

Construction Labor: Costs and Unions

Module 6.1
Halpin Chapter 13, and Others
October 29, 2002

Purpose

- To expose students to some facts about the relationships between labor and management and how it will impact them.
- To provide a basis for understanding how labor costs are determined and charged against projects.

Learning Objectives

- Students must be able to outline the overall history and impact of Labor Unions in general and upon construction in particular.
- Students should be able to compute labor rates and costs from given data and circumstances.

Labor is THE Major Resource

- Labor Productivity
- Labor Costs
- Labor Laws
- Labor Organizations

Labor Legislation

- Table 13.1 – Goes from Sherman Antitrust Act (1890) to Civil Rights Act (1964)
- Formation of AF of L (1886) to the Consolidation of AFL-CIO (1955)

Table 13.1 Chronology of Labor Law and Organization

Labor Law		Labor Movement	
1890	Sherman Antitrust Act	1886	AFL founded by Samuel Gompers; Knights of Labor organized factory workers
1908	Supreme Court supported application to union activity		
1914	Clayton Act Ineffective—individual basis—as court rules	1905	Industrial Workers of the World
1931	Davis-Bacon Act On federal contracts	1907	Building and Construction Trades Department of AFL founded
1932	Norris-LaGuardia (Anti-Injunction Act)	1930s	Take in industrial workers as federal locals
-1935	Wagner Act (National Labor Relations Act)	1935	Committee for Industrial Organization AFL ordered disbanding
1938	Fair Labor Standards Act Minimum wages, maximum hours defined	1936	Federal locals (CIO) thrown out
1943	Smith-Connolly Act (War-Labor Disputes Act)	1938	Congress of Industrial Organizations
1946	Resection to labor in wartime; ineffective	1940s	Wartime strikes accused of not supporting war effort
-1947	Taft-Hartley (Labor Management Relations Act)	1955	Criminal activities alleged AFL and CIO reconcile differences and recombine as AFL-CIO
1959	Landrum-Griffin Act (Labor Management Reporting and Disclosures)		
1964	Title IV Civil Rights Act		

A Short History ...

- 1890: Sherman Antitrust Act used to break up Unions – Pinkertons hired as private armies by Corporations to bust strikes.
- 1932: Norris-LaGuardia Act (anti-injunction) prevented courts from protecting Corporations from the formation of Unions.
- 1931: Davis-Bacon Act forced Corporations to pay “prevailing” wage on Federal Projects.
- 1938: Fair Labor Standards Act forced Corporations to pay a minimum wage.

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Table 13.2 Employer Unfair Labor Practices

Under the National Labor Relations Act, as amended, an employer commits an unfair labor practice if he:

1. Interferes with, restrains, or coerces employees in the exercise of rights protected by the act, such as their right of self-organization for the purposes of collective bargaining or other mutual assistance (Section 8(a)(1)).
2. Dominates or interferes with any labor organization in either its formation or its administration or contributes financial or other support to it (Section 8(a)(2)). Thus “company” unions dominated by the employer are prohibited, and employers may not unlawfully assist any union financially or otherwise.
3. Discriminates against an employee in order to encourage or discourage union membership (Section 8(a)(3)). It is illegal for an employer to discharge or demote an employee or to single him out in any other discriminatory manner simply because he is or is not a member of a union. In this regard, however, it is not unlawful for employers and unions to enter into compulsory union membership agreements permitted by the National Labor Relations Act. This is subject to applicable state laws prohibiting compulsory unionism.
4. Discharges or otherwise discriminates against an employee because he has filed charges or given testimony under the act (Section 8(a)(4)). This provision protects the employee from retaliation if he seeks help in enforcing his rights under the act.
5. Refuses to bargain in good faith about wages, hours, and other conditions of employment with the properly chosen representatives of his employees (Section 8(a)(5)). Matters concerning rates of pay, wages, hours, and other conditions of employment are called mandatory subjects, about which the employer and the union must bargain in good faith, although the law does not require either party to agree to a proposal or to make concessions.
6. Enters into a hot-cargo agreement with a union [Section 8(e)]. Under a hot-cargo agreement, the employer promises not to do business with or not to handle, use, transport, sell, or otherwise deal in the products of another person or employer. Only in the garment industry and the construction industry (to a limited extent) are such agreements now lawful. This unfair labor practice can be committed only by an employer and a labor organization acting together.

Source: From Clough and Sears, *Construction Contracting*, 6th ed., John Wiley & Sons, New York, 1994.

A Short History ...

- 1935: Wagner Act – National Labor Relations Act established a list of unfair labor practices by employers. (Table 13.2)
- 1947: Taft-Hartley Act curbed union abuses resulting from WW II labor shortages. (Table 13.3)
- Look at the details in Tables 13.2 and 13.3 and contrast the results.

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Texas “Right to Work Law”

Section 14(b) of the Taft-Hartley Act provides that the individual states have the right to forbid negotiated labor agreements that require union membership as a condition of employment. In other words, any state or territory of the United States may, if it chooses, pass a law making a union-shop labor agreement illegal. This is called the “right-to-work” section of the act, and such state laws are termed right-to-work statutes. At the present writing, 21 states have such laws in force.³ It is interesting to note that most of these state right-to-work laws go beyond the mere issues of compulsory unionism inherent in the union shop. Most of them outlaw the agency shop, under which nonunion workers must pay as a condition of continued employment the same initiation fees, dues, and assessments as union employees, but are not required to join the union. Some of the laws explicitly forbid unions to strike over the issue of employment of nonunion workers.⁴

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Other Legislation

- Protects Individuals from abuses by Labor and Management
- Provides improved oversight over union elections
- Provides increased government over record keeping and finances
- Protects union members from racial and sexual discrimination

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How is Labor Organized?

- Organized by Industry – Congress of Industrial Organizations (CIO): United Auto Workers, United Mine Workers
- Organized By Craft: American Federation of Labor: Iron Workers, Bricklayers, etc.
- The AFL-CIO formed in 1955.

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Construction Unions

Table 13.4 AFL-CIO Construction Unions

1. International Association of Bridge, Structural, Ornamental, and Reinforcing Iron Workers
2. International Association of Heat and Frost Insulators and Asbestos Workers
3. International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers, and Helpers
4. International Brotherhood of Electrical Workers
5. International Brotherhood of Painters, Decorators, and Allied Trades
6. International Brotherhood of Teamsters
7. International Union of Bricklayer and Allied Craft Workers
8. International Union of Elevator Constructors
9. International Union of Operating Engineers
10. Laborers International Union of North America
11. Operative Plasterers and Cement Masons' International Association
12. Sheet Metal Workers' International Association
13. United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada
14. United Brotherhood of Carpenters and Joiners of America
15. United Union of Roofers, Waterproofers, and Allied Workers

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Local Unions

- Local Union Business Manager – Employee of the Union. Responsible for ensuring a pool of skilled workers available, etc. (*Ideally!*)
- Shop Steward – Your employee usually elected by fellow workers to provide a working interface between them and the local union and the company supervisors. (*Ideally!*)
- If you have the right political skills and everyone (including yourself) is honest and fair, you can work this arrangement to your advantage. (*Sweetheart Unions*)

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Jurisdictional Disputes and/or Enforcement of Work Rules

- This is a big problem as seen by construction management because it determines WHO does the work. This in turn may dictate how the work is done.
- Labor sees this as a way to protect the jobs of members.
- Source of many blatant union and company abuses.
 - MBTA Example
 - T.C. Cage BBNP example.

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Labor Costs

- Labor Costs fall into four general categories.
 - **Direct:** those costs that actually go into the product. Includes the employee's share of insurance, pension, taxes, etc.
 - **Fringe Benefits:** includes: insurance (employer's share of, health, life, disability, unemployment, etc.), pension (401k, etc.), vacation, holidays, sick leave, "personal days", etc.
 - **Taxes:** Employer's share of FICA, unemployment, worker's compensation insurance, pension, etc.
 - **Indirect:** Includes training, subsistence, travel, etc., termination expenses.

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This is an example of how complex the math can get for non-exempt personnel.

Question: Who is "exempt" from the protection of the "wages and hours" law?

Why does it matter?

How are these numbers usually demagogued?

Compute the average hourly cost to a contractor of an ironworker involved in structural steel erection in a subsistence area. The ironworker works on the second shift of a three-shift job and works six 10-hour days per week. The worker works 7 hours and are paid 8 hours under the shift pay agreement. Additional PI and PD insurance for \$50,000/\$100,000 coverage is desired. Use 6.2% FICA and 5.0% for unemployment insurance.

	Hours Worked	Straight Time-Hours (ST)	Premium Time (PT)
Monday-Friday	5 × 7 = 35	5 × 8 = 40	1 × 5 × 3 = 15
Saturday	5 × 3 = 15	5 × 3 = 15	1 × 1 × 8 = 8
	1 × 7 = 7	1 × 8 = 8	1 × 1 × 8 = 8
	1 × 3 = 3	1 × 3 = 3	1 × 1 × 3 = 3
	60	66	26

Base Rate = \$19.20
 ST 66 hours @ \$19.20 = \$1267.20
 PT 26 hours @ \$19.20 = \$499.20
 Gross Pay \$1766.40

Fringes: Health and Welfare 1.30 × 66 = \$ 85.80
 Pension 1.14 × 66 = \$ 75.24
 Vacation 1.00 × 66 = \$ 66.00 (deferred wages)
 Apprenticeship training 0.14 × 66 = \$ 9.24
 3.58 × 66 = \$326.28

WC = \$29.18 WC, PL, and PD = \$36.39 × $\frac{1267.20}{100}$ = \$461.13
 PL 1.59 × 300 = \$477
 PD 1.30 × 188 = \$244
 Total = \$56.39 per \$100.00 of Payroll

FICA = 0.062 × (\$1766.40 + \$66) = \$113.61
 Unemployment = 0.05 × (\$1766.40 + \$66) = \$91.62
 Subsistence = 6 days × \$20.00/day = \$120.00

Total Cost = Base + Fringes + WC, PL, PD + UNEMP + FICA + SUBS = \$2789.04
 Average Hourly Cost (To Contractor) = $\frac{2789.04}{60}$ = \$46.48

Example of How to Use This in a Consulting Environment.

- Labor Cost is the critical factor in Consulting.
- The largest component is "exempt" personnel.
- What follows is an interesting example of "the arithmetic" of consulting.

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Overhead (a.k.a., Indirect Cost) Calculation

THE ARITHMETIC OF CONSULTING ENGINEERING

by James W. Polirst, P.E.
ASCE Practitioner-In-Residence
Texas A&M University
February 25, 1991

A. Assumptions

1. Total Salaries - 20 people @ \$50,000/yr = \$1,000,000
2. Client/project utilization = 70% x \$1,000,000 = \$700,000
3. Overheads:
 - a) Salaries = 30% x \$1,000,000 = \$300,000 "Dead Time"
 - b) Salary fringe benefits = 40% = \$400,000
 - c) Rent, travel telephone, computers, professional society, research, interest on borrowed capital, supplies, licenses, etc. = \$525,000

Total Overheads \$1,225,000

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Revenue Required to Maintain the Company.

B. Arithmetic

1. Breakeven Multiplier = $\frac{\text{Total Costs}}{\text{Direct Salaries}}$
 = $\frac{\text{Direct Salaries} + \text{Overheads}}{\text{Direct Salaries}}$
 = $\frac{\$700,000 + \$1,225,000}{\$700,000}$
 = 2.75
2. Minimum Profit (Retain for growth and return to owners) = 10%
3. Minimum Billing Multiplier = $2.75 + 10\% \times 2.75$
 = 3.025
4. Total Required Revenue = $\$700,000 \times 3.025 + \text{Project Expenses}$
 = $\$2,117,500 + \text{Project Expenses}$

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Contracting and Negotiating Numbers

C. Key Business Indicators

1. Overhead rate = $\frac{\$1,225,000}{\$700,000} = 175\% \times \text{Direct Salaries}$
2. Billing Multiplier = $3.025 \times \text{Direct Salaries}$
3. Client/Project Utilization = $70\% \times \text{Total Salaries}$

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What Happens When You Don't Generate Backlog.

D. Typical Business Problems

1. Low Client/Project Utilization - say 60%
Then overhead salaries increase to 40%
 - a) Overheads become:
 - 40% x \$1,000,000 = \$ 400,000
 - Plus other overhead = \$ 925,000
 - Total = \$1,325,000
 - b) Direct Salaries become = \$ 600,000
 - c) Overhead rate becomes = $\frac{\$1,325,000}{\$600,000} = 221\%$
 - d) Breakeven Multiplier = $\frac{\$1,925,000}{\$600,000} = 3.21 \text{ vs. } 2.75$
 - e) If contracted at 3.025
Total revenues = $\$600,000 \times 3.025 = \$1,815,000$
 - f) Loss = $\$1,925,000 - \$1,815,000 = (\$110,000)$

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Affect of Overrun on Fee

2. Overrunning Project Fee (spending more time than planned)

Then: (say 15% overruns)

- a) Total Overheads (same) = \$1,225,000
- b) Original Direct Salaries = \$ 700,000
- c) 15% Overrun by Overtime = \$ 105,000
- d) Total Costs = \$2,030,000
- e) Total Revenues (same) = \$2,117,500
- f) Profit = \$ 87,500 = 4.5%

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Module Assessment

- Please take 1-minute to write down the "muddiest" topic on a sheet of paper and pass it to the front.

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