



Saving Labor by Wasting Land

By [Dr. Mason Gaffney]

Article citation:

[Gaffney, Mason]. "Saving Labor by Wasting Land." N.d. Study guide.

Fair Use Disclaimer

The Robert Schalkenbach Foundation, a non profit private foundation, is publishing this article, at no cost, pursuant to the Fair Use provisions of Section 107 of the Copyright Act which states that under certain circumstances, the fair use of a copyrighted material for purposes of criticism, comment, teaching, scholarship and research is not an infringement of copyright. If you have any concerns about the publication of this article, please contact us at info@schalkenbach.org.

The Robert Schalkenbach Foundation's Digital Collections and Archives is an extension of the Robert Schalkenbach Foundation's Engel Georgist Library. It collects, organizes, preserves, and provides free online access to researchers and the general public of Georgist literature including books, newspapers, pamphlets, scholarly articles and archival materials.

RSF is particularly proud to offer free online access to the works of the late Georgist scholar Mason Gaffney, made possible through the generosity of the Danica Foundation and with the consent of the Mason and Letitia Gaffney Trust.

Robert Schalkenbach Foundation: <https://schalkenbach.org/>

Engel Georgist Library: <https://www.librarycat.org/lib/EngelGeorgistLibrary>

RSF Digital Collections and Archives: <https://schalkenbach.starter1ua.preservica.com/>

Saving Labor by Wasting Land

When two factors work together their productivities are inversely related. Great economy of one implies waste of the other. We may show this in three ways. Let W = Work, and L = Land.

1. When $MP_w = 0$, $TP = \max$. With the Land parameter fixed, that means that P/L is max; but P/L is the AP of Land. So to max the AP of land, the MP of the other input, work, must be zero. It figures: think about it. You save Land by wasting Labor.

If it's true with fixed Land, it's also true with any fixed amount of Land. This finding is not limited to just one amount of Land.

Conversely, by symmetry, when the AP of Work is max (which seems so great at first blush), the MP of Land must be zero. What's sauce for the goose is sauce for the gander. This, of course, wastes Land. You save Labor by wasting Land.

How do we figure that? When $AP_w = \max$, that means it is constant when you increase W . By symmetry, at this point we can switch parameters: hold Work fixed and vary Land. But if AP_w is fixed, and W is also fixed, then the TP remains constant when we vary Land a little bit. We are at the top, the horizontal top, of a smooth curve. This means the MP of Land = 0.

2. This is only economical actually to do where Land is free, as at the edge of settlement. While this is unusual, it is not unknown today. The "edge of settlement" is not so far away as you might think: we are an oasis on the edge of a desert. In the Gavilan Hills, for example, you find lands on the margin between citrus production and non-use.

3. Some students find that approach hard to grasp. Here, therefore, is another approach, based on ϵ of production. Given constant returns to scale (our consistent assumption here), the sum of the elasticities of production of the two inputs is one. These are conventionally called α and β for Workers and Land, respectively.

When $AP_w = \max$ then $MP = AP$ so $\alpha = \text{one}$. Since $\alpha + \beta$ equal one, β must be zero, meaning MP of land is zero. See the paper on Elasticity of Production (epsilon).

4. The conclusion is also implied by Euler's Theorem about the exhaustion of TP in distributive shares. See paper on Euler's Theorem.

The moral is that excessive economy of Work (labor) means waste of Land, and vice versa. The astute manager does not maximize any AP: she optimizes instead. Optimizing is balancing one good thing against another to get the best combination. It is what economics -- and life -- are all about.

Neither should you judge any management by the AP which it may achieve. The Great American Fallacy is to judge firms on the basis of "productivity." Productivity sounds very heavyweight and technical because it ends in "-ity," but don't you be intimidated. In common American usage it means nothing more than the AP of workers. Worse yet, sometimes it just refers to line workers, ignoring swollen administrative staffs (another American weakness). Either way, it ignores the cost of land, and of capital, too.

This strange usage probably harks back to frontier days when land was very cheap and could be wasted. Ours has been called a "cowboy economy" because of the cavalier attitude toward scarce and limited natural resources and the environment which has gotten built into our traditions and reflexes. Even today our efforts to recover industrial world leadership are mostly aimed at increasing worker productivity. But our great weakness is the low productivity of our land and capital which most of the firms which we count among our most "productive" still waste prodigally. So do our cities with their sprawling settlement patterns: the most capital-intensive and energy-intensive settlements in world history.