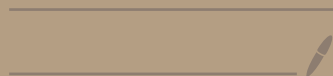


# A Beveridgean Framework for Welfare Analysis

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<https://www.pascalmichailat.org/t5.html>



① Share  $u$  of labor force is unemployed

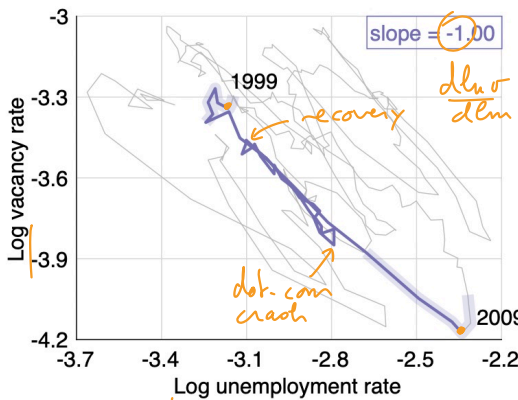
- in general, unemployed workers contribute to welfare (home production, recreation)  
Michaillat & Saez (2022):

In theory, beside looking for jobs, unemployed workers might also produce useful things at home. Such **home production** would be included into aggregate production and contribute to social welfare. But in practice home production is minimal, as was already noted by Robinson (1949, p. 11): "The most important aspect of unemployment is its **wastefulness**. It is the existence of **unused productive resources** side by side with unsatisfied human needs that is the intolerable condition." Michaillat and Saez (2021, pp. 9-11) measure **the fraction of nonwork time devoted to home production** in the United States. The measure is based on the results by **Borgschulte and Martorell (2018)**. Using **administrative data from the US military**, Borgschulte and Martorell study how servicemembers choose between **reenlisting and leaving the military**. The choices allow them to estimate the difference between market production and the sum of home production and public benefits during unemployment. Subtracting the value of public benefits from these estimates, Michaillat and Saez (2021, p. 11) find that the value of **home production relative to market production could be as low as 0.03**. Given such low value, we assume that unemployed workers **do not engage in home production** at all, and we count them as full-time jobseekers.

- Assume that jobseekers do not contribute to welfare

② A Beveridge Curve  $v(u)$  determines vacancies.

US BEVERIDGE CURVE  $\approx$  HYPERBOLA



Michaillat & Saez (2021)

$$\frac{dv}{du} = -1 \rightarrow v = \frac{v_0}{u}$$

$$v = \frac{v_0}{u}$$

Beveridge curve is an hyperbola:

$$\hookrightarrow \boxed{v = v_0 / u}$$

- ③ Each vacancy requires one recruiter  $\rightarrow$   
cannot participate in production, generate welfare  
 $\rightarrow$  share  $v$  of labor force engaged in recruiting

The number of recruiters is well measured by the number of vacancies. In theory it might take more or less than one full-time worker to service a vacancy. But in practice it takes about one full-time worker to service a vacancy, so the numbers of recruiters and vacancies are about the same. In the United States, the amount of labor required to service a vacancy can be measured from the National Employer Survey, which was conducted by the Census Bureau in 1997 (Villena Roldan 2010). Michaillat and Saez (2021, p. 11) estimate that servicing a vacancy requires 0.92 worker at any point in time. So it takes about 1 worker to service a vacancy, which is what we assume here by equating the number of recruiters to the number of vacancies.

Michaillat & Saez <sup>↑</sup> (2022)

Summary:

- Share  $1 - (u + v)$  of labor force engaged in production
- social welfare is determined by production  $\rightarrow$  max welfare

$$\begin{aligned} (=) & \max (1 - (u + v)) \\ (=) & \min \boxed{u + v} \end{aligned}$$

- $u, v$  related by Beveridge curve

$$v = \frac{v_0}{u}$$

Taken as given by government.