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# According to Needs and Abilities, Universal Basic Income Requires Universal Basic Infrastructure

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## **Abstract**

This paper considers Universal Basic Income (UBI) as a method for establishing a good society that fulfils the needs of all its members without coercion. It starts with a brief description of UBI and of the good society it aims to create. Various models of basic human needs are considered. Next, we consider non-human and human resources available to create a good society and how they are or might be distributed. This leads to consideration of the types of infrastructure that might be available and how they impact on the level of UBI. An example of how health infrastructure contributes to life expectancy and excess deaths during the covid19 pandemic is included. Some current examples of UBI are discussed together with an evaluation of their efficacy. Measurement is clearly key to evaluation and available and desirable measures are described with special attention to the “Our World in Data” web site. The pros and cons of UBI are discussed. Finally, we conclude that UBI is a useful radical starting point, but that serious progress requires consideration of generations of resources and of allocation of those resources between universal infrastructure and universal individual basic income.

**Keywords.** Universal Basic Income, human needs, abilities, infrastructure, Sustainable Development Goals, good society, national service..

## **Introduction**

Universal Basic Income (UBI) has been suggested as a mechanism to enable a ‘good society’, i.e., fairly ensure that every member of that good society has their basic needs satisfied without coercion of any kind. BIEN<sup>3</sup> supplies a good introduction. It includes basic definitions and history starting with renaissance work of Thomas More and spanning 18th and 19th century social reformers in Europe and North America and several 20thcentruy movements.

### Definitions

There are several organisations recommending UBI, with slightly different definitions. The Basic Income Earth network<sup>4</sup> is one of the best. A Basic Income is a periodic cash payment unconditionally delivered to all on an individual basis, without means-test or work requirement. There are 5 characteristics:

1. **Periodic** Paid at regular intervals (e.g., every month), not a one-off grant.
2. **Cash payment** Paid in an appropriate medium of exchange, allowing those who receive it to decide what they spend it on. It is not, therefore, paid either in-kind (such as food or services) or in vouchers dedicated to a specific use.
3. **Individual** Paid on an individual basis—and not, for instance, to households.
4. **Universal** PAID to all, without means test.
5. **Unconditional** Paid without a requirement to work or to demonstrate willingness-to-work.

It is argued that Universal Basic Income as a mechanism to achieve a good society is meaningless if a society's basic infrastructure is not also included. For example, the UBI required to ensure basic wellbeing will be different for societies with universal health care, like the UK's National Health Service (NHS), than for societies without basic health care like the USA and different again for the many societies (e.g., in EU) that have a National Insurance system, but may require some contribution from patients. Current UBI versions appear to combine egalitarianism (typically 'left') with individualistic libertarianism (typically 'right').

### The 'Good' Society

A major criterion of a good society is the satisfaction of basic human needs as variously defined by psychology and/or philosophy. This requires the generation and distribution of both material and human resources/abilities. Progress can only be evaluated if there are good measurement tools for both needs and resources.

### Basic Human Needs

Influential early work includes Maslow's Hierarchy of Needs, which, contrary to common experience, views needs as a hierarchy. Nussbaum (Nussbaum, 2000) has a more thoughtful view. She describes 10 Core

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Capabilities for well-being to establish a set of human needs that include a right to dignity, allowing all individuals to have the freedom and opportunity to choose the life that they want for themselves. She focusses on making good use of all peoples' abilities. Here are her 10 core capabilities<sup>5</sup> (slightly abridged):

- **Life:** Referring to life expectancy, this allows an individual to live a human life of normal length, not ending prematurely or becoming unlivable.
- **Bodily Health:** Critical to child and maternal mortality and cancer, this ensures good health, including reproductive health, adequate nourishment, and shelter.
- **Bodily Integrity:** Referencing human rights, this allows free movement from one place to another, security against violence, including sexual assault and domestic violence, and sexual satisfaction and reproductive choice.
- **Senses, Imagination, and Thought:** Based on the provision of an adequate education, this promotes an individual's use of their senses, to imagine, to think, and to reason in a "truly human" way, informed and nurtured by adequate education including a minimum of literacy, basic mathematics, and scientific training. This includes the use of imagination and thought based on choice for religious, literary, and musical purposes, etc. It ensures freedom of expression and political, religious, and artistic expression, via both speech and action. It includes pleasurable experiences and the avoidance of nonbeneficial pain.
- **Emotions:** Crucial to democracy, these allow individuals to develop attachments to things and people and to love those who love or care for them and grieve in their absence. It protects the abilities to love, grieve, experience longing, gratitude, and justified anger. It promotes emotional development free from fear and anxiety, supporting critical forms of human association.
- **Practical Reason:** Fundamental to human rights and democracies, this encourages individuals to form a conception of good and evil and critically reflect on life planning. It includes protection of liberty of conscience and religious observance.
- **Affiliation:** This upholds an individual's ability to love with and toward others, and to recognise, show concern, and imagine other's situations. By engaging in social interaction, it protects the freedom of assembly and political speech. It includes self-respect and non-humiliation and being treated with dignity as one whose worth is equal to others. It extends to non-discrimination by race, sex, sexual orientation, ethnicity, caste, religion, nation, or species.

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- **Other Species:** This capability promotes living with concern for other species, including animals, plants, and the natural world.
  - **Play:** This capability encourages being able to laugh, to play, and to enjoy recreational activities.
  - **Control Over One's Environment:** Regarding the political environment, this capability protects the right of political participation with the protection of free speech and association. For the material environment, this capability allows for individuals to hold property rights on an equal basis with others and to seek employment on an equal basis with others. It also includes the freedom from unwanted search and seizure and the ability to work while exercising practical reason, while maintaining meaningful relationships with other workers.

### **Sustainable Development Goals<sup>6</sup>**

Another classification of general human needs includes those outlined by the Sustainable Development Goal team. Established by the UN in 2015 after the Millennium Development Goals elapsed, the SDGs were expanded to include 17 goals, broken down into targets and indicators for member states to use to achieve global development. These include:

1. No Poverty
2. Zero Hunger
3. Good Health and Well-being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry Innovation and Infrastructure
10. Reduced Inequality
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life Below Water
15. Life On Land
16. Peace Justice and Strong Institutions
17. Partnerships for the Goals

These goals are monitored, so progress can be compared with resources per capita (e.g., GDP) and commitment to infrastructure.

**Special needs**

We all need food and shelter. Most of us will need spectacles at some time, a few need wheelchairs. Are these special needs to be paid for from a UBI?

**Darker side of human motivation and needs**

Both Nussbaum and the SDGs, and indeed most needs discussions we found, ignore motivation from darker human desires. What about the desire to 'keep up with' or even 'supersede' the Joneses? Or the need for status, power, or dominance? UBI disregards such motivations at its peril; Attaining the good society needs to consider dark desires as well basic needs.

**Advantages of Basic Infrastructure**

There is a massive amount of data available relevant to satisfying human needs. Here as an example of benefits of basic infrastructure we look at health outcomes, specifically excess deaths since the Covid19 pandemic. How are these deaths related to public and private spending on health & more specifically numbers of health professionals per capita.

**Resources****Material resources**

On-going resources include food that can be gathered, hunted, harvested, or farmed or even manufactured, and materials that can be gathered, mined, or recycled and objects that can be created. But much, perhaps most, of the available resources are in the form of stored wealth: buildings and artefacts. Governments have access to such resources via taxation as well as accumulated wealth.

Another major source of resources is borrowing. State or private debt - either way, the richer you are the more you can borrow. Modern monetary theory argues that countries that use a fiat currency are monopoly issuers of the currency. Because of this, they do not need to rely on taxation revenue or be concerned about growing national debt because they have the possibility of printing more of their currency to be able to increase federal government spending and hence provide public services without fear of inflation. Obviously, this is controversial.

**State distribution and redistribution of resources**

Current state wealth redistribution is mainly done via the taxation system, local, national, or international. VAT, for example, is a national tax which all pay, but is percentage-based and hence is a greater burden on those who are poor. Income is similarly taxed nationally, a system that likely favours unearned income earners whose passive income is in investments and stocks, etc. Property taxes occur at the local and national level, where richer areas retain a higher disposable amount given that their property tax rates are usually much lower than poorer neighbourhoods. Asset revenue is taxed nationally, with intellectual property rights, services, and products falling into this category. Inheritance is also taxed, though the threshold and deals available can be argued to be inequitable. Businesses are taxed nationally, though local rates usually apply. Fines and penalties can also be considered taxes at the local and national level. Imports, exports, and multinational corporations are all taxed based on international rates. All of these taxes are a mechanism for the state to earn revenue and then redistribute it through public spending.

**People as a Resource**

People power is a key resource, and on depends on people's capabilities. These in turn depend on current technology (commute: 30 minutes, car, 90, public transport, or 8 hours, foot), current infrastructure (used road network), and training (passed driving test). Clearly, the wealth that can be produced depends on population demography (age, immigration & emigration) and on education. UBI will affect human resources in many ways, known and unknown.

**Infrastructure**

Infrastructure provision falls to a combination of actors: the state employees as well as the ownership or outsourcing body. Consumers may not care who owns the infrastructure, they care that it operates effectively and punctually. a point that ideologues on both the left and right need to note.

Infrastructure is of different kinds. Global infrastructure benefits everyone in a jurisdiction, e.g.: sewage, protection (army, police, criminal courts), disaster provision and reserves, environmental protection (e.g., against climate change). Infrastructure at the individual

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level is available to all. Although any given service may only be used by some, e.g.: health, education, leisure facilities, pensions, and social care. Infrastructure may be means tested, e.g., free school meals, uniforms, trips, dental- and eye-care Much infrastructure is composite. The state or private companies provides basic infrastructure and possibly subsidies, but individuals pay according to usage, e.g.: energy (gas, electricity, fuel, transport, communications). What should be blindingly obvious is:

- Level of UBI is critically dependent on what infrastructure is available for free

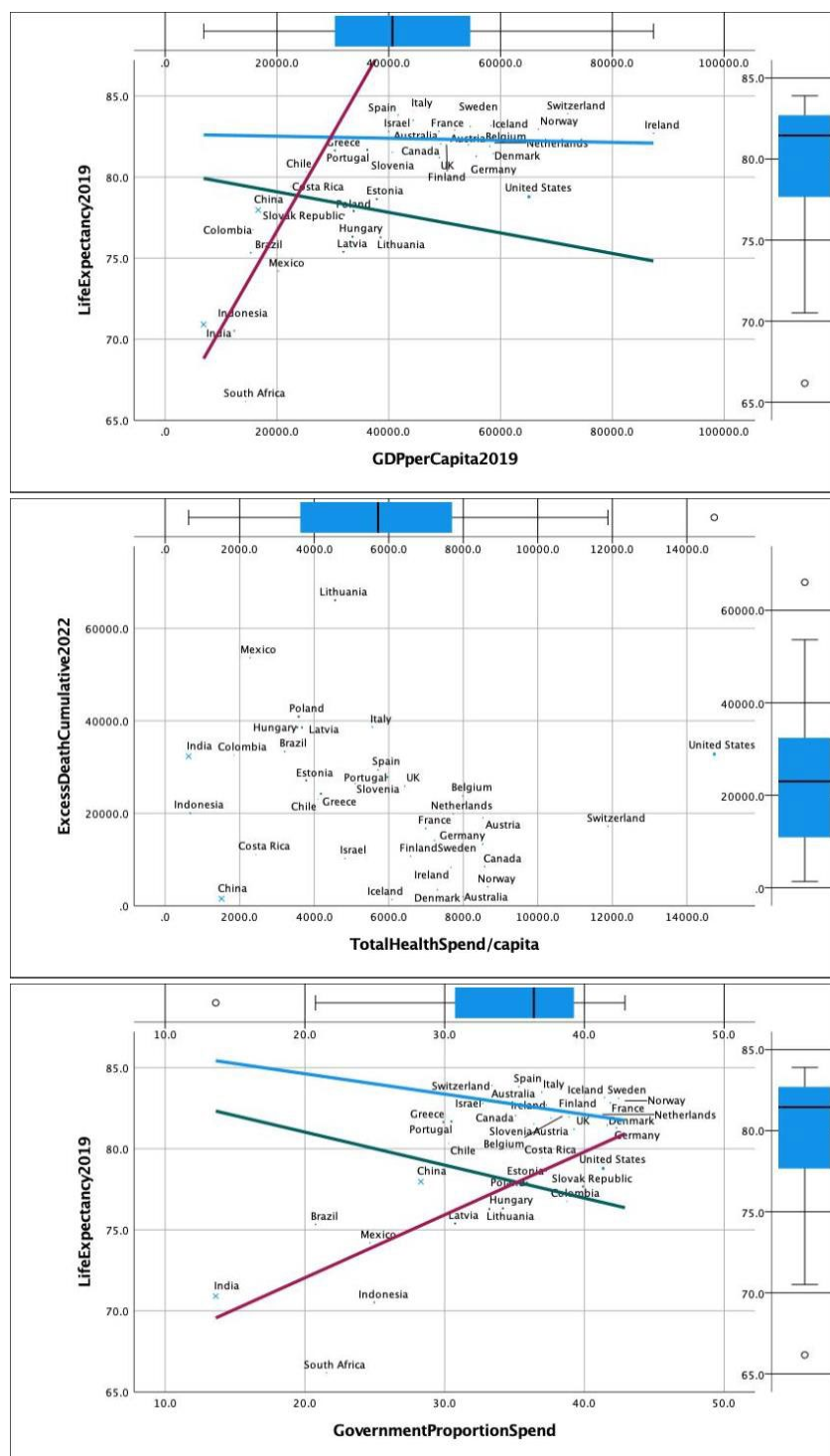
### **Health Infrastructure: an example**

1. Free at the point of delivery.
2. Available at the time of need.

The UK is unique in achieving 1 (except for eyes and teeth as originally planned by Bevin), but dire at 2. Many insurance-based system in rich countries of Europe and UK Commonwealth are good on 2 and achieve greater spend and more health professionals per capita. USA is dire on 1 and 2.

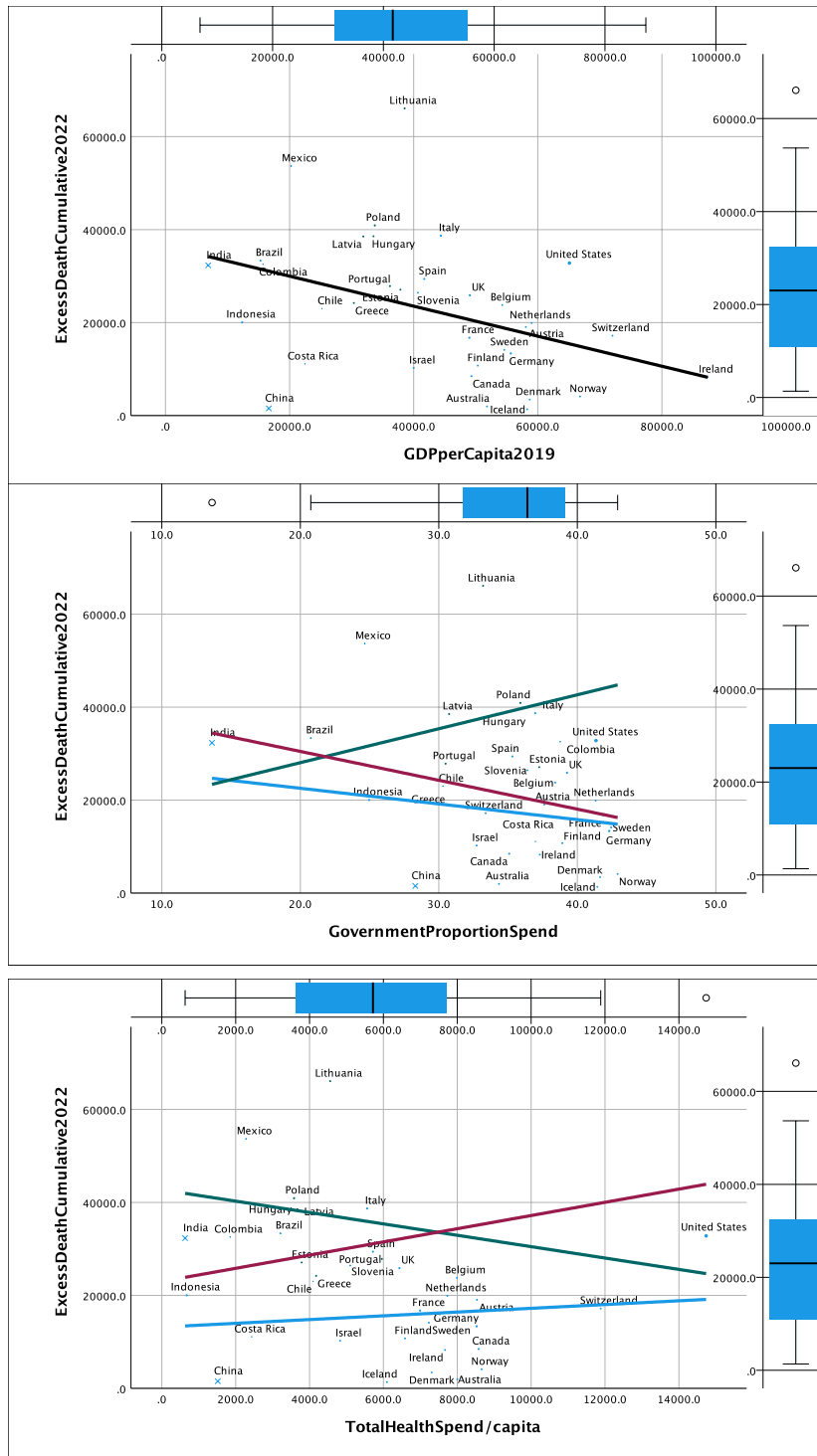
Obviously, predictors are correlated and may be different according to (crude) wealth of country. Figures 1 and 2, using data from 37 countries, enable us to see which ones over or underperform. For life expectancy (Figure1), the USA with a private health insurance system that the government reimburses has a very high total spend, with poor life expectancy and high excess pandemic deaths for a wealthy country with high total spend. The USA is not particularly low in proportion of public spend, so this does not account for poor performance, Switzerland is similar to USA. The UK performs worse than the EU generally, but not massively so. Figure 2 illustrates that only GDP affects excess deaths.

Multiple regression for life expectancy with backward selection of variables gave a moderate effect for GDP/capita effect size standardized beta = 0.45; p = 0.005; and for proportion of spend by government, effect size standardized beta = 0.38; p = 0.020. Multiple regression for cumulative excess deaths showed that only GDP/capita was reliable, standardized beta =0.40; p = 0.017.



**Figure 1.** Life expectancy as function GDP/ capita(top), proportion government spend (middle), total health spend/ capita for rich (blue), medium (green), and poor (red)countries.





**Figure 2.** Excess deaths as function GDP/ capita(top), proportion government spend (middle), total health spend/ capita for rich (blue), medium (green), and poor (red) countries.

### Examples of Basic Income

To date, trials of UBI have mainly been small scale, short-term, and dependent on windfall, see Table 1. Pilot programmes have taken place, or are currently ongoing, in the following countries: Kenya, Namibia, Canada, Brazil, Iceland, Finland, Germany, the Netherlands, Spain, Iran, India, Hong Kong, Macau, and Japan. In the USA, various states have tried UBI pilots, including Alaska, New Jersey, Pennsylvania, Iowa, North Carolina, California, and members of the East Band of Cherokee Indians.

**Table 1.** Current UBI Pilot Programmes

Location	Start	End	Amount	Source	Outcome
<a href="#">Kenya rural</a>	2016		75¢/day	Givedirectly	Economy boost
<a href="#">Namibia</a>	2008	2009	\$6.75/month	Private donor	Poverty fell, not rolled out
<a href="#">India village</a>	2011	2012	\$2.80/month	women charity	poverty fell, sanitation etc
<a href="#">Brazil Quatinga Velho</a>	2008	2014	\$8/month	Philanthropy	
<a href="#">Brazil Quatinga Marica</a>	2021		\$35/month	City, oil	Open
<a href="#">Alaska</a>	1982		\$1000+	Oil windfall	FertilityUp Political \$ decision
<a href="#">Cherokee</a>	1997		\$4000-\$6000	Casino	Education, mental health, addiction
<a href="#">Canada Manitoba</a>	1974	1979	?	?	? Political cancel
<a href="#">Canada Ontario</a>	2017		?	?	? Political cancel
<a href="#">Finland</a>	2017	2018	€560/month	government surplus	Canceled, reopen possible
<a href="#">Germany, raffle</a>	2014	2019	\$110/month	Crowd, raffle	Positive survey
<a href="#">Germany nonprofit</a>	2019	2022	\$465/month	RCTcharity 2x250	Survey
<a href="#">Germany covid</a>	2020	2023	€1200/month	RCTcharity 2x250	Survey
<a href="#">Spain Barcelona</a>	2020		€1675/month	RCT conditions >poor	unknown
<a href="#">Spain covid</a>	2020	?	€1050/month	853,999>poor	unknown
<a href="#">Netherlands Utrecht</a>	2017		€1015/month	RCT 250unconition/volunteer	
<a href="#">Iran</a>	2011		29%median	replace subs, labour same	scaled back
<a href="#">Hongkong</a>	2016	2018	\$772 1 off	government surplus	complaints
<a href="#">Macau</a>	2008		\$1128/year		too smal for effects
<a href="#">Japan</a>	2021		\$9000 1 off	millkionaire>1000twitter	survey: business↓divorce↑ happier
<a href="#">USA various</a>					

### Features of UBI Projects

The sponsors have been varied, from state governments to philanthropic organisations to research institutions and only 11 of the 20 programmes listed in Table 1 are still ongoing. A vital question to the success of any UBI programme is to determine if the cash transfer provided is enough for recipients to live on, without working – most were not. Pilots for members of the East Band of Cherokee Indians and in Kenya seem to demonstrate that while employment did not decrease, there did not seem to be a continued need to do paid work. These people mostly lived in households close-to subsistence levels, which could imply that there is a greater burden on women on the

running of these households as their unpaid work requirements did not reduce with the UBI transfer.

### **UK examples: importance of location**

Location is very important to equity within a basic income project. Consider this example of a basic income equity project at 3 different sites in the UK. The first site, Quantock, Scotland, is described as being unexciting and a long distance from the capital. The second site, Trellech, Wales, is known for its exciting tourism that provide a useful windfall. The third site is in Grimley, England, which has been struck by floods and disaster windstorms; this town is also known for its good train service infrastructure. A key question to determine the impact of each UBI project will be to see if all recipients gain the same benefit from the same cash transfer. For residents of Grimley, potential benefits could include disaster relief for the floods and may later impact their insurance and house values. In Trellech, the benefit may be seen in tourism income and house values, while in Quantock, the value may be in travel with impacts on schooling, the arts and retail consumption.

Another reason that location is important is that the housing available to an individual is determined both by what is provided by the available infrastructure and by commercial prices. Consequently, UBI value will depend critically on location.

### **Wales a new example**

A current example of a basic income project is one in Wales that offers £1,600 per month (or £19,200 per year) to 500 youth leaving care once they turn 18 years of age. This basic income is to be provided monthly for a total of 24 months, will be taxed, and can be used to pay for an individual's food, housing, clothing, leisure, internet, and travel, irrespective of their employment status. Calls for additional support to care leavers have been made and could include the provision of free apprenticeships and student loans.

### **Outcomes**

The outcomes of these UBI pilots are varied, but across the board there is no evidence of the introduction of a UBI programme leading to a decrease in employment. There is some evidence of a boost in the

economy. Other impacts can be seen in Table 1 and vary from increased fertility to increased divorce. Some pilots have been limited term with limited cash transfer in developing countries. They may not generalize to higher-class individuals in developed countries. Given the lack of access to relevant data, performing a literature review of UBI sources is incredibly challenging and not present here.

### **Measurement: requirement of data to evaluate progress, UBI or other**

Table 2 demonstrates some of the available data that might be used to determine the impact of a UBI pilot as linked to the SDGs.

**Table 2.** Predictors of progress towards Sustainable Development Goals

Predictors 1	Predictors 2	SDG	Outcomes 1	SDG	Outcomes 2
Population	State Procurement	1	Life Expectancy	5	Land ownership
GDP	GDP% tax	2	Zero Hunger	5	Mobile ownership
Health/capita	Health GDP%	1	Infant Mortality	5	Female domestic hours
Physician/capita	Education GDP%	2	Extreme Poverty	7	Energy Intensity
Nurses/capita	Defence GDP%	3	Cancer	8	Footprint
Community/capita	Research GDP%	3	Heart	9	Internet subscriptions
Beds/capita	RandD spend	3	Communicable	9	Mobile phones/100
Health Public	Democracy	3	Mental Health	9	Manufacturing value
Health Private	Human Rights	3	Drugs	16	Disaster
Health Insurance	R&D spend	3	Suicide	16	War
Education Spend	Renewable %	3	Homicide	16	Terrorism
		3	Uncommunicable disease	16	Trafficking
		4	Tertiary Education	16	Violence to females
		4	Primary Education	16	Economic freedom
		4	IT skills	16	Human rights violation

Such data might be used to answer key questions, including what resources are necessary to support a UBI; and the relative importance of overall spend and spend on particular domains (health, education, security, democracy, etc.)

Existing literature is diverse targeting individual health goals and specifying predictors in economic, political and welfare regime terms<sup>7</sup>.

, for example: (Bambra et al., 2021; Chaudhry et al., 2020; Freeman et al., 2020; Guglielmin et al., 2018; Rinaldi & Bekker, 2021).

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## Evaluation of Universal Basic Income

### Advantages

There are **NO means tests**. UBI would not leave individuals who are most in need of support to fall through the cracks of the system because of administrative problems and costs. With universal transfer, there are no complicated application processes, time delays in receiving benefits, or work requirements that can be challenging or costly to prove. UBI may eliminate the ‘poverty trap’ associated with thresholds required to qualify for means-tested benefits that act as disincentives for individuals to work longer hours or get better paying jobs.

UBI enhances **individual freedom**. There is no compulsion to work. UBI may encourage the voluntary participation of individuals in the economy as opposed to mandatory participation that is effectively required when individuals must perform, possibly aversive, work to be able to afford their basic needs. UBI leaves people totally free to spend their resources exactly as they wish: gambling, drink, high carbon aeroplanes; charity, sports, arts, material goods, service, etc. Advocates hypothesize that UBI would immediately reduce poverty, hunger, homelessness, and income inequality. A direct transfer has the potential to make instantaneous progress on nearly all of Nussbaum’s Core Capabilities and most of the Sustainable Development Goals.

UBI is also argued to act as a positive incentive for **socially beneficial work** that is not very well paid, including jobs in the education and elder- and childcare sectors. A basic income provides a safety net that encourages risk-taking, **entrepreneurship**, and innovation. Similarly, UBI encourages further **education and vocational training**. There is potential for economic incentive and a multiplier effect in the local economy. Individuals may spend more on goods and services from local businesses and also create jobs at scale.

There is some evidence for these benefits based on a variety of UBI trials that have taken place internationally, see Table 2. A direct income leads to decreases in spending on drugs and alcohol, hospitalisation rates, childhood obesity, crime rates, education drop-

out rates, and incidences of domestic violence. This is accompanied by improvements in new-born health along with increased graduation rates, home ownership rates, food security, cognitive functioning, and social cohesion with greater trust in politicians and in others. As to be expected, a UBI also sees increases in savings and decreases in debt.

### **Disadvantages**

Ensuring **adequate resources** to fund UBI and basic infrastructure is essential. One major problem is that people may simply choose not to work. Then how are essential services to be maintained and how may innovations arise? Who will do the 'nasty' work? How about continuity? Can a teacher or doctor decide it's a sunny day and head for the beach? Who will teach the children or treat the sick? A related problem is that too few people will train for essential jobs.

Wealth distribution from UBI may not benefit the poor. The tax system has to be carefully thought out to ensure that redistribution that ultimately increases inequality, does not happen. It might be that implementing a meaningful basic income programme would be more expensive than current targeted programmes, e.g., food assistance and unemployment benefits.

**Children** need to be considered. Presumably there will be some UBI, possibly dependent on age. Clearly, it will be parents or guardians who receive the UBI, at least for youngest children. What stops guardian buying a sports car and leaving kids to starve or freeze? How about older children 10-18, would they have any freedom over their UBI spend?

### **Ensuring the good life**

Work is necessary to ensure a good life, some of it unpalatable. UBI advocates believe people will be motivated to have living standards above the minimum, so wages will rise, and education will increase. UBI advocates are often egalitarian (left), but free market libertarians (right). They believe the 'market' will solve everything and ensure all necessary jobs get done. In our view, pigs might fly, leading to an unpalatable and controversial conclusion; that **compulsory National Service may be needed to support UBI.**

Such service should be **universal** and be democratically agreed to apply to every one. For example, 1 continuous year before age 25 to allow for training, and a further 24 months during working life in stints of 1 month minimum. There might also be option to substitute 'on call periods' and possibly some incentives for high quality training, e.g., lower annual commitment. Inequitable compulsory work is to be avoided at all costs! National service would NOT be a condition for universal basic income, as it would be universal for all citizens UBI advocates would be horrified. Discussion of what to do if too few people chose essential infrastructure work is not much discussed.

### **Evidence**

Looking at the results of UBI pilots (Table 2) does not show a decrease in full-time employment and may lead to an increase in self-employment and part-time employment. There is no evidence for less flexible labour markets or a reduced supply of full- and part-time workers.

### **Infrastructure or income?**

The source of UBI is obviously the government: from taxes, borrowing, natural resources and accumulated wealth. Some minimum is allocated to basic services in any country: sewage, police, army, civil service pay, etc. Countries vary on how much they allocate to infrastructure such as education, health, transport, etc., and whether that infrastructure is available without means tests. The remainder can then be divided equally among all as UBI. We could not find much research about how resources should be balanced between communal NOT means tested services and individual NOT means tested basic income. The elephant in the room? Advantages of universal coverage over means test apply just as much to infrastructure as to income. The unaddressed problem is the balance between communal and individual allocations.

### **Health Example**

This very simple example illustrates the important role of infrastructure. Life expectancy is dependent not only on GDP/capita but also on the proportion of health spending that comes from government. The USA that relies on a private not universal insurance

structure performs particularly badly. UK performance is slightly below countries with a government insurance structure

### **Summary**

UBI is attractive because it emphasises satisfying basic needs and increasing individual freedom without coercion to work. The creation of a UBI scheme allows for a restructuring of how the state uses its resources in order to fulfil its goals and responsibilities. UBI is in our view profoundly individualistic.

Current schemes advocate the allocation of some portion of .existing resources to UBI. The continuation of such resources is assumed. There is little discussion of resource generation or indeed ownership (state or private). Current schemes gloss over the amount of UBI and provision for children and people with special needs.

Most UBI schemes pay little or no attention to the balance between universal state infrastructure and universal basic income and in our view, this is a problem that needs to be seriously addressed.

### **Conclusion**

Equity requires resources and balance between universal infrastructure, universal income, and universal citizen service. Better measurement of all relevant variables is a prerequisite for progress.

### **Notes,**

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2. Zohreen Badruddin, [zohreen.badruddin@gmail.com](mailto:zohreen.badruddin@gmail.com)
3. BEIN - <https://basicincome.org/history/>
4. Basic Income Earth network <https://basicincome.org/about-basic-income/>
5. Nussbaum's 10 core capabilities [https://en.wikipedia.org/wiki/Capability\\_approach#Nussbaum's\\_central\\_capabilities](https://en.wikipedia.org/wiki/Capability_approach#Nussbaum's_central_capabilities)
6. Sustainable Development Goals, see <https://sdg-tracker.org/>
7. For extensive Bibliography of UBI literature with URLs, please see the online version of this article.



**Data Sources**

Our World in Data website: <https://ourworldindata.org/>

Example, excess deaths from Covid

[https://ourworldindata.org/grapher/excess-deaths-cumulative-per-100k-economist?country=OWID\\_WRL~CHN~IND~USA~IDN~BRA](https://ourworldindata.org/grapher/excess-deaths-cumulative-per-100k-economist?country=OWID_WRL~CHN~IND~USA~IDN~BRA)

Supplementary: Raw data and PowerPoint, <https://osf.io/mnzku/>

There are .csv, |EXCEL and SPSS versions of raw data. Some variables were not used, but may be useful for others.

**Bibliography**

Basic Income: The Key to the Sustainable Development. Mission Possible 2030, <https://missionpossible2030.com/>.

Basic Income: Wales Pilot Offers £1,600 a Month to Care Leavers. BBC News, BBC, 16 Feb. 2022, <https://www.bbc.com/news/uk-wales-politics-60391462>.

Bambra, C. (2011). Health inequalities and welfare state regimes: Theoretical insights on a public health 'puzzle'. *Journal of Epidemiology and Community Health*, 65(9), 740–745. Scopus. <https://doi.org/10.1136/jech.2011.136333>

Bien: About Basic Income. BIEN - Basic Income Earth Network, <https://basicincome.org/about-basic-income/>.

Capability Approach. Wikipedia, Wikimedia Foundation, 15 June 2022, [https://en.wikipedia.org/wiki/Capability\\_approach](https://en.wikipedia.org/wiki/Capability_approach).

Critique of the Gotha Programme. Wikipedia, Wikimedia Foundation, 10 May 2022, [https://en.wikipedia.org/wiki/Critique\\_of\\_the\\_Gotha\\_Programme](https://en.wikipedia.org/wiki/Critique_of_the_Gotha_Programme).

Chaudhry, R., Dranitsaris, G., Mubashir, T., Bartoszko, J., & Riazi, S. (2020). A country level analysis measuring the impact of government actions, country preparedness and socioeconomic factors on COVID-19 mortality and related health outcomes. *EClinicalMedicine*, 25. Scopus. <https://doi.org/10.1016/j.eclinm.2020.100464>

D'Souza, Deborah. Modern Monetary Theory (MMT): Definition and Example. Investopedia, July 2022, <https://www.investopedia.com/modern-monetary-theory-mmt-4588060>.

Estabine, LyLena. One Size Does Not Fit All: A Case against the Ubi in America. Harvard Political Review, 14 Jan. 2021, <https://harvardpolitics.com/against-ubi-in-america/>.

FinancialTimesVideos. The Case for a Universal Basic Income | Free Lunch on Film. YouTube, 19 Dec. 2021, <https://www.youtube.com/watch?v=1U1D7nmcnZ0&list=PLXhMtYULkYuFFqTdwAMlpxLsK6bOqYqcm&index=6>.

Freeman, T., Gesesew, H. A., Bambra, C., Giugliani, E. R. J., Popay, J., Sanders, D., Macinko, J., Musolino, C., & Baum, F. (2020). Why do some countries do better or worse in life expectancy relative to income? An analysis of Brazil, Ethiopia, and the United States of America. International Journal for Equity in Health, 19(1). Scopus. <https://doi.org/10.1186/s12939-020-01315-z>

Global Ethics: Capabilities Approach. Internet Encyclopedia of Philosophy, <https://iep.utm.edu/ge-capab/>.

Goal 9: Industry, Innovation, and Infrastructure - SDG Tracker. Our World in Data, <https://sdg-tracker.org/infrastructure-industrialization>.

Guglielmin, M., Muntaner, C., O'Campo, P., & Shankardass, K. (2018). A scoping review of the implementation of health in all policies at the local level. Health Policy, 122(3), 284–292. Scopus. <https://doi.org/10.1016/j.healthpol.2017.12.005>

Leviathan (Hobbes Book). Wikipedia, Wikimedia Foundation, 11 June 2022, [https://en.wikipedia.org/wiki/Leviathan\\_\(Hobbes\\_book\)](https://en.wikipedia.org/wiki/Leviathan_(Hobbes_book)).

Matthews, Dylan. A Charity Dropped a Massive Stimulus Package on Rural Kenya - and Transformed the Economy. Vox, Vox, 25 Nov. 2019, <https://www.vox.com/future-perfect/2019/11/25/20973151/givedirectly-basic-income-kenya-study-stimulus>.

Measuring Progress towards the Sustainable Development Goals - SDG Tracker. Our World in Data, <https://sdg-tracker.org/>.

Not by Bread Alone. Wikipedia, Wikimedia Foundation, 3 Apr. 2022, [https://en.wikipedia.org/wiki/Not\\_by\\_Bread\\_Alone](https://en.wikipedia.org/wiki/Not_by_Bread_Alone).

Nussbaum, M. C. (2000). Sex and Social Justice (First Edition). Oxford University Press, USA.

Pettinger, Tejvan, et al. Universal Basic Income - Pros and Cons. Economics Help, 18 Mar. 2020, <https://www.economicshelp.org/blog/17048/government/universal-basic-income/>.

Press, Berkeley Electronic. Karl Widerquist. Selectedworks - Karl Widerquist, <https://works.bepress.com/widerquist/>.

Principles of Political Economy. Wikipedia, Wikimedia Foundation, 8 Apr. 2022, [https://en.wikipedia.org/wiki/Principles\\_of\\_Political\\_Economy](https://en.wikipedia.org/wiki/Principles_of_Political_Economy).

Rinaldi, C., & Bekker, M. P. M. (2021). A scoping review of populist radical right parties' influence on welfare policy and its implications for population health in Europe. *International Journal of Health Policy and Management*, 10(3), 141–151. Scopus.  
<https://doi.org/10.34172/ijhpm.2020.48>

Samuel, Sigal. Everywhere Basic Income Has Been Tried, in One Map. Vox, Vox, 19 Feb. 2020, <https://www.vox.com/future-perfect/2020/2/19/21112570/universal-basic-income-ubi-map>.

Santens, Scott. An Introduction to Unconditional Basic Income for All. UBI Guide, UBI Guide, 17 May 2022, <https://www.scottsan-tens.com/universal-basic-income-for-all-unconditional-why-ubi-is-necessary-now-evidence-experiments/> .

The Social Contract. Wikipedia, Wikimedia Foundation, 12 June 2022, [https://en.wikipedia.org/wiki/The\\_Social\\_Contract](https://en.wikipedia.org/wiki/The_Social_Contract).

TEDtalksDirector. Poverty Isn't a Lack of Character; It's a Lack of Cash | Rutger Bregman. YouTube, YouTube, 13 June 2017, <https://www.youtube.com/watch?v=ydKcaIE6O1kan-dlist=PLXhMtYULkYuFFqTdwAMlpxLsK6bOqYqcmadindex=5>.

Universal Basic Income Pros and Cons - Top 3 Arguments for and Against. ProCon.org, 4 Apr. 2022, <https://www.procon.org/headlines/universal-basic-income-top-3-pros-and-cons/>.

Wales Basic Income: Pilot Will Give Care Leavers £19,000 a Year. BBC News, BBC, 28 June 2022, <https://www.bbc.com/news/uk-wales-politics-61950546>.

Widerquist, Karl. Property and the Power to Say No : A Freedom-Based Argument for Basic Income. Academia.edu, 10 July 2021, [https://www.academia.edu/49703212/Property\\_and\\_the\\_power\\_to\\_say\\_no\\_a\\_freedom\\_based\\_argument\\_for\\_basic\\_income](https://www.academia.edu/49703212/Property_and_the_power_to_say_no_a_freedom_based_argument_for_basic_income) .