

A stupid proof that any the effect of any targeted benefit scheme can be exactly reproduced using a UBI

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Assume that for persons in each percentile of the income distribution i , $i \in 1..100$, we wish to make a transfer of x_i . Assume there is a taxation system in place which results in members of each percentile paying an amount of tax t_i . Thus, the net effect n_i of the state on the income of persons in each percentile i is:

$$n_i = x_i - t_i \tag{1}$$

Now, instead of introducing our non-universal transfer scheme, we opt instead to introduce a Universal Basic Income of amount u . We nonetheless wish the redistributive effect to be the same as if we had introduced the non-universal transfer scheme. Now, we set new tax rates t'_i , such that $t'_i = u - x_i + t_i$. In other words, we set our new tax rates to be the difference between the UBI amount and the amount we wanted people to receive under the non-universal scheme.

The net impact of the new scheme is:

$$n'_i = u - t'_i \tag{2}$$

By substitution, we have:

$$n'_i = u - t'_i \tag{3}$$

$$= u - u + x_i - t_i \tag{4}$$

$$= x_i - t_i \tag{5}$$

$$= n_i \tag{6}$$

- as required.

Thus, any non-universal 'targeted' benefit can be written exactly as a Universal Basic Income plus appropriate changes to the tax code.