



Econ 201: Introduction to Economic Analysis

October 19 Lecture: Labor Markets



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Daily dose of The Far Side

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Preview of this class session

- Labor markets are an example of factor markets
- Labor is supplied by households trading off goods vs. leisure
- Labor is most heterogeneous possible good
 - Location, education, skills (human capital)
 - Preferences of workers matter
- Unions and collective bargaining on supply side
- Wage differentials among workers: Why?
- Efficiency wages and other tools to motivate workers
- Minimum-wage laws



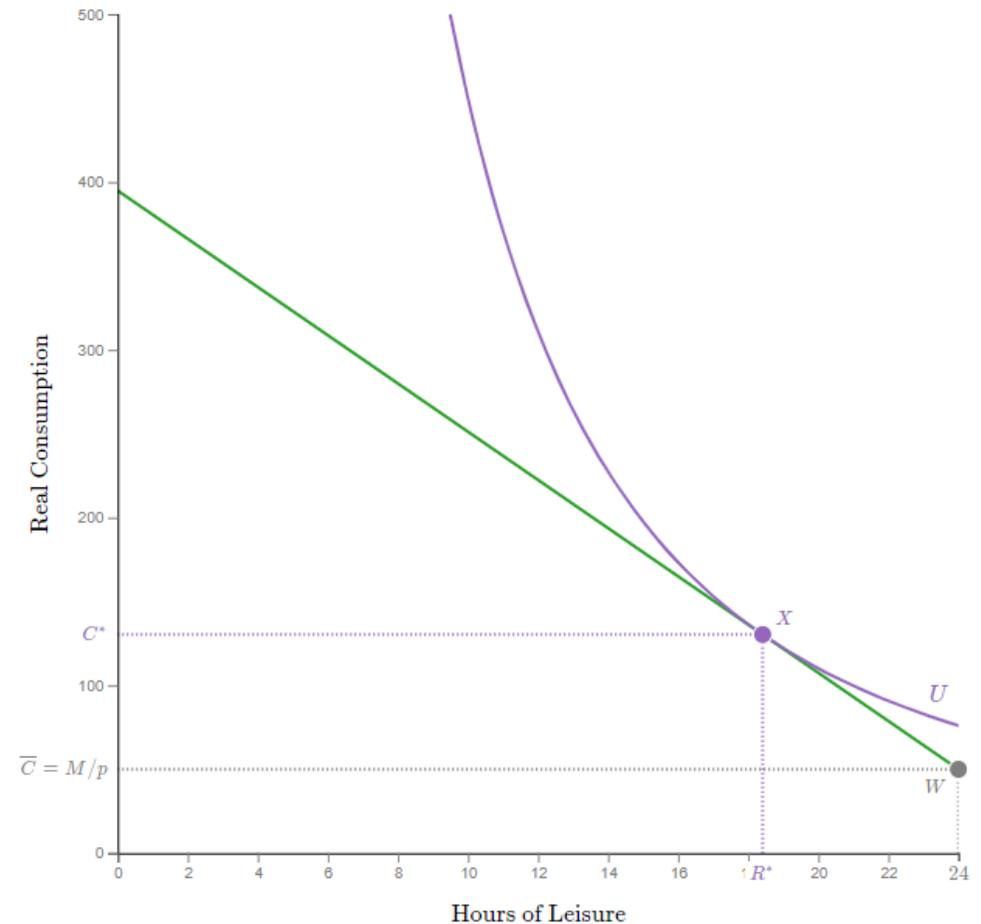
What makes labor markets different?

- **Suppliers of labor care** about how and where their services are used
 - Unlike capital, energy, materials inputs, consumer goods, etc.
 - Some jobs are less desirable than others due to working conditions, co-workers, location, etc.
- Labor has many **alternative uses** such as leisure activities
- Labor is uniquely **heterogeneous**
 - Every worker has unique skills, location, preferences, etc.
 - Every job setting offers unique location, needs, environment, etc.
- Can we even characterize the “labor market” as a market?
 - Vastly segmented, but segments might operate like markets
 - “Matching models” treat every worker and job as unique: bargaining



Basic model of individual labor supply

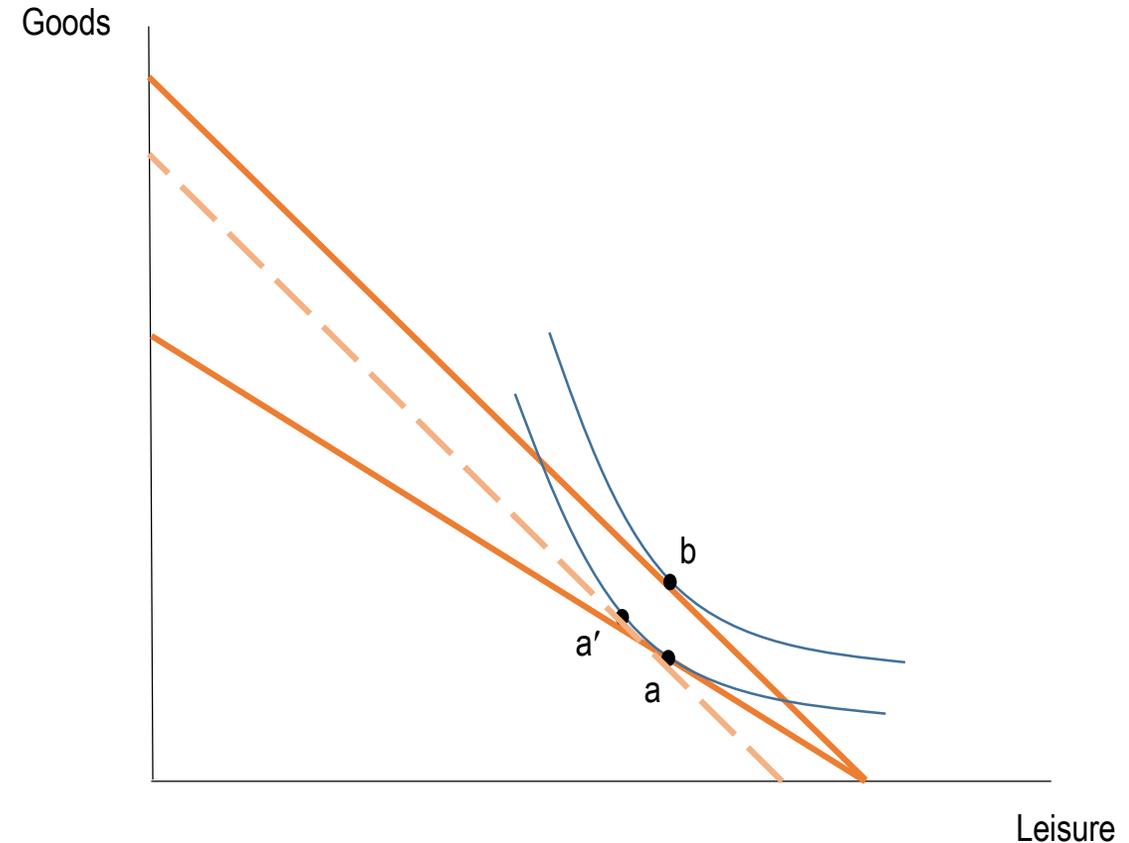
- As in Problem Set #3
- Workers trade off goods (income) vs. leisure to decide on optimal quantity of labor to supply
 - Indifference curves have usual shape
- **Slope of budget constraint** is the (negative of the) real wage
- **Intercept of budget constraint** is fixed by non-labor income + $(24 \times \text{real wage})$: Maximum goods consumed with 24 hours of work





Substitution and income effects of wage change

- Wage increase steepens constraint with zero-hours position fixed
- **Substitution effect:** Move up indifference curve \rightarrow work more ($a \rightarrow a'$)
- **Income effect:** Leisure is normal good, so higher wage \rightarrow higher budget constraint \rightarrow more leisure / work less ($a' \rightarrow b$)
- Which dominates?
 - Substitution effect \rightarrow supply curve slopes upward
 - Income effect \rightarrow supply slopes down





Temporary vs. permanent wage changes

- Can't do on two axes: combines tradeoff between leisure and goods with tradeoff between present and future
- **Temporary increase in wage** → strong substitution effect
 - Substitute current work for future work as well as goods for leisure
 - Labor effort probably increases as substitution effect dominates (small) income effect
- **Permanent increase in wage** → strong income effect
 - Enjoy higher wage income forever rather than just one period
 - Labor effort may decrease as strong income effect dominates substitution effect
 - Backward-bending labor supply curve?



Why do many people work 40 hours?

- Employers do not offer continuous choice of hours
 - Discontinuity of choices makes budget constraint discontinuous
 - Many workers must conform to schedules of others
 - Someone must answer phones during business hours
 - Members of work teams must work at same times
 - Shift work: three 8-hour shifts in 24 hour day?
- Social conventions have effects
 - May be different in different countries and may change from one time to another
 - Four 6-hour shifts in a day? Four working days? Nurses now commonly work 12-hour shifts



Human capital

- Capital = durable asset that is accumulated through investment
- **Human capital** = acquired characteristics that increase productivity of individual workers
 - **Education**
 - Experience-based **skills** (formal or informal)
 - Good **health**
- Differences in human capital lead to **segmentation** in labor market: Non-competing groups
- In long run, workers can acquire human capital and move between segments
- Technological change makes some human capital more (or less) valuable



Wage differentials

- Demand-side factors
 - Different marginal products for hour of work
 - More productive workers should get higher wages for efficiency
- Supply-side factors
 - Compensating wage differentials for undesirable work: dangerous, unpleasant, inconvenient jobs
- “Superstar” economy?
 - Everyone can watch best athletes, listen to best musicians, etc.
 - Reduces demand for those with lesser abilities
- Information and mobility
 - Do workers and employers know what opportunities are available?
 - Can they move from one job match to another to reduce differentials?



Labor unions

- **Collective bargaining**: acting as monopoly seller of labor to firm
- Union chooses point on firm's (or industry's) demand curve
 - Tradeoff between higher wages and higher employment
 - What would be the appropriate objective?
 - Best wage for current members or expanding employment to get new members?
 - Maximize worker revenue?
 - Who makes decisions?
 - Current members → bias toward higher wages and lower employment
- **Management of labor relations** (e.g., grievances) can improve morale and increase productivity
- Overall effect of unions on employment is ambiguous



Motivating workers

- Working hard may be less pleasant than shirking
 - Employer gets less output from shirking worker
 - Often difficult to detect shirking and fire slackers
- **Piece-rate pay** is possible when output of individual worker can be identified
 - Commissions, bonuses based on performance, agricultural workers
 - Quality vs. quantity? Hard to define appropriate criteria
- **Efficiency wages** are pay above reservation wage to promote effort
 - Fire those detected shirking; workers value keeping job, so work hard
- Profit-sharing, stock options, employee stock ownership
 - Give workers a tiny stake in profits
 - May have more psychological than financial effect

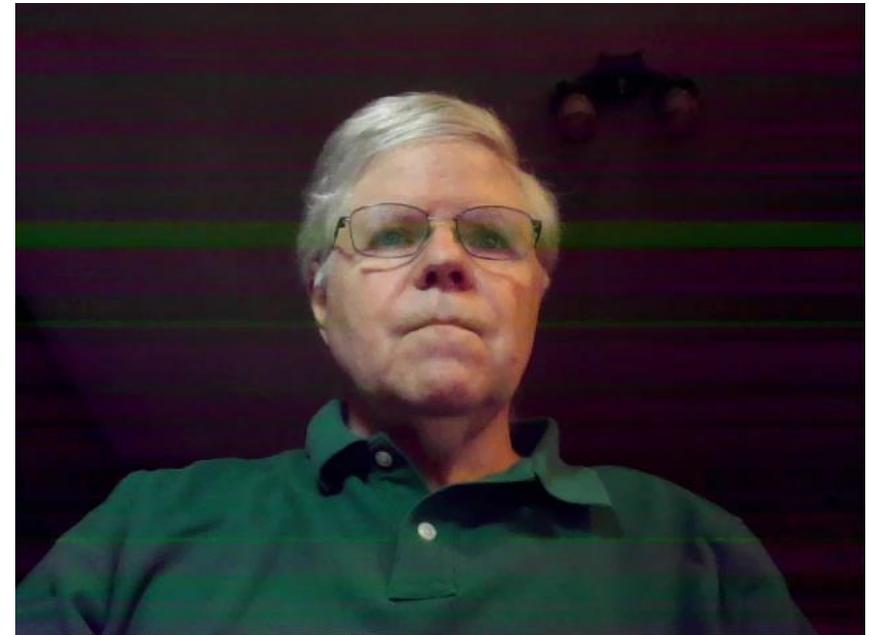


Minimum-wage laws

- **Price floor:** Quantity demanded falls; quantity supplied increases
 - Lowers employment and raises unemployment
- Minimum wage \ll average wage, so does it have effect???
 - For some segments of labor market, minimum wage might be binding
 - **Mixed empirical evidence** about effects of minimum wage on employment
 - Effect is probably concentrated on low-skill workers: are there good substitutes?
- Effects of excess supply in labor market
 - Allows firms to select among pool of unemployed workers
 - Discrimination?
 - Disemployment may be concentrated among low-experience teens and minorities

Review

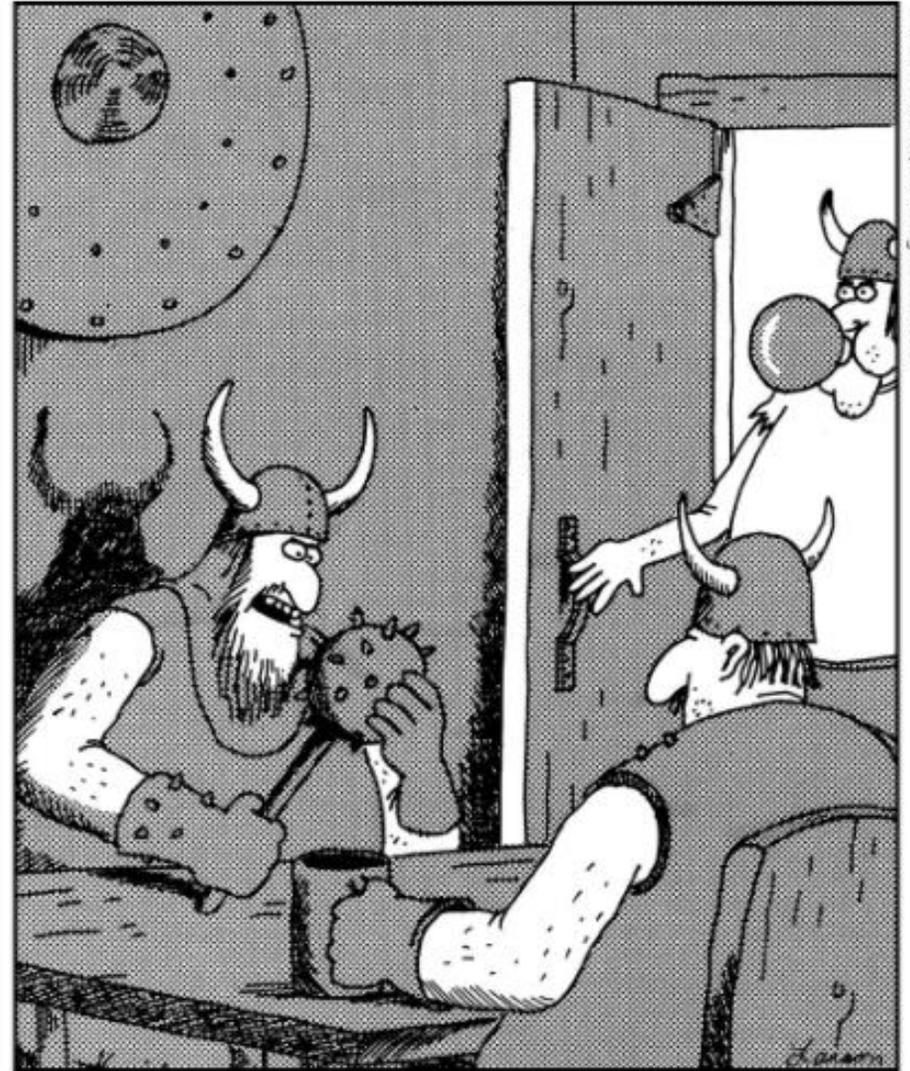
- Labor markets are uniquely heterogeneous
 - Segmented market with wage differentials
- Individual supply depends on labor-leisure tradeoff
- Human capital increases value of an individual's labor
- Motivation of workers may be problem
- Institutions of labor markets
 - Labor unions
 - Minimum-wage laws





Daily diversion

Another Far Side today,
relevant to my (former?)
role as commencement
marshal ...



“You know, Bjorg, there’s something about holding a good,
solid mace in your hand—you just look for an excuse to smash
something.”



What comes next?

- On Wednesday, we discuss capital theory: borrowing and lending, rates of return, present value, etc.
- After that, we examine general equilibrium in the economy on Friday
- The economic naturalist assignment is due on Wednesday
- One more problem set before the second midterm on November 6