

There Is No Perfect Social Net

People often advocate various changes in social net without realizing one important thing: the perfect one is impossible.

What I mean by that is that **no matter how** you take the money from some people and give them as help to other, **at least one** of the following problems will arise:

1. The system will not guarantee the minimal standard of living. Someone will be below the poverty line.
2. For some people, working and earning **more** will result in **same or less** overall income. So its better for them **not** to work more.
3. People who do not need any support still have it.

Here is the formal proof.

Let \mathbf{x} be one's earned income and $\mathbf{W}(\mathbf{x})$ be the state's help to them. Let's choose monetary units such that the minimal standard of living is **1**. Then the previously stated conditions are expressed as following:

1. $\mathbf{x} + \mathbf{W}(\mathbf{x}) \geq 1$ for any $\mathbf{x} \geq 0$ (everybody has at least 1 unit of money per month)
2. $\partial(\mathbf{x} + \mathbf{W}(\mathbf{x}))/\partial\mathbf{x} > 0$ for any $\mathbf{x} \geq 0$ (the more you earn, the more your total income is)
 - 2.1. If you are not familiar with differential notation, here is another one: for any $\mathbf{x}_1, \mathbf{x}_2$ if $(\mathbf{x}_1 > \mathbf{x}_2)$ then $\mathbf{x}_1 + \mathbf{W}(\mathbf{x}_1) > \mathbf{x}_2 + \mathbf{W}(\mathbf{x}_2)$.
3. $\mathbf{W}(\mathbf{x}) = 0$ for any $\mathbf{x} \geq 1$ (zero help to those who don't need it)

What form of $\mathbf{W}(\mathbf{x})$ satisfies these conditions? Lets try to find out.

From (1) it follows that $\mathbf{W}(0) \geq 1$. [Step 1]

From (3) -- that $\mathbf{W}(1) = 0$. [Step 2]

From [Step 2] that $1 + \mathbf{W}(1) = 1$. [Step 3].

Let's introduce $\mathbf{T}(\mathbf{x}) = \mathbf{x} + \mathbf{W}(\mathbf{x})$. [Step 4]

From [Step 1] and [Step 4]: $\mathbf{T}(0) \geq 1$. [Step 5]

From [Step 2] and [Step 4]: $\mathbf{T}(1) = 1$. [Step 6]

From [Step 5] and [Step 6]: $T(0) \geq T(1)$. [Step 7]

However, from (2) it follows that $T(x)$ is monotonously increasing with x , meaning $T(1) > T(0)$ [5]. [Step 8]

Conditions [Step 7] and [Step 8] are in a direct contradiction to each other regardless of the choice of $W(x)$. [Step 9]

Therefore, no choice of a wealth redistribution system satisfies all three requirements at the same time. Such $W(x)$ does not exist.

Q.E.D.

In practice that means that no matter how the society is organized, you'll have to accept at least one of the evils:

- a) People die on the streets because they have no money for basic needs.
- b) Some people don't work or work very minor jobs because more income would result in same or reduced overall income for them, due to reduced state's help.
- c) Some people who do not really need help still get it.

In my personal opinion, "c)" is the least evil, though some may disagree.

On a final note, a well-organized system is such where only one of these problems exists. Many screwed up societies may have two or all three of these evils flowering at the same time.

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