About the ROI Calculator

Businesses across the United States use Registered Apprenticeship programs to train workers in the skills they need to stay competitive in an ever-changing marketplace. Registered Apprenticeship is a business investment with associated costs and benefits. This document is an export created with the Return on Investment (ROI) calculator found on oregonapprenticeship.org. Visit the site to create your own export and let us show you that Registered Apprenticeship is worth the investment.

OREGON APPRENTICESHIP ROI CALCULATOR

Selected Industry: **Healthcare**

Selected Apprenticeship Length: **1**

Selected Number of Years Post-Apprenticeship: **0**

About This Scenario

This is a sample export of default healthcare scenario.

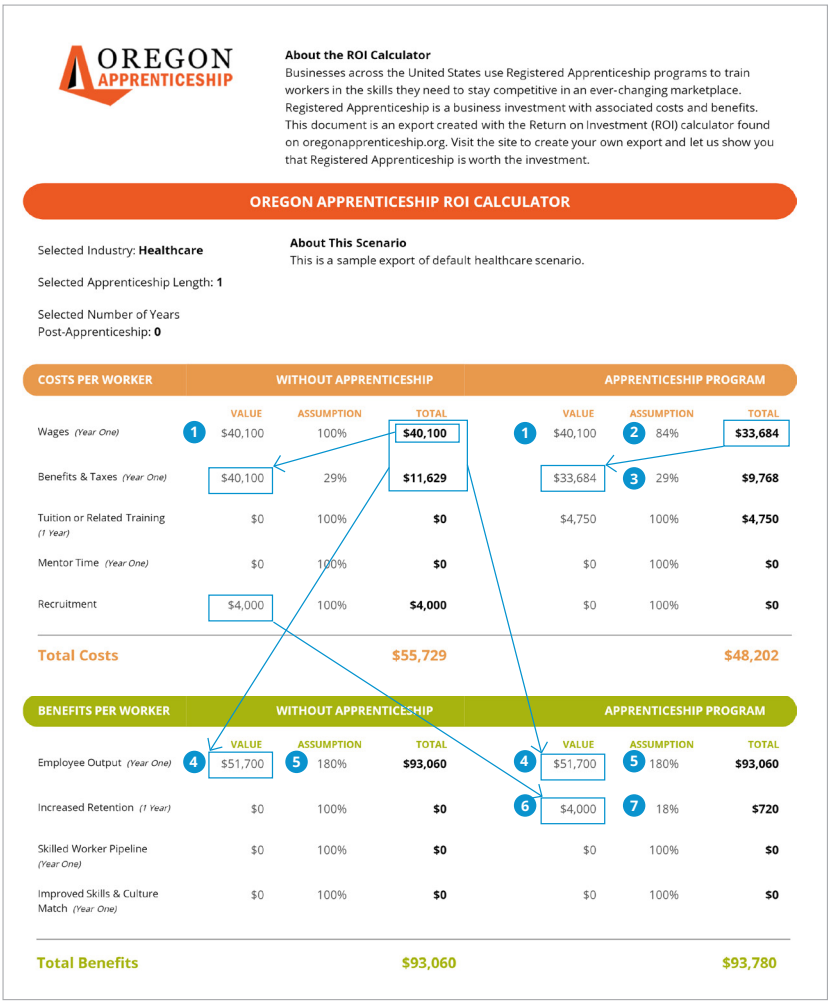
COSTS PER WORKER	WITHOUT APPRENTICESHIP			APPRENTICESHIP PROGRAM		
	VALUE	ASSUMPTION	TOTAL	VALUE	ASSUMPTION	TOTAL
Wages *(Year One)*	$40,100	100%	**$40,100**	$40,100	84%	**$33,684**
Benefits & Taxes *(Year One)*	$40,100	29%	**$11,629**	$33,684	29%	**$9,768**
Tuition or Related Training *(1 Year)*	$0	100%	**$0**	$4,750	100%	**$4,750**
Mentor Time *(Year One)*	$0	100%	**$0**	$0	100%	**$0**
Recruitment	$4,000	100%	**$4,000**	$0	100%	**$0**
Total Costs			**$55,729**			**$48,202**

BENEFITS PER WORKER	WITHOUT APPRENTICESHIP			APPRENTICESHIP PROGRAM		
	VALUE	ASSUMPTION	TOTAL	VALUE	ASSUMPTION	TOTAL
Employee Output *(Year One)*	$51,700	180%	**$93,060**	$51,700	180%	**$93,060**
Increased Retention *(1 Year)*	$0	100%	**$0**	$4,000	18%	**$720**
Skilled Worker Pipeline *(Year One)*	$0	100%	**$0**	$0	100%	**$0**
Improved Skills & Culture Match *(Year One)*	$0	100%	**$0**	$0	100%	**$0**

BENEFITS PER WORKER	WITHOUT APPRENTICESHIP			APPRENTICESHIP PROGRAM		
	VALUE	ASSUMPTION	TOTAL	VALUE	ASSUMPTION	TOTAL
Total Benefits			**$93,060**			**$93,780**

ROI	WITHOUT APPRENTICESHIP	APPRENTICESHIP PROGRAM
Total Benefits	**$93,060**	**$93,780**
Total Costs	**$55,729**	**$48,202**
Net Cost-Benefit	**$37,331**	**$45,578**
Return on Investment	**+67%**	**+95%**

Understanding the Calculations



OREGON APPRENTICESHIP

About the ROI Calculator
Businesses across the United States use Registered Apprenticeship programs to train workers in the skills they need to stay competitive in an ever-changing marketplace. Registered Apprenticeship is a business investment with associated costs and benefits. This document is an export created with the Return on Investment (ROI) calculator found on oregonapprenticeship.org. Visit the site to create your own export and let us show you that Registered Apprenticeship is worth the investment.

OREGON APPRENTICESHIP ROI CALCULATOR

Selected Industry: **Healthcare**
Selected Apprenticeship Length: **1**
Selected Number of Years Post-Apprenticeship: **0**

About This Scenario
This is a sample export of default healthcare scenario.

COSTS PER WORKER	WITHOUT APPRENTICESHIP VALUE	ASSUMPTION	TOTAL	APPRENTICESHIP PROGRAM VALUE	ASSUMPTION	TOTAL
Wages *(Year One)*	1 $40,100	100%	$40,100	1 $40,100	2 84%	$33,684
Benefits & Taxes *(Year One)*	$40,100	29%	$11,629	$33,684	3 29%	$9,768
Tuition or Related Training *(1 Year)*	$0	100%	$0	$4,750	100%	$4,750
Mentor Time *(Year One)*	$0	100%	$0	$0	100%	$0
Recruitment	$4,000	100%	$4,000	$0	100%	$0
Total Costs			$55,729			$48,202

BENEFITS PER WORKER	WITHOUT APPRENTICESHIP VALUE	ASSUMPTION	TOTAL	APPRENTICESHIP PROGRAM VALUE	ASSUMPTION	TOTAL
Employee Output *(Year One)*	4 $51,700	5 180%	$93,060	4 $51,700	5 180%	$93,060
Increased Retention *(1 Year)*	$0	100%	$0	6 $4,000	7 18%	$720
Skilled Worker Pipeline *(Year One)*	$0	100%	$0	$0	100%	$0
Improved Skills & Culture Match *(Year One)*	$0	100%	$0	$0	100%	$0
Total Benefits			$93,060			$93,780

1. **Wages: Value** Hourly wages are converted to annual wages by multiplying the hourly wage by 2,080 hours ($19.28 × 2,080 hours = $40,100 per year).
2. **Wages: Assumption** The portion of the journey level wage that the apprentice receives in year one. See the Resources Page for wage standards by year for common occupations.
3. **Benefits & Taxes: Value & Assumption** Some companies calculate benefits and taxes as a percentage of wages. The value is calculated above for each scenario. The assumption is the percentage of wages that benefits and taxes cost the company.
4. **Employee Output: Value** Value that each employee earns for the company. One method for calculating that value is the revenue generated per dollar in total compensation. Total compensation is the sum of wages, benefits and taxes ($40,100 wages + $11,629 benefits and taxes). The value amount is the same for both an apprenticeship program and an off the street hire.
5. **Employee Output: Assumption** The assumption here is the revenue that an employee earns the company per dollar of wage and benefit cost, based on industry average gross business income per dollar in total compensation. Apprentices may or may not be less productive than an off-the-street hire during the apprenticeship training. The value is equal to the wage cost calculated for the off-the-street hire. The assumption is equal to the off-the-street assumption multiplied by the reduced productivity (1.8 x 1.0 = 1.8, or 180%), healthcare employers did not indicate productivity losses. If the apprentice was less productive, assuming 60% as productive in year one for example, the assumption would be 180% × 60% = 108%.
6. **Increased Retention: Value** Many employers reported that apprentices have lower turnover and increased retention overall. The value of increased retention can be a reduction in the cost of recruitment ($4,000 from above).
7. **Increased Retention: Assumption** The portion of this reduction in cost due to apprenticeship can be calculated with the following data. Assuming 2% turnover among apprentices and 20% turnover on average, the annual reduction in turnover per apprentice is the difference in turnover rates between off-the-street hires and apprentices (20% employee turnover - 2% apprentice turnover = 18% reduced turnover).

Additional Variable Calculations

Mentor Time: Insufficient data was available to estimate an average value for the healthcare industry. A sample calculation from the manufacturing industry is as follows. Assuming mentors train apprentices 310 hours per year, and the average mentor wage is $43, the cost of mentor time is $13,300 per year: (310 hours × $43 per hour = $13,330 per year). Employers may find that mentors are still productive during mentor hours, but at a reduced level. The assumption then is the reduction in productivity of the mentor time compared to non-mentor hours.

Increased Productivity The value of this benefit can be based on the value of output of an off-the-street hire. The assumption indicates how much more productive an apprentice may be compared to an off-the-street hire. While insufficient data was available for the healthcare industry, the following is an example from manufacturing. Assuming the average job takes 9 hours, an off-the-street hire produces 231 jobs per year (2,080 hours per year ÷ 9 hours per job = 231 jobs per year). Assuming an apprentice is 8 minutes faster per job, they produce 235 jobs per year (2,080 hours per year ÷ 8.87 hours per job = 235 jobs per year), an increase of 4 jobs per year. This is equal to a 2% increase in productivity (4 more jobs per year ÷ 231 average jobs per year = 0.02 increase in jobs per year).

Skilled Worker Pipeline Insufficient data was available to calculate an average for the healthcare industry; the following is an example from the manufacturing industry. The value of this benefit can be based on the value of output of an off-the-street hire. Assuming it can take a month or more to hire a skilled worker, or 8% of the year (1 month ÷ 12 months per year = 0.08 years). The month that it takes to hire is a month in lost productivity, 0% productivity, therefore an apprentice creates 8% of annual output in benefit of avoided productivity losses due to challenges in hiring.