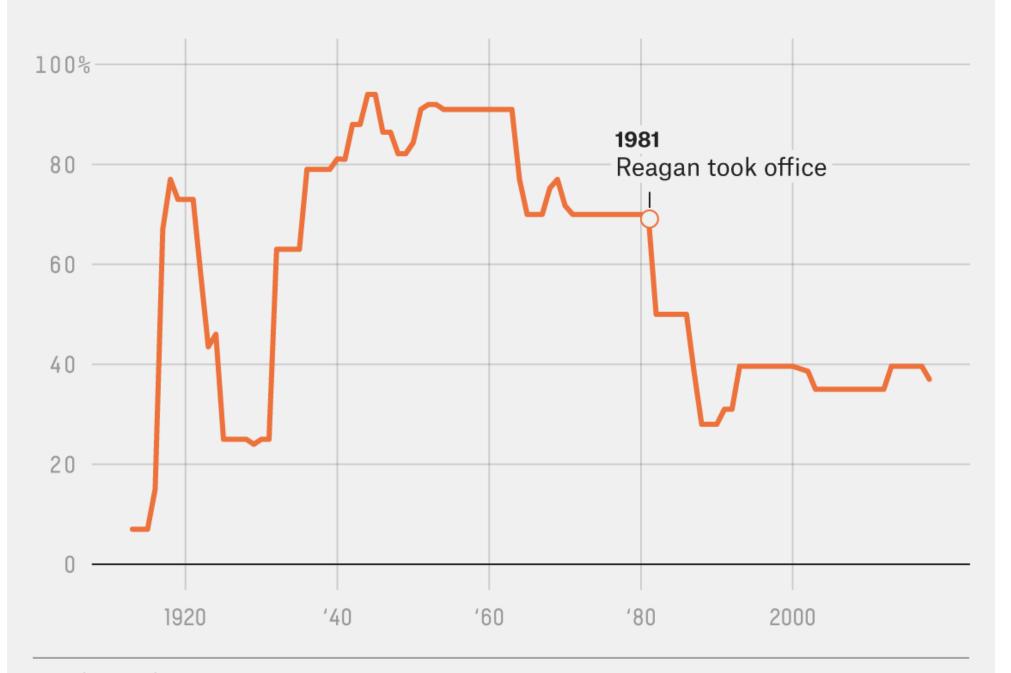
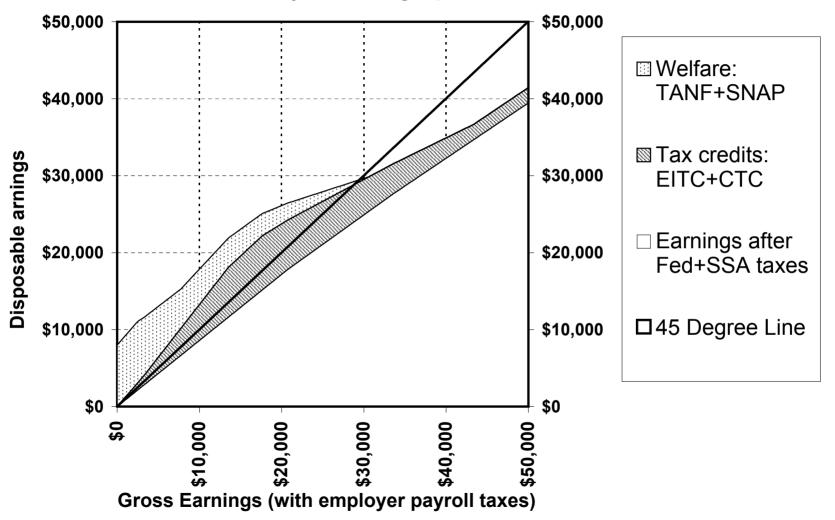
# Historically, a 70 percent marginal tax rate is not unusual

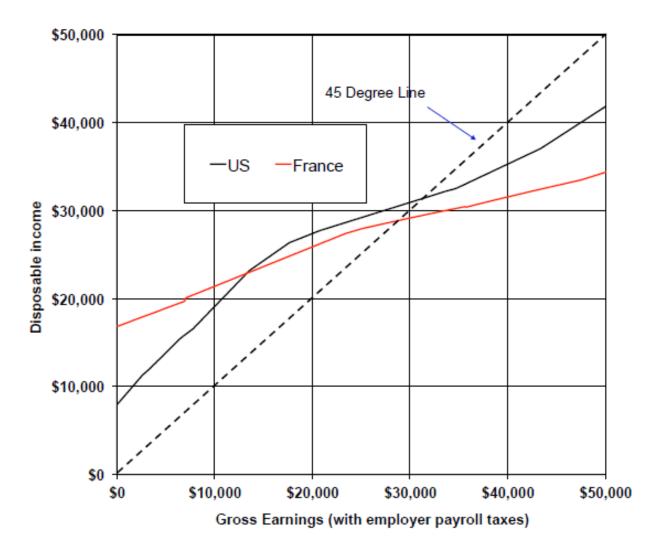
The top marginal income tax rates from 1913 to 2018



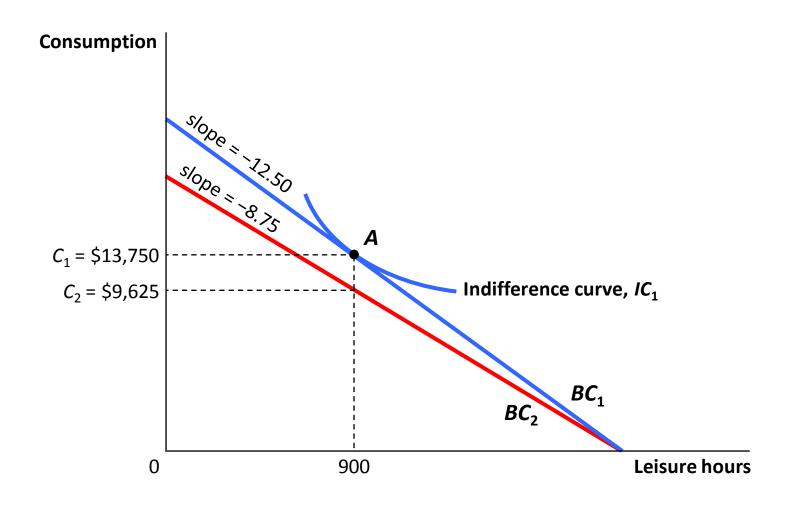
#### US Tax/Transfer System, single parent with 2 children, 2009



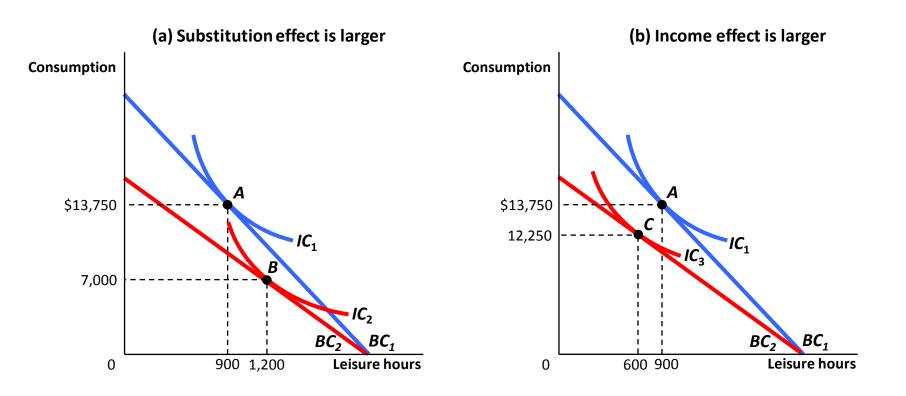
Source: Computations made by Emmanuel Saez using tax and transfer system parameters



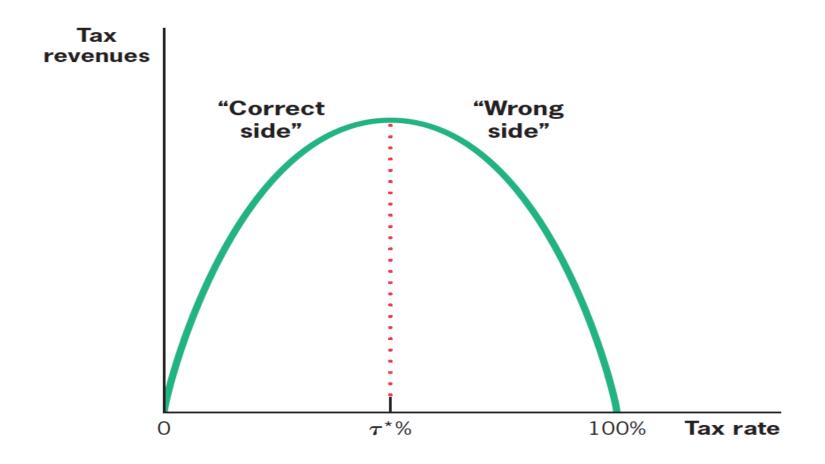
### **Basic Theory**



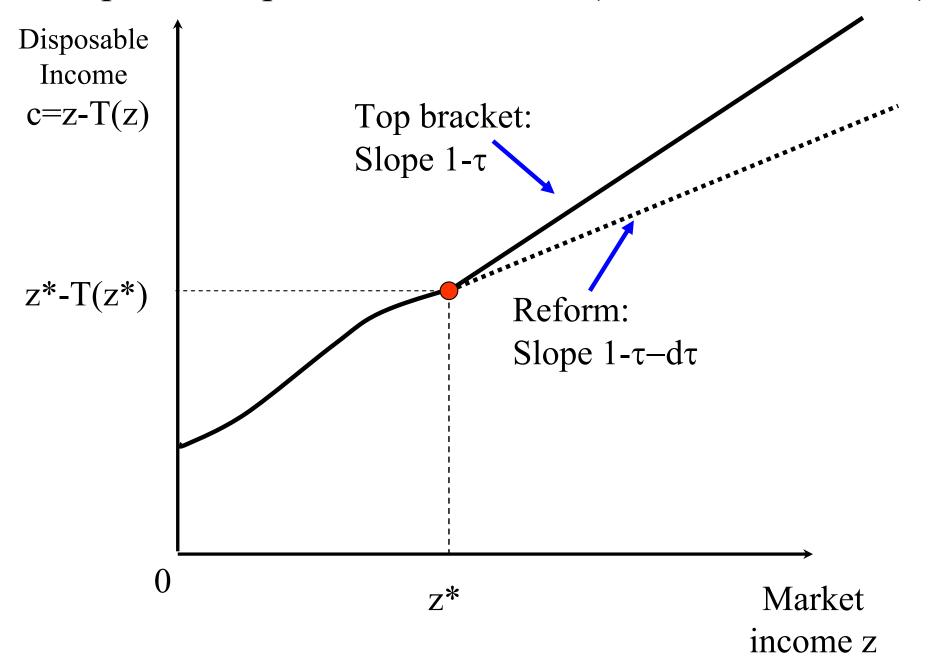
#### Substitution versus Income Effect



### The Laffer Curve

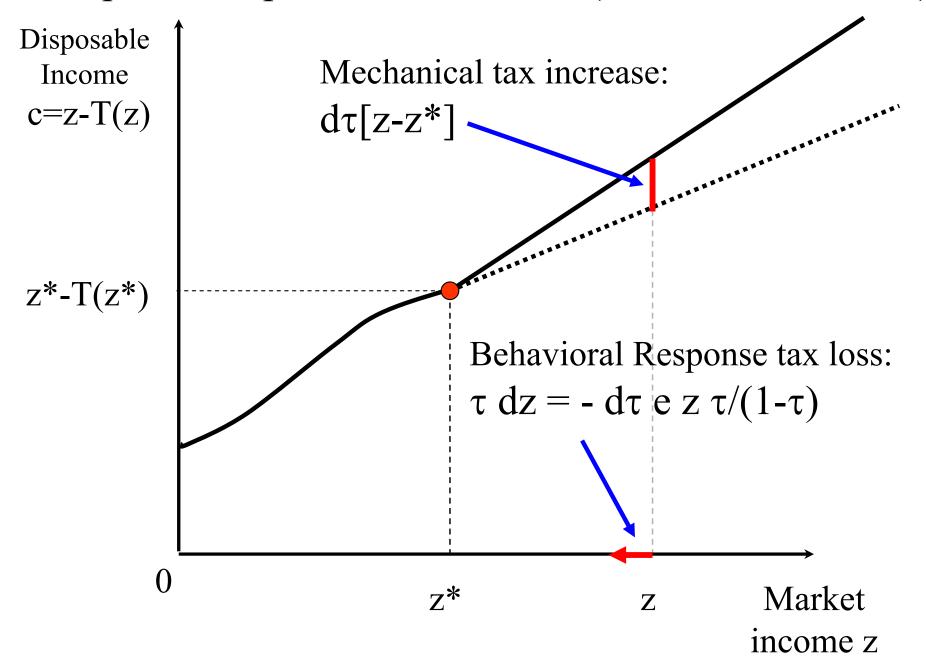


# Optimal Top Income Tax Rate (Mirrlees '71 model)

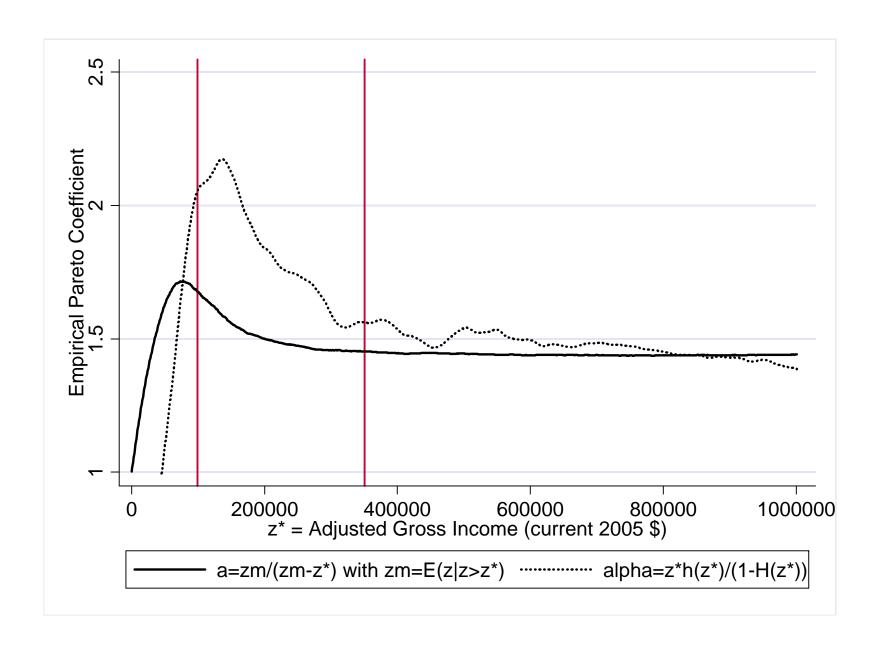


Source: Diamond and Saez JEP'11

# Optimal Top Income Tax Rate (Mirrlees '71 model)

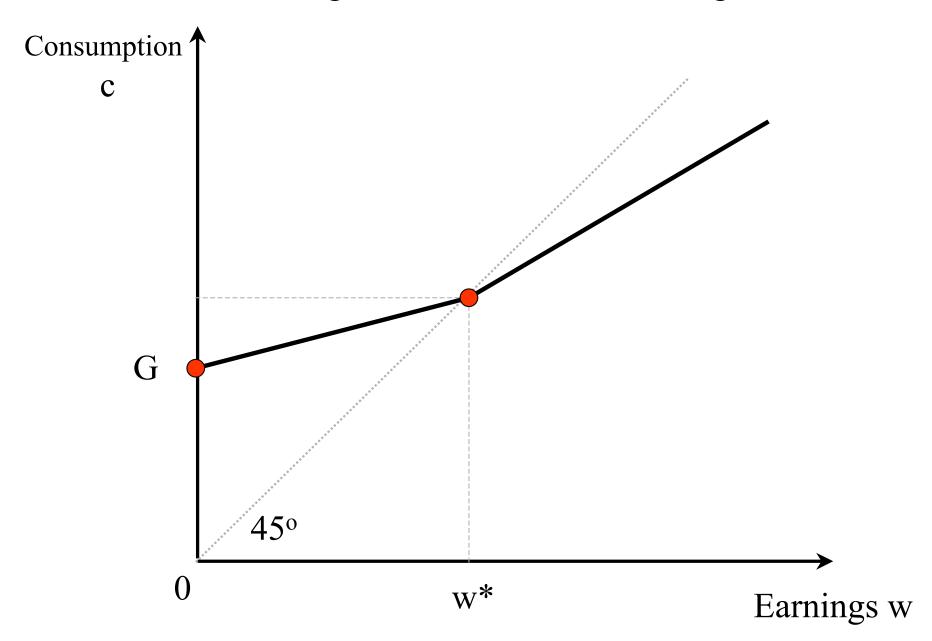


Source: Diamond and Saez JEP'11



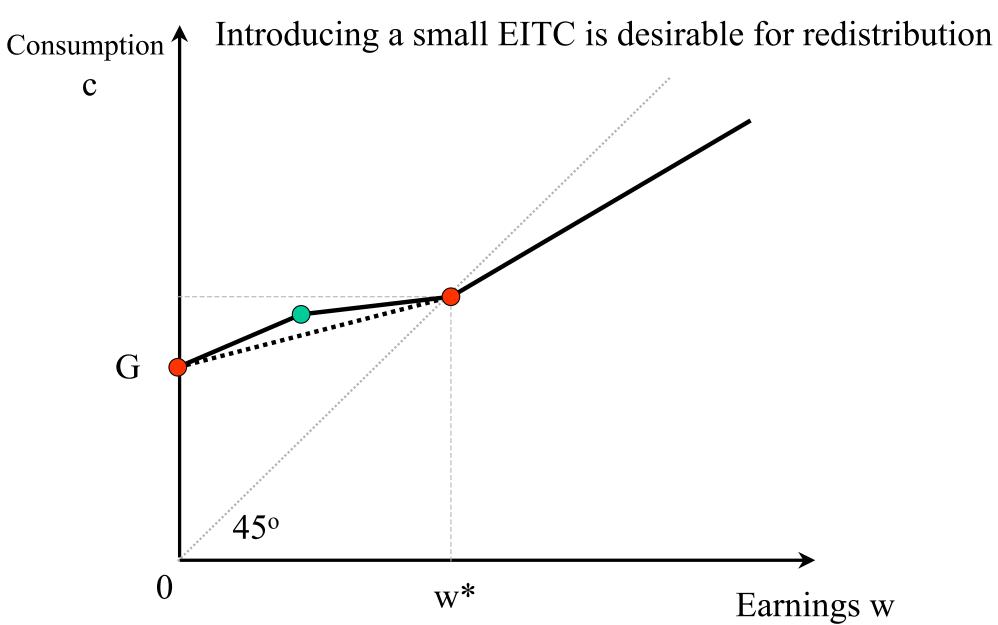
Source: Diamond and Saez JEP'11

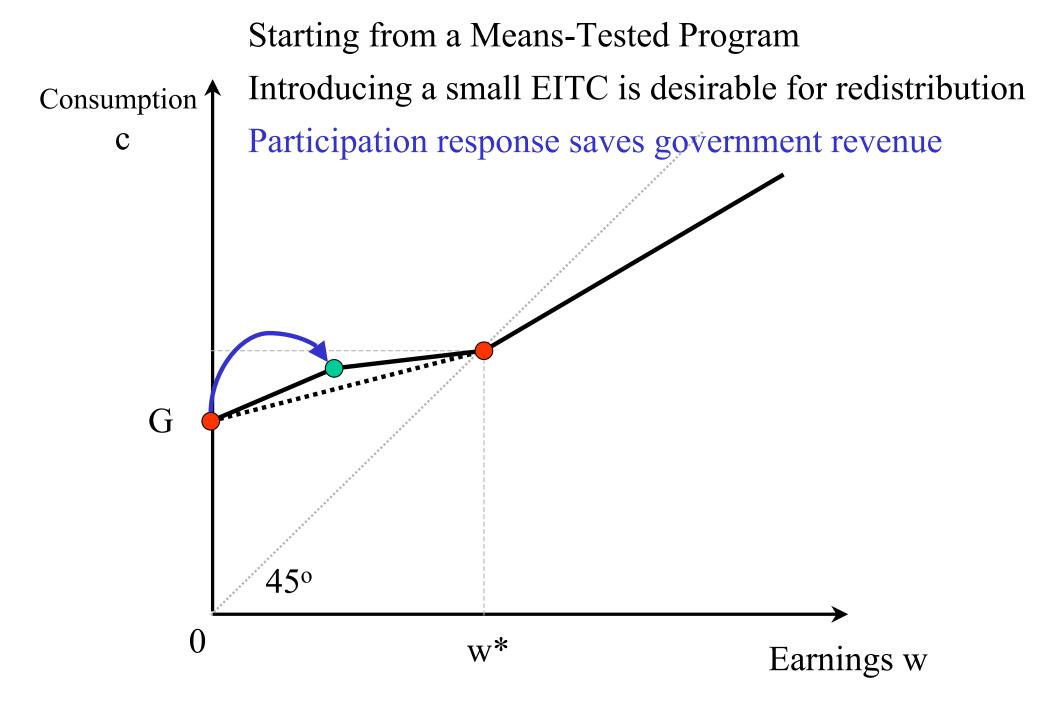
# Starting from a Means-Tested Program



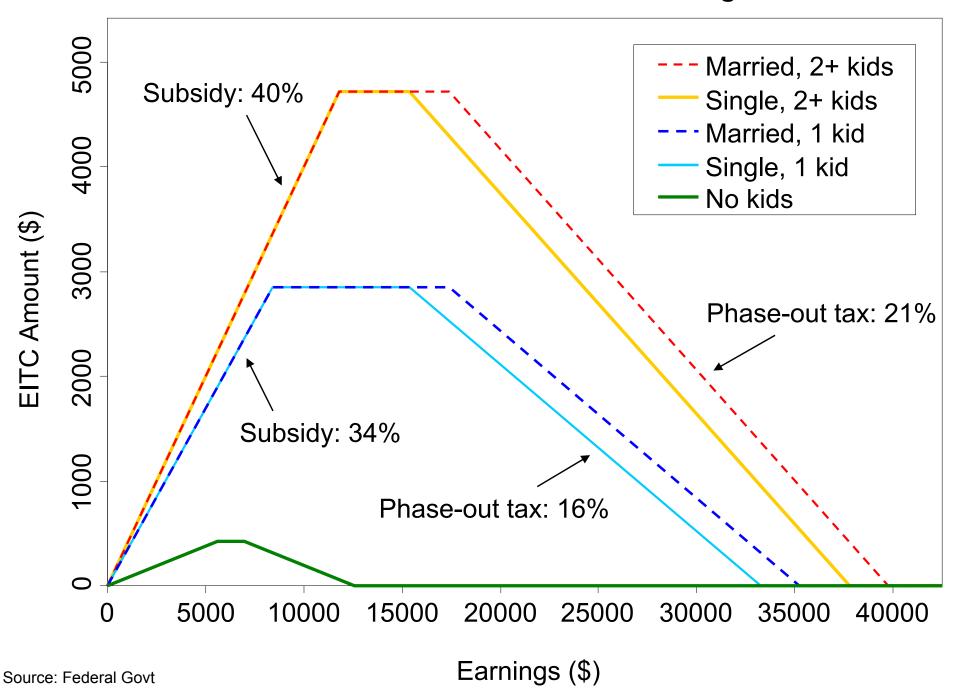
Source: revised version of Saez (2002), p. 1050

Starting from a Means-Tested Program





#### **EITC Amount as a Function of Earnings**

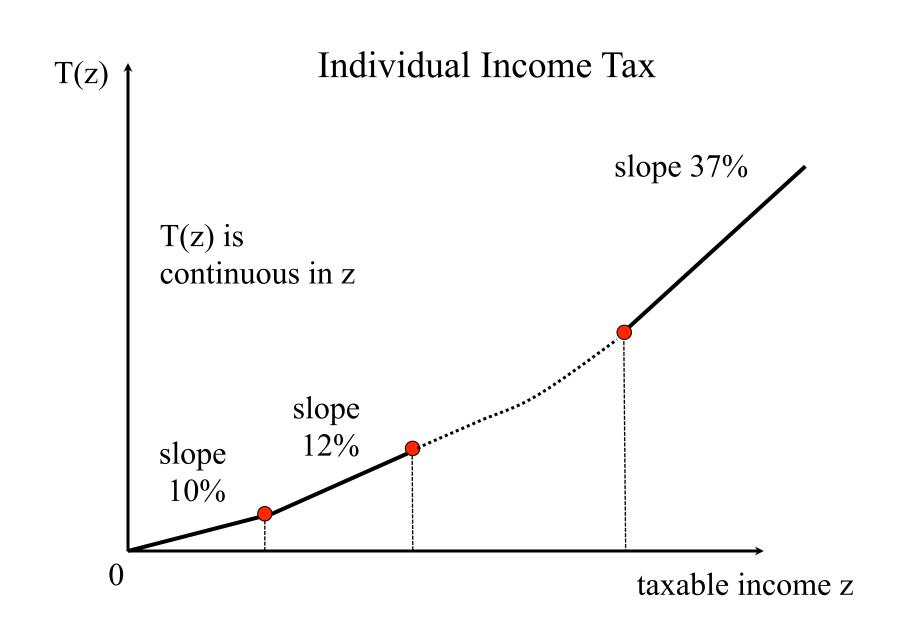


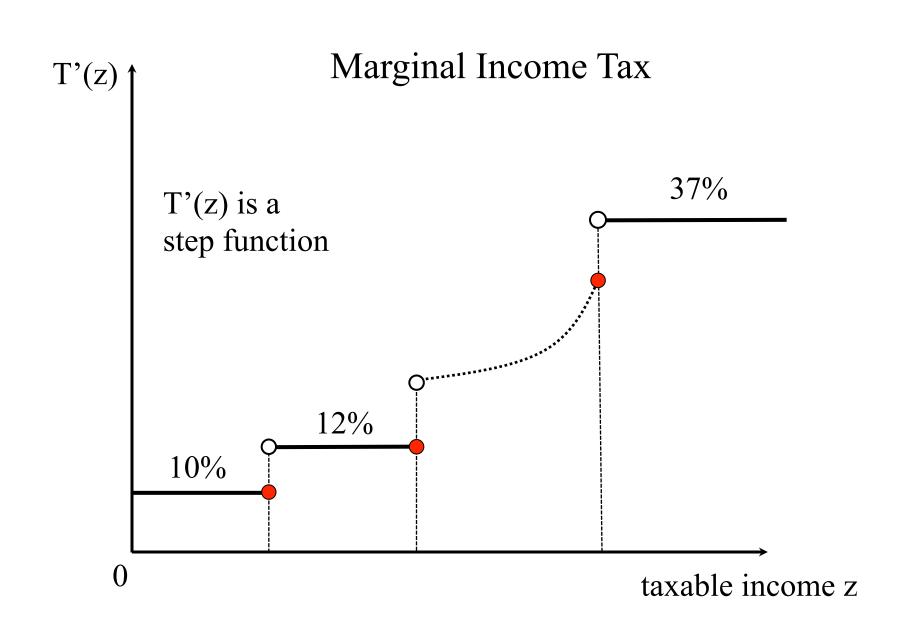
#### The Phase-In and Phaseout of the EITC

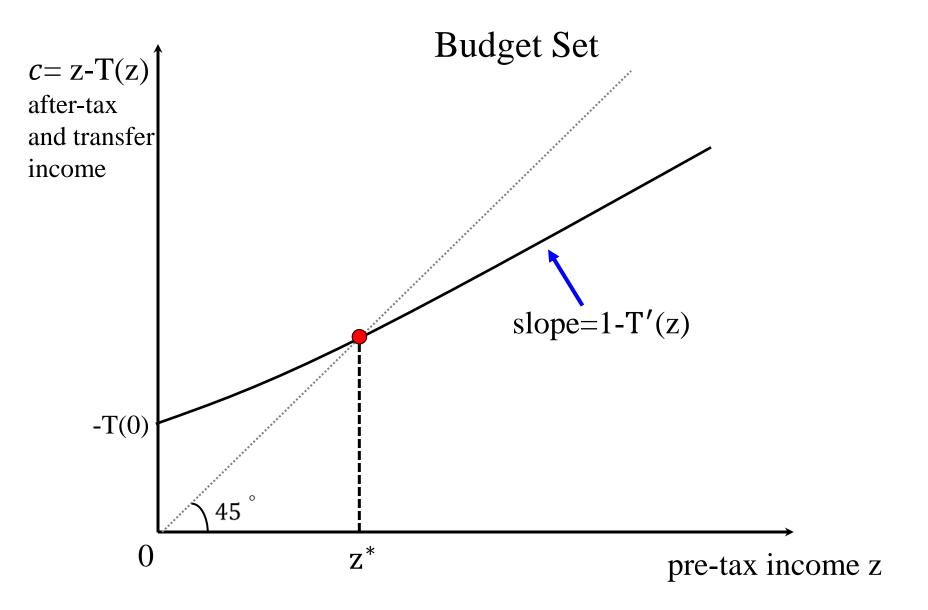
Credit Amount by Marital Status and Number of Children

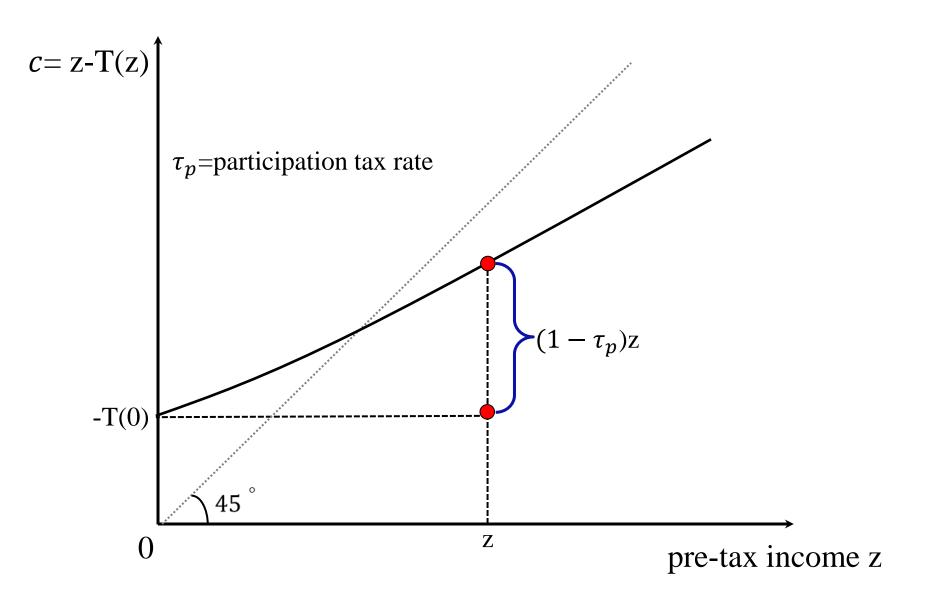


Source: Amir El-Sibaie, "2019 Tax Brackets," Tax Foundation, Nov. 28, 2018.







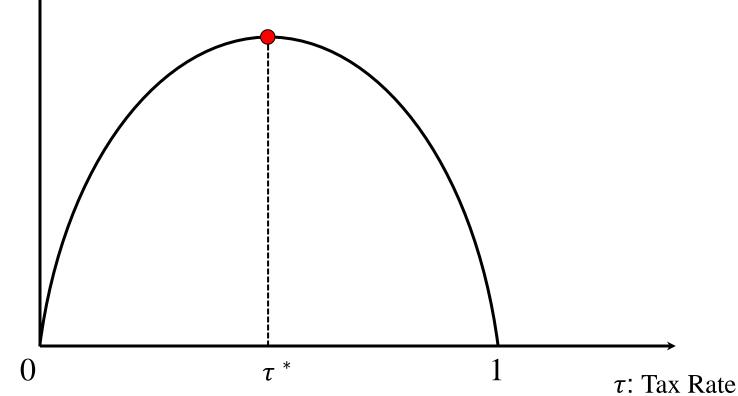


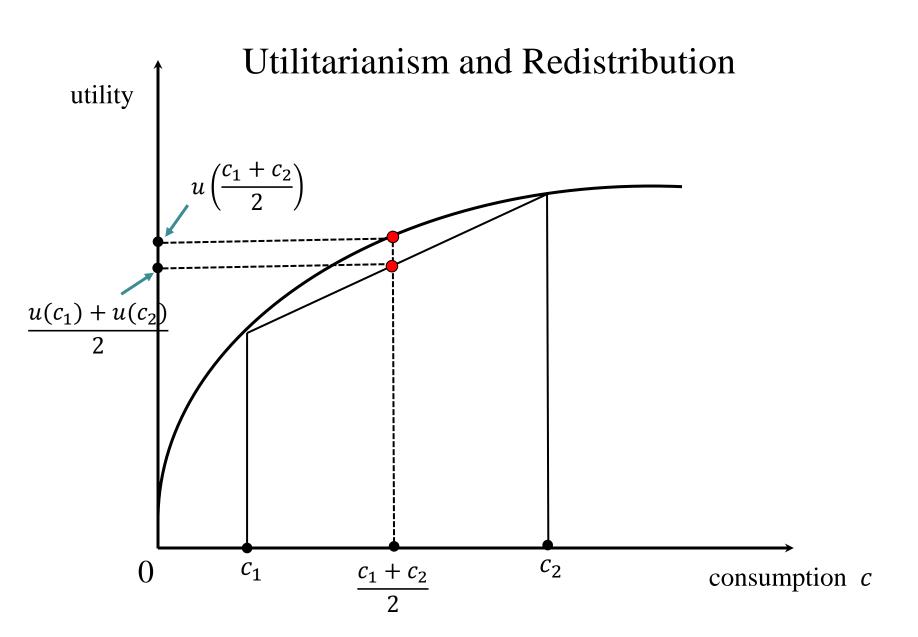
### Laffer Curve

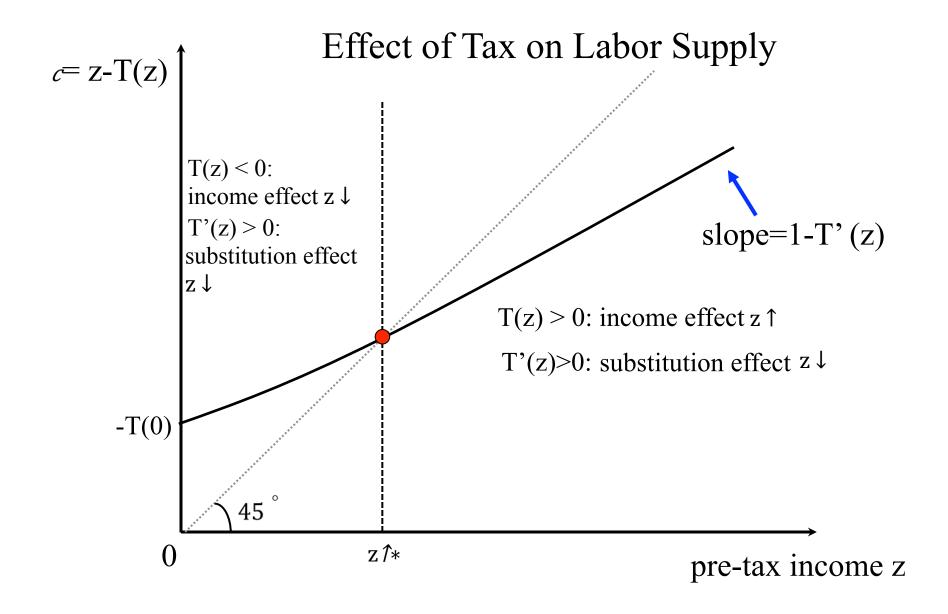
Tax Revenue R

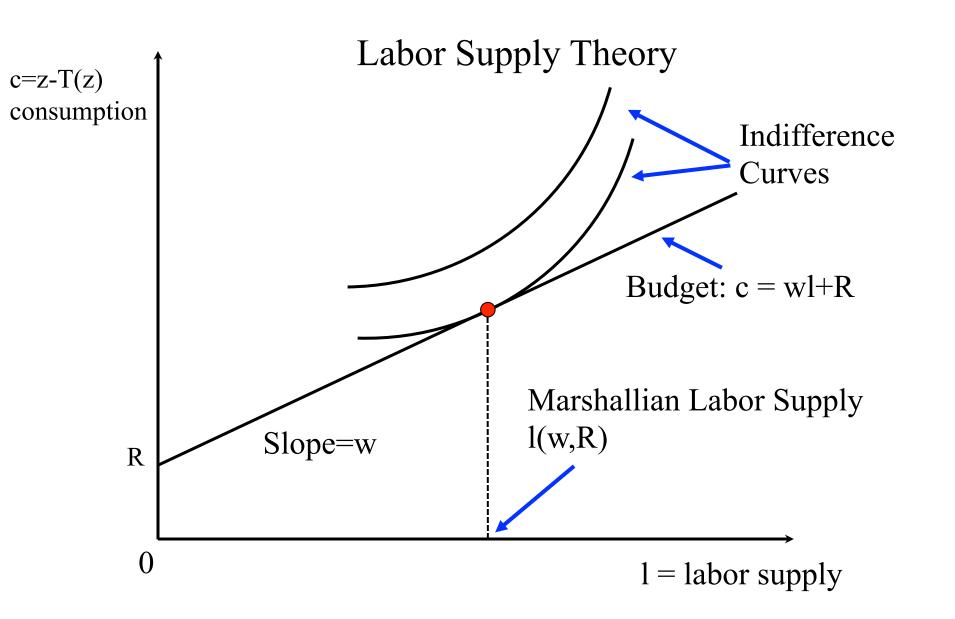
$$R = \tau \cdot Z(1 - \tau)$$

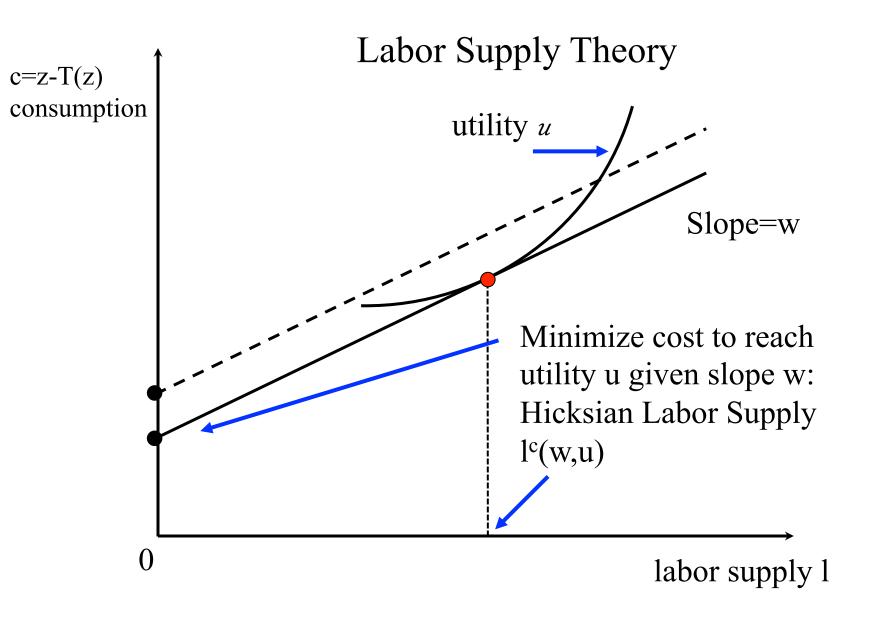
$$\tau^* = \frac{1}{1 + e} \text{ with } e = \frac{1 - \tau}{Z} \cdot \frac{dZ}{d(1 - \tau)}$$

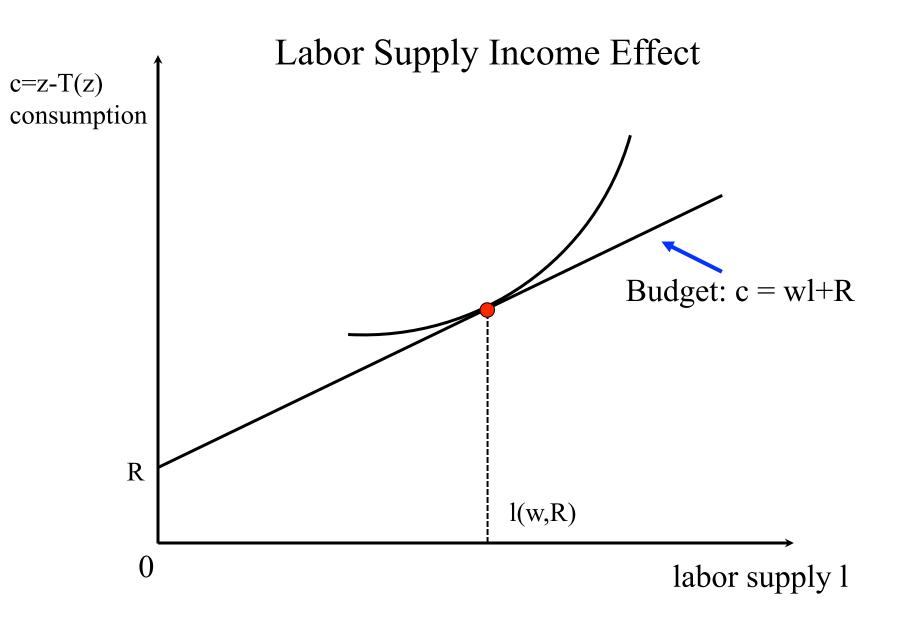


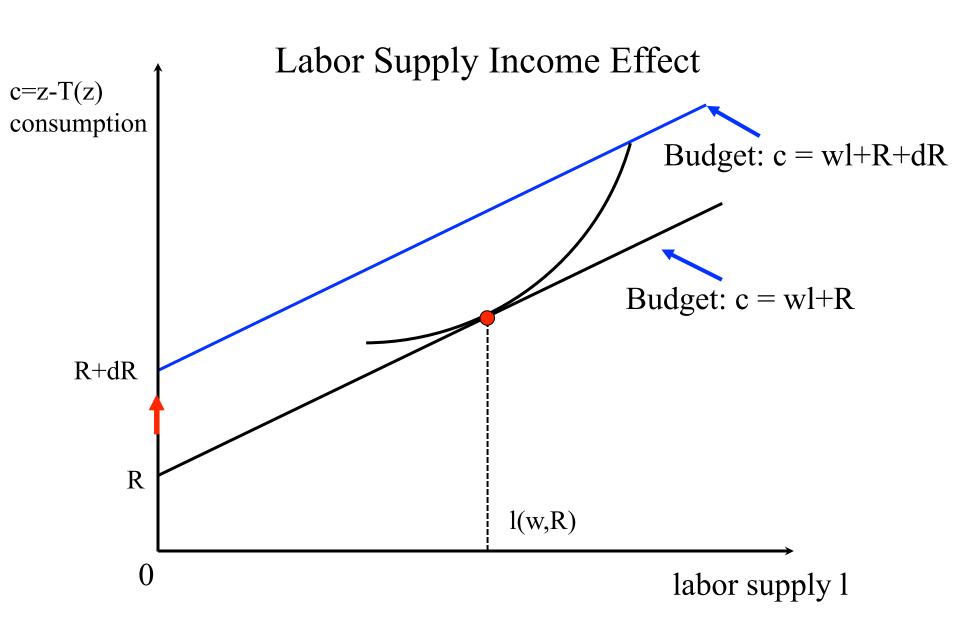


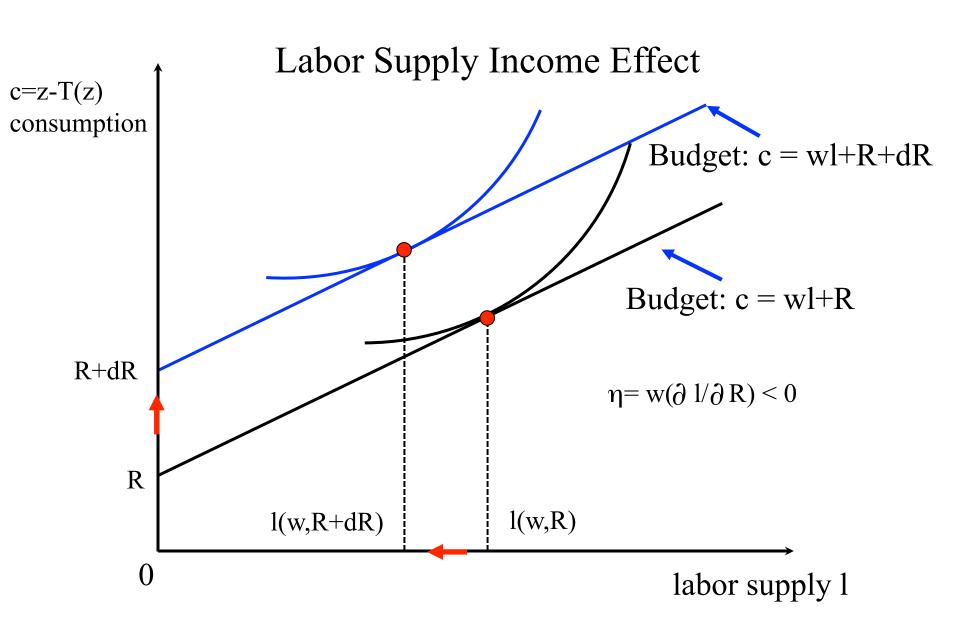


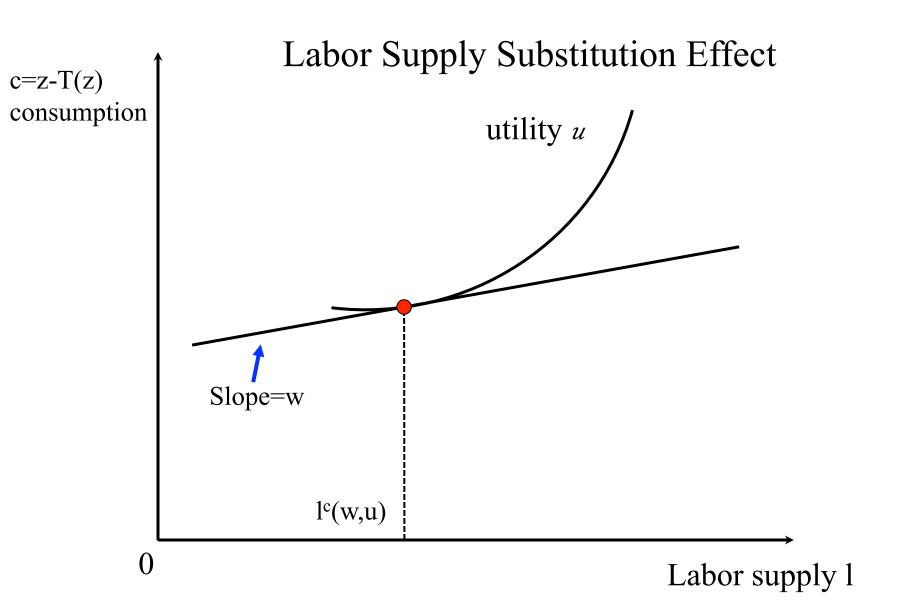


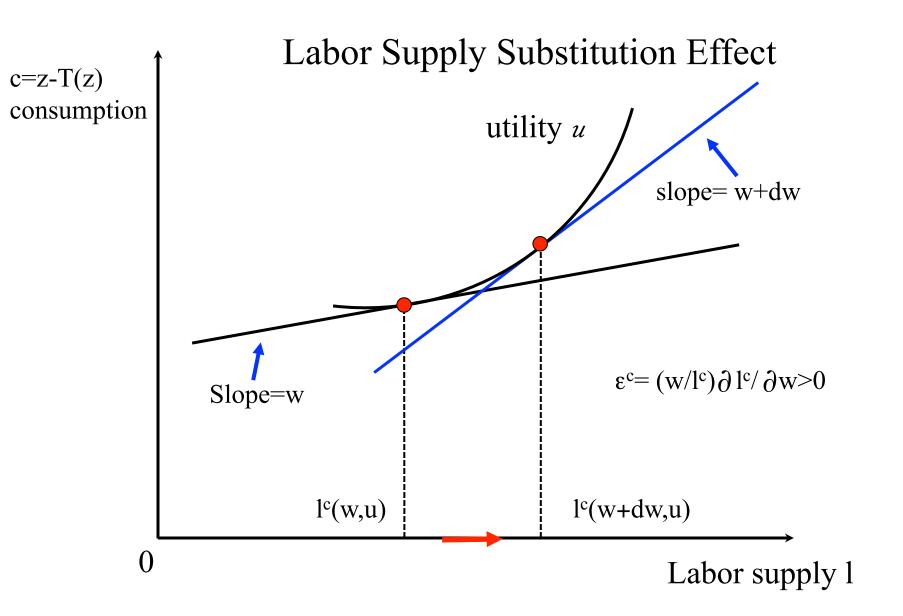


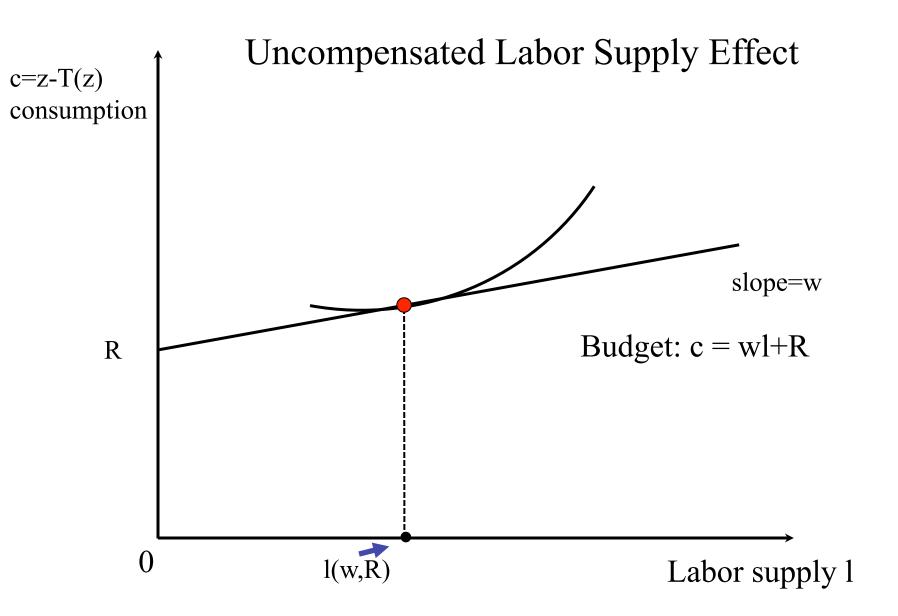


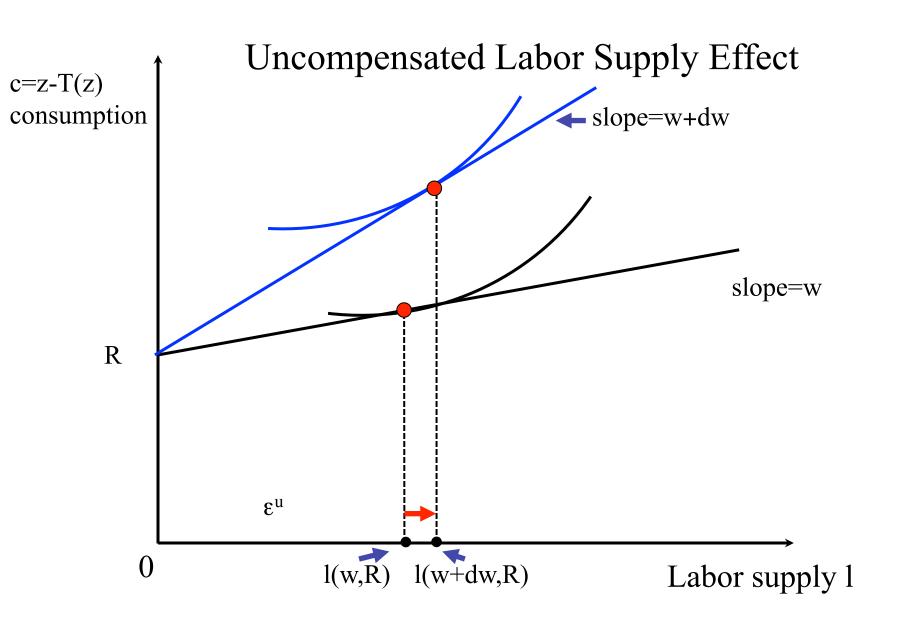


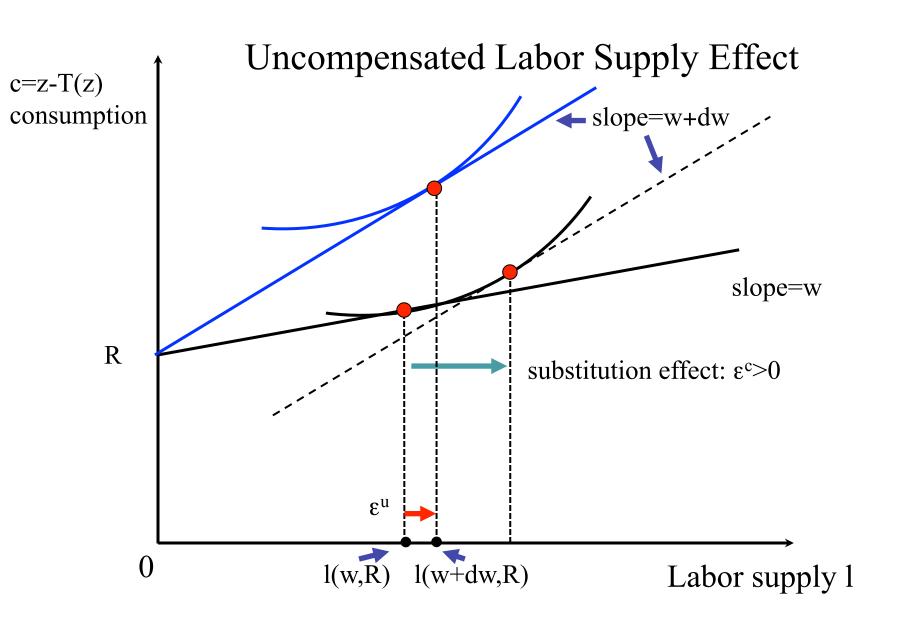


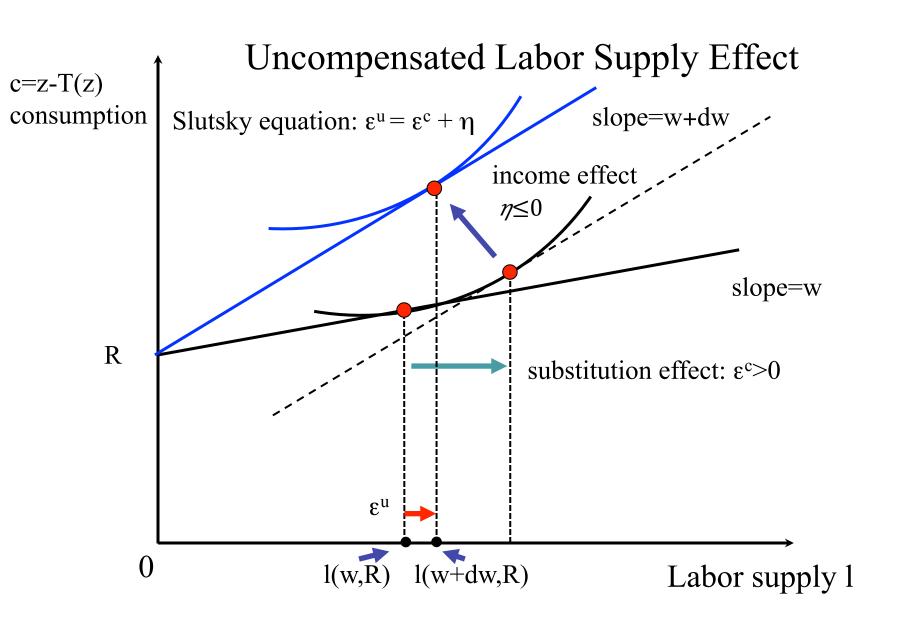


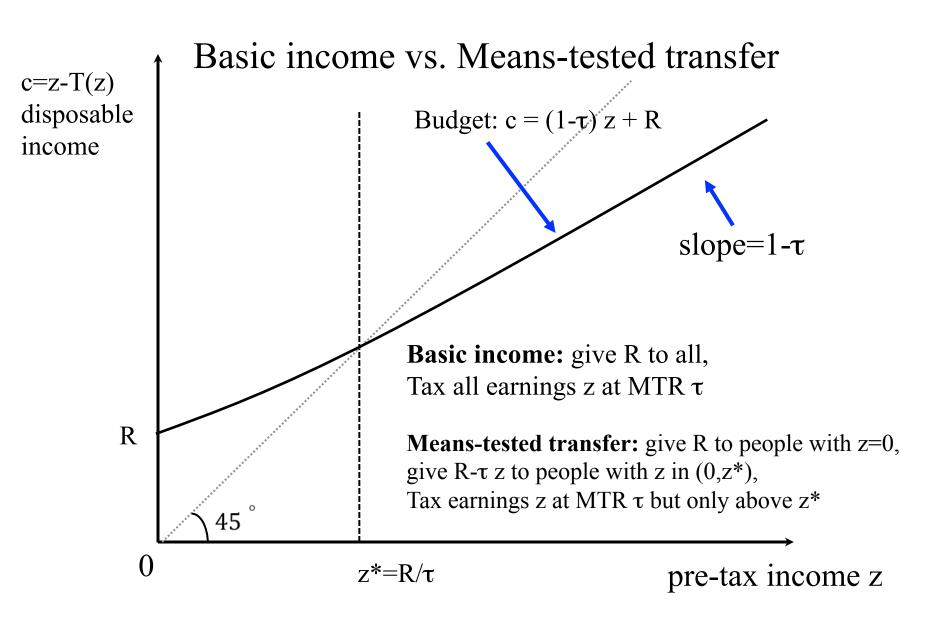


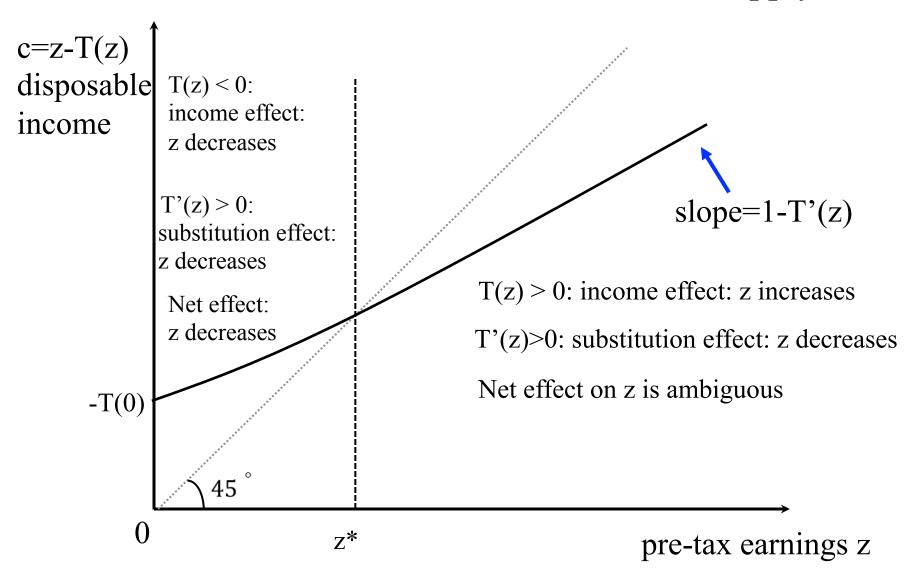


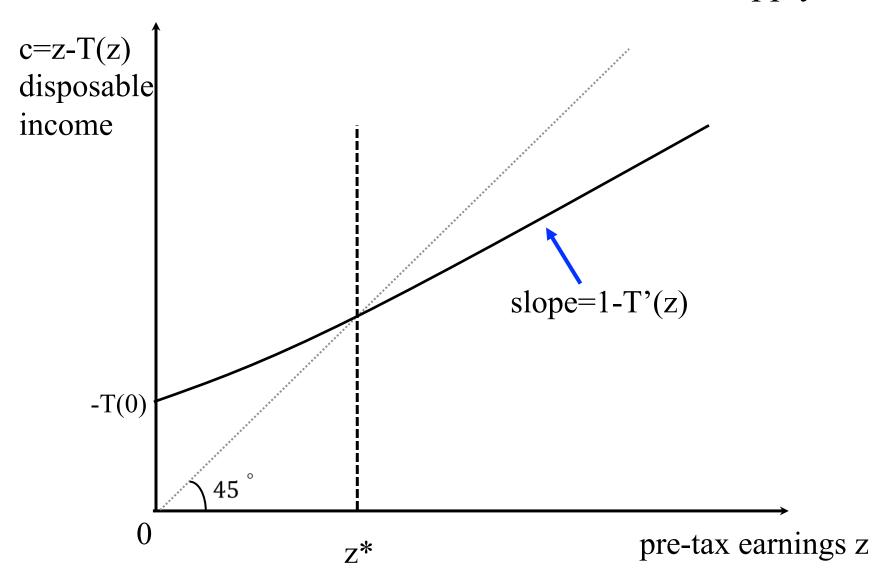


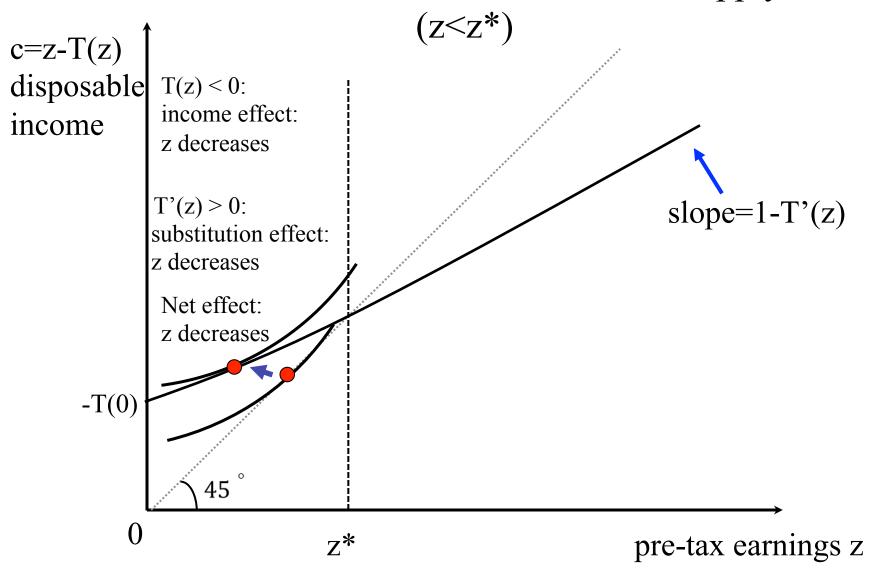


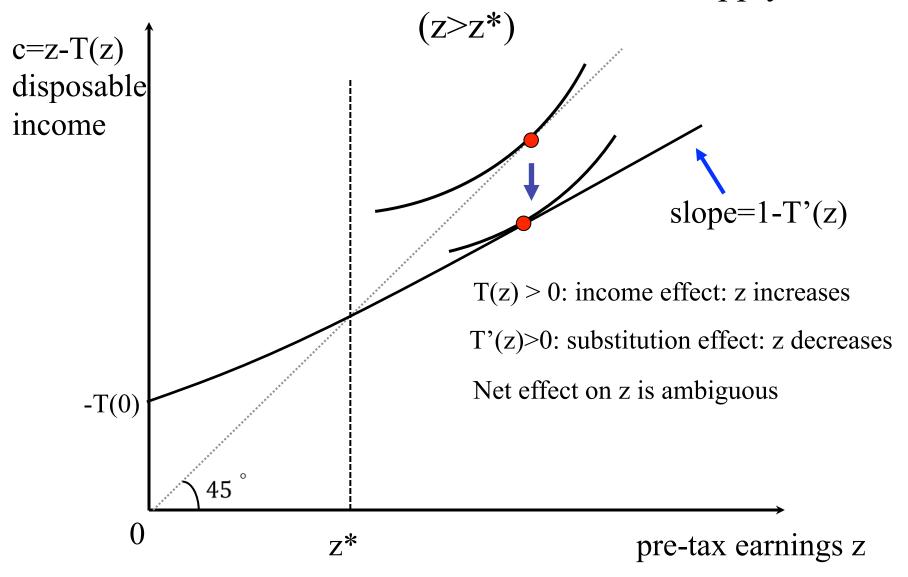




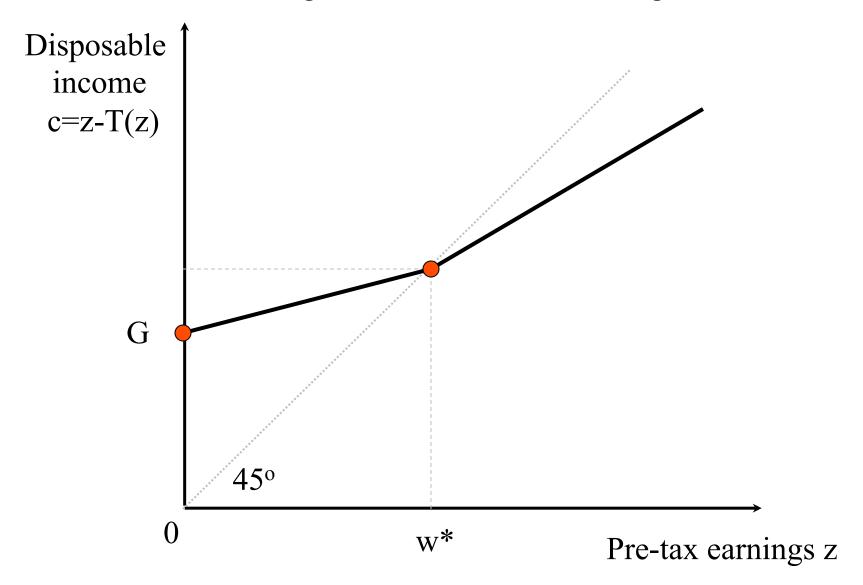


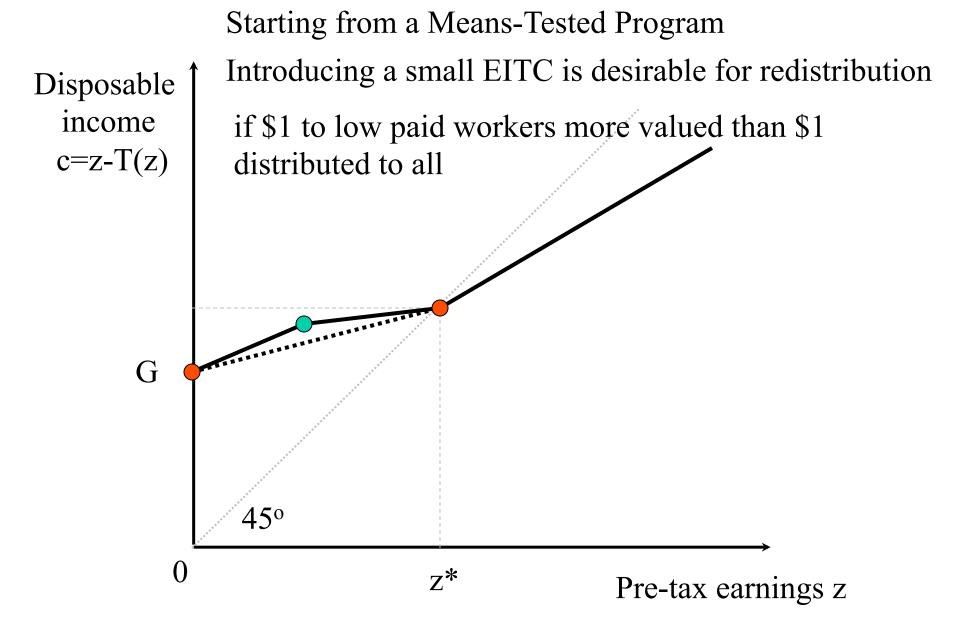


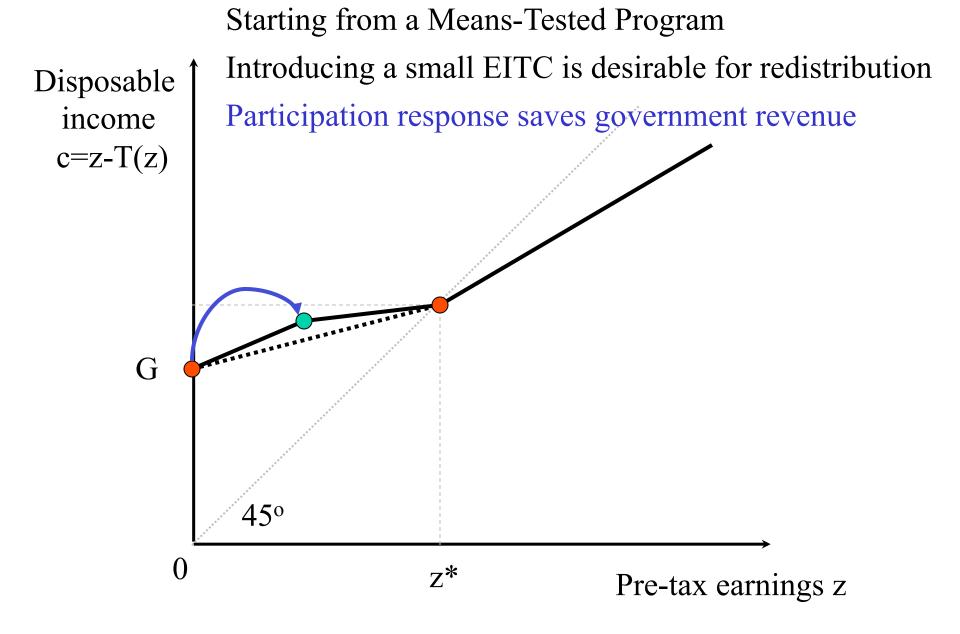


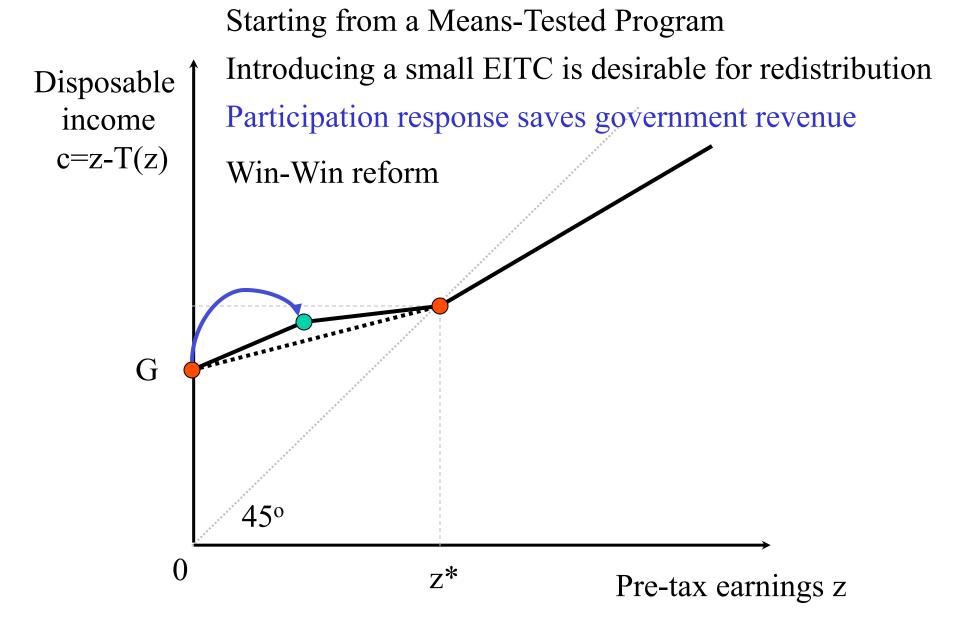


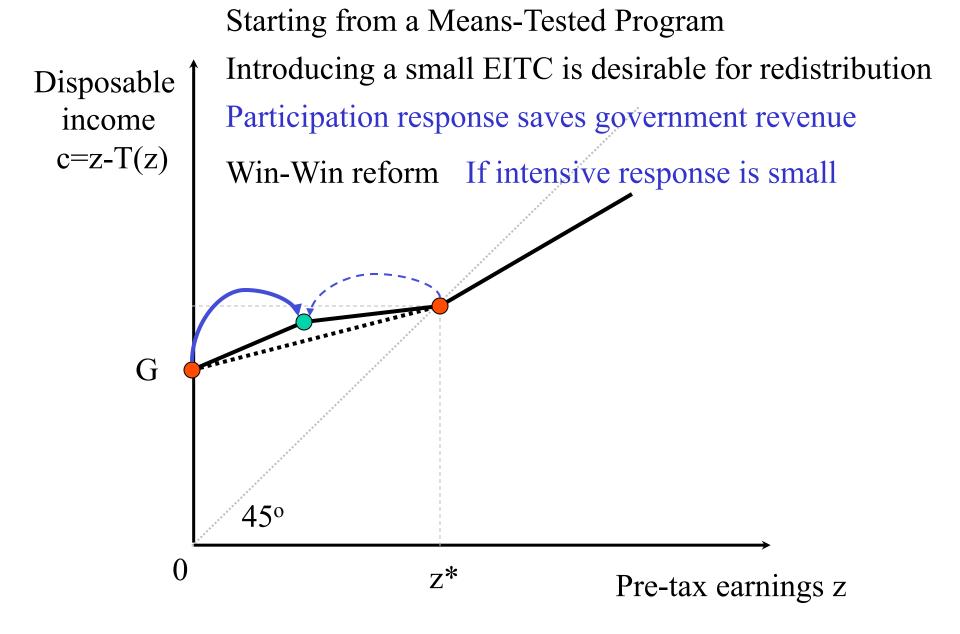
### Starting from a Means-Tested Program



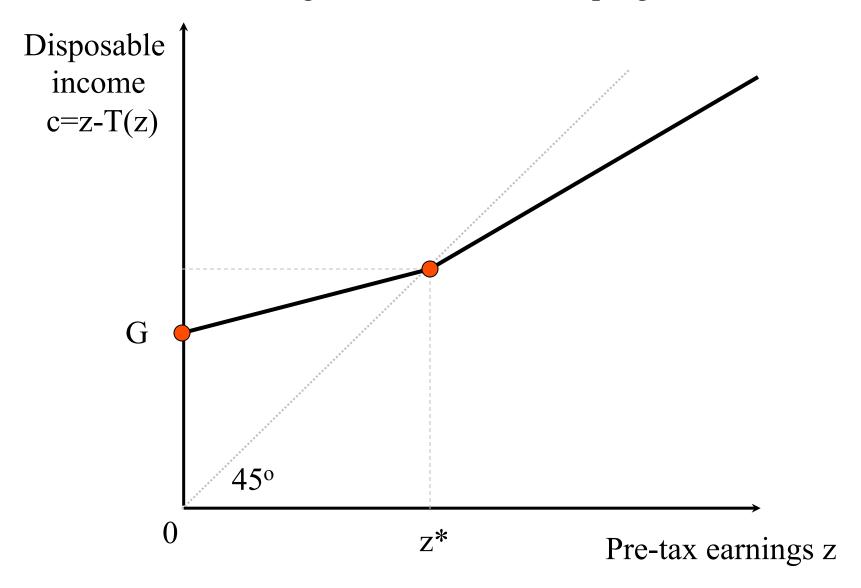


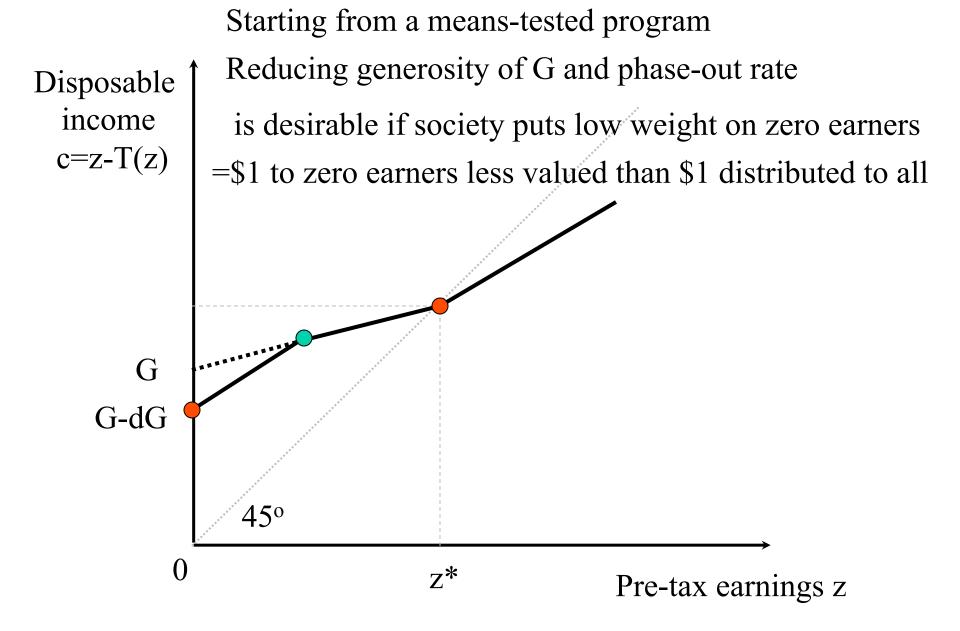


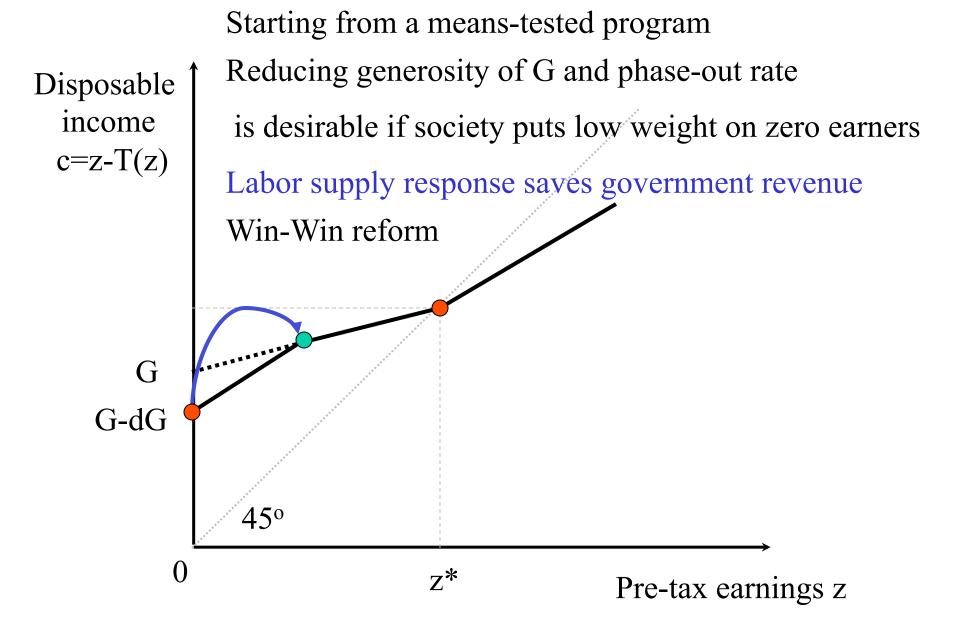


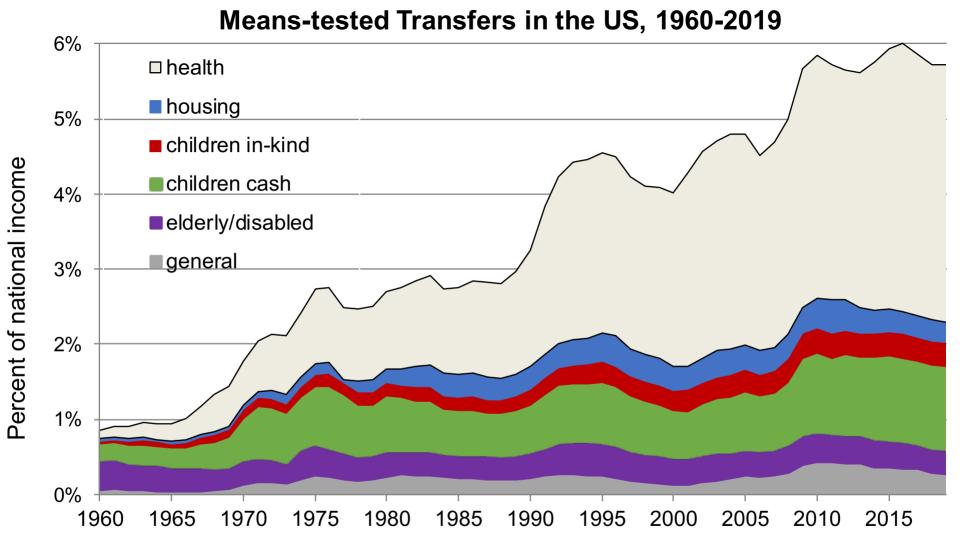


Starting from a means-tested program





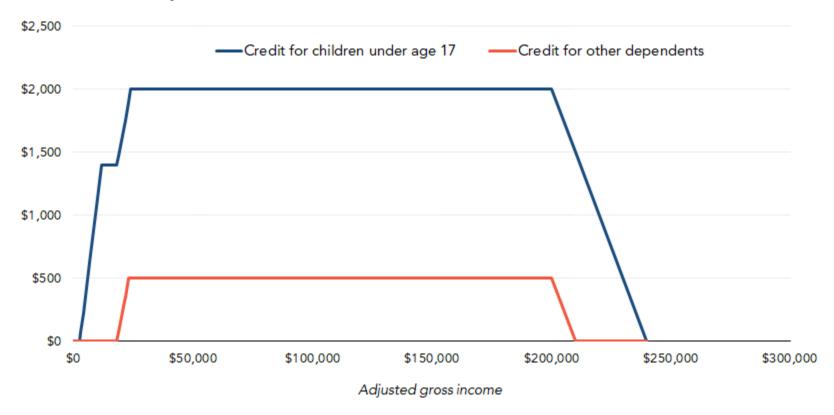




**Source.** National Accounts. Includes all individualized and means-tested transfers. General is untargetted (SNAP and general assistance for adults). Children cash includes refundable tax credits (EITC+CTC), TANF, and SNAP for children. Health is mostly Medicaid.

FIGURE 1 Child Tax Credit, Single Parent For one child, tax year 2020





Source: Urban-Brookings Tax Policy Center calculations.

**Notes:** Assumes all income comes from earnings, and child meets all tests to be a CTC-qualifying dependent. Credit for married parents begins to phase out at \$400,000 of income. Only citizen children qualify for the \$2,000 CTC for children under 17. Noncitizens under age 17 who meet the dependency tests of eligibility can qualify for the credit for dependents over age 17.