

THE ECONOMIC AND SOCIAL IMPACT OF APPRENTICESHIP PROGRAMS

March 14, 2017

Presentation by:

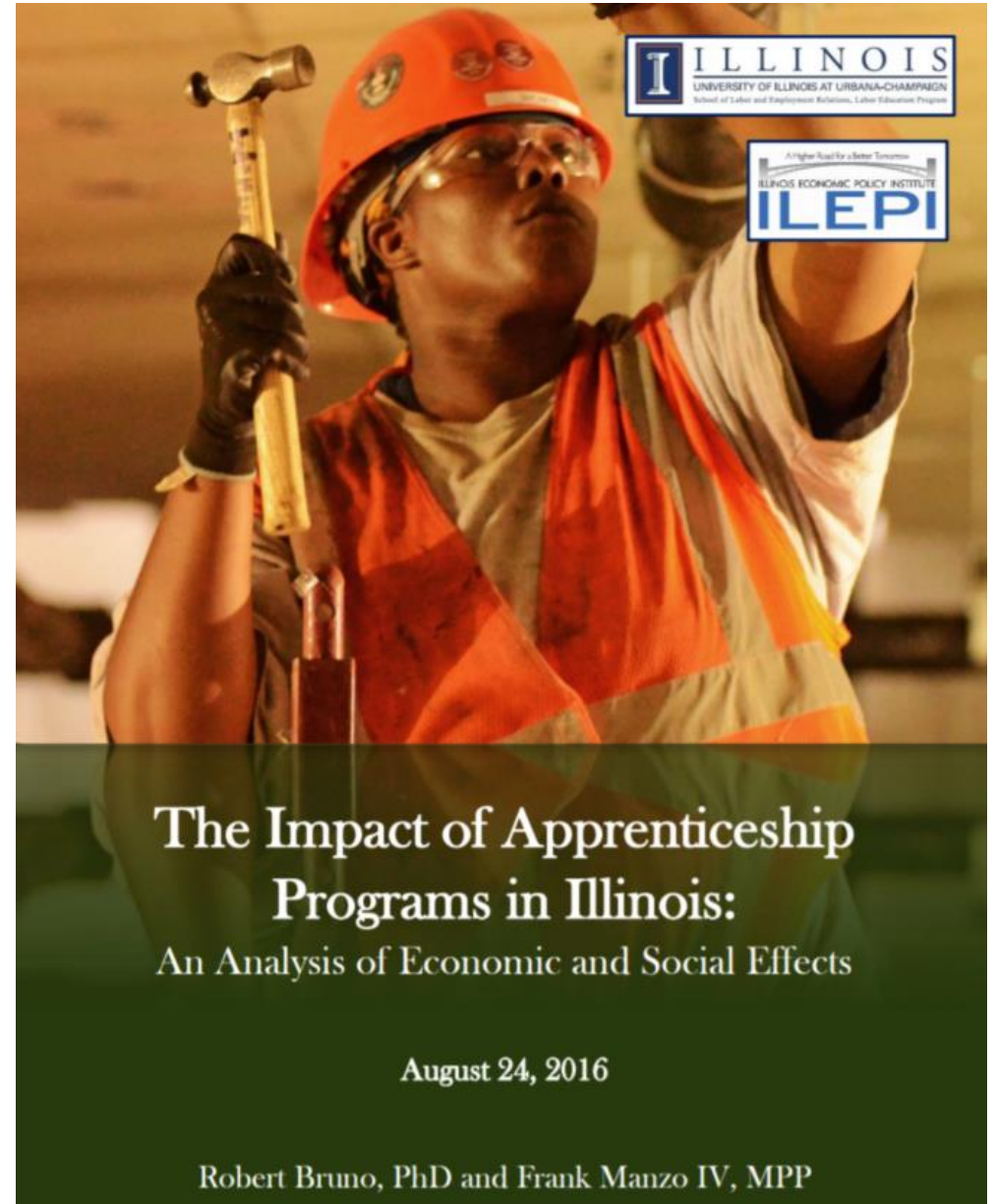
Frank Manzo IV, MPP
Illinois Economic Policy Institute
fmanzo@illinoisepi.org
www.illinoisepi.org

The Big Takeaways

- For many young workers, an apprenticeship is a better option than college
- 7th-largest private post-secondary institution in Illinois
- Joint labor-management programs account for vast majority of human capital investment in construction
- Apprenticeship programs have positive social and economic impacts: **\$11 in total benefits per dollar invested** over long run in Illinois
- Prevailing wage and labor unions support apprenticeship programs

Our Research

- *The Impact of Apprenticeship Programs in Illinois: An Analysis of Economic and Social Effects*
 - FY2015 data on 12,123 apprentices in Illinois (FOIA Request to USDOL)
 - Form 990 reports submitted to IRS
 - Economic impact analysis



Background

- Nearly all registered apprenticeship programs are funded & operated by private entities (joint & non-joint)
 - Apprentice benefits: “Earn while you learn”
 - Employers benefit: Access to pool of skilled, productive workers
 - Public benefits: Better quality work, increased tax revenue, lower social insurance taxes

Previous Research on Economic Impact

- Countries with widespread usage are more successful at transitioning young workers into labor market (e.g., Denmark & Germany)
- Apprenticeships boost earnings of workers with low levels of education by +5% to +18%
- Mathematica Policy Research (2012): Participants earn \$123,906 more in wages & benefits over careers than similar nonparticipants, and have reduced probability of suffering long-term unemployment

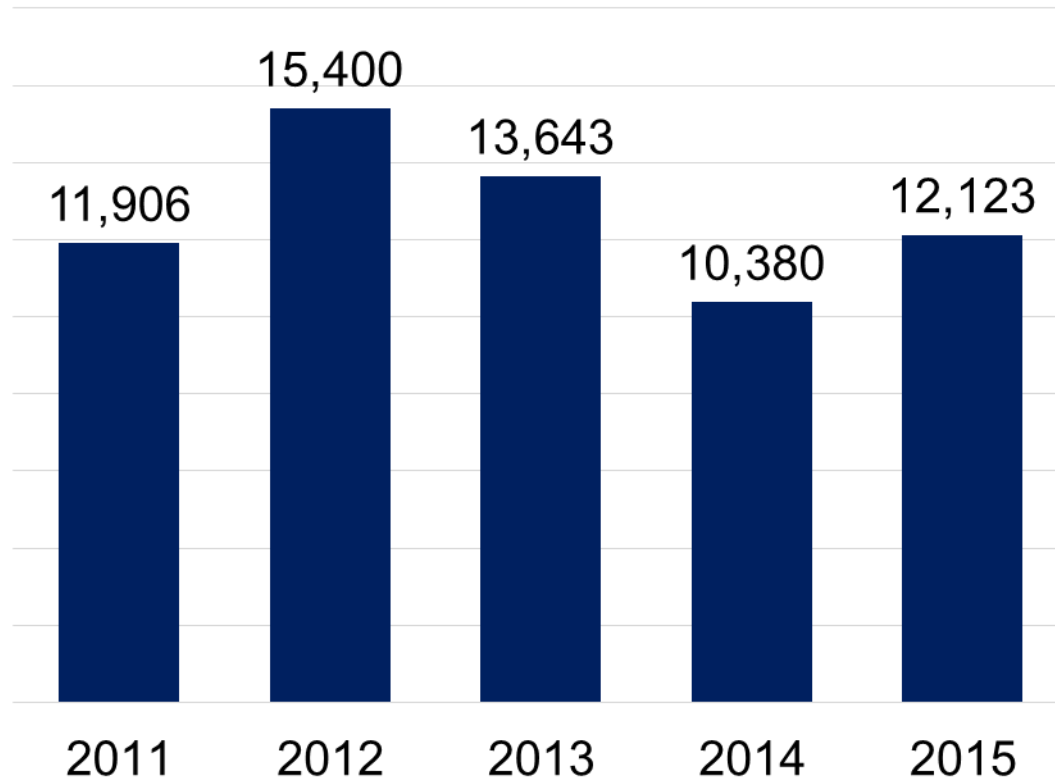
Apprenticeships & the Construction Industry

- Work of Peter Philips, PhD – University of Utah
 - Apprenticeships result in safer, more productive, middle-class construction workers
 - “Construction operates the largest privately-financed system of higher education in the country”
- Construction projected as the fastest-growing industry in Illinois
- Fastest-growing trades require 3-5 year apprenticeship

2015 Associated General Contractors (AGC) Survey	Illinois	United States
Expect to hire craft workers in next 12 months	93%	89%
Have trouble filling hourly craft positions	64%	86%
Firm employs union workers on most or all of its projects	92%	30%

Overview Data on Apprenticeships in Illinois

Active Apprentices, FY11-FY2015



FY2015 Breakdown

- 70% white male
- 30% women and people of color
- 89% construction
- 11% non-construction

Construction RA Program Overview, FY15

Sponsorship Type	Total Active Apprentices	Total Revenues (Millions)	Total Expenditures (Millions)
Joint Labor-Management	10,646	\$155	\$135
Non-Joint	165	\$1	\$1
Total from All Programs	10,811	\$156	\$136
<i>Joint Share</i>	<i>98%</i>	<i>99%</i>	<i>99%</i>

Construction RA Program Metrics, FY15

Operational Metric	Joint	Non-Joint	Difference
Revenues Per Apprentice	\$14,600	\$5,200	3X
Expenditures Per Apprentice	\$12,700	\$6,600	2X
Total Employees	2,860	11	+2,849
Apprentices Per Program Employee	3.7	14.7	-11.0

- **\$0.56** per hour worked by blue-collar construction workers (estimated)

Annual Impact of Construction RA Programs

Economic Effect (IMPLAN)	Employment (Jobs)	GDP Impact (Millions)
Direct Effect of Apprentices	2,700*	\$184
Indirect Effect on Local Industries	900	\$105
Net Consumer Demand Effect	1,400	\$119
Total Effects of Registered Apprenticeships	5,000	\$409

**Form 990s: Actually 2,871 jobs at RA Programs in Illinois, so the model is accurate.*

Long-Run Impact of Construction RA Programs

Impact	Long-Run Benefit
Illinois Gross Domestic Product (GDP)	\$1.25 billion
State and Local Tax Revenues	\$100 million
Federal Tax Revenues	\$100 million
Unemployment Insurance Compensation Savings	\$25 million
Food Stamp Value Savings	\$20 million
Welfare Cost Savings	\$5 million
<i>Annual GDP Return Per Private Dollar Invested</i>	<i>\$3.00</i>
<i>Long-Run GDP and Government Revenue Return on Investment</i>	<i>\$10.98</i>

- Those who claim that unions have negative impact should at least consider these economic & social benefits (98-99% responsible)

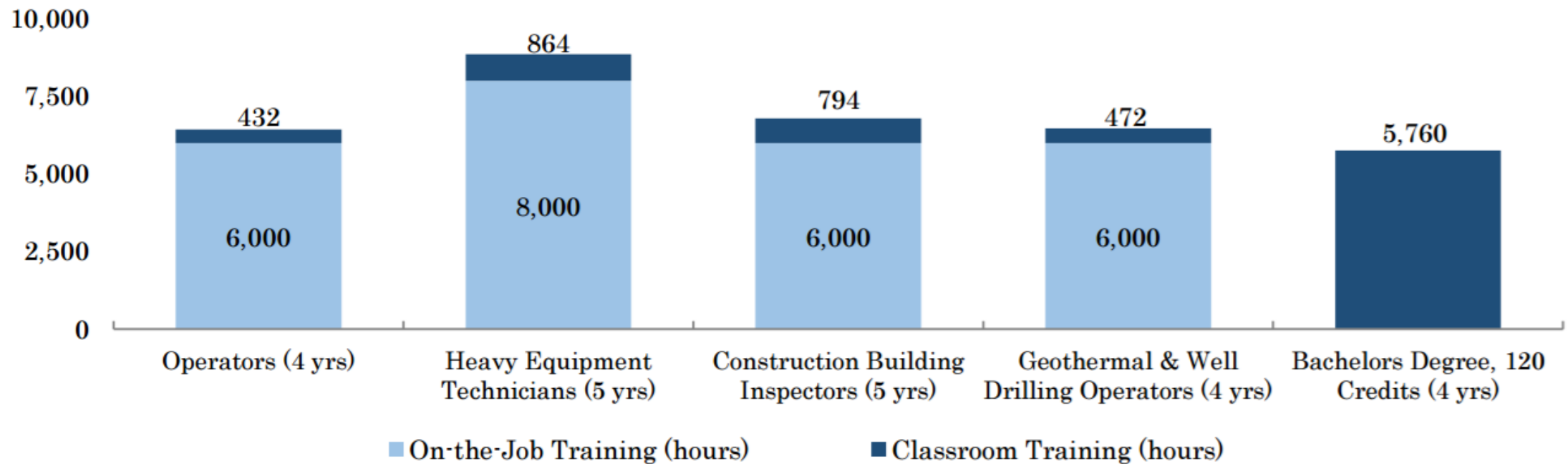
Educational Importance of Apprenticeships

Rank	Construction Registered Apprenticeships vs. Universities in Illinois	Total Enrollment	Tuition Cost
1	DePaul University	22,600	\$39,000
2	Northwestern University	20,100	\$53,000
3	DeVry University-Illinois	19,400	\$31,000
4	Loyola University Chicago	15,700	\$43,000
5	University of Chicago	14,600	\$53,000
6	Columbia College Chicago	12,500	\$37,000
7	Construction Apprenticeship Programs	10,800	\$0
8	Roosevelt University	7,700	\$34,000
9	Illinois Institute of Technology	7,400	\$41,000
10	National-Louis University	6,900	\$32,000

- If we combine all RA construction programs, they are 7th-largest private post-secondary institution in Illinois (16th with public universities included)

Skill Requirement vs. Typical Bachelor's Degree

Hours Required by Heavy and Civil Engineering Construction Apprenticeship Programs, Compared to Bachelor's Degree

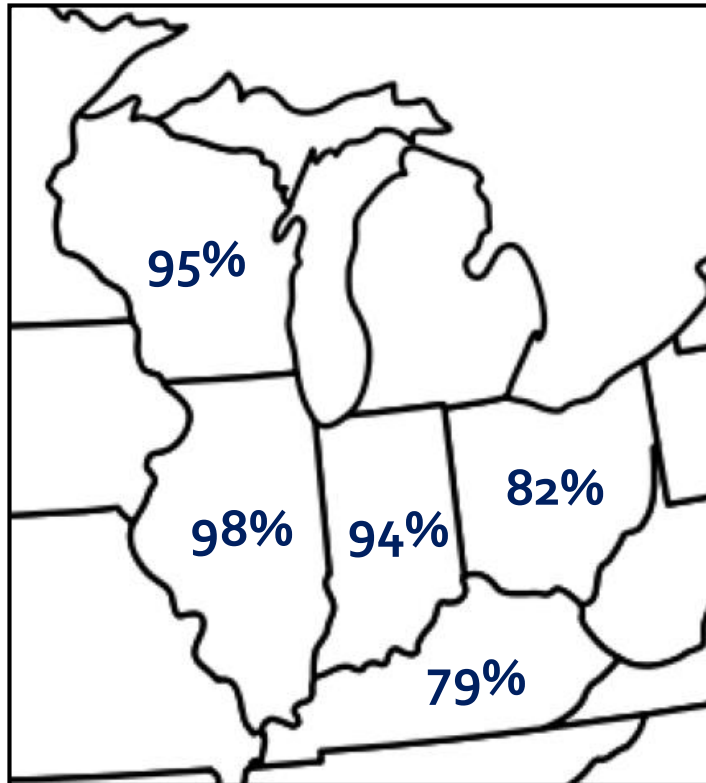


Is Apprenticeship Better than Attending College?

Rank	Bachelor's Degree (or Other Educational Attainment)	Benefit – Cost (Over 36 Years)
1	Biology and Life Sciences	\$740,000
2	Engineering	\$700,000
3	Business	\$556,000
7	Social Sciences	\$461,000
15	Architecture	\$156,000
16	Registered Apprenticeship	\$120,000
17	Family and Consumer Sciences	\$84,000
18	Psychology	\$81,000
19	Social Work	\$66,000
20	English Language and Literature	\$44,000
-	Associate's Degree	\$7,000

Does this Apply to Other States?

Share of active registered apprentices in joint labor-management programs (Construction):



- Yes, recent studies across Midwest
 - IL: Bruno & Manzo (2016)
 - WI: Philips (2015)
 - IN: Philips (2015)
 - KY: Duncan & Manzo (2016)
 - OH: Onsarigo, Atalah, Manzo & Duncan (2017)
- Bilginsoy (2007): RAs in joint programs more likely to complete training & receive certification

Relationship of Prevailing Wage to RA Programs

- Prevailing wage laws promote long-term apprenticeship training:
 - In 2012, states with prevailing wage had 65% more enrolled apprentices & 60% more graduating apprentices per hour of construction work
 - After Colorado and Kansas repealed prevailing wage, apprenticeship training fell 40%
 - Injuries case rates (14%) & workdays lost to injury (12%) both increased in nine states that repealed prevailing wage between 1978 and 1991
 - Construction workers report 12% more disabilities in states without prevailing wage
- Higher investment in worker training translates into higher productivity, reduced injuries, & fewer skills shortages

Our Policy Recommendations

1. Improve marketing and outreach to businesses & disadvantaged workers
2. Expand access to child care programs
3. Provide tax credits to businesses that offer apprenticeship programs
4. Expand pre-apprenticeship programs in public high schools
5. Incentivize workers to enter the trades by creating pathways at public universities
6. Support policies that increase unionization & strengthen prevailing wage

The Big Takeaways

- For many young workers, an apprenticeship is a better option than college
- 7th-largest private post-secondary institution in Illinois
- Joint labor-management programs account for vast majority of human capital investment in construction
- Apprenticeship programs have positive social and economic impacts: **\$11 in total benefits per dollar invested** over long run in Illinois
- Prevailing wage and labor unions support apprenticeship programs

Thank You!



www.illinoisepi.org

fmanzo@illinoisepi.org

www.facebook.com/IllinoisEPI

Twitter: @IllinoisEPI



www.illinoislabored.org

bbruno@Illinois.edu

Twitter: @IL_Labor_Edu