

# ROI360°



How Workforce Partnership Training  
Benefits Business, Workers & Community

Presented by the Job Opportunity Investment Network

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# Executive Summary

## Workforce partnership training benefits business, community, and workers.

JOIN-sponsored training efforts result in positive returns for all stakeholders. In all cases these returns are related to factors that matter, including employee skill development in growing fields, improved business performance, layoff aversion, and hiring that benefits the entire community.

*Definition:*

**Workforce partnerships**

Workforce partnerships bring together numerous employers in the same industry to identify mid-level talent gaps and connect these employers to social service agencies and job training organizations that can prepare low-skilled adults to fill these positions.

## All stakeholders see positive returns from the partnership training, but these returns are not evenly distributed.

|   |  |
|---|--|
| 407% - 469%                                       | Business participants see significant bottom lines gains as a result of the partnership.   |
| 193 - 264% (short term)<br>141 - 376% (long term) | Workers realize relatively small short term wages, promotions, and skills benefits. They see most gains from comprehensive training, if it is provided by their employers. |
| 429% - 717%                                       | Community outcomes, including broader employment, deferred public assistance, and reduced health costs, can be significant. This area would benefit from further research. |

## Key Recommendations

Employers should invest in their entry-level workforce and seek workforce partnerships to develop entry level training. Employer return on investment from participating in workforce partnerships is significantly positive.

Workforce partnerships and training experts should focus on credentials and degrees to move workers up career ladders to high wage jobs. Worker return on investment is highest for comprehensive training.

Skills development should be pursued as a key tool in economic development and business attraction efforts. Workforce partnerships develop an economy, not just a workforce.

Funders and policymakers should establish clear criteria to apply to employers who benefit from partnerships to ensure their practices meet “high road” standards. Employer practices drive worker value from training.

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# Introduction

## The Job Opportunity Investment Network & Return on Investment

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### What is JOIN?

JOIN is the Job Opportunity Investment Network, a public-private partnership of regional and national funders. The group invests in, evaluates, and advocates for best practice efforts that narrow the gap between the region's low-skilled workforce and the needs of the region's employers.

### What is the Skills Gap?

In 1950, 3 in every 10 jobs required a postsecondary credential; today, 7 in every 10 jobs require such a credential. This need for skilled workers has outstripped the capacity of our adult education and training system, leaving communities with a tragic mismatch between the skills of their workers and the talent needs of their businesses. Greater Philadelphia is a case study in this tragic mismatch.

Even during the recession and recovery, the region's fastest growing industries, health care, university services, and clean energy, have been challenged to find a workforce with suitable training and education. Regionally, 73% of residents have only a high school diploma or less and most residents are functionally "low literate." As a result, businesses struggle to find skilled workers even as half the working-age population is unemployed.

### Parallel Crises with a Common Solution

JOIN believes the skill needs of workers and talent needs of businesses have a common solution: workforce partnerships. These partnerships form a bridge between employers, social service organizations and job seekers. They bring together numerous employers in the same industry to identify mid-level talent gaps and connect these employers to social service agencies and job training organizations that can prepare low-skilled adults to fill these positions.

### Why an ROI Study?

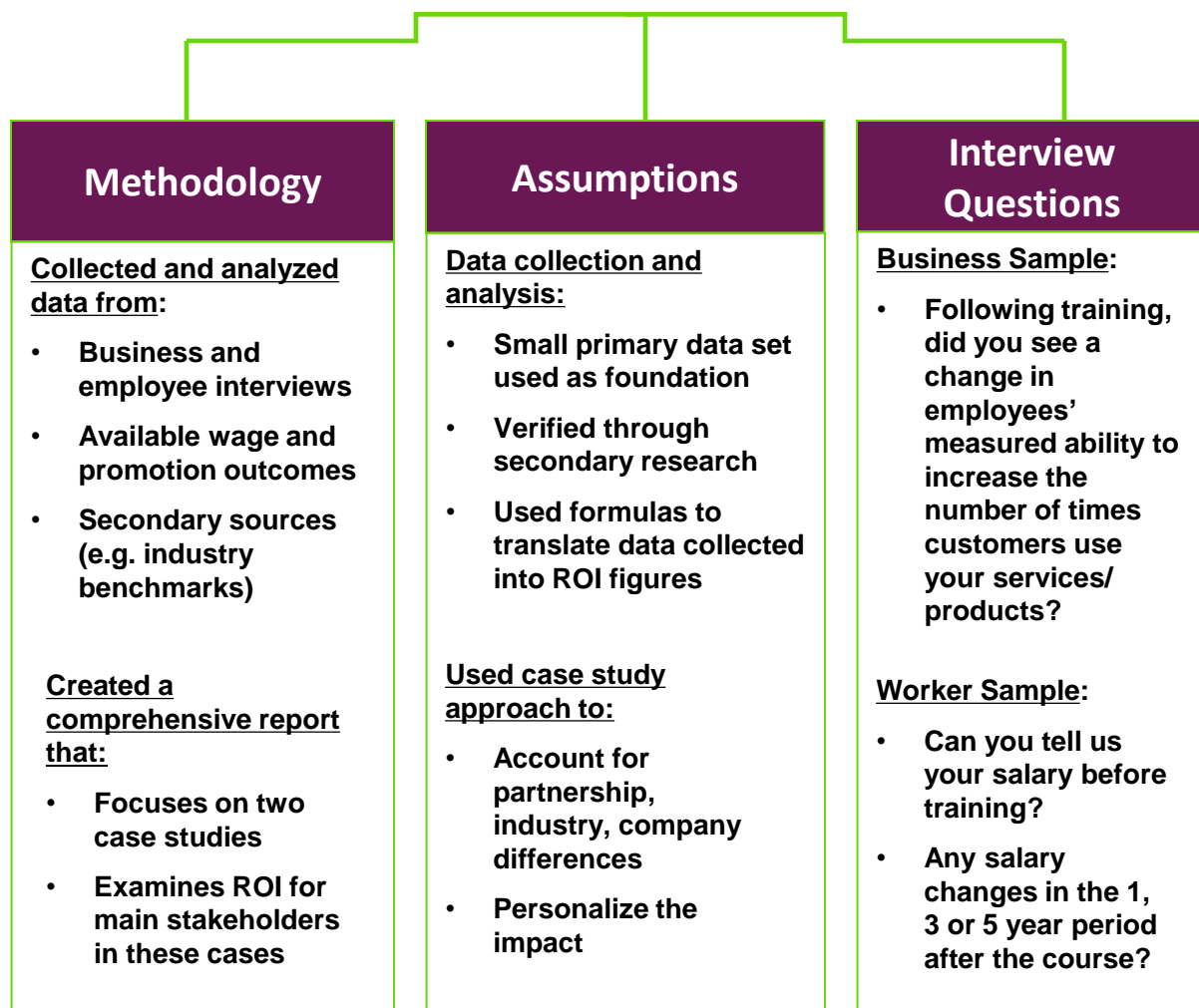
We believe that funders, policy makers, employers and workforce service providers can better design and evaluate workforce partnerships by examining the value created by those partnerships. One tool that has been underutilized in this area is a return on investment (ROI) study. JOIN decided to work with an independent consultant to develop ROI case studies to measure the value of its skills training to employers, workers, and the broader community.

### Benefits of an ROI

- Broaden our understanding of what might create value in partnership efforts
- Generate an initial model that can be expanded and used in other partnership evaluations
- Stretch imagination about who may benefit from partnership training and how those impacts are felt

# Our ROI Methodology

## JOIN ROI Study Approach



### The JOIN ROI followed a standard analytic approach:

- Define the scope, determine which stakeholders to include in the calculations
- Survey standard value drivers and identify which inputs, outputs, and outcomes to include
- Collect and analyze data
- Develop the model and validate the results
- *Ongoing:* Engage stakeholders and guide their involvement

ROI is the ratio between your investment and return, and is therefore presented as a percentage. For every dollar spent, ROI tells you how many dollars to expect in return. As your investment grows, your return grows proportionally.

# Applying the ROI Methodology

The ROI model was built on a series of formulas that translated interview data into concrete investment and impact drivers. Below, we take a closer look at how we calculate return on investment for one manufacturing firm, Computer Components. All additional calculations can be found in the Appendix and on JOIN's website.

## Sample Calculation: Computer Components

### Impact

### Investment

|  |  |
|--|--|
| Added Profit From Existing Customers: <b>\$135,383</b> | Participation in partnership meetings (staff time): <b>\$7,047</b> |
| Improved Brand Recognition: <b>\$11,282</b>            | Employee salary costs while in training: <b>\$16,075</b>           |
| Return From Product Line Expansion: <b>\$93,175</b>    | Partnership contribution by company: <b>\$25,924</b>               |
| Improved HR Performance: <b>\$41,701</b>               |  |

Total 5 year Impact: **\$281,541**

Discount Rate: **5%**

Total 5 year Impact (discounted): **\$199,764**

Total investment: **\$49,045**

**BUSINESS RETURN (5 Year): 407%**

### Calculation Detail: Added Profit from Existing Customers

According to the company COO, improved customer service from training contributed to renewal of a \$3MM customer account

1. In an interview, the COO attributed 10% of his customer's renewal decision to training (via improved customer service).

Total value: \$300,000 revenue per year

2. Used standard industry margin (8.5%) to convert revenue to profit.

Total value: \$25,500 profit in first year

3. Assumed 3% growth each year, from years 2 – 5.

Total value: **\$135,383** in increased profit over 5 years

# Key Findings

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## **JOIN training partnerships yield positive results for all.**

The JOIN-sponsored training efforts result in positive returns for all stakeholders. In all cases, these returns are related to factors that matter, including employee training in growing fields, improved business performance, layoff aversion, and hiring that benefits the entire community.

**While all returns are positive, benefits are not always aligned.** In the short term, benefits to businesses outpace those to employees.

- Business Returns: 407 – 469%
- Employee Returns: 193% (short term) – 376% (long term)
- Community Returns (potential): 429% - 717%

## **Business participants see significant bottom line gains as a result of partnership.**

Both their involvement with other partnership members and the outcomes of training drive real profit, brand, and product development gains. These gains are directly related to critical areas for business such as stronger organizational capacity and better customer service for new and existing clients.

**Employees see the biggest returns when employers are engaged and involvement is customized.** Perhaps unsurprisingly, employees benefit more when employers are actively engaged in training efforts. While employees in all cases realize positive benefits, employer practices heavily influence the value of training. There is the potential for stronger gains when employees participate in comprehensive training with support for promotions, certifications and job placement for graduates.

**Community outcomes can be significant. This area would benefit from further research.** This study seeks to expand our understanding of ROI by developing some creative applications to measure returns to community.

- In one case study, a sample of 8 retained employees drove \$1MM in community returns.
- In another case study, if we consider employment more broadly, we could realize \$2MM in community benefits.



# Recommendations Summary

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**ROI analysis provides findings that we can use to improve outcomes for employers, workforce partnerships, funders and policymakers.**

## **For Employers and Workforce Partnerships**

Business ROI is strongly positive and reinforces the benefits of investment in entry-level workers: Employers should engage in workforce partnerships to determine training needs and pursue skill development for entry level and front line workers.

Worker ROI is highest for comprehensive training: Workforce stakeholders should keep a training mix, but focus on credentials and degrees to move workers up career ladders to high-wage jobs.

Partnership staffing drives partnership value: Partnerships need strong staff directors to drive value and ensure training positively impacts both employees and employers. Funding training alone is not enough to drive value.

Workforce partnerships can be better utilized: Employer partners should develop their own agendas for engaging with a broader partnership network. These agendas should drive planning and operations of workforce partnership meetings.

## **For Funders and Policymakers**

Business value and worker value are not always aligned: Funders need to be thoughtful about what “industry led” efforts look like. It is possible for industry to lead and for workers to be left out of the benefits.

Employer practices drive employee value from training: Clear criteria should be applied to employers who benefit from partnerships to ensure their practices meet “high road” standards.

There is great potential in funding efforts that engage all stakeholders: JOIN and its partners should design and pioneer models to develop cooperative funding streams.

The benefits of employment reach beyond direct stakeholders to clients and community; funders and partnerships should better capture those benefits: JOIN and other funders should think creatively about how to define employment.

Partnerships develop an economy, not just a workforce: Workforce development should be pursued by policymakers as a key tool in economic development and business attraction efforts.

A long term measurement approach would be beneficial: Policymakers should design metrics with a common outcome structure for all stakeholders and consider how to better align current funding efforts.

# Training Recommendations

| Finding  | Description   | Supporting Numbers   | Broader Implications  |
|--|---|--|---|
| 1<br><b>Worker ROI is highest for comprehensive training.</b>      | Workers gain the most when they receive enough training to gain a significant promotion. Short-term training offers smaller returns.  | Difference between return for credential training effort and smaller, shorter courses  | Workforce stakeholders should keep a training mix, but focus more on credentials and degrees to increase the skills of the workforce.   |
| 2<br><b>Business and worker value is not aligned.</b>              | Businesses capture significant value from short-term trainings and general partnership participation.<br><br>Workers stand to gain most from longer-term training.                        | Business returns from grants and networking are high.<br><br>These benefits accrue regardless of training type – not always the case for workers   | Workforce stakeholders need to be thoughtful about what “industry-led” efforts look like. It is possible for industry to lead and for workers to be left out of the benefits.                                 |
| 3<br><b>Employer practices drive employee value from training.</b> | Employee value from training is much greater when the employer has real career paths and incentives.<br><br>Training plans should be co-designed with business to include these features. | Pharmacy tech program completion and employment rates:<br>– With employer support and infrastructure: 75%, 82%<br>– Without employer infrastructure: 47%, 40%                              | Clear criteria should be applied to businesses which benefit from partnerships to ensure their practices meet “high-road” standards such as providing livable wages and creating career pathways for workers. |
| 4<br><b>Partnerships develop an economy, not just a workforce.</b> | Returns are broader than just workers/workforce development.<br><br>Partnerships should be measured and communicated in economic development terms.                                       | Business returns from partnerships include:<br>– Better customer relationships<br>– New products<br>– Improved brand quality<br><br>HR & employee returns are important, but not singular. | Workforce development should be used as a key tool in economic development and business attraction efforts.   |

# Partnership Recommendations

| Finding  | Description   | Supporting Numbers  | Broader Implications   |
|--|---|---|--|
| 1 The workforce partnership network is underutilized.                            | <p>Employer partners have varied experiences in workforce partnerships.</p> <p>Employers should use the network more creatively and proactively to drive value for their business, clients, and workers.</p>                                  | <p>Different businesses reap different rewards. They can learn from each other.</p> <p>Network connections and sectoral approaches to training can provide direct and indirect community and business value.</p>  | <p>Each employer participant should develop their own agenda for engaging with the broader workforce partnership network.</p> <p>These agendas should drive planning and operations of partnership meetings.</p> |
| 2 A long-term ROI measurement approach would be beneficial for all stakeholders. | <p>Much of the data exists, but is not captured or utilized.</p> <ul style="list-style-type: none"> <li>– Business: Measure in dollars, skill benefit</li> <li>– Workers: Measure in long term opportunities, career goals, skills</li> </ul> | <p>Interviews revealed significant relevant data, but it is not currently being captured in a systematic way.</p>   | <p>Design metrics within a common outcome structure for all stakeholders</p> <p>Consider:</p> <ul style="list-style-type: none"> <li>– How to align?</li> <li>– Where are the handoff points?</li> </ul>         |
| 3 Funding efforts that engage all stakeholders have great potential.             | <p>Pursue funding options that mirror the network approach of partnerships.</p> <p>Business partners should be funding partners. They can gain from direct grants and participation in other fundraising activities.</p>                      | <p>Many stakeholders benefit from participation:</p> <ul style="list-style-type: none"> <li>– Business ROI is strongly positive</li> <li>– Worker ROI is positive</li> <li>– Community/tax payers benefit across economy (though more research is needed to determine degree of benefit)</li> </ul> | <p>Design and pioneer models to develop cooperative funding streams.</p> <p>For example, Venture Philanthropy partners approach</p>  |

# Partnership Recommendations (continued)

| Finding  | Description  | Supporting Numbers  | Broader Implications  |
|--|--|---|---|
| <b>4</b><br><b>Workforce partnership staffing drives partnership value.</b>      | <p>Partnership staff is a critical component: They drive real dollars for businesses.</p> <p>Staff should help workforce partnership participants develop a plan that leverages all components of JOIN model (business growth, funding access, networking access, client outcomes)</p> | <p>Worker support and training grants drive bottom line dollars for businesses.</p> <p>Using network connections to improve client outcomes could result in millions of dollars in community value.</p>             | <p>Workforce partnerships need staff directors to drive the value and ensure the training makes a positive impact for both employees and employers. Funding training is not enough to drive the value.</p> <p>Staff members should continue to engage in a coaching function for the participants. This might require an increase in resources/support.</p> |
| <b>5</b><br><b>JOIN should think creatively about how it defines employment.</b> | <p>The benefits of employment reach beyond direct stakeholders to clients and the community.</p> <p>JOIN should consider ways to influence a broader number of employment levers.</p>  | <p>Using network connections to improve client employment outcomes could result in millions of dollars in community value.</p> <p>Layoff aversion is a secondary, but significant, effect of training programs.</p> | <p>Think about different ways JOIN can support employment across the community.</p> <p>Define “workers” in the JOIN-supported programs more broadly than just employee participants</p>   |

# Case Study 1: Liberty Resources

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## Key Takeaways

As a business, Liberty Resources realizes both organizational and customer benefits from their partnership training investment.

Liberty employees achieved a positive but lower short-term return from their training participation when compared to their employers' gains.

A look at several healthcare career pathways demonstrates greater potential employee value from more intensive, longer term training opportunities.

By defining employment more broadly, we see the potential for significant community benefit.

## Why JOIN Invests

The dynamics of the healthcare field further reinforce the value to both workers and communities of expanding the industry-specific training model in this industry.

- Highly skilled jobs, like those enabled by JOIN training, demonstrated both salary and job growth.
- Healthcare jobs are expected to grow at 30% or more across the field into 2018.

Source: [http://www.bls.gov/oes/oes\\_dl.htm](http://www.bls.gov/oes/oes_dl.htm)



## As a business, Liberty Resources realizes both organizational and customer benefits from their partnership training investment.

Liberty Resources is an employer partner in the Pennsylvania Partnership for Direct Care Workers. Its participation in monthly workforce partnership meeting includes: identifying common training needs with other regional healthcare employers, participating in grant applications for additional resources, and peer learning and networking.

### Liberty Resources Training Approach:

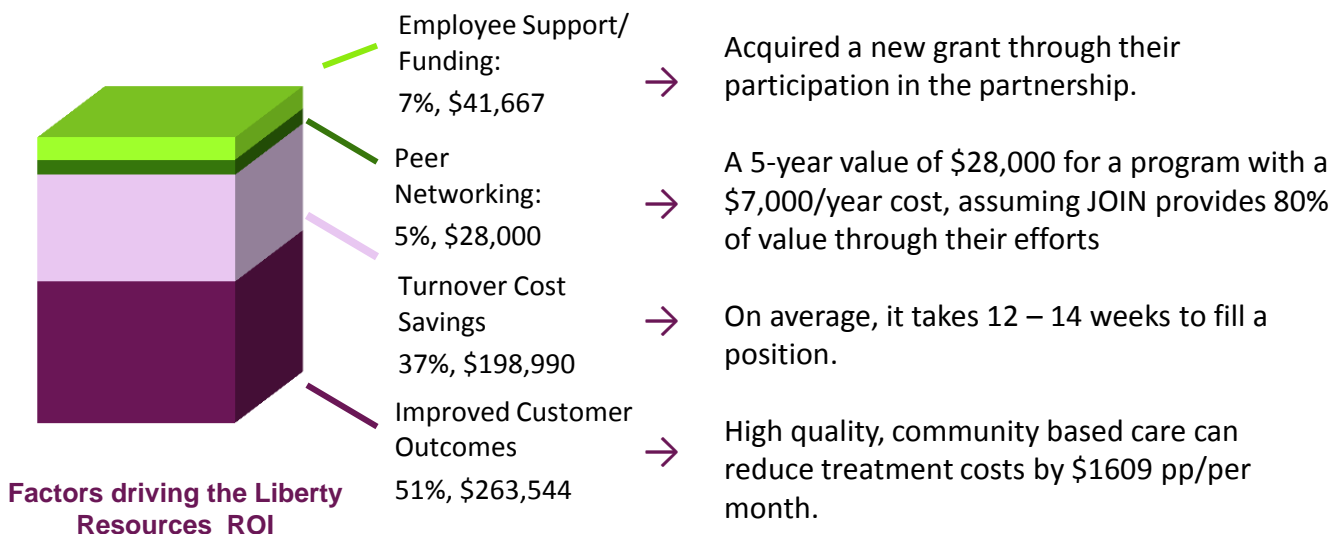
- Tied courses to staff needs identified in exit interviews. Turnover/retention targeted
- Used client customer satisfaction data to identify weak skill areas in workforce.
- Focused on managers as main audience for training, concentrating on personal effectiveness and management training
- Benefits extend to employees supervised by managers and clients receiving improved care.

### From the Research

By tying the curricula of training more closely to key performance metrics and then measuring its impact on them, organizations can generate greater value from training programs and find useful insights to improve programs constantly.

-McKinsey Quarterly, 2010

## Contributing to Value: Partnership training increased resources and reduced costs simultaneously

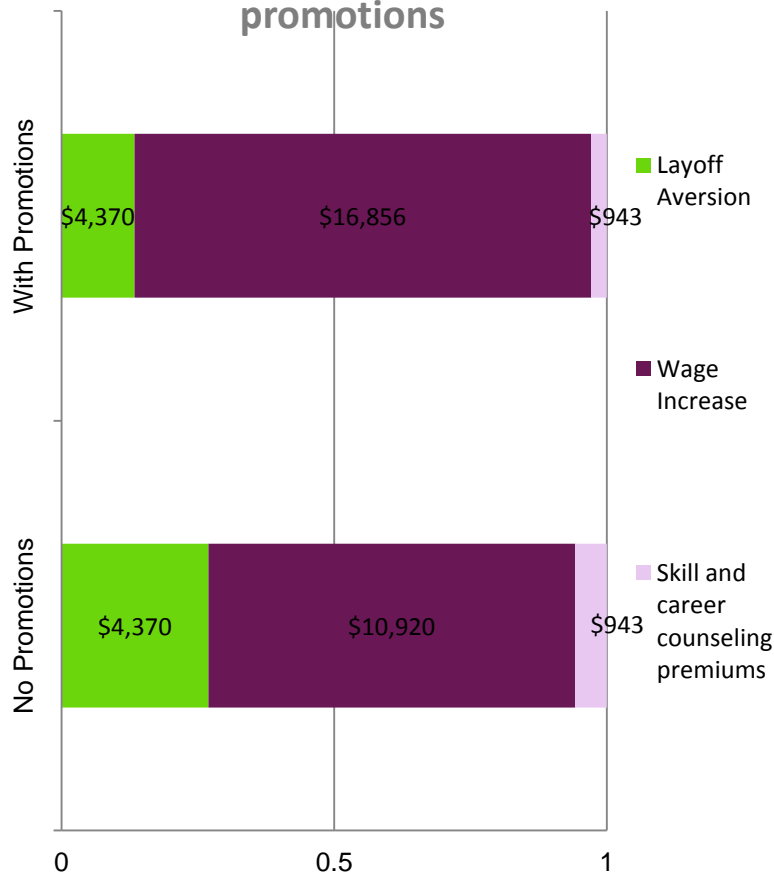


**BUSINESS RETURN (FIVE YEAR): 469%**



Liberty employees achieved a positive but lower short-term return from their training participation when compared to their employers' return.

Employees realized a lower return, *relative to employers*, from training participation, even when a course results in promotions



While employee returns may be harder to quantify, employers in another PA work-based training effort\* pointed to targeted skill improvements:

***Stronger communication abilities***

Interact more positively with patients; act as better listeners, reflectors and questioners; work more effectively with patients in crisis

***Better engagement with the patient care team*** Participate more actively in treatment planning meetings, feel more confident

***Notable gains in writing and charting*** Improved writing and charting skills, learned relevant medical terminology and practiced targeted writing skills

**1Y EMPLOYEE RETURN (w/promotions): 264%**

**1Y EMPLOYEE RETURN (w/o promotions): 193%**

\*Source: Qualitative findings from "Findings from Research into Temple University Hospital-Episcopal Campus's Work-Based Learning Program for Mental Health Workers"



## A look at several healthcare career pathways demonstrates greater potential employee value from more intensive, longer term training opportunities.

| Career Options  | Salary increase after 20 years                                | Adjustments for training completion and job placement   | Adjusted return to individual | Notes (for all models, assumed training/job change occurred at year 10)   |
|---|---|---|-------------------------------|---|
| <b>Entry Level Career Pathways</b>                                    |   |   |                               |   |
| Minimum wage, standard raises (3% per year)                           | \$11,688 in total salary increase over 20 years               | N/A   | N/A                           | Base Salary: \$15,080<br>Assumed 80% of employees got wage increase on average  |
| <b>Certified Positions (more extensive training required)</b>         |   |   |                               |   |
| Pharmacy Technician career pathway                                    | \$29,904 in total salary increase over 20 years (256% return) | N/A - Assume they enter job with initial training   | N/A                           | Pharmacy Technician base salary: \$19,000<br>Pharmacy Technician mid-career: \$30,000<br>Pharmacy Technician supervisors: \$42,000<br><br>Note: Pharmacy Technician completion and employment rates can be very low (47%, 40% respectively) |
| Achieved Certified Nursing Assistant certification (through training) | \$36,510 in total salary increase over 20 years               | Completion rate: 94%<br>Employment rate: 48%  | \$16,473 (141% return)        | CNA Salary: \$29,836  |
| CNA to Licensed Practicing Nurse certification (through training)     | \$52,649 in total salary increase over 20 years (450% return) | Completion rate: 75%<br>Exam passage rate: 90.4%<br>Employment rate (of people who pass): 80.6% | \$28,771 (246% return)        | LPN Salary: \$43,408  |
| LPN to Registered Nurse Certification (through training)              | \$68,165 in total salary increase over 20 years (583% return) | Completion rate: 78%<br>Exam passage rate: 84%<br>Employment rate (of people who pass): 81.8%   | \$36,533 (313% return)        | RN Salary: \$68,965   |

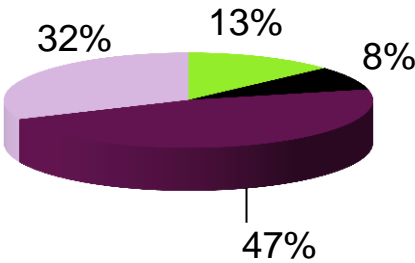




# By defining employment more broadly, we can see potential for significant community benefit.

This ROI analysis provides the opportunity to consider broader community benefits that result from workforce partnerships. In this example, we examine how increased employment among Liberty Resources clients yields returns to the community.

Non-profits in the PA Partnership Network can provide hiring leads for Liberty Resources' disabled, home-based clients. An employment increase of just .05% would result \$2MM in community value.



### What contributed to the benefits (16 jobs)\*:

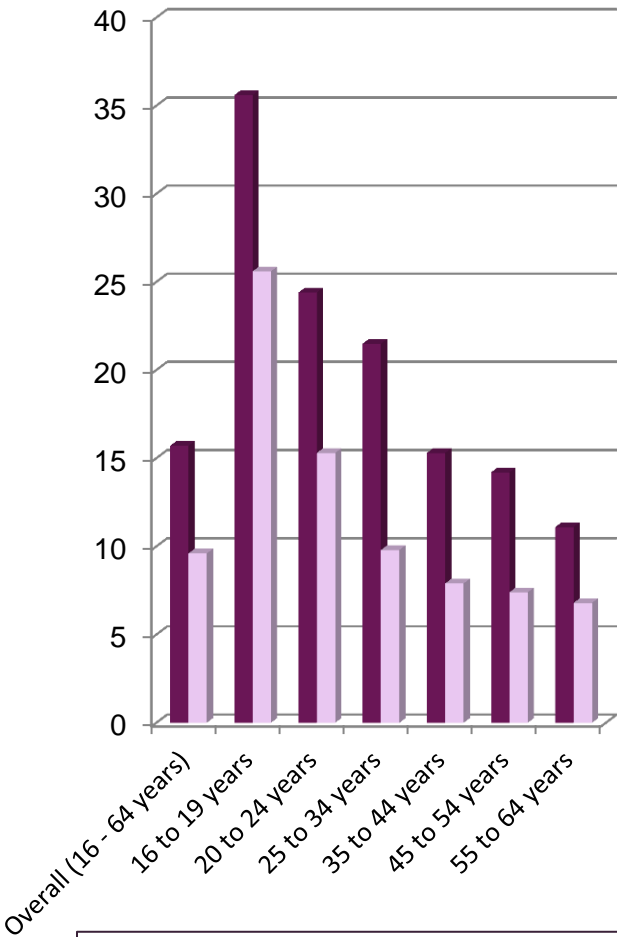
- Multiplier effect of additional income spent in community: Added \$829,920 (47%)
- Increase in tax revenue (state, federal, FICA, sales): Added \$236,637 (13%)
- Avoidance of unemployment, TANF, Food Stamp benefit costs: Added \$143,670 (8%)
- Public Health Benefits from Better Client Outcomes: Added \$541,548 (31%)

### What were the costs:

Money spent by the funding collaborative to support non-profit training development and delivery

## 2010 Unemployment Rate (Annual)

■ Disabled persons    ■ Persons with no disability



These employment gains bring tremendous potential social justice benefits, combating high unemployment rates among disabled populations

**COMMUNITY RETURN (FIVE YEAR): 717%**

\*An explanation of each calculation is included in the Appendix (pages 30-31).

# Case Study 2: Computer Components

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## Key Takeaways

Computer Components' decision to participate in partnership training improved the company's business, revenue and human resource outcomes.

In the long term, an employer's decision to invest in certification programs with completion and placement incentives could multiply employees' value.

Community benefits of training can be hard to quantify, but a look at the impact of just eight retained workers shows the significant potential.

## Why JOIN Invests

Manufacturing employment has been uneven nationwide and weak in Philadelphia...

- However, the strength of the local partnership, coupled with aligned state and federal resources, merited a closer look.
- While manufacturing employment has steadily declined across the US, it remains an industry which experience can drive higher wages and job placements.
- Local manufacturers identify openings related to a graying workforce.



## Computer Components' decision to participate in partnership training improved the company's business, revenue and human resource outcomes.

### Computer Components

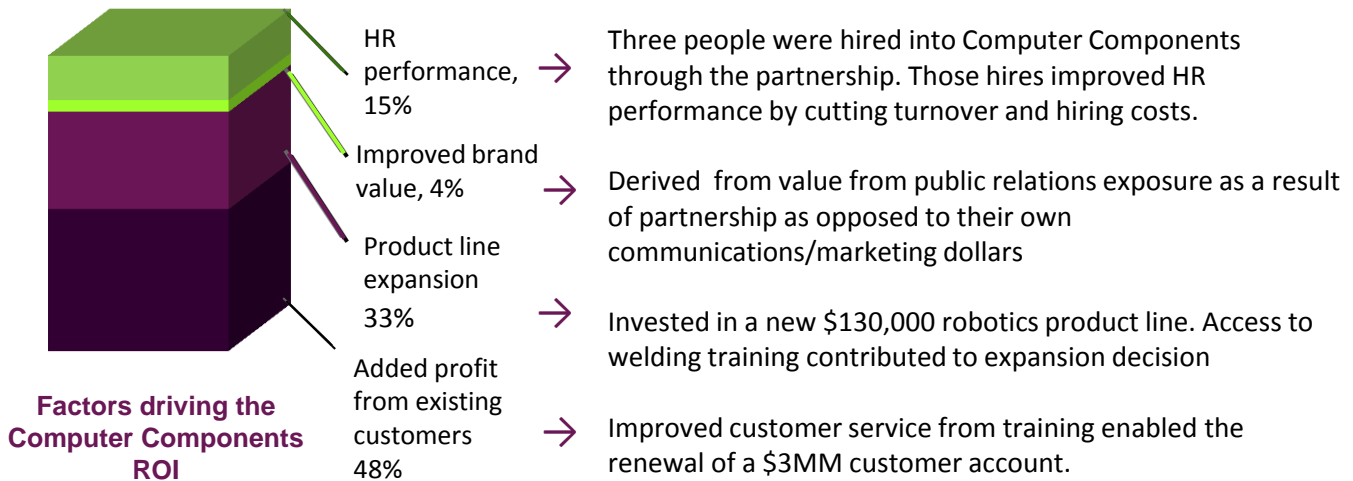
Computer components is a leading Electronic & Medical Manufacturing Services provider focused on delivering complete manufacturing capabilities. They are a mid-sized company (50 – 99 employees).

They participate in the SE Manufacturing Partnership through:

- Long term training courses, e.g. blueprint certification
- Deep involvement, ability to recognize mutual gains

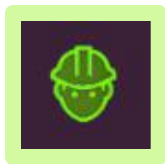
**BUSINESS RETURN (FIVE YEAR): 407%**

### Contributing to Value: Partnership training led to marketing boost & new investment



### Partnership training maps directly to areas that are critical for today's manufacturers...

- **Builds Organizational Capacity:** "Ten years ago, we were a fantastic manufacturing company. Now we are a very good sales and service organization," said a York-area manufacturer.
- **Promotes New Product Development:** "The only way we're going to survive is to come up with new products," said one Philadelphia-area manufacturer.
- **Enables Stronger Customer Service:** "We're not sitting around in a think tank, thinking what's the next best thing. We're looking at what we can make better and make better for your application. We're telling our sales representatives to ask: 'What can we do to solve your problem?'"



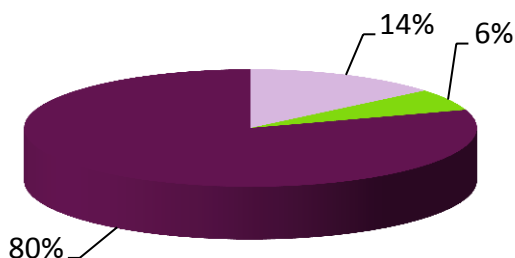
**In the long term, an employer's decision to invest in certification programs with completion and placement incentives could multiply employees' value.**

| Career Path  | Salary increase after 20 years   | Adjustments for training completion and job placement    | Adjusted return to individual | Notes  |
|--|--|--|-------------------------------|--|
| <b>Base Case – Annual Raises and Promotions</b>              |  |  |                               |  |
| <b>Machine Operator</b>                                      | \$13,236 in total salary increase over 20 years                            | N/A  | N/A                           | Base Salary: \$33,000<br>Assume standard raises (3% per year)  |
| <b>Welder</b>  | \$27,709 in total salary increases over 20 years                           | N/A  | N/A                           | Welder base salary: \$35,832<br>Welder II base salary: \$42,293<br>Welder III base salary: \$48,852  |
| <b>Certified Positions – Following Training</b>              |  |  |                               |  |
| <b>Aircraft maintenance technician career path</b>           | \$65,816 in total salary increases over 20 years (574% return)             | Training completion rate: 86%<br>Job placement rate: 65% | \$36,791 (278% return)        | Base Salary: \$33,000<br>Aircraft maintenance tech salary: \$51,390  |
| <b>Advanced welding technician career path</b>               | \$69,063 in total salary increases and savings over 20 years (318% return) | Completion rate: 65%<br>Placement rate: 87%              | \$23,513 (178% return)        | Welder I base salary: \$35,832<br>Welder II base salary: \$42,293<br>Advanced Welder technician salary: \$51,390                                 |
| <b>Six Sigma green/ black belt certified quality manager</b> | \$89,086 in total salary increases over 20 years (673%)                    | Completion rate: 86%<br>Placement rate: 65%              | \$49,799 (376% return)        | Quality Control Supervisor Base Salary: \$53,601<br>Quality Control Supervisor 2: \$70,853<br>Quality Control Salary w/six sigma cert: \$100,592 |






**Creative Application: Community benefits of training can be hard to quantify, but a look at the impact of just eight retained workers shows the significant potential.**

Computer Components retained eight jobs due to partnership training. This drove \$1MM in community benefits.



### What contributed to the benefits (8 jobs)\*:

-  Multiplier effect of additional income spent in community: Added \$904,218 (80%)
-  Increase in tax revenue (state, federal, FICA, sales): Added \$149,300 (14%)
-  Avoidance of unemployment, TANF, Food Stamp benefit costs: Added \$71,835 (6%)

### What were the costs:

Money spent by the funding collaborative to support non-profit training development and delivery

Stronger workforce outcomes can drive other social gains for individuals and families:

#### Avoid Health/Mortality Concerns:

- For a worker who loses his job at age forty, job loss may reduce life expectancies by twelve to eighteen months
- When men with high levels of seniority are displaced from their jobs, they experience mortality rates 50 to 100% higher than otherwise would be expected in the year after unemployment

#### Reduce Family Impact:

- Children whose fathers were displaced have annual earnings about 9 percent lower than similar children
- History suggests that mobility—the movement of families to new communities—is a common when communities experience economic shocks. When a family moves, children are uprooted from schools. Family members must leave friends, social routines, memories, and local knowledge

#### Avoid Community Productivity Loss:

- In the communities hardest hit by the 1980 recession:
  - Earnings grew less (12% increase vs 46% nationally)
  - Population grew more slowly (20% vs. 33% increase)
  - Population aged (18% decrease in young people vs. 11% national decrease)
  - Median house prices grew more slowly (21% vs 31% increase)

**COMMUNITY RETURN (FIVE YEAR): 429%**

\*An explanation of each calculation is included in the Appendix (page 32).

# Implications and areas for future research

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## Create a standardized list of value drivers by industry and company size

- This analysis demonstrates that different sectors, in this case health care and manufacturing, only share a subset of return drivers. We hypothesize that the size of a company similarly impacts value derived from training in that smaller and larger companies may differ considerably in their motivation for partnership training.
- Additional research is needed to categorize value drivers that matter in different sectors. With further research, JOIN and others can develop a customized list of return drivers that speak to companies of variable size.

## Develop a set of ROI tools for JOIN, other funders, policymakers, and partnership directors, examples may include:

- An easy-to use ROI “calculator” for companies and training partners
- Metrics to capture long-term benefits from partnership activities and training
- Analysis tool that demonstrates how different levels of investment will impact the return (e.g. what it means for funders to use a light touch vs. heavy touch approach)

## Conduct additional research on how to drive employee value from partnerships:

- Guide funders and policymakers on how to choose programs and interventions that make the most difference for workers
- Analyze how training connects with long-term retention. Do workers stay with companies? Do companies stay with workers? Are workers retrained?
- Compare placement rates between workforce partnership models and other skill development programs

## Analyze which partnership (incumbent) best practices would apply to non-incumbent workforce development models

# Appendix

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## Liberty Resources Supporting Calculations

- Employer Model | p.24
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# Liberty Resources: Employer Model

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**Improved customer outcomes:** Improved health outcomes benefit the community and Liberty's bottom line. For Liberty, as patient health improves, it can help moderate treatment costs and drive lower overall costs

1/ Article: High quality, community based care can reduce treatment costs by \$1609 pp/per month. Estimated 500 patients per month. Assumed 10% of those savings go to Liberty. **Yearly total:** \$965,400 in cost saving

2/ Assumes training drives 5% of health improvement/savings total. **Yearly total:** \$48,270 due to training

3/ Assumed 4.4% yearly growth during years 2 – 5. **Five-year total:** \$236,544 cost savings

**Additional Civic Value: Research, networking, funding:** Gained new research/connections and funding sources through partnership involvement

1/ Interviewer: Secured 5 year Building Bridges grant through partnership. **Total Grant Value:** \$250,000

2/ Grant split between 6 organizations. **Total Value to Liberty: \$41,667** over 5 years.

3/ Access to research/connections with other organizations. Similar industry program costs \$7,000. Assume JOIN provides 80% of value through their efforts. **Total five year value: \$28,000**

**Improved HR performance:** Reduction in turnover led to better HR performance and cost savings:

1/ Company data: Used their turnover rate to figure out that they retained **3 extra employees** after beginning training.

2/ Used industry benchmark that turnover costs 150% of annual salary per employee. For Liberty, that would be **53,040 per employee per year**.

3/ Interview data: On average, it takes 12 – 14 weeks to fill a position. So, scaled the yearly salary cost by 75% to 13,260. For 3 employees, that leads to a yearly total of 39,780. Or a **5 year total of \$198,900**

## **Notes on Investment Drivers:**

-Staff Time: Assumed business staff participate in 12 hrs of meetings per quarter

-Salary Costs: Used a small percent of overall business investment in SE Manufacturing partnership

-Training/Match Contribution: Used small percent of overall business match. Estimated training contribution based on course data.



# Liberty Resources: Employee Model ST

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**Base Calculations:** We relied on available 2009 – 2011 outcome data as a guide for key parameters of the employee model:

- **Wage at start of training:** \$17.50 represents a weighted average of incumbent workers starting wage in 2009 – 2011 employee wage dataset
  - **Wage increase or promotion following training:** From PA Partnership FY 2010 outcome data, 50% secured wage increase and 4% were promoted
  - **Average raise amount:** Average raise amounts of \$.53 cents (non-promoted) and \$3.83 (promoted) were based on weighted averages of employee wage data. Validated by FY 2010 outcomes and interviewee data
- 

**Wage increase, cohort of 20 employees (non-promoted):** We calculated the wage impact of training for a cohort of 20 employees which did not result in promotions

1/ At a starting wage of \$17.50, a 3% raise yields .53 cents more per hour. On average 50% of training participants get a raise.

2/ Over the entire cohort, the difference between their increased salary and the non-trained employee yields **\$10,920 in wage gain.**

3/ When skill premium benefits and layoff aversion benefits are added (see next slide for methodology), this yields total benefits of **\$14,361 for the group.**

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**Wage increase, cohort of 20 employees (promoted):** We calculated the wage impact of training for a cohort of 20 employees which resulted in promotions

1/ For promoted employees: A \$3.83 raise yields an additional \$7966 per person, per year. Approx. 4% of training participants are promoted, so this results in a **\$6373 per year added value for the cohort** from JOIN participation

2/ All Remaining Employees: At a starting wage of \$17.50, a 3% raise yields .53 cents more per hour. On average 50% of training participants get a raise. Over the entire cohort, the difference between their salary and the non-trained employee yields **\$10,483 in wage gain.** The remaining employees in the cohort stay flat at their starting rate.

3/ When skill premium benefits and layoff aversion benefits are added (see next slide for methodology), this yields total benefits of **\$22,169 for the group.**

## **Note on Cohort Approach:**

- We based our analysis on a cohort of 20 people. This helps smooth the variation in results between individuals (since no two people have exactly the same training experience or results)

# Liberty Resources: Employee Model ST (continued)

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**Skill premium, all workers:** Training provides skills that are transferable by employees in the marketplace:

1/ Computer skills: According to published estimates, computer skills add an average 13% pay premium. Among JOIN health care training participants, 7% were in a computer-only class. 90% of classes had some computer component.

We assumed that a JOIN computer-only provided 1% of the premium, or **1.3% pay benefit**. A course with some computer training, provided 25% of the benefit or (0.32%). When translated into a wage increase, at \$17.00 per hour, for a full year, it ends up adding **\$255 for the cohort of 20 people**.

2/ Communication skills: According to published estimates, communication skills add an average 5% pay premium. Among JOIN health care training participants, 32% were in a soft skills class . 90% had some soft skills component.

We assumed that a JOIN soft skills only provided 1% of the premium, or **.06% pay benefit**. A course with some computer training, provided 25% of the benefit or (0.0125%). When translated into a wage increase, at \$17.00 per hour, for a full year, it ends up adding **\$212 for the cohort of 20 people**.

3/ Career Counseling: Cultural Alliance in Philadelphia charges **\$475 for a complete career counseling program**. We used this to estimate the equivalent career counseling gained in a JOIN program for the entire cohort.

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**Layoff Aversion, all workers:** In addition to a wage benefit, training preserves jobs. That layoff aversion is a direct benefit to employees:

1/ Liberty Resources had an average involuntary turnover rate of 8%, based on best available data. Based on their average number of employees, that is **24 employees per year**.

2/ Conservatively estimated that training can reduce that turnover by one-half of one percent, which would saves 0.12 jobs. Accounting for the full salary of those jobs, at \$17 per hour, that would yield **\$4370 per year in gains**.

## **Notes on Investment Drivers:**

- Measured wages lost in training for 20% classes that were not subsidized by employers

# Liberty Resources: Community Model

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In 2009, **3,272 clients** participated in Liberty Resources home- and community-based waiver services. A n interviewee mentioned that networking with other partnership members could help generate jobs for their clients.. If that approach **reduced unemployment by ½ percent**, it would result in **16 additional jobs**. Which could provide the following community benefits...

## Reduced social service costs:

- 1/ Unemployment benefit cost \$8342 per capita on average. Removing this cost for 16 people would produce **\$133,473 in yearly public savings**
- 2/ PA spends \$123.43 per person, per month for food stamps. Approx. 14% of the population taps these benefits (or 2.24 ppl from our newly employed group). Removing these people from the program **results in \$3,317 yearly savings**
- 3/ PA spends \$447.83 per person, per month for TANF. Approx. 8% of the population uses these benefits (or 1.28 ppl from our group). Removing these people from the program **results in \$6,878 saved per year**
- 4/ This yields a total of **\$143,670** in the first year

---

## Increased tax revenue: (includes: state and federal income tax plus FICA)

- 1/ Each employed individual would pay **\$9.930 in federal and state taxes** and an **additional \$2,784 in FICA** on their average \$36,400 salary.
- 2/ This increases annual tax revenue by **\$256,934** for the 16 employees
- 3/ We also added an incremental sales tax increase of \$2,608 per person, or **\$41,700** for all 16 employees, to account for their increased spending due to added income

# Liberty Resources: Community Model (continued)

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In 2009, **3,272 clients** participated in Liberty Resources home- and community-based waiver services. A n interviewee mentioned that networking with other partnership members could help generate jobs for their clients.. If that approach **reduced unemployment by ½ percent**, it would result in **16 additional jobs**. Which could provide the following community benefits...

## Increased contribution to the local economy:

1/ A study by the Delaware Valley Healthcare Council estimated a labor income multiplier for hospitals of 1.85 in SE Pennsylvania. Meaning that every dollar earned resulted in a 85 cents contribution in wages to other industries.

2/ We made this more conservative to represent all healthcare organization (1.5). Using this as a guide, adding a \$44,000 salary for 16 additional employees would drive **\$1.09MM in benefits** to the local economy each year

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## Community Value of Better Health Outcomes (related to better health and treatment) :

1/ Commonwealth Cares, a non-profit organization based in Massachusetts, provides individualized primary care, behavioral health, and support services to older people and the physically and mentally disabled.

They measured how a well-executed, service based model, which is similar to Liberty Resources', impacted healthcare costs among the disabled. The result was **\$2109 saved per month**.

2/ Over a sample of 1000 clients, this yields **\$25.8M in savings**. We assume some of those cost savings go to Liberty's bottom line (15%) and some go back to the individual (15%). **The majority (70%) accrues to the community** through better societal health outcomes, less state and federal spending on care, etc. This results in **\$18MM in community value**

3/ We assume training of the employees provided just 3% of that added value. Which is a contribution of **\$541,548** in community value

## Notes on Investment Drivers:

- We assumed that federal funding provided 25% of the average JOIN budget. This was used as a proxy for the social (e.g. community/governmental) contribution to the program.

# Computer Components: Employer Model

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**Added Profit From Existing Customers:** Improved customer service from training enabled renewal of a \$3MM customer account.

1/ Interviewer: Attributed 10% of ongoing revenue to training/ customer service outcomes. **Total:** \$300,000 per year in revenue

2/ Used standard industry margin (8.5%) to convert revenue to profit. **Total:** \$25,500 in profit in first year

3/ Assumed 3% yearly growth during years 2 – 5. **Total:** \$135,383 gain over 5 years

**Return From Product Line Expansion:** Invested in a new \$130,000 robotics product line. Access to welding training contributed to expansion decision

1/ Interviewer: Attributed 25% of expansion decision to training availability. **Total** training contribution based on investment value: \$32,500

2/ Used industry average to calculate robotics program IRR (54%). **Total** one year return: \$17,500.

3/ Assumed 3% growth each year (between years 2 – 5). **Total** five year return due to training: \$93,175

**Improved HR performance:** Three people were hired into Computer Components through partnership. Those hires improved HR performance overall:

1/ Turnover costs: Partnership hires have a 25% higher retention rate. It costs \$10,864 when an employee leaves. So, a 25% reduction in costs equals \$2,713 per employee. For 3 employees, this means **yearly** savings of \$8,148 or **total 5 year savings** of \$40,740

2/ Hiring Costs: Partnership hires require 4 hours less of HR staff time. At an average of \$16 per hour, this results in \$961 in savings over 5 years.

## **Notes on Investment Drivers:**

-Staff Time: Assumed business staff participate in 13 hrs of meetings per quarter

-Salary Costs: Used a small percent of overall business investment in SE Manufacturing partnership

-Training/Match Contribution: Used small percent of overall business match.

# Computer Components: Community Model

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Computer Components produces covers for IBM servers. Their JOIN partnership activities provided helped them find a program collaborator and provided training once the program launched. These activities were critical to the program's success, which allowed the firm to save **8 jobs**. Those retained jobs provided the community with...

## Reduced social service costs:

- 1/ Unemployment benefit cost \$8342 per capita on average. Removing this cost for 8 people would produce **\$66,736 in yearly public savings**
- 2/ PA spends \$123.43 per person, per month for food stamps. Approx. 14% of the population taps these benefits (or 1.1 ppl from our newly employed group). Removing these people from the program **results in \$1658 yearly savings**
- 3/ PA spends \$447.83 per person, per month for TANF. Approx. 8% of the population uses these benefits (or .64 ppl from our group). Removing these people from the program **results in \$3439 saved per year**

---

## Increased tax revenue: (includes: state and federal income tax plus FICA)

- 1/ Each employed individual would pay **\$11,440 in federal taxes, \$1,117 in state taxes** and **an additional \$3500 in FICA** on their average \$45,000 salary.
- 2/ This increases annual tax revenue by **\$128,467** for the 8 employees
- 3/ We also added an incremental sales tax increase of \$2,608 per person, or **\$20,867** for all 8 employees, to account for their increased disposable income

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## Increased contribution to the local economy:

- 1/ A 2011 Study by the Industrial Resources Center estimated an income multiplier of 2.60 for manufacturing in Pennsylvania. Meaning that every dollar earned resulted in a \$2.60 contribution to the local economy. According to average savings rates, an individual will spend 95% of what they earn.
- 2/ Using this as a guide, adding a \$44,000 salary for 8 additional employees would drive **\$904,217 in community spending benefits each year after savings.**

## Notes on Investment Drivers:

- We assumed that federal funding provided 25% of the average JOIN budget. This was used as a proxy for the social (e.g. community/governmental) contribution to the program.

# All Partnerships: Notes on long term employee wage scenarios

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## Base Case Wages scenarios:

- 1/ Assumed 3% raises over the course of a career for the basic machinist and minimum wage health worker.
- 2/ Assumed 80% of employees would get a raise in any given time period

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## Manufacturing training wage scenarios :

- 1/ Welder - Assume 2 promotions in 15 yrs, 3% yearly raises, Assume 80% of employees promoted on average
- 2/ Adv. Welding tech - Assume 2 promotions in 10 years from Welder, to Welder II to Welder Tech. Assumed 3% raise in the last 10 years. Assumed employer covered entire cost of certification program (\$12,504 went to employee)
- 3/ Aircraft Maintenance Tech - Assume 2 promotions in 10 years from base salary to Aircraft Maintenance Tech. Assumed 3% raise in the last 10 years. Assumed employer covered entire cost of certification program (\$6000 went to employee)
- Six Sigma - Assume 2 promotions in 10 years from QC Supervisor I, to QC Supervisor II to Six Sigma Black Belt. Assumed 3% raise in the last 10 years. Assumed employer covered entire cost of certification program (\$7,500 went to employee)

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## Healthcare training wage scenarios: :

- 1/ Pharmacy Tech - Assume 2 promotions in 10 years from Baseline, to mid-career salary to Pharm Tech Supervisor. Assumed 3% raise in the last 10 years.
- 2/ CNA Certification – Assumed 3% yearly raises, starting from CNA base salary of \$29,836. Assumed 80% of employees would get a raise in any given time period
- 3/ LPN Certification -- Assumed 3% yearly raises, starting from LPN base salary of \$43,408. Assumed 80% of employees would get a raise in any given time period
- 4/ RN Certification -- Assumed 3% yearly raises, starting from RN base salary of 68965. Assumed 80% of employees would get a raise in any given time period

In Liberty Resources Case Study:

5 year employee return (w/ promotions): 358%

5 year employee return (w/o promotions): 210%



# Investing in Healthcare: National Trends and Forecasts

## 1999 – 2009: Percent change in salary and number employed by position

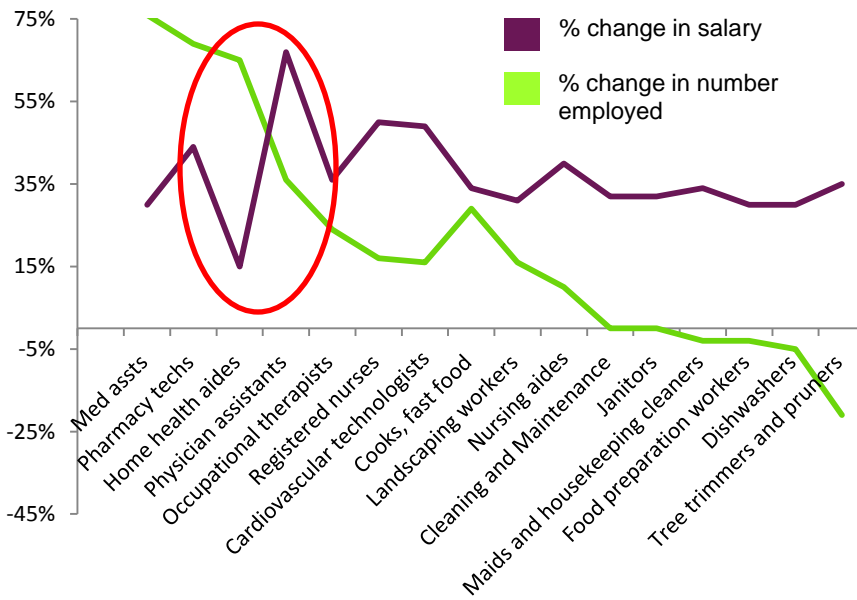


Figure 7

The dynamics of the healthcare field further reinforce the value to both workers and communities of expanding the industry-specific training model.

*Looking back over the last decade...*

- Highly skilled jobs, like those enabled by JOIN training, demonstrated both salary and job growth
- Positions opened to unskilled workers continue to shrink in availability and provide less economic support

## Looking forward to 2018...

- Healthcare jobs are expected to grow at 30% or more across the field
- Higher growth rates are expected in highly skilled support functions, such as home health aides, PAs and medical assistants

## 2008 - 2018: Projected percent change in employment in healthcare fields

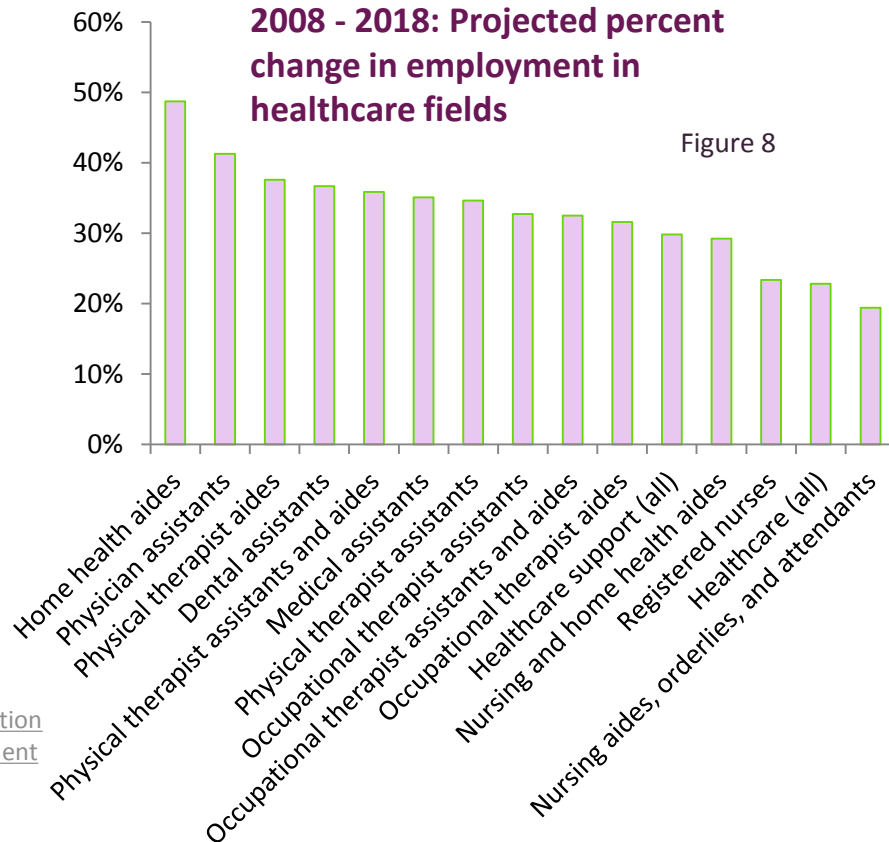


Figure 8

## Notes:

<http://rabareview.com/2011/05/10/education-in-america-job-salary-by-field-of-employment>  
[http://www.bls.gov/oes/oes\\_dl.htm](http://www.bls.gov/oes/oes_dl.htm)



# Investing in Manufacturing: National Trends and Forecasts

## Nationwide change in manufacturing employment between 2000 – 2008

|  |               |
|--|---------------|
| <b>Production Workers</b>                        | <b>-21.9%</b> |
| Non production workers                           | -22.9%        |
| Total Change in Employment, Manufacturing Sector | -22.0%        |

## However employment among experienced workers stayed stronger until the recent recession

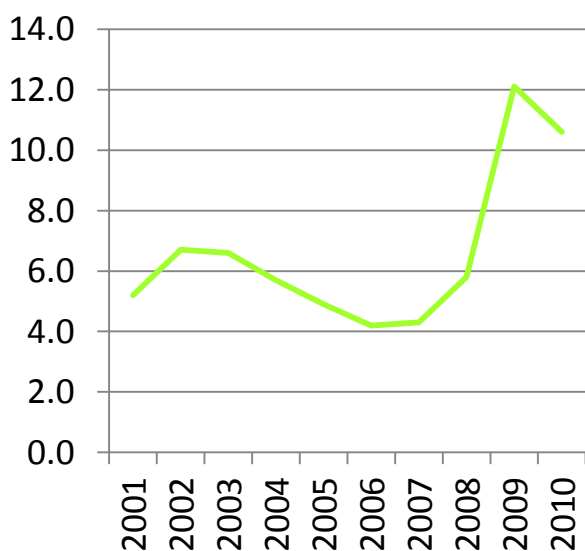


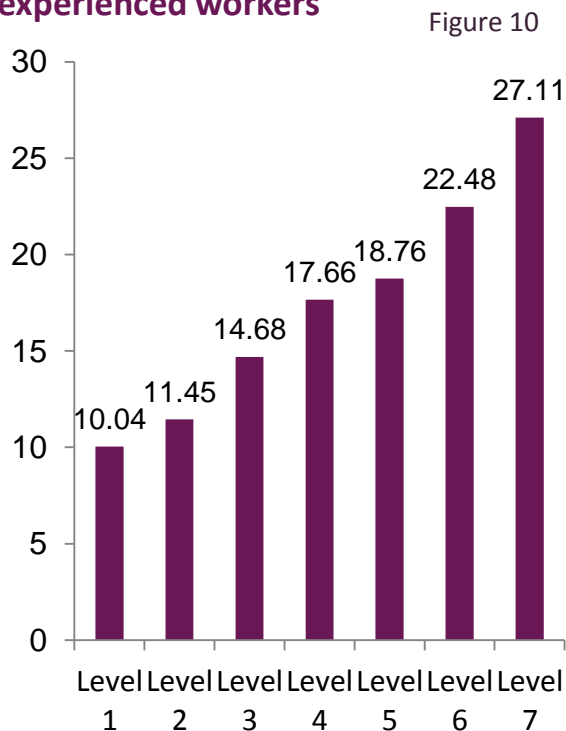
Figure 9

## *Manufacturing employment has been uneven nationwide and weak in Philadelphia...*

- The manufacturing sector's share of total employment has been falling steadily for more than half a century
- Manufacturing employment fell 17 percent during the recession from December 2007 to December 2009.
- In Philadelphia, the manufacturing sector has posted an uninterrupted string of over-the-year losses since 2000.
- Nationally, the industry added jobs since August 2010, growing by 1.8 percent (but it fell 1.9% in Philly)

However, the strength of the local partnership, coupled with aligned state and federal resources, merited a closer look.

## Production occupations pay a strong wage in Philadelphia for more experienced workers





# Available Data Resources

## Unemployment Rate by Industry and Average Salary:

<http://rabareview.com/wp-content/uploads/2011/04/education-in-america-unemployment-rate-by-field-table1.jpg>

<http://rabareview.com/2011/05/10/education-in-america-job-salary-by-field-of-employment>

## Jobs fast growth not requiring degree:

[http://careerplanning.about.com/od/exploringoccupations/tp/hi\\_growth\\_nodeg.htm](http://careerplanning.about.com/od/exploringoccupations/tp/hi_growth_nodeg.htm)

## Overview of healthcare industry:

<http://www.bls.gov/oco/cg/cgs035.htm>

## Overview of manufacturing industry:

<http://www.bls.gov/iag/tgs/iag31-33.htm>

## Characteristics of minimum wage workers:

<http://www.bls.gov/cps/minwage2010.htm>

## Characteristics of working poor:

<http://www.bls.gov/cps/cpswp2009.pdf>

## Philly compensation survey – Jan 2010

<http://www.bls.gov/ro3/ncsphi.htm>

# Acknowledgments

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|   |  |
|---|--|
| Beaumont Retirement Community                     | Pennsylvania Department of Labor and Industry              |
| Council for Adult Experiential Learning           | Pennsylvania Horticultural Society                         |
| City of Philadelphia                              | Philadelphia Social Innovations Journal                    |
| District 1199C Training and Upgrading Fund        | Philadelphia Workforce Development Corporation             |
| Drexel University                                 | Philadelphia Workforce Investment Board                    |
| Economy League of Greater Philadelphia            | Public/Private Ventures                                    |
| Genesis Group                                     | Southeastern Pennsylvania Transportation Authority (SEPTA) |
| Greater Philadelphia Chamber of Commerce          | Tri-Country Chamber of Commerce                            |
| Greater Philadelphia Hispanic Chamber of Commerce | University of Pennsylvania                                 |
| Holy Redeemer Health System                       | University City District                                   |
| IBM   | Urban Industry Initiative                                  |
| KJK Associates                                    | Workforce Learning Strategies                              |
| Mercy Health System                               |  |

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|  |   |
|--|---|
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| PA Department of Labor & Industry                  | United Way of Southeastern Pennsylvania                           |
| Philadelphia Workforce Investment Board            | Western Association of Ladies for Relief & Employment of the Poor |
| Philadelphia LISC                                  | William Penn Foundation   |
| John S. and James L. Knight Foundation             |   |

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