

# On the Relationship between Equality and Efficiency

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**Abstract:** The established theory of equality and efficiency implies that the two are in an unconditional negative correlation. According to this hypothesis and by setting up a simple model, the paper aims to prove the following propositions: Even if not considering the inequality of opportunity, only unequal results will have a double-edged effect on efficiency, either positive or negative. However, the final results attained from the positive and negative functions are not always favorable for efficiency. Only when stimulating effects surpass the undermining ones, can we raise efficiency through increasing inequality index or sacrificing certain equality. Therefore, under some circumstances, the tradeoff between equality and efficiency does not exist.

**Key words:** equality; efficiency; inequality index; the relational curve between equality and efficiency

The existing discussions about equality and efficiency have all implied such a hypothesis that improving equality will definitely lead to the impairment of efficiency; or that to raise efficiency by lowering equality is always effective. The paper throws doubt on this assumption and attempts to prove it false by using a simple model.

## 1. THE MEANING OF EQUALITY

Some people translated the word “equality” in Arthur Okun’s work *Equality and Efficiency : The Big Tradeoff* into “fairness”, which has aroused some unnecessary misunderstandings in China’s academia. For “fairness” means “impartiality” in Chinese and it is precisely one of the necessary conditions to achieve efficiency. There is no big tradeoff between it and efficiency. Because of this mistranslation, some scholars in China refuted the issue of fairness and efficiency as a false one, which not only incriminated Okun and sullied his good reputation in China but also caused the confusion in research and controversy and degraded the efficiency of academic research. According to *American Heritage*

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*Dictionary*, the interpretation of “equality” is “the state or quality of being equal”, which refers to the equal or the same state or property, and it is more fit for “平等” in Chinese, so I agree with Mr. Wang Benzhou’s translation: 《平等與效率——重大的抉擇》. “平等” is a more suitable translation, but still it is necessary for us to clarify its meaning further. By “equality”, Okun does not mean equality of opportunity of course, for it belongs to the scope of impartiality; nor does he mean equality of outcome either, for in its true sense, it has never been realized in any society up to now. A phenomenon that has never occurred can not do any damage to efficiency. What can impair efficiency are human’s never-stopped efforts to narrow the distribution gap between people. Even though the real equality has never been actualized, the results of the efforts, whether big or small, explicit or implicit, may undermine efficiency under certain conditions. Thus, according to my understanding, the true meaning of “equality” in Okun’s work should be the degrees of equal results achieved through the efforts of equal results. Except for some special explanations, the “equality” mentioned below used all in this sense. Obviously, strictly speaking, the equality in question is a kind of inequality, a kind of periodical achievements attained from eliminating inequality.

## **2. DISCUSSIONS ON THE STANDARDS FOR MEASURING EQUALITY OR INEQUALITY**

It seems not perfect that Okun uses Gini Coefficient as a standard to measure equality, because people having the same income may have divergent plight due to their diversified backgrounds. For instance, a government official who almost does not spend his salary may have quite the same income on his payroll as that of an employee in a private enterprise, but their actual living conditions may differ greatly. For another example, the idled coxcombs of a rich family and the laid-off workers of an impoverished one may equally have no income, but actually, they are far from being equal. For a third instance, if one person enjoys good health whereas another suffers from a severe illness that requires big sums of money to get cured, their situation may be quite different even if they have the same income. While investigating the degrees of social inequality, in addition to income level, we must take background and status, physical conditions, social relations, family burden, development potential and other factors into consideration, and make a comprehensive comparison between them. Only in this way, can we reach a true understanding of the issue. Of course, to do so, there will be great difficulties in statistics and measurement; and for the moment, it is hard to put into practice. However, only when the understandings of unequal conditions approximate as close as possible to actual states, can the equalized endeavors be carried on effectively. Chart 1 is an inequality curve modeled after that of Lorenz by the author. (Note that the inequality here refers specifically to that of results.) The abscissa of it indicates the percentage distribution of the allocation conditions (Not only consider income, but also convert income and properties, social relations and status, age and physical conditions, education level, liabilities and burdens and other factors into comparable resources factors and then get them by adding these factors together.) ranked from inferior to superior families in society. The ordinate of it represents the percentage of social resources actually possessed by certain percentage of families. When social distribution is absolutely even, the inequality curve is a 45-degree oblique line ( $y=x$ ); when the total social resources are exclusively owned by a single household, the inequality curve becomes a 90-degree polygonal line. The two extreme cases only exist in people’s imagination. The inequality curve  $y=f(x)$  that reflects realities all locate between the two. The closer the curve approaches 90-degree polygonal line, the severer the social inequality will be. Similar to Gini Coefficient, here we can also obtain the inequality index by using the proportion of one area to another; of the two areas, one is composed of the curve and the 45-degree oblique line, whereas another is formed by the 45-degree oblique line and 90-degree polygonal one.

Percentage of social resources  
actually possessed by families

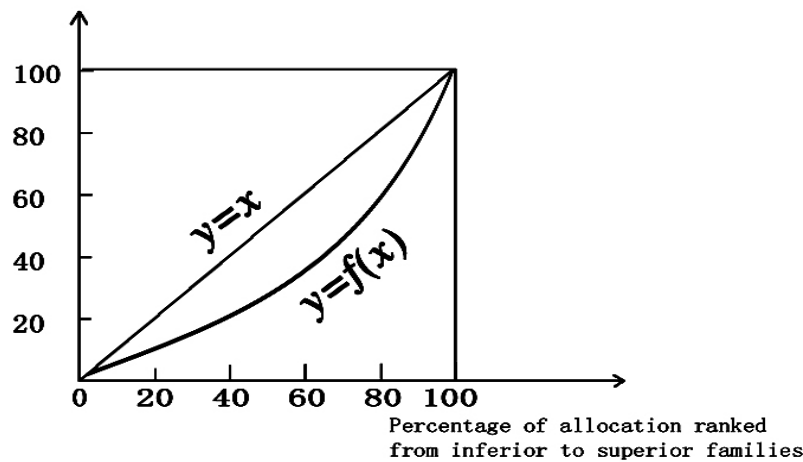


Chart 1: Inequality Curve

### 3. THE POSITIVE AND NEGATIVE EFFECTS OF EQUALITY ON EFFICIENCY

The pursuit of equality or the psychological needs to worry about not scarcity but uneven distribution have been rooted in the depths of the human soul. No matter how abundant the wealth is, the demands for equality will not perish. Only when they have the same degree of equality, the society with bigger wealth will have better conditions than others to erase contradictions. We must note that such contradictions can only be alleviated, only when productive forces developed to a higher degree that human beings regard efficiency merely as an instrumental indicator, can we really solve it. At that time, human beings can complete one-week's work within an hour, and they may give priority to the justice standards—equality, rather than to efficiency. But in nowadays, even assuming that efficiency should take precedence over equality, can we believe that sacrificing equality is favorable rather than unfavorable for efficiency?

Even under the assumption that inequality is entirely due to fair competitions, the exacerbation of inequality still has negative side for social efficiency. In other words, the improvement of equality has not only the undermining side for efficiency. For instance, the dissatisfaction brought by inequality (note that dissatisfaction is not always generated by inequality) may lead to strikes and also to rising crime rates in society. Even without intense conflicts, the disharmony of social relations itself is an unfavorable factor for efficiency. People often treat the behavior of assisting the disadvantaged groups as a pure act of justice; it is obligatory but departs from efficiency. As a matter of fact, assisting vulnerable groups can reduce crime rates and stabilize society; its protective effect for efficiency can not be ignored as well. Even abandon those people who are too frail to commit crimes, the loss brought by it is by no means limited to righteous bankruptcy. Because when strong and normal people see that they were abandoned at the end, they will have a like-feels-for-like feeling in the soul. No one can ensure that they themselves will be strong forever. Once reduced to weak people, they will have such an end. For society, such a feeling is a psychological plague that may undermine efficiency. The formation mechanism of inequality's positive and negative effects on efficiency can be interpreted like this: The variation of inequality may have different impacts on different social groups. Some of them are dissatisfied with the change and the dissatisfaction is manifested by a negative effect on efficiency. Whereas others are satisfied with it and the satisfaction is displayed by a positive one on efficiency. Evidently, while studying the impacts of inequality on efficiency, we need to investigate their respective trends and the general effects of the two functions.