



*ECONOMIC IMPACTS OF THE
JOBPATH PROGRAM ON PIMA COUNTY*

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1.0 INTRODUCTION

Applied Economics was retained by JobPath to perform an annual update of the economic impacts of their program. JobPath was created in 1998 to meet an urgent community need for job training programs in Tucson and Pima County. JobPath sponsors education and job training by providing financial assistance, case management and post-training placement services. Training programs include a variety of allied health care occupations as well as aviation technology and truck driving. JobPath's mission is to support long term job training in order to make a meaningful impact on the post-training wages of graduates.

The purpose of this analysis is to calculate the overall economic impacts of JobPath on the community in terms of the direct and indirect increase in payroll, output and supported jobs. In addition, the cost of training can be compared to the increase in post-training wages to calculate a return on investment. This report includes data on program participants from 2005-06 through 2012-13. It also includes information on pre and post-training wages as well as an estimate of the reduction in public assistance costs associated with individuals completing the JobPath program.

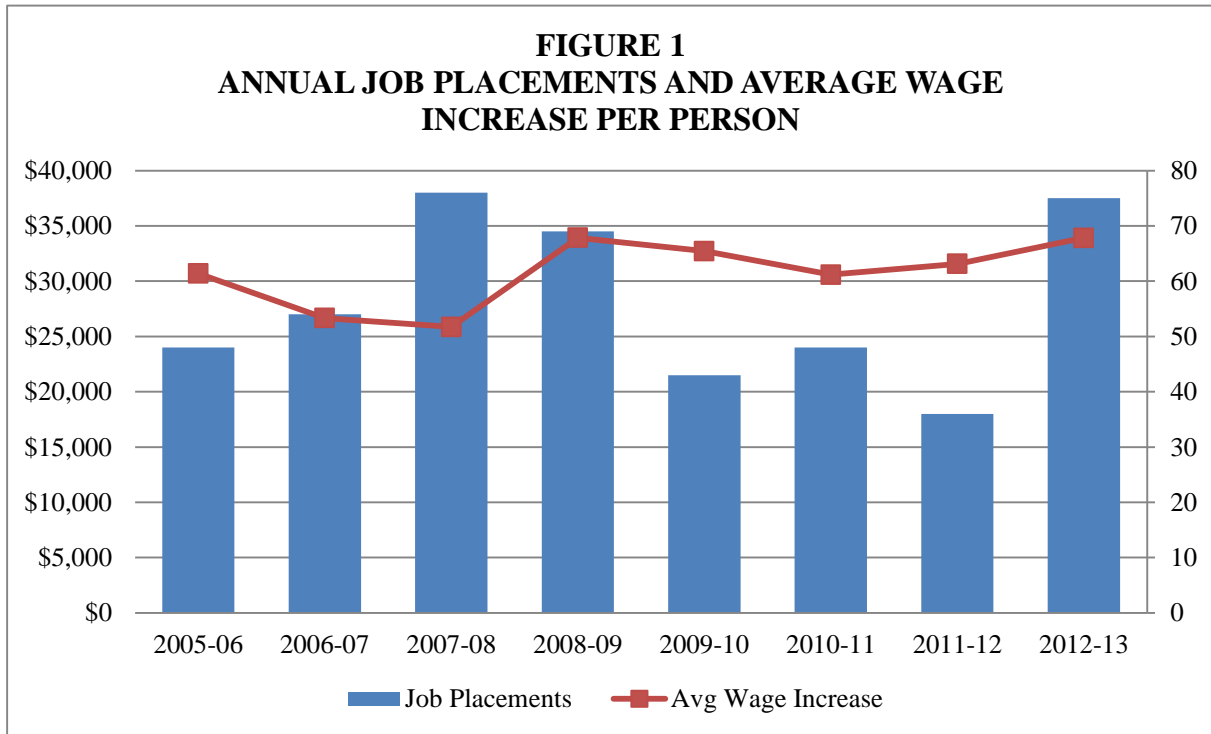
All total, JobPath has produced economic impacts on the county ranging from \$3.5 million to \$9.1 million per year over the past eight years, with the highest annual impact occurring in 2012-13. These impacts are driven by direct wage increases of \$921,000 to \$2.5 million per year. Over the eight-year period, 449 individuals who completed the program were placed in jobs. The past year was a banner year with the highest annual impacts thus far.

The information and observations contained in this report are based on our present knowledge of the components of development, and of the current physical, socioeconomic and fiscal conditions of the affected areas. Estimates made in this analysis are based on hypothetical assumptions, current tax policies, and the current economic structure of the region. However, even if the assumptions outlined in this report were to occur, there will usually be differences between the estimates and the actual results because events and circumstances frequently do not occur as expected. This analysis is based on the best available information and is intended to aid JobPath in quantifying the value of its program relative to the cost of training. In no way will Applied Economics be held responsible or have any liability or be subject to damages as a result of this analysis. This report may be used only for the purposes that it was intended.

2.0 IMPACT SUMMARY

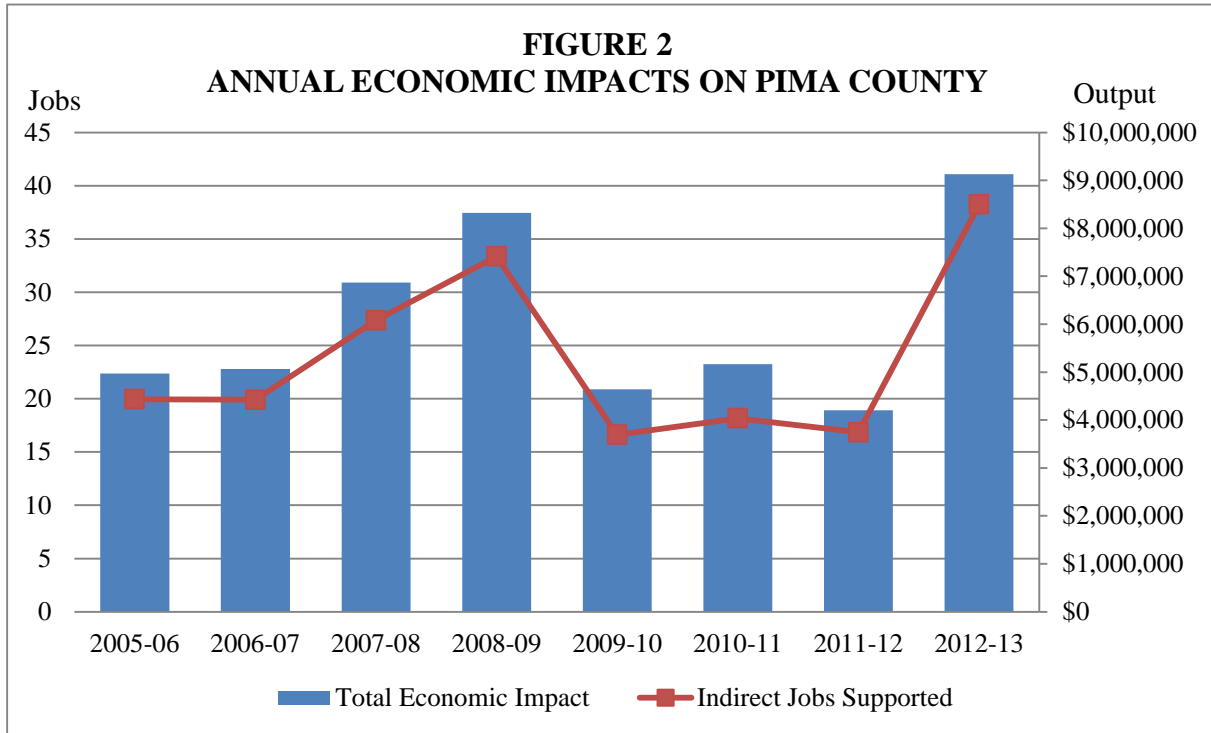
The JobPath training program provides significant economic benefits to the City of Tucson and Pima County. These positive impacts include the following:

- During the past eight fiscal years, JobPath received \$5.4 million in funding from the city and county. About 75 percent of this funding was spent on direct services including case management and placement services while the remaining 25 percent was used for direct financial assistance. During this same time period, graduates of the JobPath program experienced an increase in wages of \$13.8 million plus there was a reduction in public assistance costs of \$2.3 million.
- Over the past eight years, graduates of JobPath experienced average wage increases of \$30,700 per person over pre-training wages. In the past year, the average increase in wages was notably higher at \$33,900 (Figure 1).



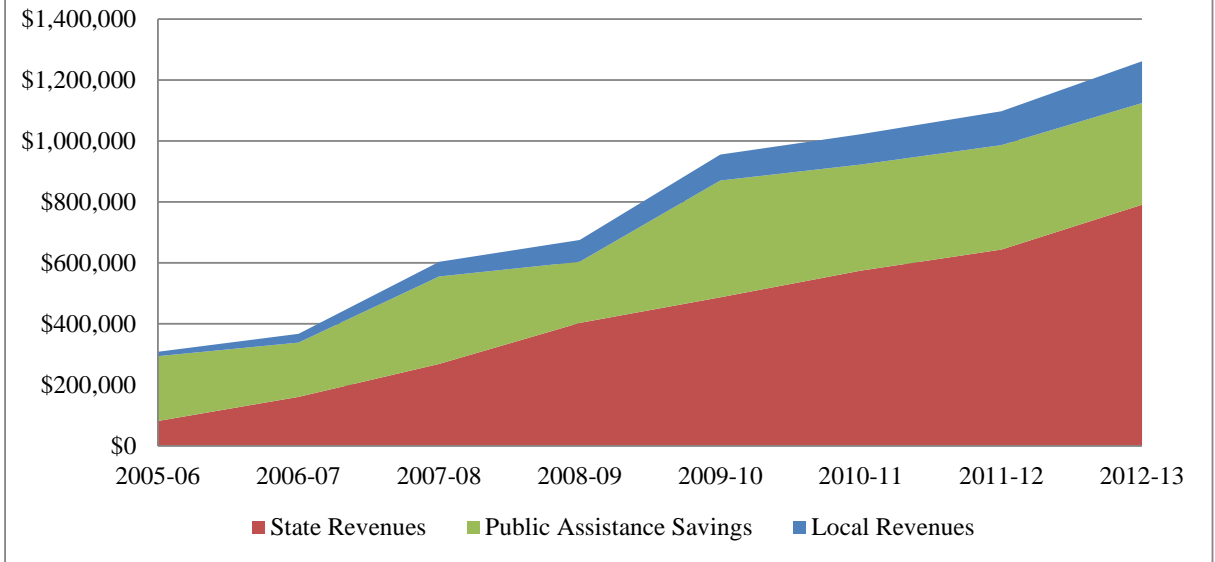
- For every \$1 of program costs in 2012-13, JobPath produced \$3.37 in direct wage increases plus reductions in public assistance costs, which is significantly higher than the eight year average return on investment.
- All total, JobPath has created an economic impact of \$48.4 million on the Pima County economy, based on the sum of annual impacts over the past eight years. A total of 449 graduates were placed into jobs with a direct increase in wages of \$13.8 million over pre-training levels. This increased level of economic activity indirectly supports an estimated 190 additional jobs and \$6.5 million in payroll *at other local businesses* throughout the

County through supplier purchases and employees spending. Figure 2 shows annual economic impacts and indirect jobs supported.



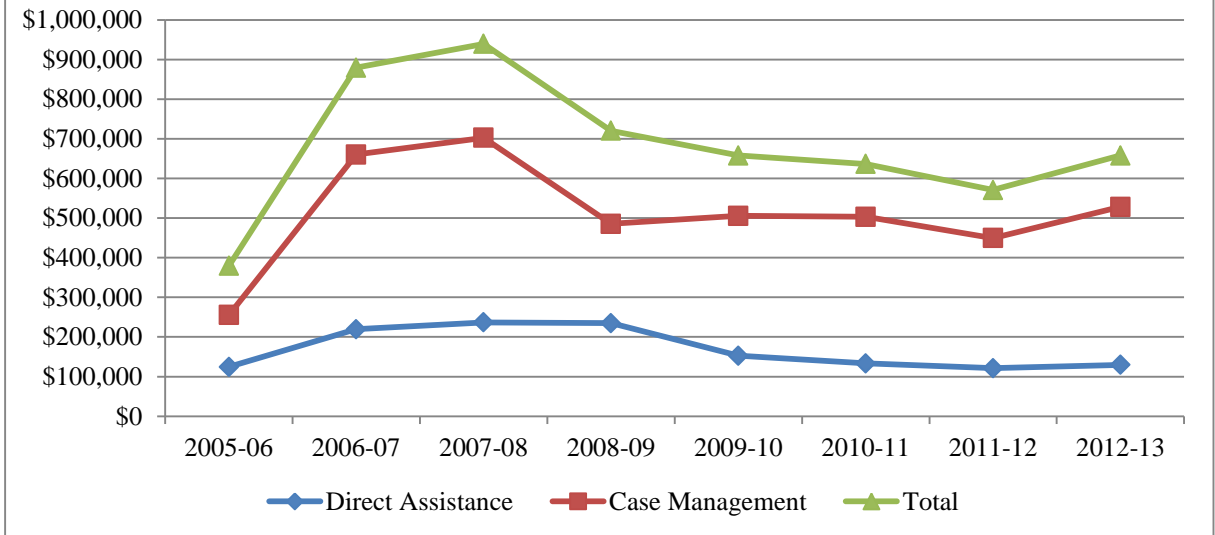
- It is also possible to look at the cumulative impacts of the JobPath program over eight years, assuming that graduates from previous years continue to be employed in jobs paying at least equal to their post-training wages. The cumulative economic impact over the past eight years totals \$209.6 million, based on cumulative wage increases of \$60.2 million.
- These 449 graduates from the past eight years, and the additional workers they support at other local businesses, make a significant amount of local purchases. The increases in payroll that are directly and indirectly supported through the JobPath program resulted in \$595,000 in additional city and county sales tax revenues and \$3.4 million in additional state sales and personal income tax revenues over the eight year period (Figure 3). These revenue impacts are based on cumulative taxes paid by employed graduates from 2005-06 through 2012-13.
- Along with the additional tax revenues, JobPath also supported a decrease in public assistance program expenditures. Many of the participants were receiving various types of public assistance prior to completing the training. Based on the average cost per recipient for TANF, Food Stamps, Utility Assistance, Childcare Assistance and AHCCCS in Pima County and the number of graduates who were previously receiving assistance, JobPath created a cumulative reduction of \$2.3 million in public assistance payments by the state over the past eight years. Annual impacts are shown in Figure 3.

**FIGURE 3
STATE AND LOCAL REVENUE IMPACTS FROM
JOBPATH GRADUATES**



- Program funding for JobPath increased this year for the first time since 2007-08, up 15 percent compared to 2011-12 (Figure 4). Despite the fact that funding levels remain comparatively low, JobPath was able to achieve a significantly higher rate of post-training wage increases. There were also a larger number of program participants this year than in recent years.

**FIGURE 4
CITY, COUNTY AND GRANT FUNDING
FOR JOBPATH**



- JobPath is a valuable program to support long term workforce training in Pima County. They generated a sizeable return on investment based on program funding during the eight-year period shown in this analysis. They continue to place graduates in jobs in health care, aircraft maintenance and other fields that result in significant increases in earnings for program completers.

3.0 ECONOMIC IMPACT RESULTS

Economic impacts measure the effects of economic stimuli or expenditures on the local economy. These impacts include direct and indirect jobs, personal income and economic activity or output that are supported by graduates of the JobPath program. Indirect impacts are the result of the multiplier effect and capture supported supplier and consumer businesses and their employees in Pima County that benefit from this economic stimulus.

The economic impact results presented here are grouped into direct and total impacts. Direct impacts include the 449 graduates of the JobPath program from 2005-06 through 2012-13 who were placed in jobs in the community. Direct income of \$13.8 million represents the increase in wages for these individuals over their pre-training wages. The direct increase in production value created by these 449 workers is estimated at \$28.2 million over the eight-year period, based on the sum of annual impacts. Total economic impacts include local supplier purchases by the employers of JobPath graduates in order to support additional production, and consumer spending by employees and their families. Both of these activities in turn support additional jobs, payroll and production value at other local businesses.

The secondary impacts supported by JobPath graduates in terms of supplier purchases and employee spending are called multiplier effects. Multiplier effects are a way of representing the larger economic effects on the local economy. The multipliers effects translate an increase in output (loosely defined as sales, less profits) into a corresponding increase in jobs and personal income. In essence, the multiplier effect represents the recycling of local spending. This recycling process creates new business opportunities. The multipliers used in this analysis are from IMPLAN, a national vendor of economic impact software, and are specific to Pima County.

All total, the JobPath graduates from 2012-13 created an annual economic impact of \$9.1 million in Pima County (Figure 5). They indirectly supported an estimated 38 jobs and \$1.3 million in personal income at other local businesses throughout the county through supplier purchases by employers and purchases made by employees. These economic impacts are in addition to the 75 new jobs and \$2.5 million increase in payroll from JobPath graduates directly in the past year.

In reality, program graduates continue to contribute to the local economy even after they leave JobPath. If we look at cumulative impacts of the program over the past eight years, the total economic impact on the community is estimated at \$209.6 million. Of course, some graduates will move away and/or change jobs over time. However, this type of investment in human capital continues to provide benefits long after individuals complete the training program.

The multipliers vary by training program since industry-specific multipliers were used for each program. The average output multiplier for all training programs is 1.71. Thus for every \$1.0 million increased production as a result of JobPath graduates, an additional \$710,000 in demand is created at other supporting businesses in Pima County along with 7 indirect jobs.

**FIGURE 1
ECONOMIC IMPACT OF JOBPATH PROGRAM**

	Direct Impacts			Total Impacts			Direct Financial Assistance	Case Management	Return on Investment**
	Output	Jobs	Income*	Output	Jobs	Income			
2005-06	\$2,931,088	48	\$1,472,815	\$4,973,245	68	\$2,138,353	\$124,425	\$255,175	344%
CNA	\$180,101	6	\$83,509	\$308,285	7	\$124,980	\$4,060	\$8,326	574%
Histology	\$256,815	4	\$119,080	\$439,601	6	\$178,216	\$9,836	\$20,172	297%
Pharmacy Technician	\$91,161	2	\$43,602	\$147,747	3	\$61,920	\$6,244	\$12,805	129%
Radiology Technician	\$164,838	3	\$76,432	\$282,160	4	\$114,389	\$10,031	\$20,572	150%
Respiratory Therapy	\$33,486	1	\$15,527	\$57,320	1	\$23,238	\$4,732	\$9,705	8%
RN Program	\$1,186,235	14	\$550,033	\$2,030,526	22	\$823,185	\$49,495	\$101,506	264%
Dental Hygienist	\$723,838	9	\$438,575	\$1,212,388	14	\$601,333	\$23,735	\$48,677	506%
Structural Repair	\$32,372	1	\$11,024	\$47,040	1	\$15,767	\$3,239	\$6,643	12%
Education	\$28,865	1	\$18,863	\$52,380	1	\$26,093	\$4,928	\$10,107	25%
Home Health	\$57,018	1	\$32,760	\$94,674	1	\$45,350	\$152	\$312	6965%
First Path	\$14,752	2	\$8,476	\$24,495	2	\$11,733	\$2,339	\$4,797	19%
PCT	\$161,607	4	\$74,934	\$276,630	5	\$112,147	\$5,634	\$11,554	336%
2006-07	\$3,017,612	54	\$1,439,862	\$5,062,855	74	\$2,106,127	\$219,367	\$660,233	84%
CNA	\$72,537	3	\$33,634	\$124,165	4	\$50,337	\$8,918	\$26,839	-6%
Histology	\$24,357	1	\$11,294	\$41,693	1	\$16,903	\$2,386	\$7,181	18%
Radiology Technician	\$120,983	3	\$56,098	\$207,092	4	\$83,956	\$10,899	\$32,803	28%
Respiratory Therapy	\$286,870	6	\$133,016	\$491,048	8	\$199,073	\$32,622	\$98,183	2%
RN Program	\$1,329,275	19	\$616,358	\$2,275,374	28	\$922,448	\$89,333	\$268,868	72%
LPN Program	\$90,433	2	\$41,932	\$154,797	3	\$62,755	\$5,250	\$15,801	99%
Dental Hygienist	\$510,643	7	\$309,400	\$855,299	10	\$424,221	\$35,444	\$106,677	118%
Dental Assisting	\$41,710	1	\$25,272	\$69,861	1	\$34,651	\$3,366	\$10,131	87%
Education	\$44,561	1	\$29,120	\$80,862	1	\$40,282	\$1,326	\$3,991	448%
Plumbing	\$128,063	2	\$31,512	\$190,091	3	\$52,551	\$8,762	\$26,371	-10%
Biotech Research	\$92,638	3	\$56,264	\$167,707	4	\$81,165	\$12,111	\$36,451	16%
Aviation	\$258,250	4	\$87,945	\$375,266	5	\$125,785	\$6,474	\$19,485	239%
PCT	\$17,292	2	\$8,018	\$29,600	2	\$12,000	\$2,476	\$7,452	-19%
2007-08	\$4,060,809	76	\$1,965,069	\$6,866,618	103	\$2,879,811	\$236,829	\$702,771	140%
CNA	\$71,127	10	\$32,980	\$121,750	10	\$49,358	\$5,722	\$16,980	45%
Histology	\$101,909	2	\$47,253	\$174,441	3	\$70,719	\$16,128	\$47,860	-26%
Radiology Technician	\$528,272	8	\$244,949	\$904,264	12	\$366,593	\$24,603	\$73,009	151%
Respiratory Therapy	\$249,550	4	\$115,711	\$427,165	6	\$173,175	\$11,043	\$32,769	164%
RN Program	\$1,669,952	24	\$774,323	\$2,858,524	36	\$1,158,860	\$92,788	\$275,341	110%
LPN Program	\$138,386	4	\$64,167	\$236,882	5	\$96,033	\$2,021	\$5,998	700%
Dental Hygienist	\$721,852	9	\$437,372	\$1,209,062	14	\$599,684	\$25,618	\$76,020	330%
Dental Assisting	\$77,326	4	\$46,852	\$129,517	5	\$64,239	\$8,807	\$26,134	34%
Education	\$0	0	\$0	\$0	0	\$0	\$3,923	\$11,640	-100%
Plumbing	\$59,171	1	\$14,560	\$87,831	1	\$24,281	\$2,264	\$6,718	62%
Biotech Research	\$68,216	2	\$41,431	\$123,494	3	\$59,768	\$4,801	\$14,247	118%
Aviation	\$139,721	4	\$47,581	\$203,031	5	\$68,054	\$21,421	\$63,564	-44%
Medical Lab Tech	\$144,315	2	\$66,916	\$247,030	3	\$100,147	\$6,784	\$20,131	149%
Medical Info Tech	\$1,217	1	\$564	\$2,083	1	\$844	\$6,784	\$20,131	-98%
Social Services	\$0	0	\$0	\$0	0	\$0	\$3,121	\$9,262	-100%
Trucking	\$89,795	1	\$30,410	\$141,544	1	\$48,056	\$1,000	\$2,967	666%
2008-09	\$4,900,631	69	\$2,340,648	\$8,325,401	102	\$3,455,308	\$234,920	\$485,363	253%
Histology	\$28,218	1	\$13,084	\$48,301	1	\$19,582	\$2,747	\$5,676	55%
Radiology Technician	\$213,706	2	\$99,091	\$365,809	3	\$148,301	\$16,665	\$34,431	94%
Respiratory Therapy	\$290,278	4	\$134,596	\$496,880	6	\$201,438	\$13,267	\$27,411	231%
RN Program	\$2,683,393	35	\$1,244,235	\$4,593,272	54	\$1,862,135	\$127,479	\$263,382	218%
LPN Program	\$377,305	6	\$174,949	\$645,849	9	\$261,830	\$11,616	\$24,000	391%
Dental Hygienist	\$643,878	7	\$390,127	\$1,078,459	11	\$534,906	\$15,604	\$32,239	715%
Dental Assisting	\$34,329	1	\$20,800	\$57,499	1	\$28,519	\$2,893	\$5,977	134%
Plumbing	\$29,585	1	\$7,280	\$43,915	1	\$12,141	\$5,507	\$11,378	-57%
Biotech Research	\$65,859	1	\$40,000	\$119,229	2	\$57,703	\$4,954	\$10,235	163%
PCT	\$148,033	3	\$68,640	\$253,394	4	\$102,727	\$4,374	\$9,037	412%
Aviation	\$37,747	2	\$12,854	\$54,850	2	\$18,385	\$7,545	\$15,589	-44%
Medical Info Tech	\$114,165	1	\$52,936	\$195,421	2	\$79,225	\$4,081	\$8,432	323%
Social Services	\$0	0	\$0	\$0	0	\$0	\$6,449	\$13,324	-100%
Trucking	\$116,389	2	\$39,416	\$183,465	3	\$62,288	\$4,975	\$10,279	158%
Electrician	\$54,944	1	\$13,520	\$81,557	1	\$22,547	\$3,090	\$6,384	43%
Surgical Technician	\$62,802	2	\$29,120	\$107,501	2	\$43,581	\$3,674	\$7,591	159%

FIGURE 1
ECONOMIC IMPACT OF JOBPATH PROGRAM (continued)

	Direct Impacts			Total Impacts			Direct Financial Assistance	Case Management	Return on Investment**
	Output	Jobs	Income*	Output	Jobs	Income			
2009-10	\$2,698,248	43	\$1,407,176	\$4,639,351	60	\$2,020,845	\$152,488	\$505,462	172%
CNA	\$89,183	3	\$44,720	\$154,574	4	\$65,167	\$2,733	\$9,061	279%
Histology	\$80,410	2	\$40,321	\$139,369	3	\$58,756	\$2,632	\$8,724	255%
Radiology Technician	\$78,813	1	\$39,520	\$136,601	1	\$57,589	\$10,115	\$33,528	-9%
Respiratory Therapy	\$99,553	1	\$49,920	\$172,548	2	\$72,744	\$12,401	\$41,108	-7%
RN Program	\$1,228,387	17	\$615,962	\$2,129,071	25	\$897,588	\$54,396	\$180,309	162%
LPN Program	\$368,579	5	\$184,820	\$638,831	7	\$269,323	\$3,606	\$11,952	1088%
Dental Hygienist	\$361,851	5	\$214,750	\$609,230	7	\$295,525	\$24,570	\$81,444	103%
Dental Assisting	\$126,172	3	\$74,880	\$212,429	4	\$103,045	\$5,336	\$17,689	225%
Plumbing	\$0	0	\$0	\$0	0	\$0	\$7,828	\$25,948	-100%
Biotech Research	\$26,147	1	\$16,640	\$48,039	1	\$23,878	\$5,935	\$19,674	-35%
Aviation	\$73,137	1	\$50,398	\$116,350	1	\$64,697	\$2,500	\$8,287	367%
PCT	\$77,465	2	\$38,844	\$134,264	2	\$56,604	\$2,433	\$8,065	270%
Medical Lab Tech	\$0	0	\$0	\$0	0	\$0	\$5,395	\$17,884	-100%
HIT	\$41,481	1	\$20,800	\$71,895	1	\$30,310	\$3,852	\$12,767	25%
Electrician	\$47,070	1	\$15,600	\$76,150	1	\$25,619	\$2,372	\$7,863	52%
ECE	\$0	0	\$0	\$0	0	\$0	\$3,370	\$11,172	-100%
EMT	\$0	0	\$0	\$0	0	\$0	\$1,389	\$4,604	-100%
Solar	\$0	0	\$0	\$0	0	\$0	\$1,624	\$5,384	-100%
2010-11	\$3,017,894	48	\$1,468,349	\$5,165,672	66	\$2,147,617	\$133,489	\$503,089	185%
Radiology Technician	\$305,578	5	\$153,229	\$529,635	7	\$223,287	\$8,889	\$33,501	261%
Respiratory Therapy	\$170,024	3	\$85,257	\$294,690	4	\$124,238	\$12,333	\$46,481	45%
RN Program	\$1,113,341	15	\$558,274	\$1,929,670	22	\$813,524	\$40,352	\$152,077	190%
LPN Program	\$380,514	5	\$190,805	\$659,517	7	\$278,044	\$5,680	\$21,405	604%
Dental Hygienist	\$261,013	4	\$154,905	\$439,455	6	\$213,171	\$18,600	\$70,101	75%
Dental Assisting	\$157,014	4	\$93,184	\$264,356	5	\$128,234	\$12,973	\$48,892	51%
Biotech	\$24,060	2	\$15,312	\$44,205	2	\$21,972	\$6,830	\$25,740	-53%
Medical Lab Tech	\$44,592	1	\$22,360	\$77,287	1	\$32,583	\$919	\$3,463	410%
Electrician	\$31,380	1	\$10,400	\$50,767	1	\$17,079	\$5,184	\$19,536	-58%
Medical Coding & Billing	\$210,391	5	\$124,862	\$354,224	6	\$171,827	\$15,580	\$58,717	68%
Power Plant/A&P	\$319,987	3	\$59,761	\$521,865	4	\$123,658	\$6,150	\$23,177	104%
2011-12	\$2,420,421	36	\$1,136,157	\$4,205,571	53	\$1,699,408	\$121,360	\$449,684	159%
Radiology Technician	\$219,385	4	\$108,526	\$390,706	6	\$161,022	\$4,365	\$16,172	428%
Respiratory Therapy	\$7,779	1	\$3,848	\$13,853	1	\$5,709	\$6,191	\$22,940	-87%
RN Program	\$1,219,032	15	\$603,035	\$2,170,993	24	\$894,735	\$42,444	\$157,270	202%
LPN Program	\$309,004	5	\$152,859	\$550,309	7	\$226,800	\$5,922	\$21,942	449%
Dental Hygienist	\$162,794	2	\$103,168	\$292,785	3	\$146,307	\$10,190	\$37,758	115%
Dental Assisting	\$0	0	\$0	\$0	0	\$0	\$11,808	\$43,753	0%
Plumbing	\$24,257	1	\$8,320	\$38,355	1	\$13,292	\$3,717	\$13,773	-52%
Biotech	\$6,191	1	\$3,328	\$11,676	1	\$5,188	\$2,225	\$8,244	0%
Aviation	\$67,938	1	\$36,400	\$123,734	2	\$56,878	\$3,614	\$13,391	0%
Trucking	\$32,474	1	\$14,400	\$55,562	1	\$22,935	\$1,459	\$5,406	110%
Electrician	\$48,513	1	\$16,640	\$76,711	1	\$26,584	\$2,485	\$9,208	42%
Medical Coding & Billing	\$26,814	2	\$16,993	\$48,225	2	\$24,098	\$20,782	\$77,005	-83%
Power Plant/A&P	\$170,563	1	\$39,520	\$249,108	2	\$66,707	\$1,036	\$3,840	711%
Air Frame	\$125,678	1	\$29,120	\$183,554	2	\$49,153	\$5,123	\$18,983	21%
2012-13	\$5,169,041	75	\$2,543,911	\$9,127,363	113	\$3,861,578	\$129,857	\$527,965	337%
Radiology Technician	\$97,961	2	\$48,460	\$174,461	3	\$71,901	\$3,437	\$13,974	178%
Respiratory Therapy	\$74,003	2	\$36,608	\$131,793	3	\$54,316	\$2,621	\$10,658	176%
RN Program	\$1,286,006	14	\$636,166	\$2,290,268	23	\$943,892	\$25,066	\$101,910	401%
LPN Program	\$1,229,899	19	\$608,411	\$2,190,346	28	\$902,711	\$16,213	\$65,917	641%
Dental Hygienist	\$166,240	3	\$105,352	\$298,983	4	\$149,404	\$7,604	\$30,914	174%
Dental Assisting	\$117,829	4	\$74,672	\$211,915	5	\$105,895	\$5,161	\$20,984	186%
Med Lab Tech	\$39,419	1	\$19,500	\$70,202	1	\$28,933	\$2,980	\$12,117	29%
Aviation	\$683,980	13	\$366,462	\$1,245,706	19	\$572,625	\$28,841	\$117,259	151%
Trucking	\$1,402,883	15	\$622,080	\$2,400,280	25	\$990,790	\$13,817	\$56,175	789%
Electrician	\$64,257	1	\$22,040	\$101,605	1	\$35,211	\$5,222	\$21,230	-17%
Medical Coding & Billing	\$6,564	1	\$4,160	\$11,806	1	\$5,899	\$18,896	\$76,826	-96%
Total	\$28,215,745	449	\$13,773,987	\$48,366,077	639	\$20,309,046	\$1,352,736	\$4,089,742	195%

Source: JobPath; Applied Economics, 2014.

*Direct income represents only increase in salary over pre-training level, not full ending salary.

**Return on investment based on increase in wages (direct income) per dollar of direct financial assistance and case management costs.

The largest program is the RN program, which has placed a total of 153 graduates over the eight-year period, followed by the LPN and dental hygienist programs that placed 46 graduates each. In terms of the average wage increase per person, the trucking and RN programs ranked the highest with an average wage increase of \$41,000 to \$45,000 per person in 2012-13. The dental hygienist program ranked third highest in terms of the average wage increase at \$35,100 per person in 2012-13. The overall average increase for all occupations in 2012-13 was \$33,900 per person or 567 percent. *Note that these percentage increases include individuals who were not employed prior to entering JobPath.* Lower skilled programs tended to have significantly lower wage increases due to the fact that total post-training wages were relatively lower.

Most of JobPath's clients are below the poverty level prior to entering the program. The average pre-training wages ranged from a new low this year of \$5,980 per person to a high of \$17,900 in 2006-07. The figure for this year includes 40 graduates who were previously unemployed, which is over half of the total graduates placed in jobs in 2012-13. By comparison post-training wages were \$39,900 in 2012-13, which is comparable last year. Average post-training wages are largely a function of the distribution of graduates by program.

4.0 REVENUE IMPACT RESULTS

In addition to economic impacts, the graduates of the JobPath program also generate indirect revenue impacts. Through their increase in wages and spending, they generate additional sales taxes to the city, county and state and additional personal income taxes to the state. It may also be the case that the companies they work for generate increased sales or income taxes as a result of increasing their production; however, information about these employers is not available to calculate these types of revenue impacts.

Sales taxes from employee spending are based on typical consumer expenditure patterns. According to the Census Bureau Consumer Expenditure Survey, approximately 27 percent of gross personal income is spent on taxable goods. Applying this assumption to direct and total personal income impacts results in an increase of \$476,000 in city sales tax and \$119,000 in RTA sales tax cumulatively over the eight-year period (Figure 6). Note that the direct impacts include only the additional taxes generated by the increase in wages for JobPath graduates, not their total wages.

FIGURE 6
CUMULATIVE ANNUAL REVENUE IMPACTS OF JOBPATH PROGRAM
BASED ON INCREASES IN POST-TRAINING WAGES

	Local Impacts		State Impacts		Total Taxes
	City Sales Tax	RTA Sales Tax	Sales Tax	Personal Income Tax	
2005-06					
Direct Revenues	\$7,953	\$1,988	\$22,269	\$34,168	\$66,379
Total Revenues	\$11,547	\$2,887	\$32,332	\$49,217	\$95,983
2006-07					
Direct Revenues	\$15,728	\$3,932	\$44,040	\$66,364	\$130,065
Total Revenues	\$22,920	\$5,730	\$64,177	\$96,501	\$189,328
2007-08					
Direct Revenues	\$26,340	\$6,585	\$73,752	\$110,179	\$216,855
Total Revenues	\$38,471	\$9,618	\$107,719	\$161,026	\$316,834
2008-09					
Direct Revenues	\$38,979	\$9,745	\$109,142	\$167,202	\$325,068
Total Revenues	\$57,130	\$14,282	\$159,964	\$243,274	\$474,650
2009-10					
Direct Revenues	\$46,578	\$11,645	\$134,218	\$200,660	\$393,100
Total Revenues	\$68,042	\$17,011	\$195,975	\$291,256	\$572,284
2010-11					
Direct Revenues	\$54,507	\$13,627	\$160,384	\$233,919	\$462,437
Total Revenues	\$79,640	\$19,910	\$234,246	\$340,496	\$674,291
2011-12					
Direct Revenues	\$60,642	\$15,161	\$180,630	\$260,145	\$516,578
Total Revenues	\$88,816	\$22,204	\$264,529	\$379,299	\$754,848
2012-13					
Direct Revenues	\$74,380	\$25,638	\$302,993	\$283,130	\$686,141
Total Revenues	\$109,669	\$27,417	\$322,916	\$467,946	\$927,948
8 Year Total	\$476,235	\$119,059	\$1,381,857	\$2,029,016	\$4,006,167

Source: JobPath; Applied Economics, 2014.

Note: Total revenue impacts include revenues related to additional workers and payroll supported through economic impacts. Total revenues are inclusive of direct revenues. Revenues cumulate over time, accounting for continuing impacts from graduates in previous years.

In terms of state taxes, JobPath graduates directly and indirectly generated \$1.4 million in increased state sales tax revenues cumulatively over the past eight years. In addition, they generated a cumulative increase of \$2.0 million in personal income tax revenues to the state. It is important to look at cumulative revenue impacts since graduates from previous years continue to generate local taxes as they continue to work and contribute to the economy. All total, JobPath graduates directly and indirectly supported an increase of \$4.0 million in cumulative state and local tax revenues over the past eight years.

In addition to supporting increases in tax revenues, the JobPath program also resulted in a decrease in public assistance costs. Information is available to document the number of program participants that were receiving various types of public assistance when they came to JobPath. It is assumed that with the increase in wages, the individuals who graduated and were placed in jobs were able to be self-sufficient. Using average payments per recipient by type of program for Pima County, it is possible to estimate the annual decrease in public assistance expenditures. While the decreases are shown for each year of program participants, it is assumed that these impacts would be cumulative over time. All total, the JobPath program resulted in a \$2.3 million cumulative annual decrease in public assistance in Pima County, based on graduates from the past eight years (Figure 7).

**FIGURE 7
ANNUAL REDUCTION IN PUBLIC ASSISTANCE EXPENDITURES
FROM JOBPATH GRADUATES**

Program Year	Assistance Program					Total
	Food Stamps	TANF	Utility Assistance	AHCCCS	Child Care	
2005-06	(\$43,864)	(\$3,093)	(\$3,632)	(\$115,401)	(\$46,623)	(\$212,612)
2006-07	(\$41,123)	(\$9,279)	(\$1,816)	(\$102,579)	(\$23,311)	(\$178,107)
2007-08	(\$49,347)	(\$12,372)	(\$3,632)	(\$128,223)	(\$93,245)	(\$286,819)
2008-09	(\$39,160)	(\$7,552)	(\$10,227)	(\$128,223)	(\$15,453)	(\$200,615)
2009-10	(\$96,747)	(\$7,383)	(\$2,479)	(\$207,034)	(\$69,358)	(\$383,001)
2010-11	(\$85,020)	\$0	(\$7,660)	(\$231,446)	(\$23,757)	(\$347,883)
2011-12	(\$100,619)	\$0	(\$2,538)	(\$232,259)	(\$7,201)	(\$342,616)
2012-13	(\$100,005)	(\$7,211)	(\$2,487)	(\$207,860)	(\$15,902)	(\$333,465)
Total	(\$555,886)	(\$46,890)	(\$34,470)	(\$1,353,024)	(\$294,850)	(\$2,285,119)

Source: Arizona Department of Economic Security; AHCCCS; JobPath; Applied Economics, 2014.

5.0 RETURN ON INVESTMENT

The final and most important calculation is the return on investment that JobPath is providing to the city and county based on the value of increased wages for graduates per dollar of local program funding. All total, 627 individuals participated in the program in 2005-06 through 2012-13. A total of 449 individuals were placed in jobs. An additional 55 individuals completed the program in 2006-2007 thru 2012-13 but decided to continue their education and were not placed in jobs. Finally, 123 individuals who entered the program in the eight-year period did not provide sufficient information about post-training wages to be included in the economic impact analysis.

Note that the local program funding used to estimate return on investment includes all direct costs for both graduates placed in jobs as well as those who did not complete the program, decided to continue their education, or were not placed in jobs for other reasons. Local program funding includes both direct financial assistance and case management. Case management accounts for an average of 70 to 80 percent of total costs over the eight-year period. However, case management is integral to the success of participants in the JobPath program. Typical clients are already stretched thin by family and work demands and building habits of engagement requires a concerted effort. Case managers help students navigate academic and institutional challenges as well as providing counsel and directives that are essential to help them avoid disruptions that sabotage their ability to complete their academic program. Case managers are also able to connect students to other financial resources beyond the financial assistant provided by JobPath including Pell Grants, scholarships, and Workforce Investment Act funds through the Pima County One Stop Career Center.

It is also important to note that program costs include all monies spent on an individual graduates during the time they were in the program, which may extend beyond a single year. While the total of direct financial assistance plus case management is equal to the sum of the city and county funding in a given year, some of the direct financial assistance costs in that year actually occurred in the previous year. Since this trend is consistent over time, it is assumed that the return on investment calculation is not significantly impacted.

In total, the cost of the program for 2005-06 was \$124,000 for direct financial assistance costs and \$255,000 for case management, yielding an average cost per graduate of \$7,400 based on 51 individuals who completed the program that year.¹ The amount of increased wages plus reductions in public assistance for graduates in 2005-06 year totaled \$1.7 million. As a result, the program yielded a 344 percent return on investment (Figure 8).

In 2006-07, the total cost of the program was \$219,000 for direct financial assistance and \$660,000 for case management, compared to an increase in wages combined with a decrease in public assistance costs of \$1.6 million for a return on investment of 84 percent. The average cost per graduate in 2006-07 was \$9,700, based on 91 individuals completing the program that year. Funding in 2006-07 increased significantly over the previous year. There was a significant increase in the number of graduates but not as large as the increase in funding. There was also

¹ Cost per graduate includes all participants who completed the program in that year, not only those who were placed in jobs.

an increase in the number of multi-year participants that were carried forward into 2007-08 that accounted for some of the year to year differences.

In 2007-08, the total cost of the program was \$237,000 for direct financial assistance and \$703,000 for case management, compared to an increase in wages combined with a decrease in public assistance of \$2.3 million for a return on investment of 140 percent. The average cost per graduate in 2007-08 was \$10,100, based on 93 individuals completing the program that year. Although funding increased by 7 percent over the previous year, the total number of graduates only increased from 91 in 2006-07 to 93 in 2007-08. This resulted in a slightly higher cost per graduate in 2007-08.

In 2008-09, the total cost of the program was \$235,000 for direct financial assistance and \$485,000 for case management, compared to an increase in wages combined with a decrease in public assistance of \$2.5 million for a return on investment of 253 percent. The average cost per graduate in 2008-09 was \$8,400, based on 86 individuals completing the program that year. Although funding decreased by 23 percent over the previous year, the total number of graduates stayed about the same and the average wage increase per job was higher than in the previous year, resulting in a higher return on investment and a lower average cost per graduate.

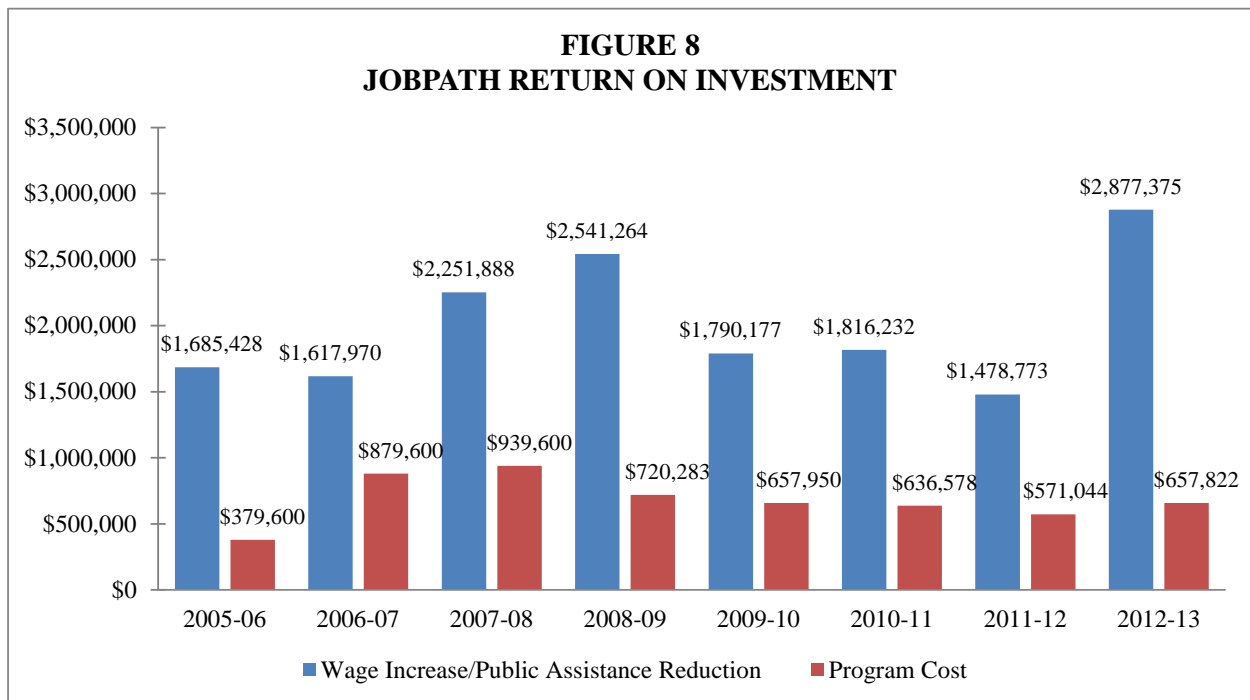
In 2009-10, the total cost of the program was \$152,000 for direct financial assistance and \$505,000 for case management, compared to an increase in wages combined with a decrease in public assistance of \$1.8 million for a return on investment of 172 percent. The average cost per graduate in 2009-10 was \$7,700, based on 86 individuals completing the program that year. Funding decreased by 9 percent over the previous year, but the aggregate increase in wages fell by a larger proportion than funding, resulting in a lower return on investment compared to 2008-09. However, since the total number of graduates also decreased, the average cost per graduate actually decreased by about 9 percent.

In 2010-11, the total cost of the program was \$133,500 for direct financial assistance and \$503,000 for case management, compared to an increase in wages combined with a decrease in public assistance of \$1.9 million for a return on investment of 185 percent. The average cost per graduate in 2010-11 was \$9,800, based on 65 individuals completing the program that year. The cost per graduate increased because the total number of graduates decreased from 86 in 2009-10 to 65 in 2010-11, despite an increase in the number of graduates placed in jobs. However, return on investment increased over last year with the total wage increases for graduates up \$123,000 (9% increase) and funding down about \$21,000 (3% decrease).

In 2011-12, the total cost of the program was \$121,360 for direct financial assistance and \$449,700 for case management. Total funding decreased by 10 percent in 2011-12 compared to 2010-11, even though the overall number of graduates (including those not placed in jobs) remained approximately the same. This funding can be compared to an increase in wages combined with a decrease in public assistance of \$1.5 million in 2011-12 for a return on investment of 159 percent. The average cost per graduate in 2011-12 was \$9,100, based on 63 individuals completing the program, which is 8 percent lower than last year. The total wage increase is slightly lower than last year due to the smaller number of graduates for whom post-training wages are available, however, the average post-training wages for graduates in 2011-12 is about 4 percent higher than in 2010-11.

The decrease in return on investment in 2011-12 is primarily due to the fact that post-training wage data was only available for 36 of the 63 graduates, compared to 48 out of 65 graduates in the previous year. In some cases the graduates have not been responsive to requests for information. In other cases, there were changes in local market conditions and it was more difficult to find jobs for graduates. This has been the case with dental assistants, dental hygienists and medical coding and billing graduates. All three of these programs were reduced in the following year to adjust to job market changes, while programs such as those related to aviation where hiring has been strong were expanded to meet increased demand.

In 2012-13, the total cost of the program was \$129,857 for direct financial assistance and \$527,965 for case management. Total funding increased by 15 percent in 2012-13 compared to 2011-12, which was the first funding increase since 2007-08. At the same time, the overall number of graduates (including those not placed in jobs) increased by 46 percent and the number of graduates placed in jobs more than doubled in the past year. The current funding level for the program can be compared to an increase in wages combined with a decrease in public assistance of \$2.9 million in 2012-13 for a return on investment of 337 percent, which is the second highest return in the past eight years. The average cost per graduate in 2012-13 was \$7,150, based on 92 individuals completing the program, which is 21 percent lower than last year. The total wage increase is more than double last year's amount, due to the larger number of graduates and the higher average wage increase per graduate.



It is important to note that some of the individuals that were not placed in jobs may have furthered their education with or without assistance from JobPath. Thus some of the value of increased wages that are attributed to the JobPath program may have happened anyhow, given that a significant number of students are already enrolled at the community college prior to becoming JobPath clients. However, JobPath has been able to significantly decrease the dropout

rate for the types of individuals that they serve, thus adding value to the community and increasing the return on investment for the public funding they receive.

JobPath provides an important service to the community by enhancing the quality of life for graduates and their families. They also provide qualified motivated employees to meet the needs of local employers in high growth industries. Based on the average increase in wages compared to the program costs, JobPath has provided an excellent return on investment locally over the past eight years, as well as creating measurable economic impacts in the county.