of change in level of confidence in one's own future, financial situation, and ability to influence societal matters (Kangas, Jauhiainen, Simanainen, & Ylikännö, 2019).

Negative income tax and universal basic income are often discussed in the same sphere. A negative income tax (NIT) is a system in which taxpayers with income below a specified

threshold receive cash from the government. The benefits are gradually withdrawn as earned

income rises. The idea was proposed by Milton and Rose Friedman in their 1962 book,

Capitalism and Freedom. With a negative income tax, the government would give people a

percentage of the difference between their income and a specified cutoff. For example, if an

individual was earning $10,000 a year, the income threshold was $20,000, and the negative

income tax percentage was 50%, they would receive a $5,000 transfer from the government. NIT

and UBI have several similarities. Both systems are designed to address poverty and income

inequality. In addition, both systems transfer cash rather than in-kind benefits. Furthermore,

neither system has a work requirement. There are, however, important distinctions between the

two systems. First, a negative income tax is effectively means-tested. Households with income

above the set threshold do not receive the benefits. For this reason, with all else equal, low-

income individuals could generally see a much larger transfer than they would under a UBI

system. Furthermore, the benefits phase out as income rises.

In *The Negative Income Tax and the Evolution of U.S. Welfare Policy*, Moffitt compares

a negative income tax to a hypothetical welfare program with a 100% negative income tax rate.

Like a UBI, a negative income tax could lessen the complexity of the welfare state and lower

administrative costs if it replaced existing targeted benefit programs. Additionally, under both

systems, benefits are provided in the form of cash, the "best form of support from the point of

view of the recipient" (Moffitt, 2003). Moreover, an NIT could help to lessen the stigma around

antipoverty programs, partly because the benefits would be given like tax refunds.

In Figure 10, line ADD'F shows how a worker's income rises with increased work hours,

and line CD shows the constraint from the welfare program with a 100% negative tax rate. A

rational, utility-maximizing consumer would not choose to work any number of hours along line

CD under the negative 100% system. They would either choose to point C or some point along the segment DD'F. Under the NIT with less than 100% tax rate, the worker may choose point E. This shows that an NIT can theoretically have less labor-reducing effects compared to other antipoverty programs.
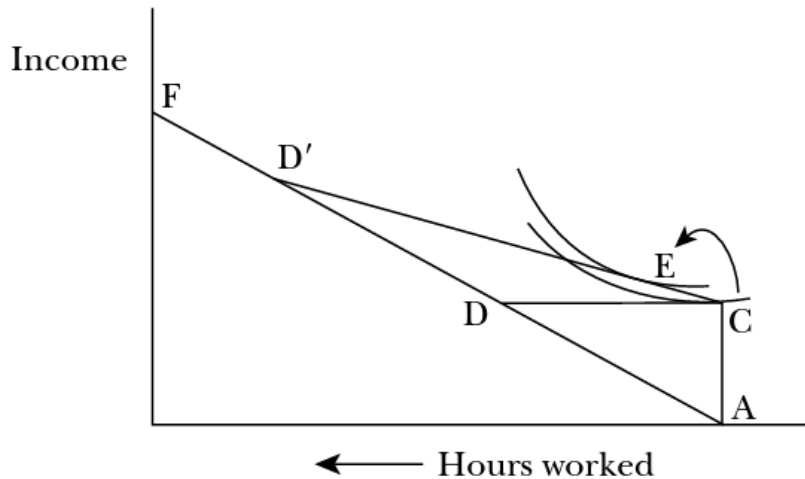

Figure 10. An income leisure diagram illustrating the effects of a negative income tax (Moffitt, 2003).

Summary of Results

A review of the literature on basic income shows mixed effects. Studies show that a budget-neutral basic income in most advanced countries would require abolishing most existing benefits and would have to be far below the poverty line. Looking at the effects in the United States, a modest UBI of $12,000 annually for all adults would cost over $3 trillion a year, more than the cost of all existing transfer programs combined. Replacing all existing transfer programs in the U.S. with this hypothetical UBI would cause a smaller proportion of benefits to land in the hands of elderly people, those with disabilities, and families with children. Research on

developing countries also showed that, compared to a UBI, existing targeting methods offer substantial improvements in welfare for low-income people, because far more money can be received per beneficiary. A review of studies on labor force effects found no evidence that universal basic income programs cause a decrease in aggregate labor supply. Additionally, the Finnish basic income experiment showed that offering a UBI, rather than benefits with eligibility requirements, led to no statistically significant differences in employment, but led to a significant increase in well-being on a variety of self-perceived measures. Moreover, UBI recipients reported feeling more trusting toward politicians, the legal system, and other people compared to the control group.

Conclusion

Economists have started to explore the potential costs and benefits of a universal basic income in developing and advanced countries. Replacing existing programs with a UBI would help more people receive benefits and simplify the welfare system in many countries. However, research suggests that this change would generally lead to worse outcomes for lower-income individuals. In most countries, a UBI that was effective as an antipoverty tool would require considerable changes to the tax system. Future research should compare the effects of a universal basic income to other systems, such as a negative income tax or earned-income tax credit. Additionally, more research is needed to see the long-run effects of a universal basic income on labor supply, poverty, and income inequality.

References

Calsamiglia, C., & Flamand, S. (2019). A review on basic income: A radical proposal for a free society and a sane economy by Philippe Van Parijs and Yannick Vanderborght. *Journal of Economic Literature*, 57(3), 644-58.

De Paz-Báñez, M. A., Asensio-Coto, M. J., Sánchez-López, C., & Aceytuno, M. T. (2020). Is there empirical evidence on how the implementation of a universal basic income (UBI) affects labour supply? A systematic review. *Sustainability*, 12(22), 9459.

Immervoll, H. (2017, June). Basic Income as a policy option: Can it add up? In *Workshop on the Future of Social Protection*, 12.

Hanna, R., & Olken, B. A. (2018). Universal basic incomes versus targeted transfers: Anti-poverty programs in developing countries. *Journal of Economic Perspectives*, 32(4), 201-26.

Hoynes, H., & Rothstein, J. (2019). Universal Basic Income in the United States and Advanced Countries. *Annual Review of Economics*, 11(1), 929–958. https://doi.org/10.1146/annurev-economics-080218-030237

Jones, D., & Marinescu, I. (2018). *The labor market impacts of universal and permanent cash transfers: Evidence from the Alaska Permanent Fund* (No. w24312). National Bureau of Economic Research.

Kangas, O., Jauhiainen, S., Simanainen, M., & Ylikännö, M. (2019). The basic income experiment 2017–2018 in Finland: Preliminary results. *Reports and Memorandums of the Ministry of Social Affairs and Health*, 2019:9.

Moffitt, R. A. (2003). The negative income tax and the evolution of US welfare policy. *Journal of Economic Perspectives*, 17(3), 119-140.

Samuel, S. (2020, February 19). Everywhere basic income has been tried, in one map. Vox.

    Retrieved April 1, 2022, from https://www.vox.com/future-

    perfect/2020/2/19/21112570/universal-basic-income-ubi-map

Shrider, E. A., Kollar, M., Chen, F., & Semega, J. (2021). *Income and poverty in the United*

    States: 2020. Current Population Reports. US Census Bureau.

State of Alaska. (n.d.). *Permanent Dividend Fund*. Retrieved April 8, 2022, from

    https://pfd.alaska.gov/

Verho, J., Hämäläinen, K., & Kanninen, O. (2022). Removing welfare traps: Employment

    responses in the Finnish basic income experiment. *American Economic Journal:*

    Economic Policy, 14(1), 501-22.