

# Universal Income Guarantees. An opportunity to rethink welfare?

An interactive visual inquiry

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1. *What are we talking about, when we talk about universal income guarantees?*
2. *Why should we talk about universal income guarantees?*
3. *How would a universal income guarantee affect incomes in the US?*
4. *What are dynamic effects of an income guarantee and how can it be economically sustainable?*
5. *Where to go from here?*

# What are we talking about, when we talk about universal income guarantees?

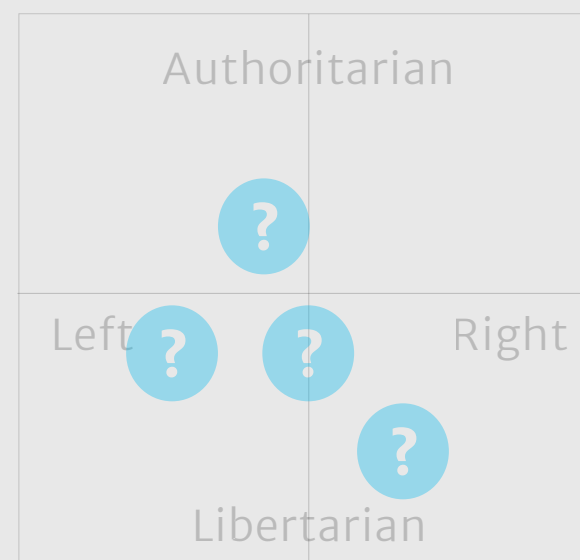
Current interest & uncertainties

*Today political debates are polarized. A certain buzz-word can easily trigger a #socialism-uproar or similar types of reactions ending a conversation. Peculiarly the idea of income guarantee seems to gain traction with the potential to bridge these poles.*

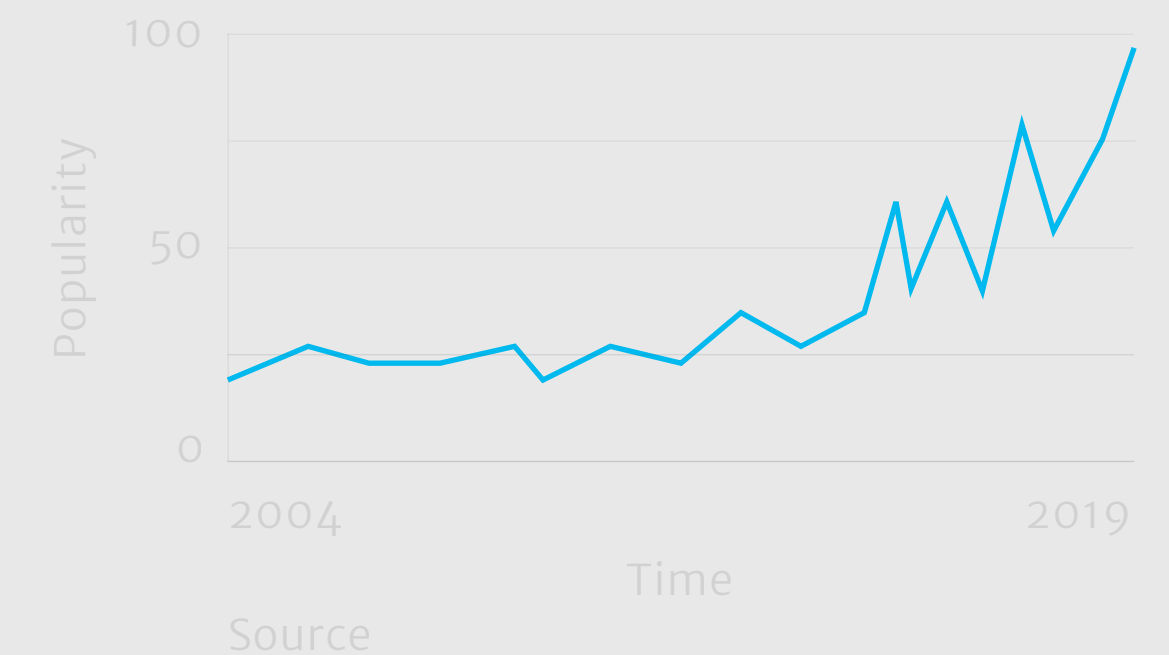
Boadly speaking this idea is to introduce a program that **guarantees** a **certain amount** of **income** to **everyone**. For practical purposes let's use the term **Universal Income Guarantees** (UIGs) to refer to this broad notion.

Although the conception is not enirely new, it hasn't yet risen to the level of a fixed concept. Hence, it comes in considerable **variations** and with **different labels**.

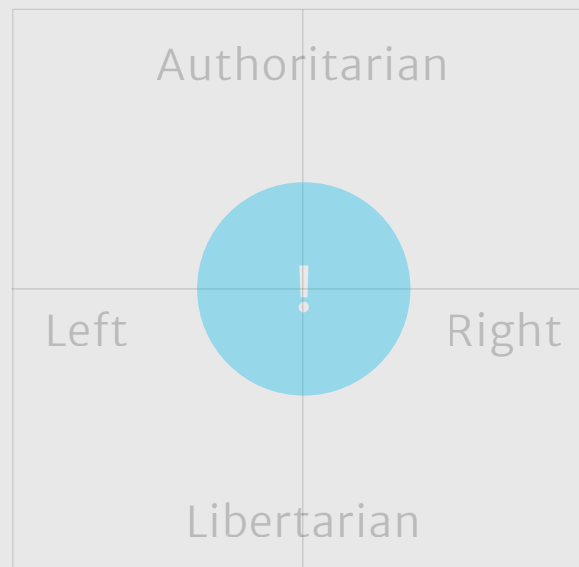
Advocates for UIGs tend to have very different political visions and thus their proposals probably have divergent outcomes. Overall UIGS are still searching for a **home on the political compass**.



Popularity of the search term  
"Basic Income" on Google, 2004 – 2019



Names include:  
(Universal) Basic  
Income, Mincome,  
Negative Income Tax,  
Freedom Dividend ...  
and many more



The amount of variations and **uncertainties** are definitely part of the difficulty to decide whether a UIG is actually a good or a bad idea.

But they are also an **opportunity** to decide which questions we want to see answered by specific proposals and be part of shaping the debate.

## Why should we talk about *universal income guarantees*?

Three possible entry points

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Interests in UIGs are divers. Some see it as an opportunity to **reduce** the amount of **bureaucracy** to administer welfare programs, others are concerned with **growing unemployment** in the face of **artificial intelligence** and some advocate that it would be just a **fairer** plan for **shared growth** in a society.

Of course there are also concerns that UIGs are a first step to an inefficient and **unsustainable** egalitarian system. And because it's granted to everyone in contrast to most of current welfare,

You can find an overview over skeptical voices on UBI [here](#).

confusion about the real net costs of such a program often lead to an early dismissal of the idea: it appears to be **too expensive** to be feasible.

I tried to [outline](#) this debate in more detail.

By no means are the mentioned arguments exhaustive of the debate, but let’s start with these three **entry points** (you can also skip to the one of your interest):

- Easing the effects of [growing automation](#),
- Reducing the negative aspects of [bureaucracy](#),
- [Fairness](#) and a more collaborative growth

First entry point

***How many jobs will be lost due to Artificial Intelligence?***

[/ Skip to the next entry point](#)

Estimates of jobs at risk due to artificial intelligence

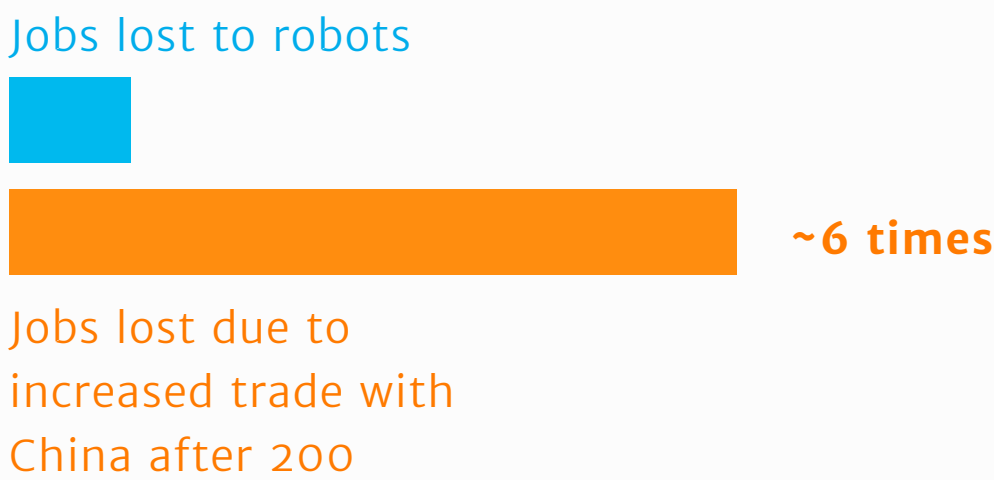


Supporters with a background in technology tend to favor this entry point, speculating whether automation will change the general character of jobs.

Source for this graph

These numbers convey an **alarming** image. But there is still dispute, whether artificial intelligence will result in more layoffs than other forms of automation have in the past. Right now it still seems like a majority of economists are **optimistic** that dynamic effects will balance the effects of artificial intelligence.

Benchmark of robot job loss



Currently it looks like other macro-economic events have still a larger impact on employment than automation

A dynamic effect could be for example: Automation generally makes these products or services cheaper, increasing demand for others. Hence, certain jobs will get lost but new ones are also created. [See also further information](#) on this debate.

Source for this argument

Even if artificial intelligence won't result in higher unemployment, there is still concern about the **quality and compensation** of remaining or new **jobs**. When wages go down, the reduced demand could be bad for the overall economy. Following this notion it makes sense to develop **guarantees to share the growth** of productivity.

But income guarantees are **only one option** to address demand. Depending on the political vision a range of policies can be suggested: from increased efforts in education and re-training to strategies to

improve the position of employees in shaping the way new technologies are implemented.

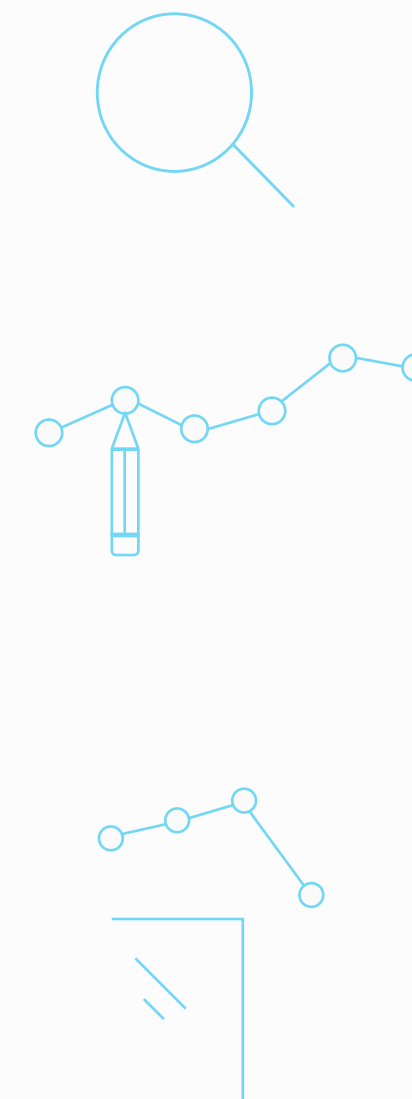
Second entry point

[/ Skip to the next entry point](#)

## **How can welfare transfers be more *effective*?**

Proponents of a universal income guarantee often highlight **issues of the current welfare system**.

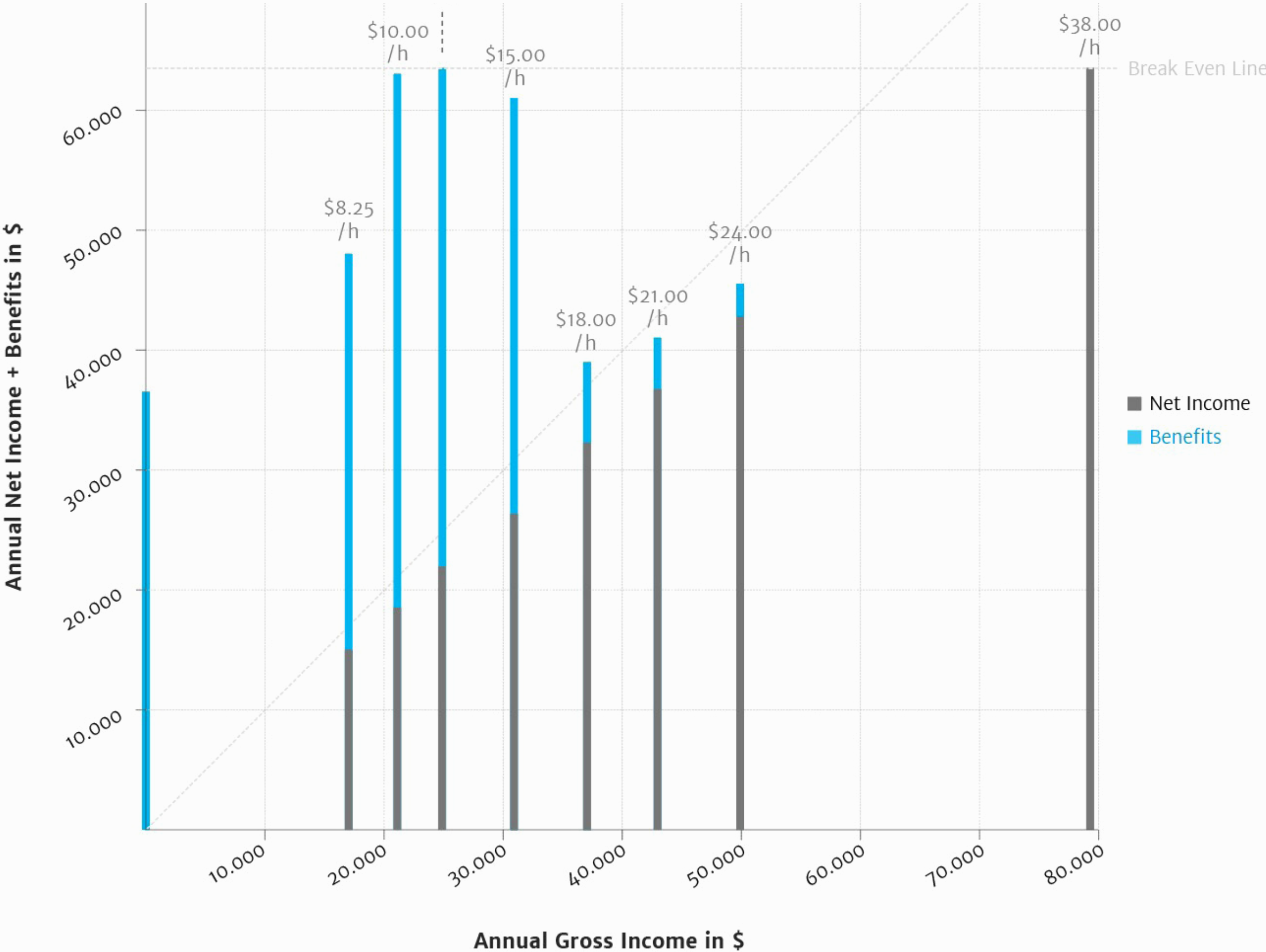
- Checking for eligibility can be **intrusive** to people's lives.
- Because every social and financial situation is different, it is **difficult to design** transfers to give the right recipients the right amount of money
- The combination of benefits can lead to the so called **“welfare trap”**: The sudden drop in benefits when crossing a threshold of eligibility due to increased earnings can disincentivize efforts to be independent from welfare.



*Situations where the combined income drops as earnings rise are also called “cliff effects”*



Theoretical income progression for a single mother with two children in Chicago

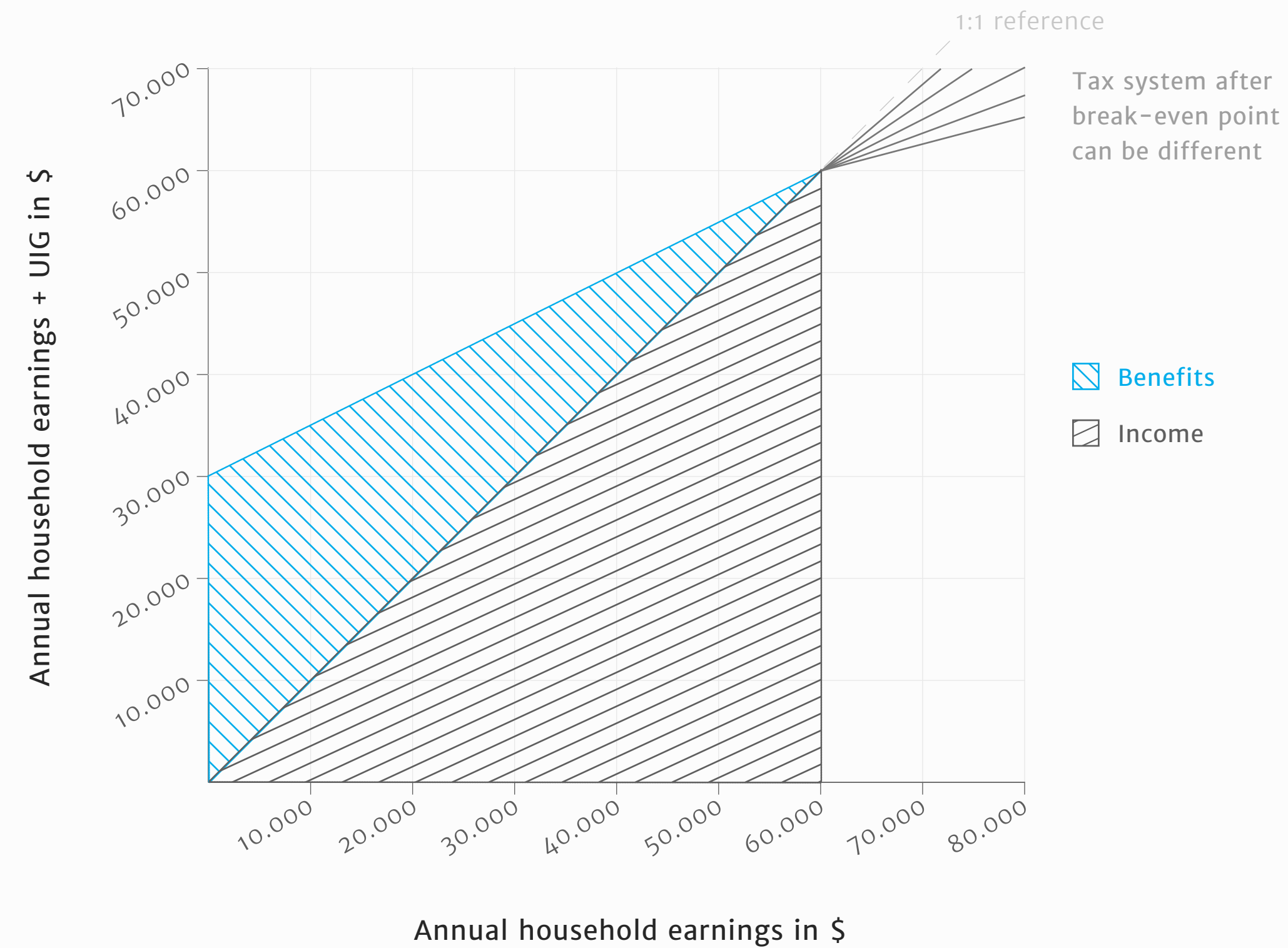


The chart shows theoretical cliff effects for a single mother with two children in Chicago at crucial income steps.



In this regard a income guarantee that fades out in equal steps for every additionally dollar earned might be a solution. Often a rate (marginal tax) of 50% is suggested to balance the incentives. Ideally that would lead to a linear total income progression.

Income progression for a household with two adults one child  
UIG scheme: \$ 12.000 per adult, \$ 6.000 per child



This graph shows the theoretical income progression of a UIG scheme of \$ 12.000 per adult and \$ 6.000 per child for a household with two adults and one child. Before the break-even point of \$ 60.000 the marginal tax-rate is 50%, after this point taxes can be different, depending on how the UIG should be financed.

Acknowledging the cliff effect problem, the solution doesn't have to be the most general money transfer. A smarter way to coordinate welfare programs is possible.

The allocation of resources to everyone would also result in **less possibilities to support specific individuals and communities** who need more assistance than the general income guarantee.

Third entry point

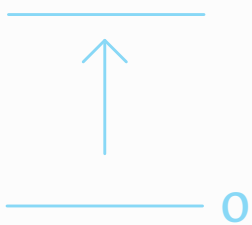
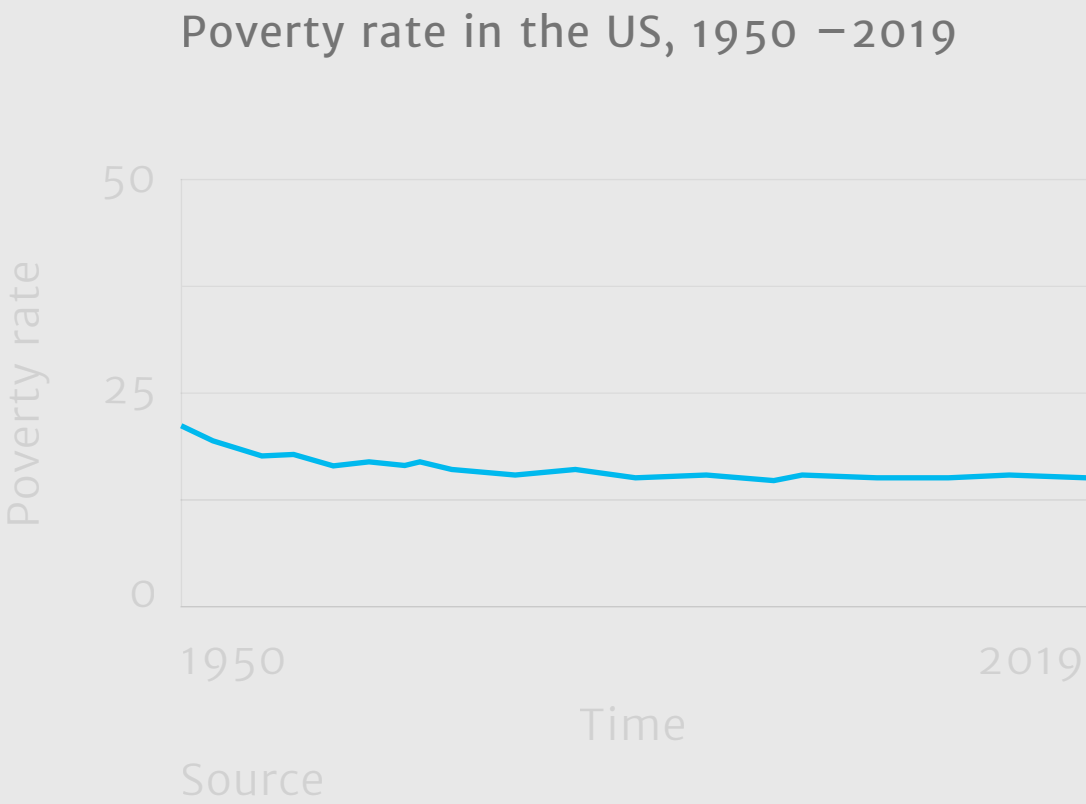
**How can we improve welfare fairness?**

*Probably the most difficult question to answer is how to make the welfare system fairer. Usually we would try and agree on a definition of fairness first. In the case of income guarantees it seems this might not be necessary. The idea might be general enough that it is compatible (enough) with different perspectives on fairness.*

Proponents of **poverty reduction** for example focus on the aspect of introducing an income floor, that no one would have to fall below.

The unconditional character of a UIG would make means-testing obsolete which seems favorable from a **privacy advocacy** perspective.

[/ Skip to the next section](#)



Poeple who agree that the **government influence** on private matters should be **small when possible**, might also agree that it is a **recipients choice** how to spent it in the most useful way instead of limiting their choices (for example with the restrictions of SNAP, “foodstamps”)

Icon?

Icon?

On the other hand the **vagueness** of income guarantee labels **can mask considerable difference in percpectives**. For some proponents a UIG might be a way to what they regard as a minimal acceptable welfare system. Others would strongly disagree and see it as an opportunity to share larger parts of economic growth more equally.

Icon?

UIGs also touches on a belief that is deeply rooted in current welfare implementations. The **belief that a welfare design has to determine who is in need of assistance and who is not**. A unconditional transfer conceptually doesn’t make this distinction. While for proponents of a UIG this is clearly an advantage, making the transfer a citizen’s right, this point might be one of the most controversial ones in the discussions around the idea.

The question of need can also be rephrased: Who *deserves* assistance and who does not? Even people who do not work right now? Some advocates for UIGs welcome this debate hoping that it might

Icon?

open the door to **rethink what work** means and if all work that is done in a society is actually accounted for with fair compensation. In this regard it is often highlighted that an unequal share of work in the domestic realm could be compensated with a UIG having **positive effects on gender equality**.

Icon?

Other authors emphasize the thought that in our work today, we all rely to a large extent on the work that was done by someone else before us. The large share of our current productivity is possible due to the **knowledge generations before us created**, the efficiency created by the institutions we work in and not the least technological advancements that became part of the Commons. These authors suggest that it would be just, to share more of this **inherited productivity**.

Icon?

To acknowledge and account for historic economic injustice The Movement for Black Lives regards a minimum guaranteed income with an additional amount for Black Americans over a specified amount of time as an **adequate form of reparations**.

Icon?

To see the full announcement follow [this link](#).

*This is only a fragment of the discussion of the relation between social justice and universal income guarantees. But to understand the nuances and challenges of a pragmatic implementation, it's important to look at how a UIG would affect incomes.*

# How would a universal income guarantee affect incomes in the US?

A comparison of two static models

*In order to understand the nuances and challenges of a pragmatic implementation in regards to a fair share of growth, it's important to look at how a UIG would affect incomes.*

*We will look at two different models, that are still very general approaches to income guarantees but try start thinking about how incomes after benefits would change overall.*

The first model puts a strong emphasis on compatibility with the **current income tax** model.

The idea is to determine a income tax threshold (similar to the already existing one) below which households don't have to pay income tax. In addition to being an allowance this threshold would also determine the amount of a new tax return. For example for every dollar below that threshold a household would receive 50 cents. If the threshold was set at \$24,000 and a household has earned \$12,000 the difference would be \$12,000. The difference multiplied by \$0.50 would result in a \$6,000 tax return or a combined income of \$18,000. Because of this construction this concept is often called a **Negative Income Tax**, but other



names like Basic Inome are also sometimes used.

In tax terminology we can also think of the rate of \$0.50 per dollar less income as a negative marginal tax rate of 50 %. Fifty percent is a value that is often chosen in UIG concepts because it is considered a **good compromise** of the need to fade out a benefit with increased earnings and work incentives, avoiding the welfare trap (see also [the earlier section](#)).

The next question we need to answer for this model is: **What is the right income threshold?** When the model was conceived, there was no final answer, but instead an approach to compare different outcomes. – First we would assess how much is currently spent on welfare. (Second identify everything that can be translated into a cash transfer.) And then calculate the outcomes of transforming this amount into an UIG for different income thresholds and compare and estimate which one would have a reasonable benefit for the most people.

The next interactive graph will do these calculations and show the results. You can select and de-select which welfare programs should be in place and which lower income brackets should be affected by the new income guarantee.

Change the parameters of this scheme:

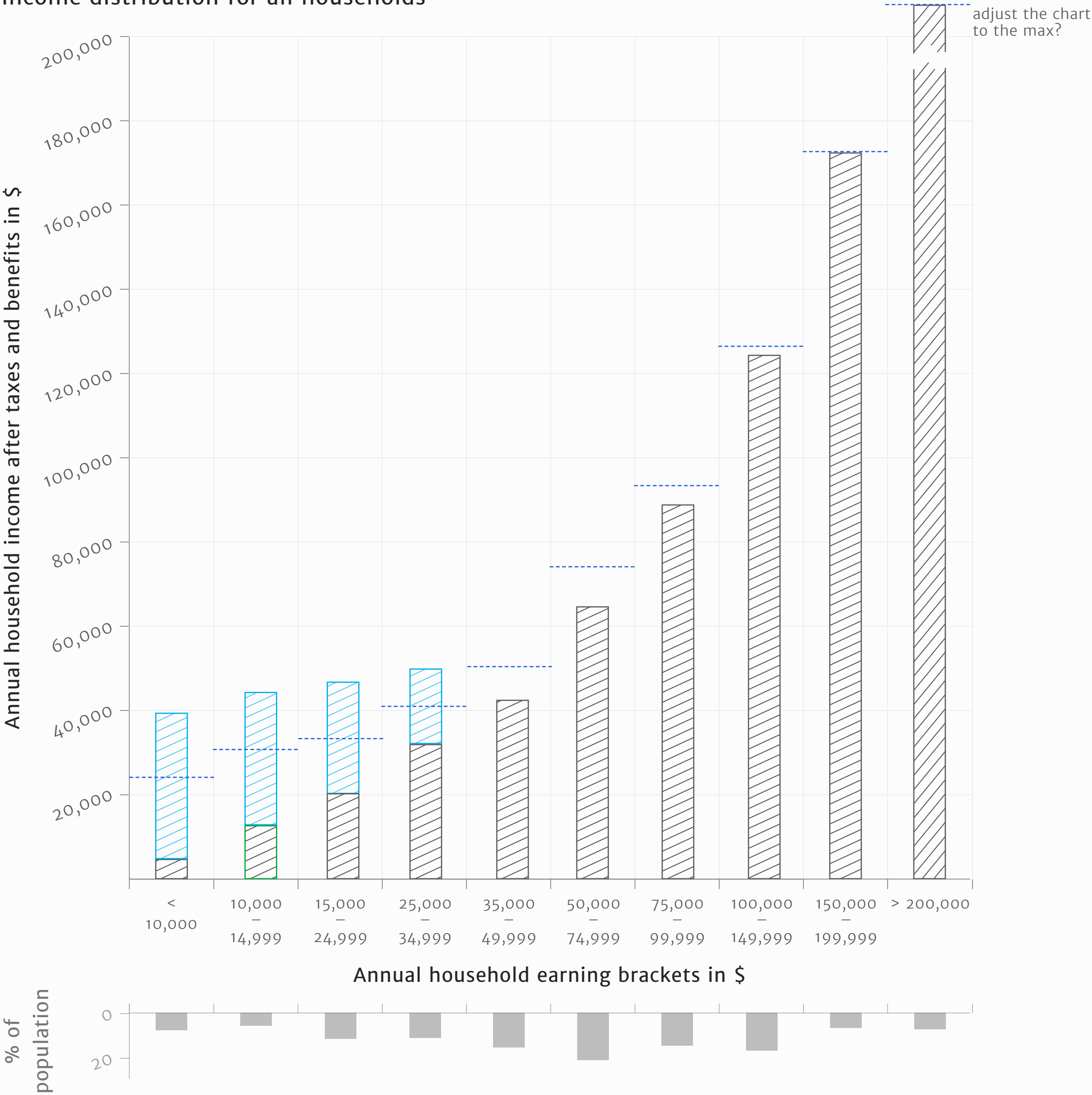
The UIG should go to the lowest

4 income brackets.

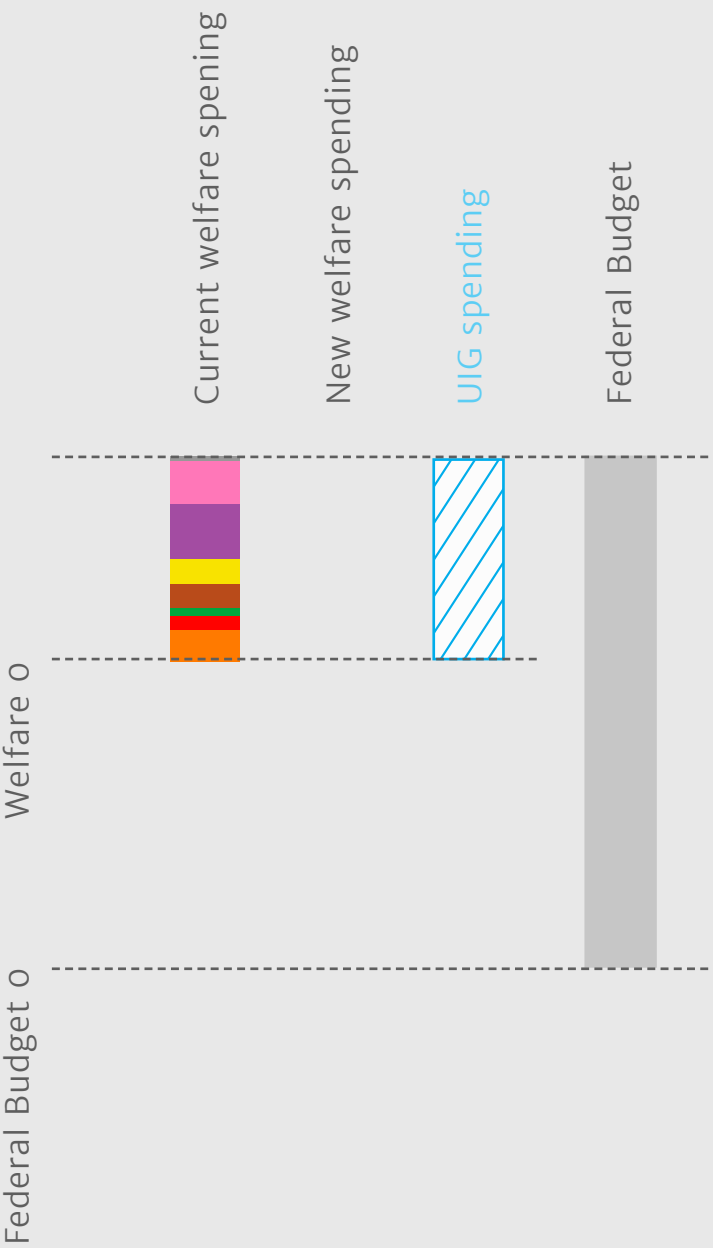
These programs should be in place:

- ☒ UIG
- ☐ SNAP
- ☐ TANF
- ☐ SSI
- ☐ OASDI
- ☐ EITC
- ☐ MEDICAID
- ☐ MEDICARE
- ☐ Other / UI
- ☒ Show income

UIG scheme 1:  
Replace selected welfare programs and set a transfer to the lowest 4 brackets  
Income distribution for all households



Budget effects of UIG scheme 1:





At its conception one of the main goals of this approach was to **alleviate poverty**. It is definitely taking a step in that direction, but regarding this goal it can also be criticized.

For example an **annual tax return might not be adequate** in situations of urgent financial needs.

A household might not be the right recipient unit, when the it leads to **financial dependencies**, the UIG wouldn't have positive effects on gender inequality.

If the goal is to eradicate poverty, why not try to design a model why not introduce an income floor no individual would fall below?

The second model takes this approach. It is deliberately an open model that starts by setting a UIG to **\$ 1,000 per adult and \$ 500 per child per month**.

This approach also uses the marginal tax rate introduced in the first model, but now it's calculated in the **opposite direction**. For every dollar earned there is a tax of 50 cents the threshold for one adult where the UIG benefit completely faded out due to the marginal tax is \$2,000 for one adult.

To estimate the net costs of this program one

would look at how many people are below this break-even point and calculate the UIG minus the marginal tax rate for the recipients. Due to the open character of this model, the financing of these net costs only happens in a second step.

We will look at these financing concerns after the introduction of the model in another interactive graph and also talk about dynamic effects, since right now we are only looking at static models, that assume the introduction of an UIG wouldn't change the behavior of market participants and their economic relations.

In the next graph **you can set the amount of the UIG** and see how it would effect the distribution. The selection of which welfare program is in place is an additional function transferred from the first model. The graph **will also show the additional net costs of this model** and we'll talk about financing these in the following section.

Change the parameters of this scheme:

UIG amount per adult

\$ 12,000

Amount per child

\$ 6,000

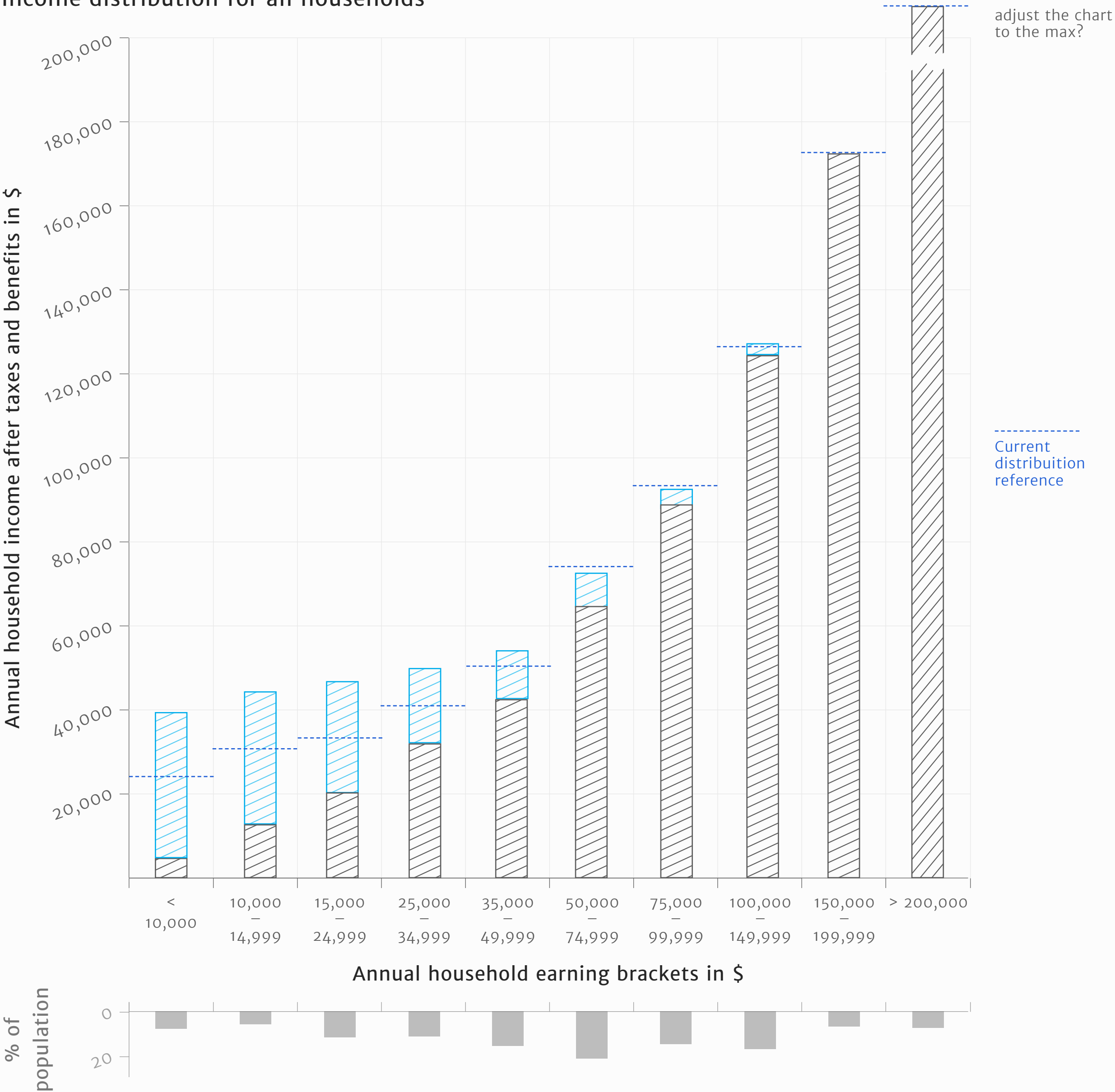
optional

These programs should be in place:

- ☒ UIG
- ☐ SNAP
- ☐ TANF
- ☐ SSI
- ☐ OASDI
- ☐ EITC
- ☐ MEDICAID
- ☐ MEDICARE
- ☐ Other / UI
- ☒ Show income

UIG scheme 2:

Set an income guarantee of \$ 12,000 per adult and \$ 6,000 per child per year  
Income distribution for all households



Budget effects of UIG scheme 2:

In contrast to the first approach, it is obvious that this approach adds a significant amount to the overall budget if the income guarantee should be above the poverty line. These additional costs have to be financed. For proponents of UIGs the idea of printing money, similar to the concept of helicopter money is not an option.


This can pacify fears of massive inflation due to the implementation of a UIG. But it also implies that any honest discussion about an income guarantee following the second approach has to address the fact that we need to re-think the way growth and wealth in a society are shared.

*Helicopter money is a [theoretical monetary policy](#) where central banks temporarily transfer money directly to individuals to help an economy in a liquidity trap.*

*Wealth funds are already implemented in [Alaska](#) and in [Norway](#). More information on the concept of a national wealth fund can be found [here](#).*

There are various innovative approaches to shared growth. Some involve the introduction of new taxes (land tax, carbon tax, robot tax). Others want to create a national wealth fund financed by a broad variety of sources (restructuring pensions, social insurances and shared profits of the use of common and natural resources). There are also voices that emphasize that closing tax loopholes would already finance a larger share of an UIG. In the next section we will also see, that advocates of a UIG also expect dynamic changes that further reduce the cost of these policies, like a reduction in health costs or more innovation and growth.

*My personal guess is, that any universal income platform or proposal can only be successful if it*



offers a balanced perspective on how growth and wealth should be shared accross society. It should be regarded as justified, improving the overall well-being and cohesion of society and thus in the longterm contributing to sustainable economic growth. In this regard it is important that it is acceptable to potential beneficiaries as well as those stakeholders who will have to share more, the latter being more likely to have greater influence on shaping future policies.

In this regard the static models, while being easier to calculate, probably do not provide the very best arguments, that's why in the next section we want to look at financing questions at the same time as speculating about dynamic effects of a universal income guarantee on the behavior of people and their socio-economic relations.



# ***What are dynamic effects of an income guarantee and how can it be economically sustainable?***

Financing and expected effects are closely connected

See [this book](#) for elaborate financing plans for Canada, Switzerland, and Australia.

More elaborate financing models have been developed for various countries. Research also shows, that the implementation of a UIG is not limited to developed economies. India can be regarded a pioneer in this regard in terms of research and public debate on a universal income guarantee.

Financing plans have to acknowledge the economic situation, the structure of government spending in general and specifically spending on welfare. One overall question would be whether the re-allocation of other government spending to a UIG is economically and politically feasible. Regarding the current welfare structure it's important to identify which programs have the character of a general government transfer and which are following a insurance paradigm, where recipients might object the loss of individually secured benefits.

Advocates of a universal income guarantee argue that current inefficiencies in welfare and poverty lead to a significant amount of costs that are only implicit right now, but will turn into a contribution of the costs of a UIG once it is implemented.

One example are health costs. It's largely acknowledged that there is a correlation between poverty and negative effects on health and well-being. Data from a income guarantee experiment in Canada in the sixties showed a drop in hospital visitis of 8.5%.

8.5 %

drop in hospital visits  
(Canada's Mincome case stury)

For an overview of limitations of case study [see also next section](#).

To make observations and consequently estimates on overall dynamic effects like that, case studies are important (although they have [limitations](#) as well). Two common concerns are if a UIG reduces the amount of time people are working and how the recieved money is spent. Case studies suggest that in both regards there is less reason to worry: Across studies there is only a slight reduction of hours worked, the money is not spent on temptation goods like tobacco or alcohol and the time is spent productively, for more child care, education or finding better jobs.

0.0 %

indicator  
(Widerquist on effects on work)




## Add innovation argument: poverty research and influence of a scarcity mindset

Another approach to dynamic effects is to model people's behavior and for example with optimization curves. Some reserachers expect the amount of total hours worked to drop significantly. Along these lines another concern is relevant: who will continue doing unpleasant jobs, if they can rely on a secured income floor? Employers would need to raise wages to create new incentives for these jobs resulting in increasing prices for previously low-paid services and products, ultimately diminishing the benefit of the received money transfer.

*From what I've learned so far,* it seems that modeling people's behavior is highly complex and sometimes invovles simplifications that might be far off from reality. I haven't found a completely convincing and exhaustive perspective on the of effects of an income guarantee on work, wages and prices. Estimations would have to consider the relation between incomes and typical consumption behaviors in proportion. For example which wages might rise (or fall) will determine which products will get more expensive (or cheaper) only the amount of income people spent on these products will be affected by the price changes.

<https://archive.intereconomics.eu/year/2017/2/universal-basic-income-empty-dreams-of-paradise/>



Acknowledging the uncertainties around these dynamic effects some UIG proponents suggest a step-by-step introduction and the constant evaluation of the program. Certainly the effects will be different ones depending if the amount of the income guarantee passes certain thresholds, but considering the size of the program it seems reasonable to gradually implement it. In a transitioning phase it might also help acceptance if welfare recipients can choose between existing programs and a UIG.

Bridge to the next (?) section: Data is not always helpful, if it is the only argument.

optional  
section

## ***How can case studies help understand if a UIG is a good idea and what are their limitations?***

Data and a political debate

Can't emulate the implementation

Data gathering can be problematic

FAP, Nixon, Marriage, the problem of data

# *Where to go from here?*

More information and the next step to UIG

Where to learn more about UBI

Lift the secret who did these models and  
other historic testimonies

Epilog

I'm just a beginner in data wrangling,  
happy to hear advice, don't make your  
choice on UIGs just because of this piece,  
overall I believe this is more a question of  
political feasibility than economic.



*Notes:*

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## Welfare vs. UIG, margins / small graph

Means-tested, targeted  Unconditional

*How can we start to understand,  
if a **Universal Income Guarantee**  
is a good idea?*