

# [Chapter 3](https://assignbuster.com/chapter-3-2/)

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Chapter 3 Assumptions of firms about labor market 1. Workers are all alike 2. Wages are set by the market 3. Firm’s goal is to earn the highest possible profit Wages = cost of an extra worker The firm will hire until (value of extra worker = wage) Production Function A= productivity Marginal product of labor(MPN) MPN decreases as #workers inc. The benefit of employing an additional worker in term of the extra output produced. Marginal revenue product of labor(MRPN= P X MPN) Benefit of employing an additional worker in terms of the extra revenue produced MRPN> Wage to make a positive profit w(real wage) = W(nominal wage)/P(output price) MPN> W hiring more workers is profitable A decrease in real wage raises the amount of labor demanded MPN= wage (profit maximization) Labor Demand curve = same as MPN curve Vertical axis — real wage Horizontal axis — labor demanded => quantity of labor decreases as LD curve not shifted by change in real wage Shifted by supply shock, change in capital stock A beneficial supply shock raises the MPN at all levels of labor input. Labor demand is determined by firms Labor Supply and Real Wages \* Substitution effect of a higher real wage : workers work more when rewarded highly -> work more : pure substitution effect-> one day rise in the real wage \* Income effect of a higher real wage : workers become wealthier with higher income -> work less : pure income effect-> increase in wealth \* Both: a long term increase in real wage Labor Supply Curve Relationship between labor supplied and real wage Labor Market Equilibrium Full employment is occurred when ND= NS Temporary adverse supply shock Ex. Bad weather Decreases MPN at every level => decreases ND Because it is temporary, it doesn’t affect future marginal product or future real wage=> labor supply curve does not move Full Employment Output Potential output The level of output that firms supply when wages/prices have fully adjusted Y\_= AF(K, N\_) \* For constant capital stock, K, full employment is determined by N\_, level of employment, and the production function. \* Adverse supply shock lowers Y, by reducing the quantity of output with fixed amounts of capital and labor \* Reduction in productivity measure, A \* Adverse supply shock lowers ND and thus employment level N\_ and Y. Unemployment Labor force = employed + unemployed Population = labor force + not in labor force Unemployment spell \* the period of time an individual is continuously unemployed \* duration: the length of time the spell lasts Why unemployment? 1. Frictional unemployment \* workers search for suitable jobs and firms search for suitable workers \* dynamic economy 2. Structural unemployment - chronically unemployed for a long term a. unskilled workers can’t find desirable long term jobs because of factors such as - inadequate education, discrimination, language, etc. b. reallocation of labor from shrinking to growing industries Cyclical Unemployment = Actual unemployment rate — natural unemployment rate (u-u\_) + when economy’s output and employment are below full employment levels - when output and employment exceed full employment levels Okun’s Law - The gap btw and economy’s full employment output and its actual level of output increases by 2% for each % the unemployment rate increases (Y-Y)/Y = 2(u-u) (Y-Y)/Y : amount by which Y falls short of full employment output the percent gap equals 2 times the cyclical unemployment rate. Ex. If (u-u)= 1%, actual output, Y, is 2% lower than full employment output Y. Y= 15bil, Y is $300 below the full employment level. (15bil x 2%) Î” Y/Y = 3-2Î” u (growth rate form of Okun’s Law) Î” Y/Y = percent growth rate of output Î” u = change in actual unemployment rate When unemployment is rising, actual output, Y, is growing more slowly than 3% per year(average growth rate of full-employment output in the U. S). The equation assumes that the natural rate of unemployment is constant.