A gold-colored coin, likely a commemorative piece, is centered in the image. It features a central figure, possibly a personification of justice or a similar allegorical figure, holding a scale and a sword. The figure is surrounded by a circular border of twelve stars, similar to the European Union flag. The coin is set against a dark blue background with a subtle gradient and a white geometric shape on the right side.

**The Reality  
and Masquerade  
of Social Welfare  
Policy-Making  
and Delivery**

## **Normative Analysis**

**From Wikipedia, the free encyclopedia**

*In economics, philosophy, or other social sciences, analysis based on opinions is referred to as normative analysis (what ought to be), as opposed to positive analysis, which is based on scientific observation (what materially is). In mathematics and logic there can be no opinions about some claims, equations, and arguments, because often these kinds of statements are either valid or invalid, and true or false, and not open to contradicting opinions.*

## **Government Officials Pursuing Their Own Self-Interest**

- **The Nobel Laureate James Buchanan, among others, has suggested a model of government that focuses on the selfish behavior of government officials.**
- **The self-interest theory of government suggests that voters don't have much information about the costs and benefits of public services, and may not be able to evaluate the actions of politicians.**
- **Limitations on taxes and spending are necessary safeguards against politicians and bureaucrats who benefit from large budgets.**
- **Cit. from**  
<http://www.ux1.eiu.edu/~cfmqd/CH15/tsld035.htm>

## ***Rawls second principle of justice:***

***“The welfare of the worst-off individual is to be maximized before all others, and the only way inequalities can be justified is if they improve the welfare of this worst-off individual or group. By simple extension, given that the worst-off is in his best position, the welfare of the second worst-off will be maximized, and so on. The difference principle produces a lexicographical ordering of the welfare levels of individuals from the lowest to highest.”*** **Cit. Public Choice III, Dennis C. Mueller (2003: 600)**

# Social Welfare Policy Postulates

- *Once balanced, the portion of the tax pie for funding subsidies, throughout and in spite of volatility in the economy, must remain balanced;*
- *The negotiations between social and public agencies of how to cut of the tax pie comply with the rules and regulations in of the alternating-offers bargaining game;*
- *Bringing a motion to a vote is necessary to meet consumer perception against high taxes and excessive public spending. Whether it is good or bad or whether it ought to be acknowledged or not, or rejected or accepted, this motion must be carried out by the unanimous consent of voter-citizens.*

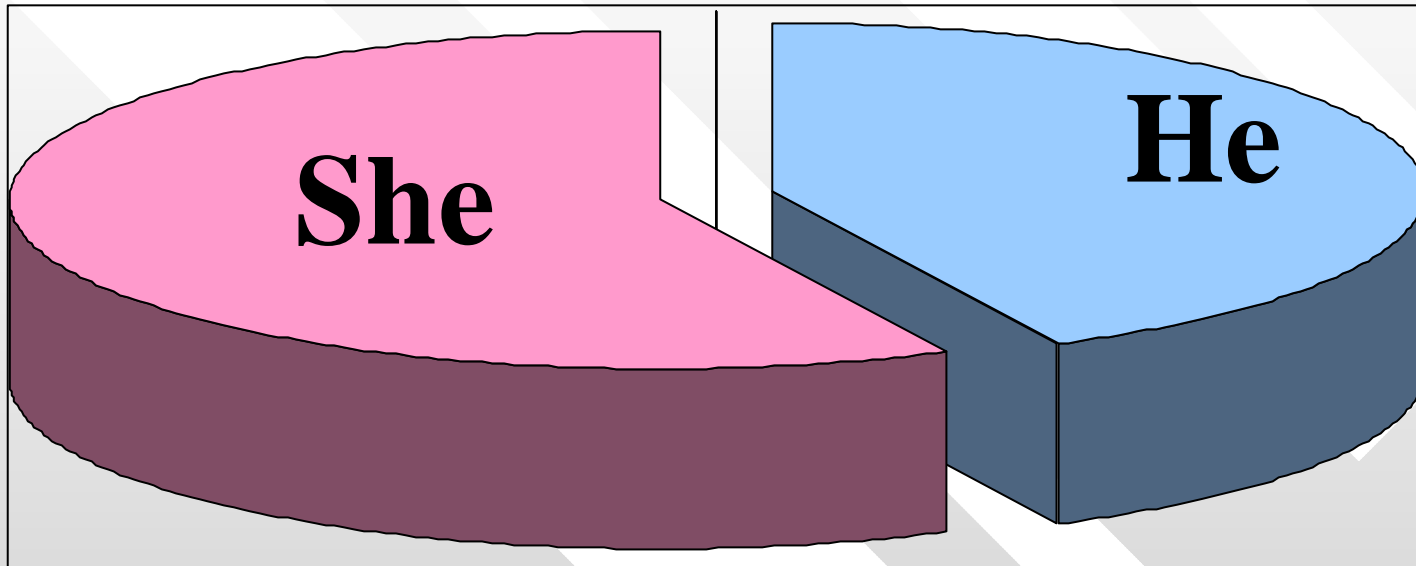
## Assumptions

1. The administration of social agencies knows the true and exact incomes of social clients, and thus it is required to implement an appropriate auditing regulation.
2. The behavioural pattern of agents remains endogenous. Agents demarcate themselves as *rich or poor* in compliance with current rules and regulations related to whether to compensate for the unfair subsistence of the poor and the needy with subsidies.
3. The regulation and maintenance of a dynamic property of the balance between debts and credits for funding subsidies is crucial. Debts and credits remains balanced throughout and in spite of volatility in the economy.
4. Subsidies eligible for claims may become excessively attractive for the needy or moderately attractive for the steady clients, which is likely to be the result of the inverse working incentives shifting the behaviour of agents towards destabilization of subsidy budget. In this context, official rules and regulations are necessary to prevent the destabilization, i.e., to neutralize so-called welfare hazard (*h*-factor) effect. Adoption of these rules and regulations under the subsidy system predict and enforce a dynamically stable policy of public spending.

## Assumptions

5. Rules and regulations of taxation: (a) exclusively proportional (flat) tax, (b) enforce tax schedules to be equal to taxable income, and (c) the entire tax revenue, i.e., the tax pie accumulated via tax schedules, is spent on public needs; delivery of social and public goods has reached its end.
6. The rules and regulations to govern social agencies' activities are independent from the state in the sense that, once committed to the agreement of how to cut the tax pie, the agencies are able to achieve the best policy, i.e., an efficient welfare policy is reachable.
7. In any set of rules and regulations of how to extrapolate and assess tax revenue, income distribution is considered the only legal repository for tax return information.
8. Our liberal position on welfare policy refers to proclaimed postulates that constitute a cascade of three welfare postulates embedded into welfare state institutions.

*Sugar pie ( $x, y$ ) allotment between  
bargainers,  $x + y = 1$*



*She, tough negotiator, but likes sweets*

*He, weak negotiator, not too keen on sweets*



*Sugar pie (x,y) allotment between bargainers,  $x + y = 1$*

- *His desirability function:  $u(x) = x$*
- *Her desirability:  $g(x) = \text{sqrt}(1-x)$*

*Non-symmetric bargaining solution*

*$\alpha$  His bargaining power*

*$1-\alpha$  Her bargaining power*

Suppose that **HE** decides to gain a half of the pie.  
What must be **HIS** negotiating power  $\alpha$  to get it?

$$f(x, \alpha) = u(x)^\alpha \cdot g(1-x)^{1-\alpha}$$

Non-symmetric solution:  $x := 0.5$

$$\frac{\partial}{\partial x} f(x, \alpha) \Big|_{x=0.5} = 0, \quad \alpha = 0.3334$$

## Judgment of sugar pie policy-making

Even in the face of the fact that **SHE** is twice as tough a negotiator, to count on the half of the pie is a realistic attitude towards **HIS** position of negotiations. Surely, rather sooner than later, since **HE** revealed that **SHE** likes sweets, **HE** would have **HER** to agree to a concession.

# The Official Poverty Line

The poverty line is set by the national government to define who is living in poverty. The official number is adjusted annually. It is however a deeply flawed measurement. It assumes for example that housing costs are approximately fourteen per cent of a typical budget. The reality, however, is that housing makes up 25-33 per cent of a typical family budget, reaching over 50 per cent in most major metropolitan areas. Government figures also over estimate the percentage for food costs and do not adequately estimate the percentages for childcare, health insurance or transportation. The practice of overestimating the portion of a family budget of things that are relatively inexpensive like food and underestimating the portion of things that are expensive like housing, child care, health care and transportation results in an official poverty line that simply does not reflect the real costs affecting families.

# Who is the poor and who is the rich?

Poverty line:  $\xi$  - control parameter,  
rules and regulations variable

$$\sigma \leq \xi < \sigma - \text{gross income}$$

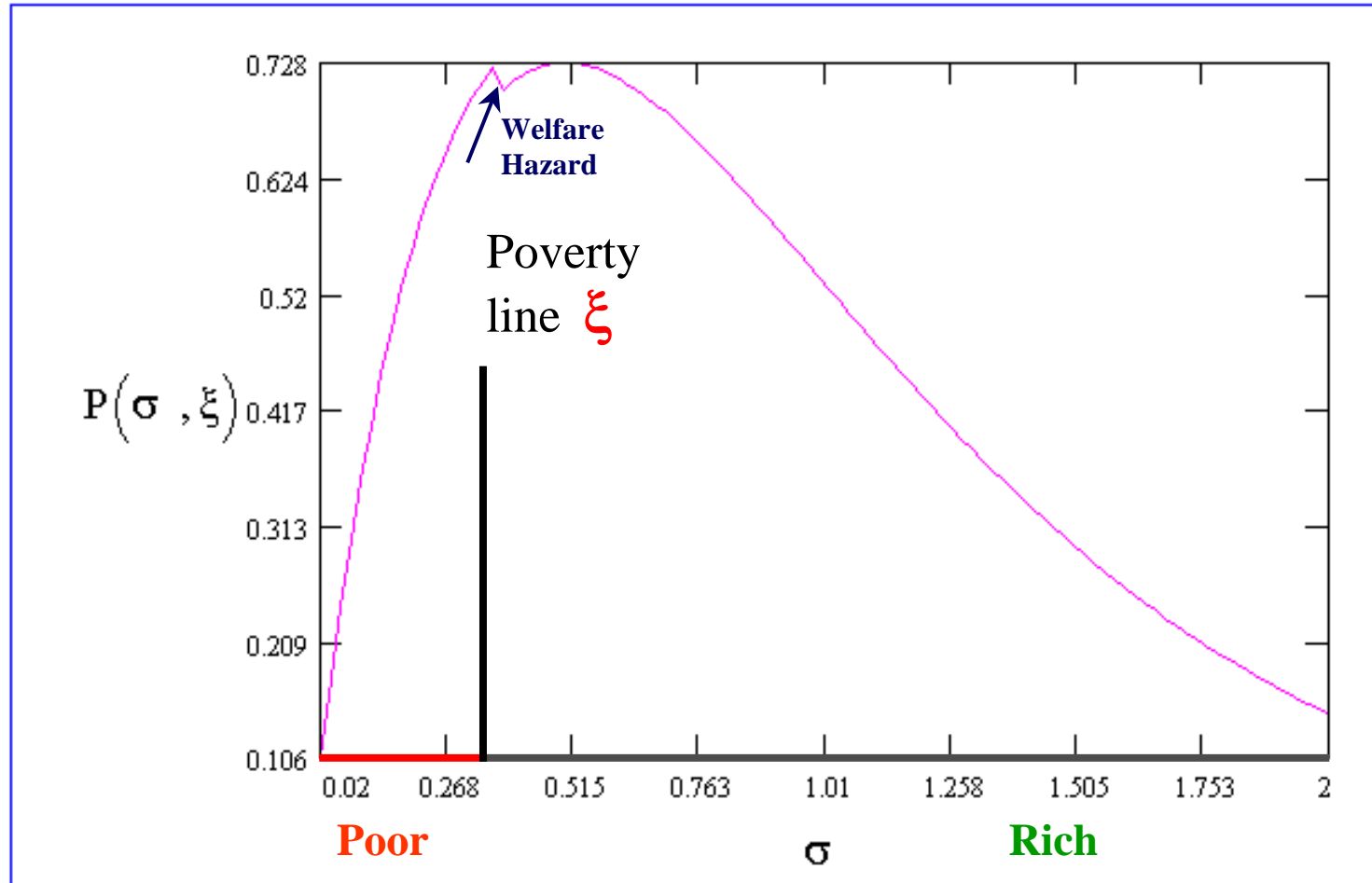
Poor people,  
to the left

Rich people,  
to the right

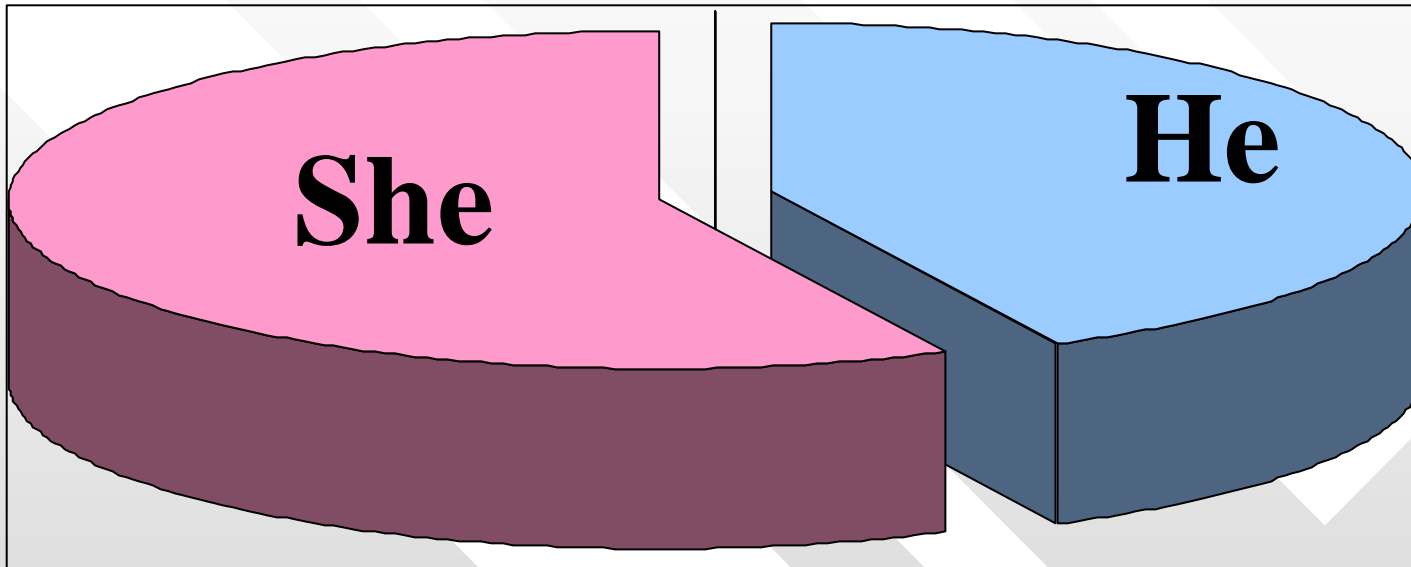
G r o s s                      i n c o m e                       $\sigma$                       s c a l e



# Income distribution typical for societies sharply divided into very rich and very poor people



**1 €** of tax obligation allotment  $(x,y)$   
between bargainers,  $x + y = 1$ :



- She, tough negotiator, personalizes government institutions like public agencies, services, etc...
- He, weak negotiator, personalizes social agencies, helping the poor on legal and moral grounds

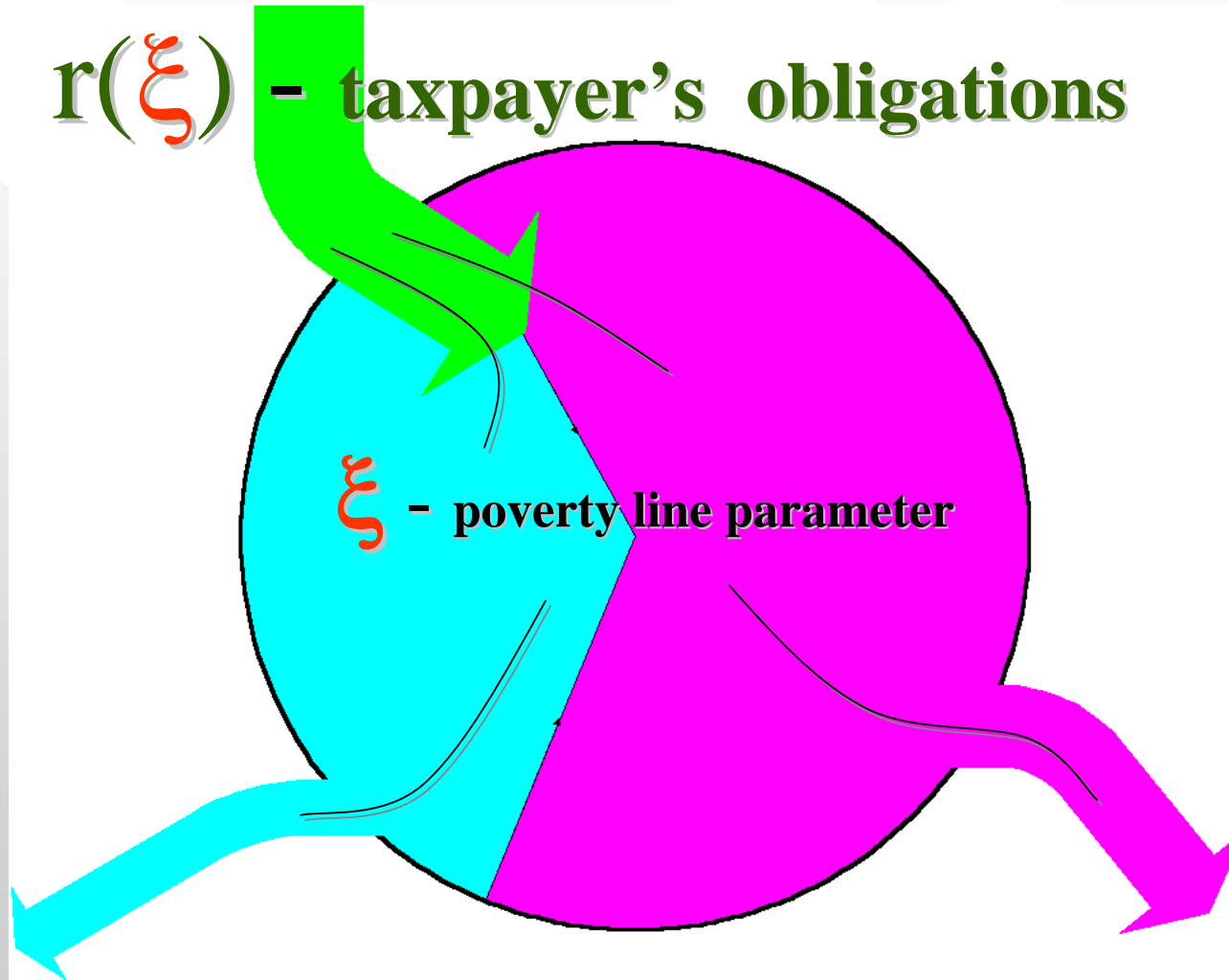
# Objectives of players

- $u(\xi)$  - social minimum per capita guaranteed to be implemented in compliance with rules and regulations;
- $g(\xi)$  - public goods per capita, argument that benefits all in the society;
- $q$  - risk of higher taxes  $\tau(\xi, x)$  emanating from electoral maneuvering of citizens to break down negotiations.



# Objectives of players

$r(\xi)$  - taxpayer's obligations



$\xi$  - poverty line parameter

$u(\xi)$  - social norms

$g(\xi)$  public goods

# List of variables

8 variables:  $\langle \mathbf{u}, \mathbf{g}, \mathbf{p} \rangle \mathbf{x}, \boldsymbol{\tau}, \alpha \Leftarrow \boldsymbol{\xi}, \phi$

$\phi$  - personal allowances, an external control parameter establishing tax bracket  $[\phi, \infty]$

$\boldsymbol{\xi}$  - poverty line to decide who is living in poverty, the choice or control parameter

$\mathbf{x}$  - the cut of tax-pie (pool of tax revenue) scheduled at social agencies account

$\alpha$  - negotiating power of social agencies

$\boldsymbol{\tau}$  - marginal tax rate, the wealth tax

$\mathbf{p}$  - pie of the tax revenue, public spending

$\mathbf{g}$  - monetary gain function of public agencies

$\mathbf{u}$  - guaranteed social minimum, monetary gain function of social agencies

## Value Judgment

**First, let us suppose that, playing the game, social agencies reached an agreement with public agencies. Will the rules and regulations of the game stand any chance of a just and fair solution? In **Table 1**, we present the percentage of agents below the poverty line establishing the poverty rate. Taken separately, it is, however, a deeply flawed measurement of justice. In fact, when breakdown of negotiations occurs, the solution given by rate **0.06%** is allegedly the most just and fair!?**

## **Value Judgment**

**Second, the tax pie redistribution compensates for the inequalities of agents' incomes up to the poverty line. The poverty line is set by the national government to decide who is living in poverty. The official number is adjusted annually. However, our major assumption was that the variety of rules and regulation for the tax pie game a propos social agencies are independent from the state; agencies are in a privileged position, allowing themselves to adjust the poverty line to reach the best (max) policy within limits agreed in advance with public agencies on how to cut the pie by .**

## Value Judgment

Next to the poverty line, the power parameter  $\alpha$  highlights the capacity and resources, skills and competence of social agencies, etc., to maintain their duties under the principles as to how the state ought to behave when trying to fulfil its welfare mission. We see no value in a separate judgment of this interpretation. However, to prescribe social agencies a lower grade  $\alpha$ , but higher grade  $1-\alpha$ ,  $0 \leq \alpha \leq 1$ , to public agencies, in view of the agencies' central position of purchasing and delivering vital public services, is appropriate. Therefore, adjusting the power parameter  $\alpha$  specifically as a desirable outcome we imbed the tax pie game into a realistic welfare policy aiming to settle the rules and regulations of the game closer to legal responsibilities and moral obligations of citizens, what benefits all in society.

## **Value Judgment**

**The last feature is the unanimous consent; a situation in which no one can find a reason to object the consent. To reach consensual agreement is a well-known and difficult enterprise, and time consuming process. In the tax pie game with a risk of higher taxes, the consent of citizens on the condition of minimizing taxes brought the problem into focus. In view of agents receiving subsidies, a higher tax rate might be the subject of the debates and the most favourable and just solution. In contrast, the minimum tax policy for the consumer is out of the question, as we assume it is, not least that it is also a just and fair redistribution of wealth without a single objection. Therefore, if we agree in the debates upon the rules and regulations of the game, the result, which minimizes taxes, offers a vision of what policy should entail. To reach the result is worth the time and efforts even if the vision is a realistic utopia.**

## Value Judgment

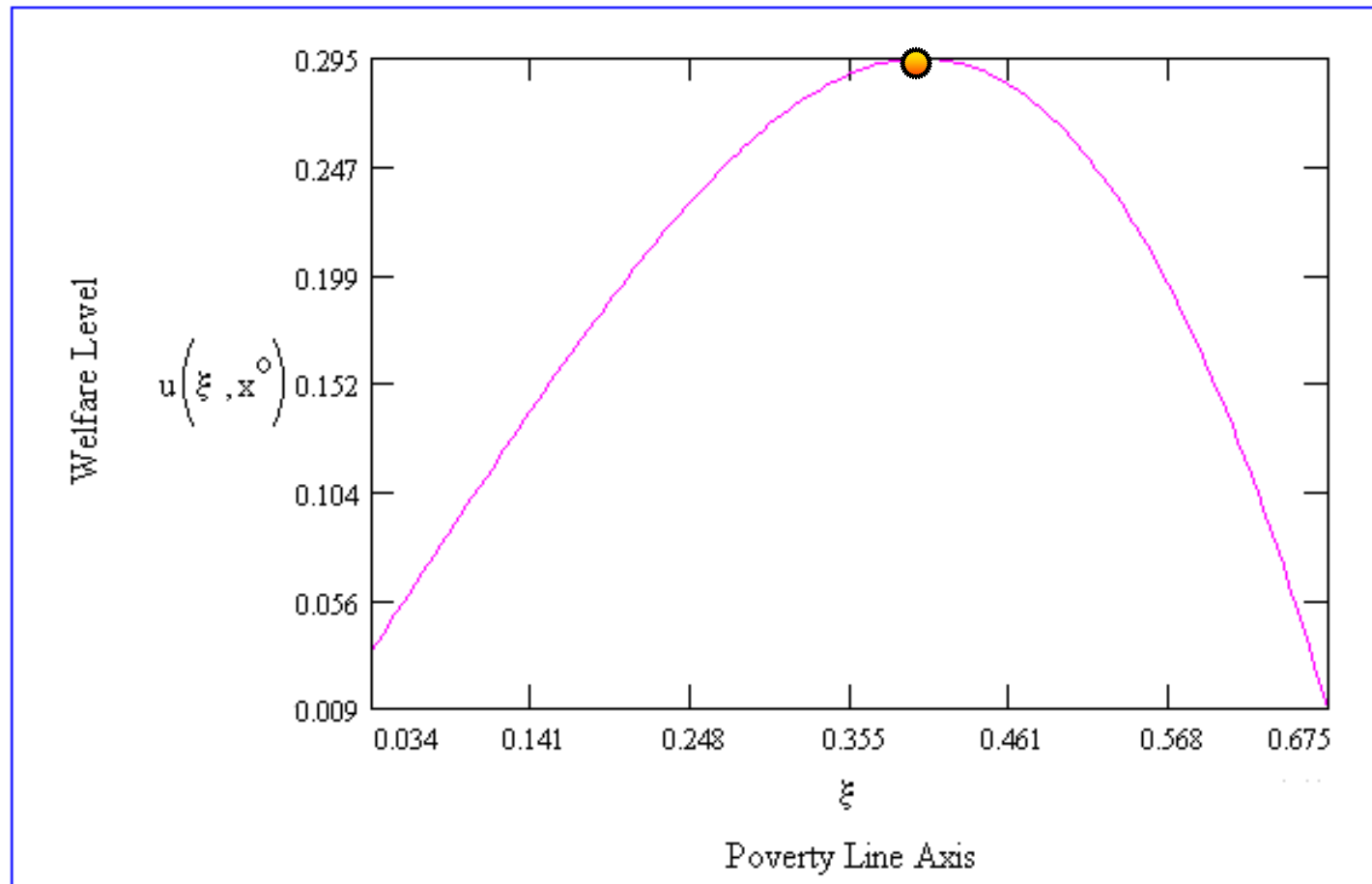
Now so understood, it goes without saying that entering the realm of obvious utopia, the policy **25.45** with equal power of negotiators is less just and less fair than the policy **17.36**, where the minimum of taxes is reached; only the policy on poverty (**Fig. 3**) has a chance for a vote by unanimous consent. Indeed, in the variety of tax pie game regulations, when engaged in an interaction to implement equal policy **25.45** (like HE and SHE engaged to obtain a piece of sugar pie), the equal power **0.5** of social agencies' negotiators was stronger than **0.2** (see the **Table 1**). Nevertheless, the incident with weakened power **0.2** is yet to be determined and the aim of customers can still be reached on policy **17.36** for the tax rate **20.05% < 20.9%**. Thus, regardless of the reduced obligations of taxpayers, social agencies, even with their weakened bargaining position, will be able to come to a desirable agreement with the public agencies to maintain a fair level of wealth.

**Table 1. Numerical experiment behind the bargaining game of welfare policy-making and delivery;** <sup>7</sup> SA – Social Agencies, PA – Public Agencies

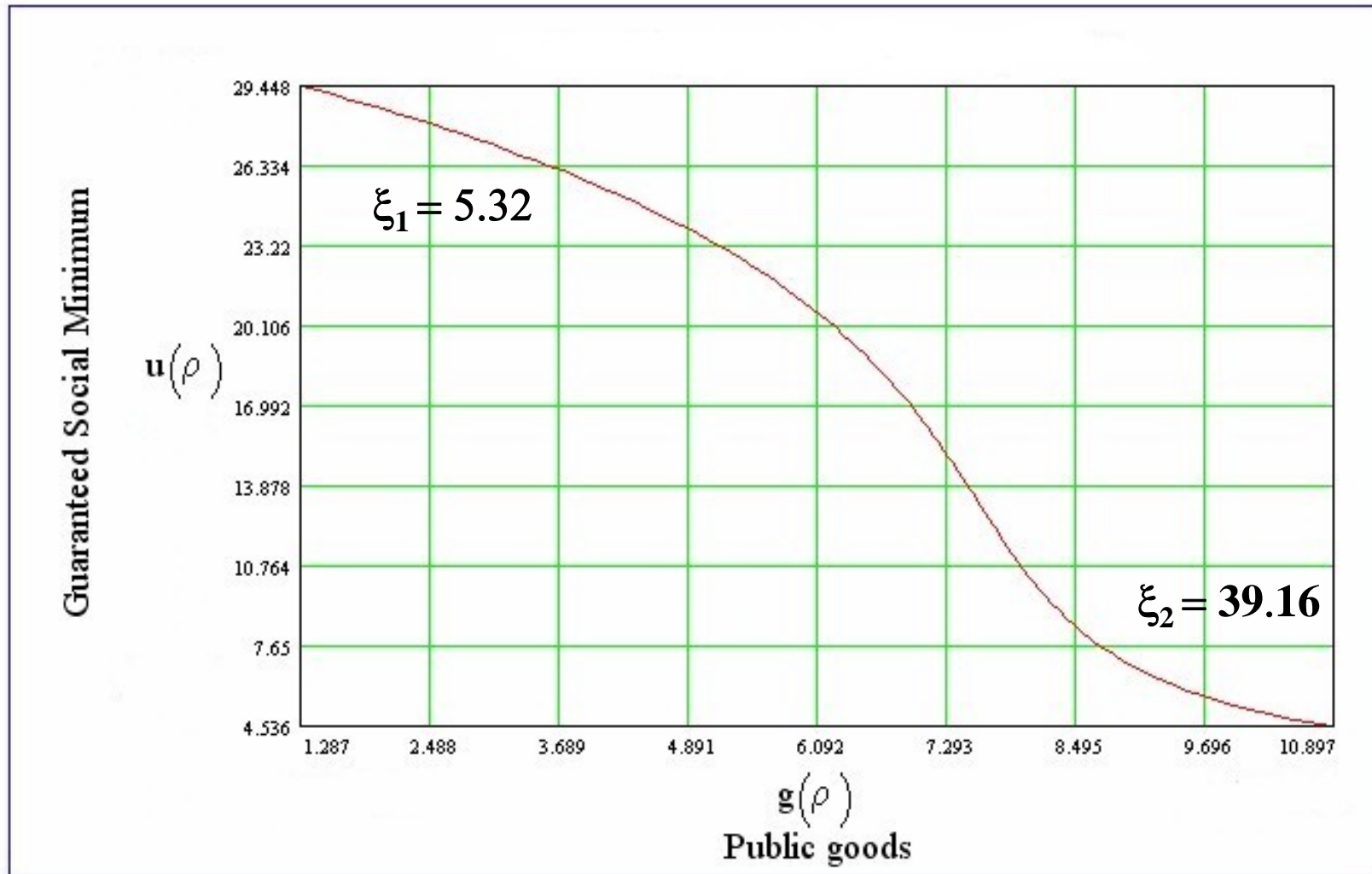
<i>Obtained by means of income distribution density (Fig. 1); personal allowance <math>\phi = 2.34</math>, <math>\theta = 11.9</math>, <math>h = -0.09</math>, <math>m = 4.1</math></i>		<b>Policy of equal, symmetric power of negotiators</b> $\eta$	<b>SA proposal accepted by PA</b> $\lambda_1, q = 5\%$	<b>Proposal minimizing wealth tax</b> $\lambda, q \approx 0\%$	<b>Poverty line, 50% of median income</b> $\frac{1}{2}\mu$	<b>PA proposal accepted by SA</b> $\lambda_2, q = 5\%$	<b>Policy of disagreement, the breakdown</b> $\delta$
<b>Poverty line–welfare policy</b>	$\xi =$	25.45	18.9	17.36	16.76	15.78	4.61
<b>Poverty rate: percentage of agents below the poverty line</b>		25.65%	10.63%	8.1%	7.2%	5.9%	0.06%
<b>Negotiating power of social agencies</b>	$\alpha(\xi)$	0.5	0.24	0.2	0.19	0.17	Not defined
<b>Guaranteed social minimum</b>	$u(\xi)$	20.62	15.57	14.35	13.86	13.08	4.54
<b>Average public goods</b>	$g(\xi)$	6.1	7.23	7.43	7.5	7.62	1.29
<b>Average taxable income, the wealth</b>	$W(\xi)$	37.94	38.5	38.75	38.86	39.05	41.47
<b>Wealth-tax, marginal tax rate</b>	$\tau(\xi)$	20.9%	20.09%	20.05%	20.06%	20.09%	3.1%
<b>Average public spending</b>	$p(\xi)$	7.93	7.73	7.77	7.80	7.84	1.29
<b>Average income, provision indicator</b>	$a(\theta + h \cdot \xi)$	38.43	40.3	40.71	40.87	41.13	43.74



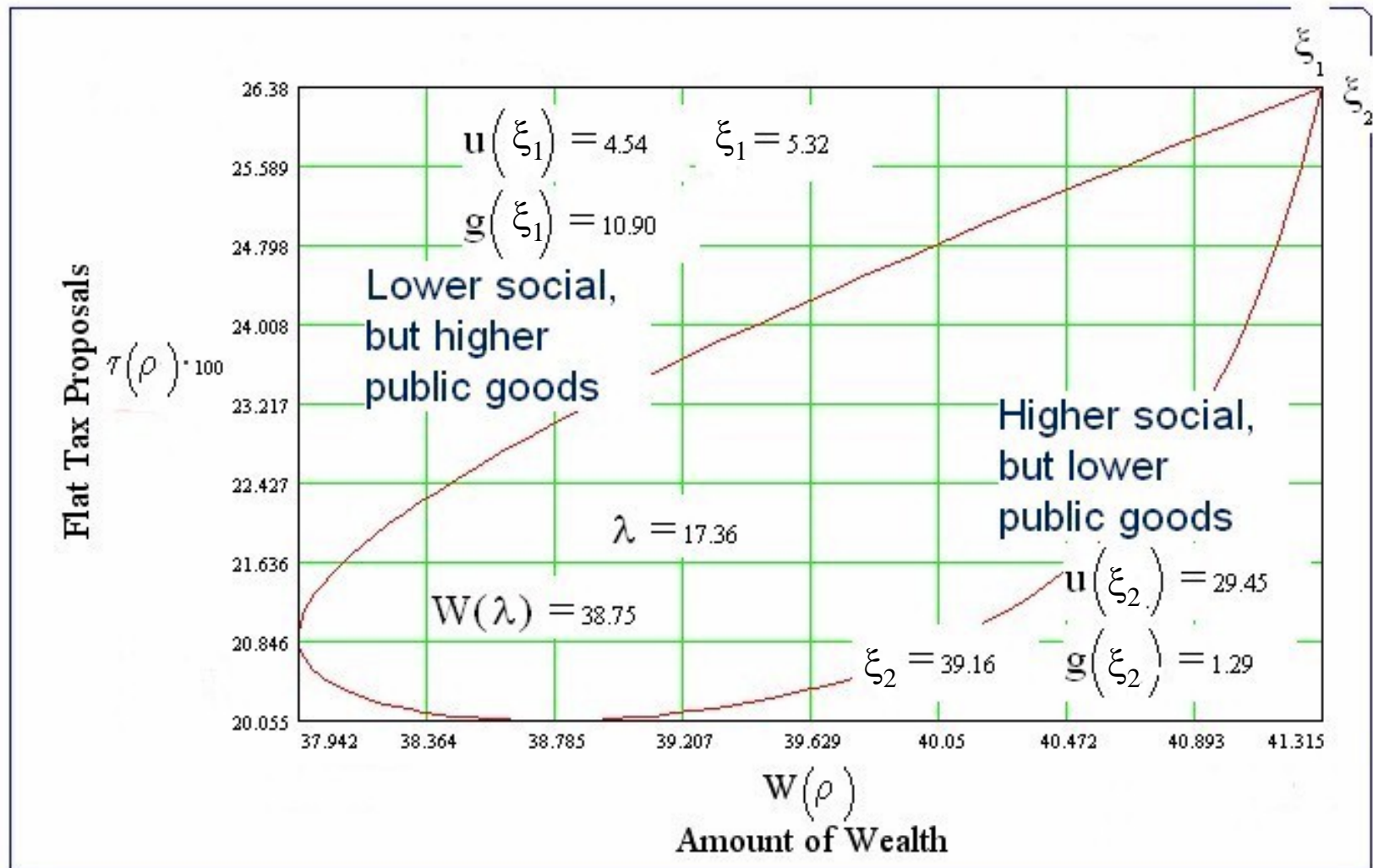
# The Curve of Guaranteed Social Minimum



# The Bargaining Frontier Projection

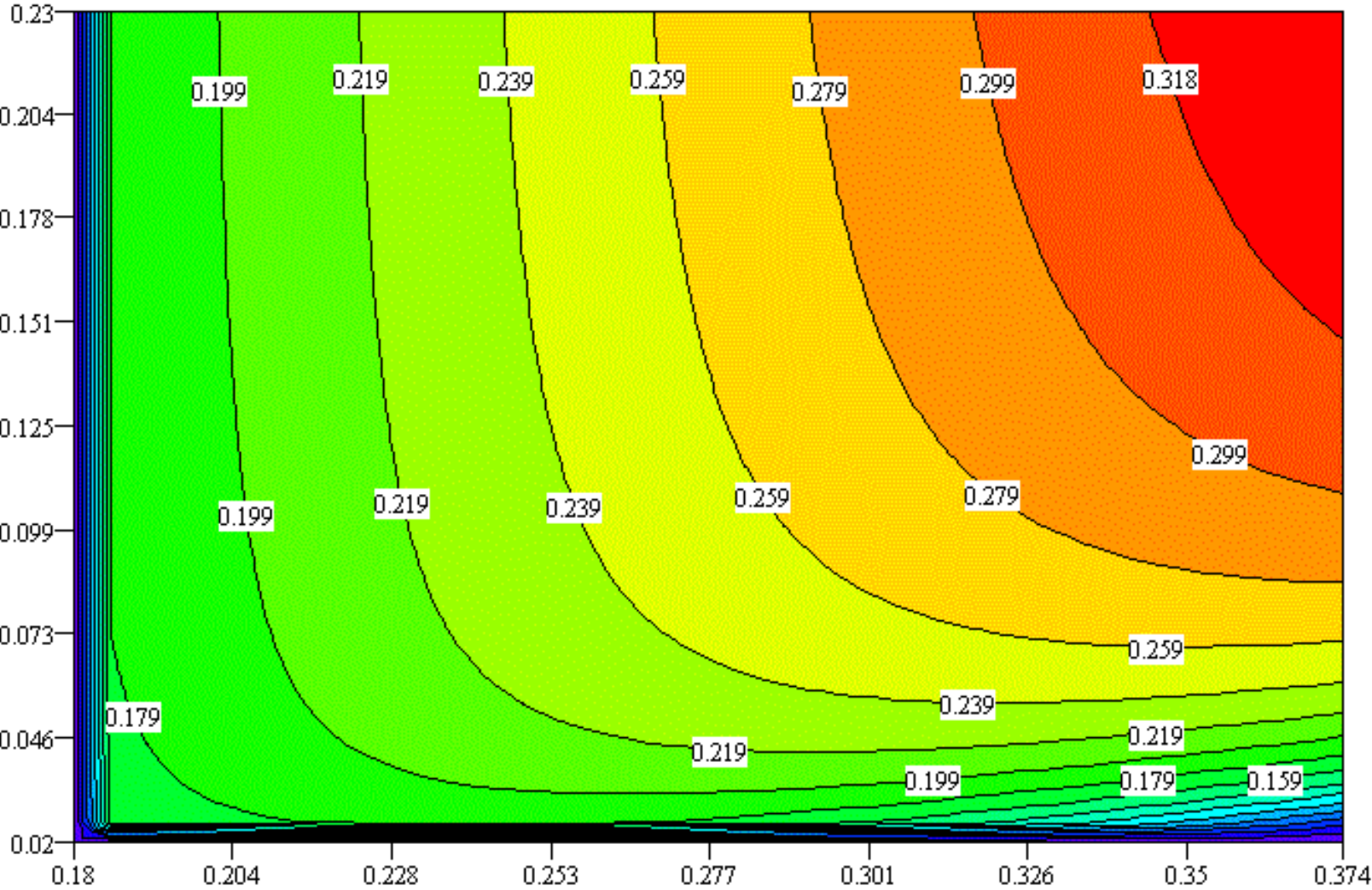


# The Swing of Bargaining Frontier Projection



# Contour Plot: Demands for Social Services

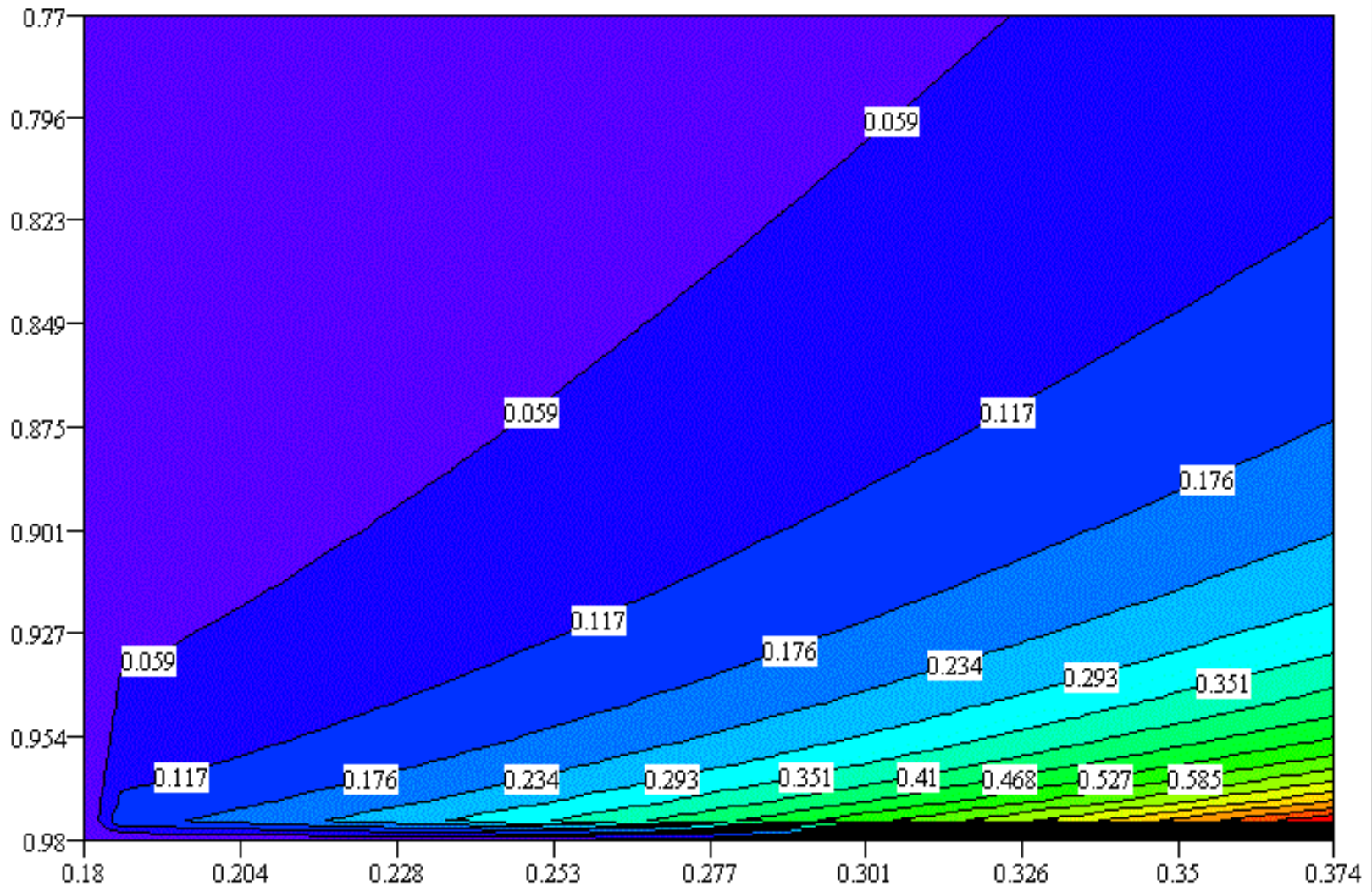
Social agencies share over tax pool allotment



Poverty line

# Contour Plot: Demands for Public Goods

Public agencies share over tax pool allotment



Poverty line