

# Legal Minimum Wages in Developing Countries

T. H. Gindling  
Professor of Economics, UMBC

World Bank Labor Market Policy Core Course  
May 15, 2013

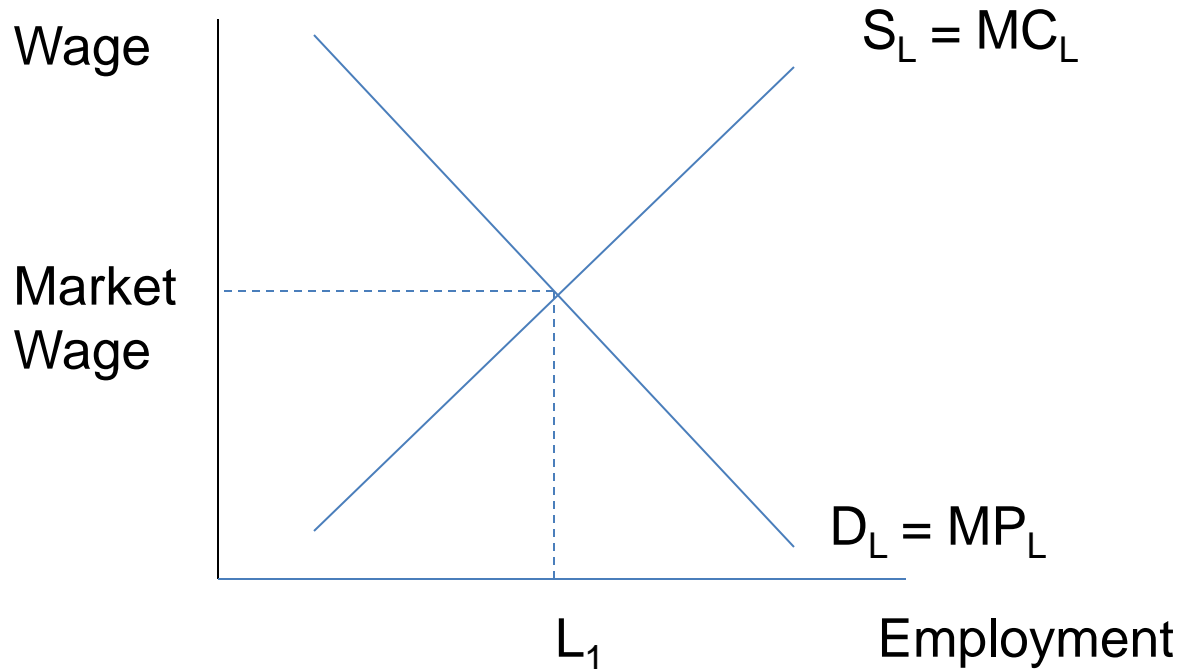
# Some Justifications for Legal Minimum Wages

- Protecting the most vulnerable workers
  - workers with the least bargaining power
- Fair labor standards
  - “Every worker has the right to just and favorable remuneration” (United Nations Universal Declaration of Human Rights)
  - Not only for those with the least bargaining power
    - Minimum wage as a substitute for collective bargaining
- Poverty reduction
- Equity and Efficiency
  - Higher minimum wages in a competitive labor market compress the distribution of wages
  - Higher minimum wages in non-competitive labor markets can induce employers to reduce profit margins and possibly hire more workers

# Basic Theory: Legal Minimum Wages and the Demand for Labor

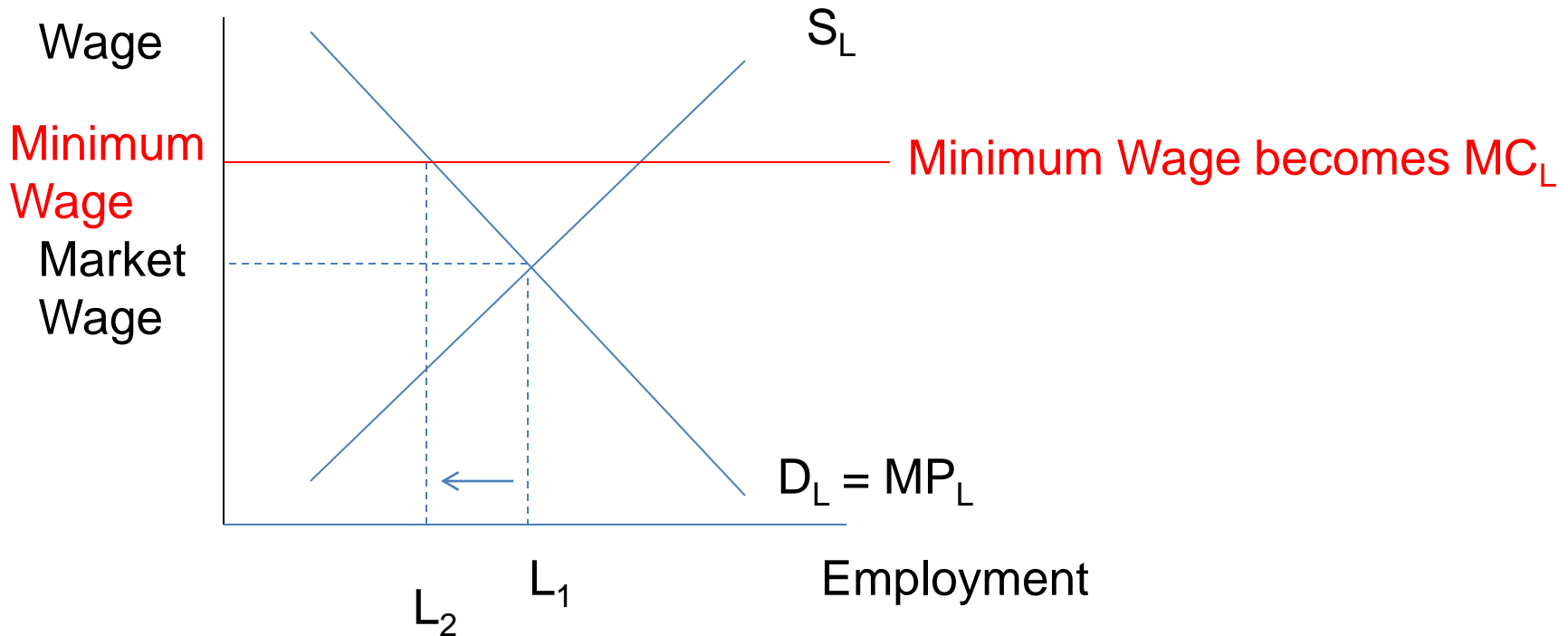
- Higher minimum wages force some employers to pay higher wages than they would pay otherwise.
- Private sector employers only hire workers (demand labor) if it is profitable
  - That is, if the increased revenue from hiring worker  $>$  cost of hiring that worker
    - If Marginal Revenue Product ( $MP_L$ )  $>$  Marginal Cost ( $MC_L$ )
- If minimum wage is greater than the productivity of a given worker, then that worker is not employed
  - They lose their job or are never hired.
  - Higher minimum wages may reduce employment

# Competitive Labor Markets With No Minimum Wage



- Assumes individual firms or workers have no market power
  - individual workers or firms cannot affect the wage
- In a competitive labor market, workers are hired until
  - Wage ( $MC_L$ ) = Marginal Product of Labor ( $MP_L$ )

# Minimum Wage in Competitive Labor Markets Will Reduce Employment



- Employment falls because for some workers,
  - Minimum wage  $>$  Marginal Product of Labor
  - These workers ( $L_1 - L_2$ ) lose jobs or are not hired
- Labor supply increases, unemployment results

# Labor Markets May Not Be Competitive

- The competitive model assumes that neither workers nor employers have bargaining power.
- But wages may be determined through bargaining, and employers may have greater bargaining power than a given worker if
  - There are few (or only one) employers
    - i.e. if there are barriers to the entry of new firms into a market
  - Workers lack information about where the jobs are and what market salaries are
    - i.e. they rely on social networks to find jobs
  - It is difficult to move to where the jobs are
  - Workers have limited resources to remain unemployed while they search for the “right” salary and job

# In a Non-competitive Labor Market, Minimum Wages May Not Reduce Employment

- If employers have greater bargaining power than workers in a non-competitive market, and if there is no minimum wage
  - $\text{Wage} < \text{Marginal Product of Labor}$
  - Employer could pay more and still make a profit
- Small minimum wage increases in a non-competitive market may not reduce employment, and can lead to
  - Employment increases; labor supply increases
  - More equity: wages increase and employers reduce profit margins
  - More efficient labor markets: wage closer to marginal product of labor
- But even in a non-competitive market, high minimum wages reduce employment
  - If  $\text{Minimum Wage} > \text{Productivity of a given worker}$ , then private sector employers will not employ that worker

# Lessons from Theory

- Minimum wages work best in non-competitive labor markets
  - If wages are determined through bargaining
  - If minimum wage  $<$  marginal product of labor
- Minimum wages can protect workers with the least bargaining power in non-competitive labor markets
  - Can improve equity and efficiency
- But, if the minimum wage is set higher than the competitive market wage and marginal productivity, then higher minimum wages will reduce employment.
  - In both competitive and non-competitive labor markets.
- At a minimum, policymakers should pay attention to
  - Are labor markets competitive?
  - Are wages lower than marginal productivity?
  - Are minimum wages too high relative to average wages?
    - $>35\%$  to  $40\%$  of average wages
  - How many workers earn below the minimum wage?



# Incomplete Compliance and the Informal Sector

- In most developing countries, a minority of workers are covered by minimum wages
  - For example, more than half of all workers in low and middle income countries are self-employed or unpaid family workers
  - Non-compliance among employers and employees
- Workers who lose formal sector jobs because of higher minimum wages can find employment in the informal sector
- In addition, firms can respond to higher minimum wages by becoming informal (and pay less than the minimum wage)
- Complication: two employment effects
  - Formal sector: employment effects depend on whether labor markets are competitive or non-competitive
  - Informal sector: Theoretically, higher minimum wages can cause informal sector employment to increase or decrease, even in the competitive model
- Theoretically, higher minimum wages can cause informal sector wages to increase or decrease, even in the competitive model
- We need to look at the empirical evidence

# Evidence from Developing Countries: Impacts on Wages

- Most studies are of middle income countries, mostly in Latin America (plus Indonesia and South Africa)
  - see recommended readings for details (Cunningham 2007; Neumark and Wascher, 2007)
- Generally, studies find that higher minimum wages
  - increase the wages of those who remain employed in the formal sector
    - increase wages near the minimum wage and compresses the distribution of wages in the formal sector
    - also have an effect on wages above the minimum because
      - other wages are sometimes effectively indexed to the minimum wage
      - some countries have multiple minimum wages that reach high into the wage distribution
  - In some Latin American countries, higher minimum wages also appear to lift informal sector wages (“lighthouse effect”)

# Evidence from Developing Countries: Impacts on Employment

- Generally, studies find that higher minimum wages
  - Reduce formal sector employment
    - Estimated effects of a 1% increase in real minimum wages range from employment reductions of near 0% to slightly above 1%
      - The total earnings of all workers probably increases when minimum wages increase
    - With the biggest negative employment impact on those at the bottom end of the wage and productivity distribution
  - Increase informal sector employment
  - Total employment changes very little
    - informal employment substitutes for formal employment

# Minimum Wages and Poverty

- Evidence suggests that the benefits of higher minimum wages go to workers throughout the wage distribution, but the costs are paid disproportionately by workers in the bottom of the wage distribution.
- But this does not necessarily determine the impact of minimum wages on poverty because
  - poverty is generally defined in terms of household income, not the wage or earnings of an individual worker
  - poor households may not have any working members
    - i.e. pensioners
  - low wage workers may not live in low-income households
  - higher minimum wages could affect household heads differently from non-heads
- The impact of minimum wages on poverty is not clear

# Example

- **United States** (Burkhouser and Sabia, 2007; Card and Krueger, 1995):
  - Higher minimum wages have small negative employment impacts, and probably increase the total earnings of workers as a group
  - However, many poor families have no working members, and many minimum wage workers are teenagers in non-poor households
  - Therefore higher minimum wages do not necessarily increase incomes of poor families and
  - Higher minimum wages do not have a significant impact on poverty

# Example

- Colombia (Arango and Pachon,2004) :
  - Higher minimum wages increase formal sector wages and reduce formal sector employment
  - Minimum wages have the biggest impact on households near the middle of the distribution of income
    - Minimum wages set high relative to the average wage (about 60%)
  - Most workers earning the minimum wage live in non-poor households
  - Household heads are more likely to lose their jobs because of higher minimum wages
  - Higher minimum wages result in a small reduction in poverty, but have no impact on extreme poverty (households at the very bottom of the income distribution)

# Example

- Nicaragua (Alaniz, Gindling and Terrell, 2012):
  - Higher minimum wages increase formal sector wages and reduce formal sector employment
    - Negative employment impacts concentrated among low productivity workers
  - Many household heads earn minimum wages
  - Household heads are less likely to lose their jobs than are non-heads
    - If they do lose jobs, household heads find new jobs in the informal or public sector, whereas non-heads become unemployed or leave the labor force.
  - Find that higher minimum wages significantly reduce poverty
    - Only for families with more than one member
    - Minimum wage is above the poverty rate for one person, but below the poverty rate for a family of 2 or more

# Conclusions: Interpreting the Evidence from Developing Countries

- Higher minimum wages protect workers with the least bargaining power
  - Those who are paid less than their productivity
  - In this way, minimum wages can promote equity and efficiency
- Higher minimum wages probably do not reduce total employment, but they do promote informality.
- Higher minimum wages probably increase the total earnings for all workers (as a group).
- But at a cost; some workers with the least skills and lowest productivity lose good jobs in the formal sector.
  - In addition, the least skilled and lowest paid workers often work in sectors where minimum wages are not applicable



# Conclusions: Interpreting the Evidence from Developing Countries

- Evidence suggests that minimum wages should not be the primary policy used to reduce poverty
  - Higher minimum wages creates losers as well as winners among the poor
    - Suggests that if minimum wages are raised, there need to be social safety nets to protect low-income families that lose with higher minimum wages
- Potentially more effective anti-poverty policies
  - Policies targeted to poor families
    - Conditional cash transfers
  - Labor supply incentives (Earned Income Tax Credit)
  - Improve productivity in the informal sector
  - Improve compliance with minimum wages

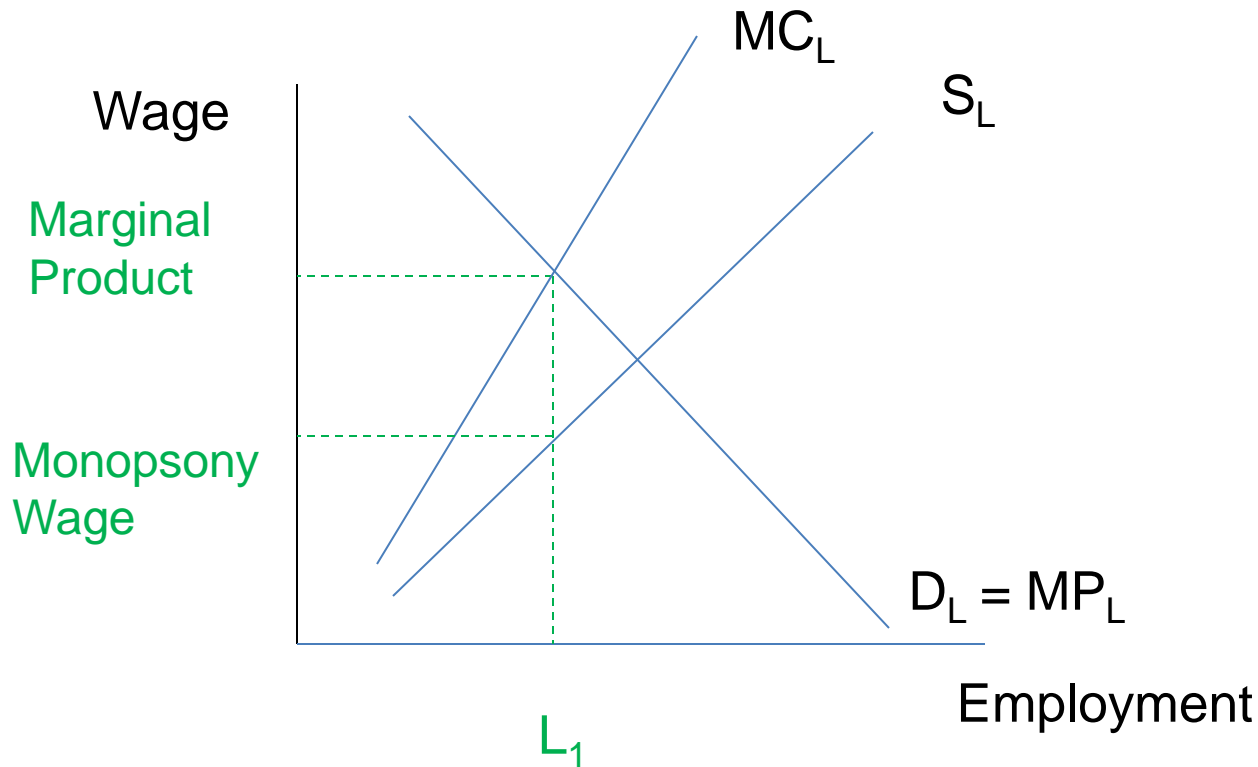
# Improving Compliance: Costa Rica

- All studies of developing economies find a large proportion of the work force earn less than the minimum wage.
- Costa Rican Campaign for Minimum Wage
  - Increased inspections
  - Incorporate workers into enforcement
    - Including a toll-free, anonymous complaint line.
  - Public awareness campaign
    - Change “social norms”
- Our evaluation of the Campaign shows that it
  - Increased compliance with minimum wage regulations
  - Had no negative employment effects in the formal sector
  - Reduced informality
  - Increased compliance with other mandated labor regulations (social security, sick leave, overtime pay, etc.)

# Extra Slides

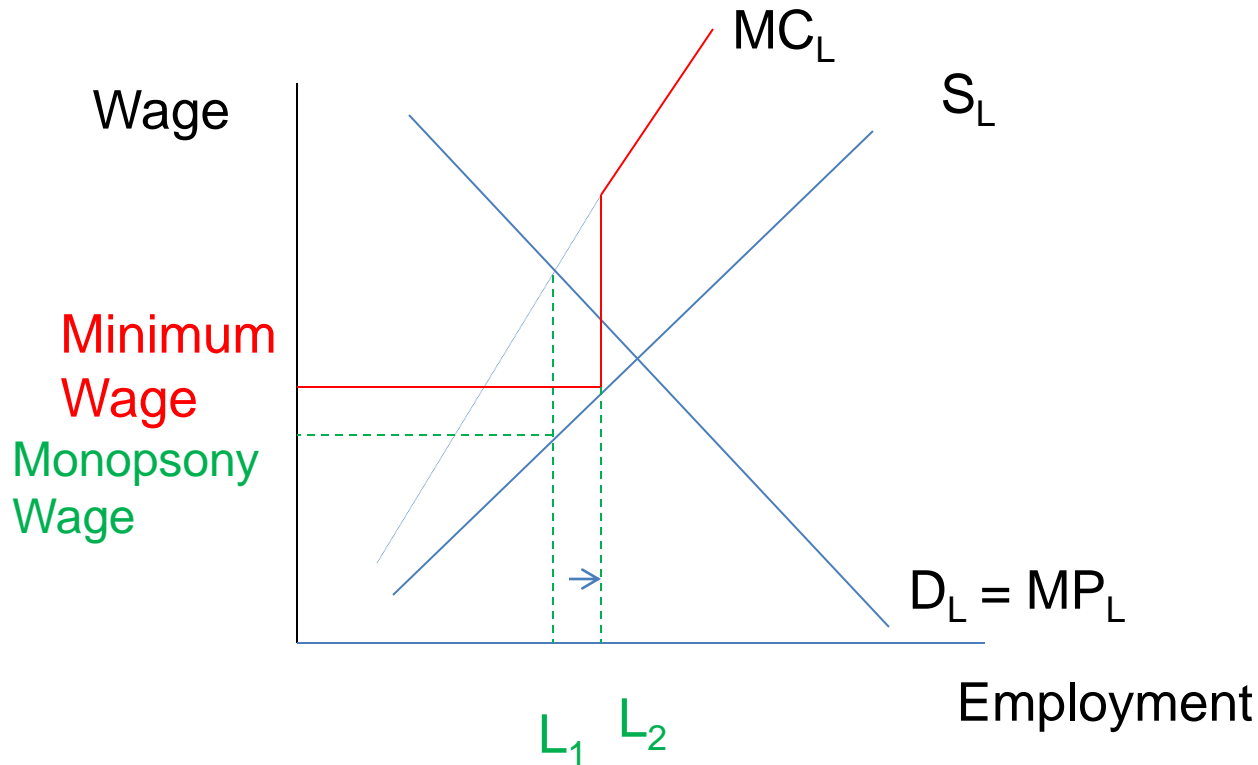
- A. Graphical analysis of minimum wages in a non-competitive labor market (Monopsony)
- B. References

# A. Non-competitive Labor Market (Monopsony)



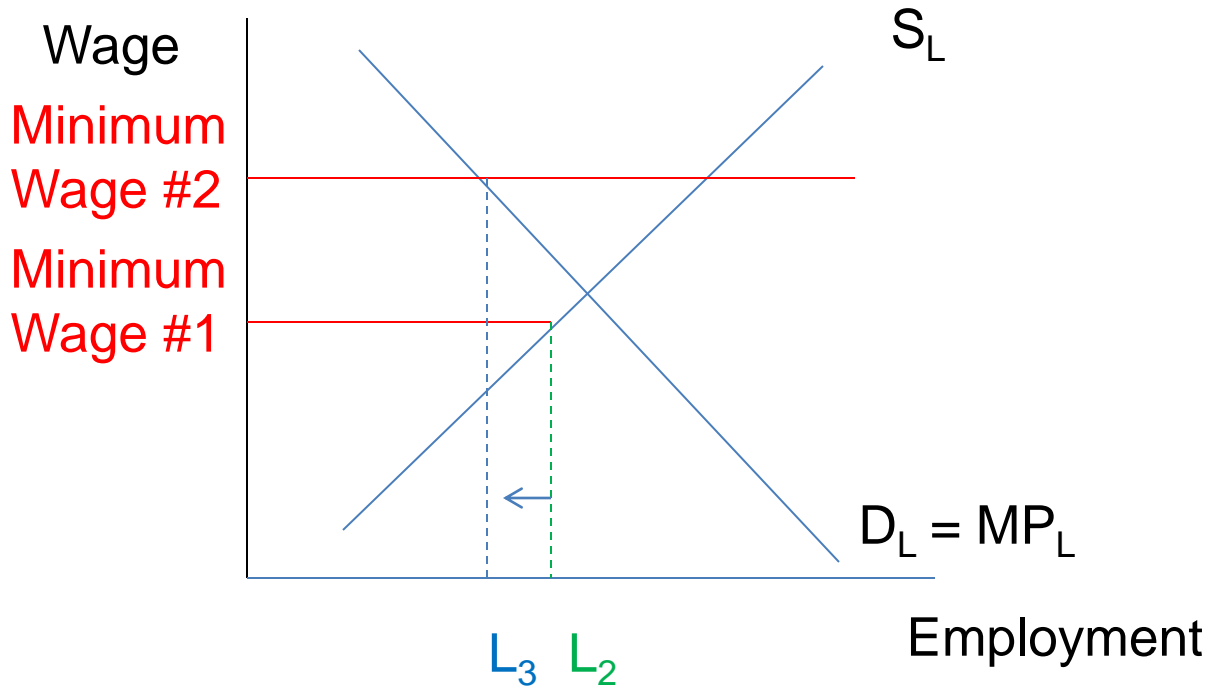
- Wage < Marginal Product of Labor
  - Employer could pay more and still make a profit

# Minimum Wages in a Non-competitive Labor Market May Increase Employment



- Minimum Wage =  $MC_L$
- Wages increase to minimum wage, and
  - Employment increases; labor supply increases
  - More equitable; more efficient

# High Minimum Wages in a Non-competitive Labor Market Will Reduce Employment



- If Minimum Wage  $>$  Market Wage, then
  - Higher minimum wage reduces employment, even in a non-competitive labor market

## B. References

- **Alaniz, Enrique, T. H. Gindling and Katherine Terrell (2011)**, “The Impact of Minimum Wages on Wages, Work and Poverty in Nicaragua,” *Labour Economics* 18: S45-S59.
- **Arango, Carlos and Angelica Pachón (2004)**, “Minimum Wages in Colombia: Holding the Middle With a Bite On the Poor,” *Banco de la República, Borradores de Economía* No. 3224, Bogotá, Colombia.
- **Burkhouser, Richard and Joseph Sabia (2007)**, “The Effectiveness of Minimum-Wage Increases in Reducing Poverty: Past, Present and Future,” *Contemporary Economic Policy* 25(2): 262-281.
- **Card, D. and Krueger, A. B. (1995)**, *Myth and Measurement: The new Economics of the Minimum Wage*, Princeton University Press, Princeton, N.J.
- **Cunningham, Wendy (2007)**, *Minimum Wages and Social Policy: Lessons from Developing Countries*, Directions in Development, Human Development, The World Bank, Washington.
- **Neumark, David and William Wascher (2006)**, “Minimum Wages and Employment: A Review of Evidence from the New Minimum Wage Research,” NBER Working Paper 12663