

PFEIFER CAMP: RETURN ON INVESTMENT

EXECUTIVE SUMMARY

Pfeifer Camp was designed to make a difference in the lives of “at-risk” children facing challenges at school or at home.¹ For annual operating costs of \$1.074 million, Pfeifer Camp returned at least \$8.7 million arranged by the seven factors and based on publicly accessible facts, program evidence, and conservatively estimated impacts. Actual figures may have been considerably higher, but lack of access to specific information meant that some savings had to be omitted.

No.	FACTOR	SAVINGS SUBTOTAL	R.O.I. RATIO
1	Family	\$1,756,531	1.64
2	School	\$3,120,920	2.91
3	Employment	\$266,554	0.25
4	Poverty	\$323,692	0.30
5	Crime	\$728,900	0.68
6	Mental Health	\$99,871	0.09
7	Physical Health	\$2,502,495	2.33
	TOTAL	\$8,699,092	8.10

This is not an unusual finding. In 1998, the value of saving one high-risk youth was set between \$1.7 and \$2.3 million.² In 2009, the value was set at between \$2.6 and 5.3 million.³ The 2021 benchmark would be closer to about \$6.0 million.

PROGRAM DESCRIPTION

Arkansas had a 2019 population of 3,017,804, distributed over a state area of 52,035 square miles, with the largest city being the capital of Little Rock (197,312 people).⁴ The state had a median income of \$25,316, with 1.36 million in the 2020 seasonally adjusted workforce and an unemployment rate of 4.2%.⁵ Arkansas ranked poorly (45th) overall in the nation with a breakdown of healthcare (49th), crime & corrections (47th), infrastructure (47th), economy (43rd), and education (42nd).⁶ The state struggled with teen birth rates (highest nationally) and firearm deaths (rate twice the national average).⁷ Arkansas ranked 42nd in mental health (indicating a higher than average prevalence of mental illness and lower rates of access to care).⁸ One in four (25%) children in Arkansas reported sustained exposure to one Adverse Childhood Experience⁹ (ranked worst in the US), 56% of children were exposed to more than one (45% nationally),¹⁰ and unresolved trauma from exposure was decidedly the most negatively impactful factor accounting for poor adult physical health (48th in USA).¹¹ The state ranked 45th in the country for numeracy and literacy of elementary school students.¹²

¹ <https://www.pfeifercamp.com/programs/ace/>

² https://www.researchgate.net/publication/226041952_The_Monetary_Value_of_Saving_a_High-Risk_Youth

³ https://www.researchgate.net/publication/225637886_New_Evidence_on_the_Monetary_Value_of_Saving_a_High_Risk_Youth

⁴ <https://www.census.gov/quickfacts/fact/table/littlerockcityarkansas,AR/PST045219>

⁵ <https://www.bls.gov/eag/eag.ar.htm>

⁶ <https://www.usnews.com/news/best-states/arkansas>

⁷ <https://www.cdc.gov/nchs/pressroom/states/arkansas/arkansas.htm>

⁸ <https://www.mhanational.org/issues/ranking-states>

⁹ <https://www.cdc.gov/violenceprevention/aces/>

¹⁰ https://www.childtrends.org/wp-content/uploads/2014/07/Brief-adverse-childhood-experiences_FINAL.pdf

¹¹ https://www.americashealthrankings.org/explore/annual/measure/Overall_a/state/AR

¹² <https://www.nationsreportcard.gov/profiles/stateprofile/overview/AR?>

Since 1988, Pfeifer Camp aimed to positively impact this state situation by offering programs during the regular school months designed to improve the academic performance and behaviors of “at-risk” children ages 8 through 12, enrolled in 3rd, 4th, and 5th grades. Clients’ “at-risk” status was identified from poor scholastic achievement or inappropriate behavior. Program duration was about one month long, held Sunday night to Friday afternoon, with 5 nights per week spent residing in cabins of 10 clients with 2 supervising staff members. Parents attended weekly workshops to learn strategies for enhanced communication and discipline. During school hours, clients participated in regular classroom sessions held by certified teachers and aides with an instructional average of 8 clients each. Subject matter included reading, spelling, mathematics and social issues like violence prevention and AIDS awareness. Outside of school hours, clients engaged in experiential activities designed to improve relationships with themselves and others, such as: listening, problem solving, crisis management, personal responsibility, self-worth, and team-building skills. On return from Pfeifer Camp, clients received daily check-ups during the week-long transition period and were supported through 8th grade with school visits for tutoring, counseling, and mediation. Clients were given opportunities to get involved with extra-curricular activities and attend summer camp as rewards for improved behavior and academic performance.

For the past 32 years, Pfeifer Camp’s programming has been highly effective at showing academic growth of several months of learning improvement in literacy and numeracy for only one month of programming. During the 2018-2019 school year, 96% of the clients showed substantial gains in knowledge of violence prevention and AIDS awareness. During that same period, about 94% of parents attended special workshops on communication skills and parenting techniques that were based in reality therapy and measured pre-post parental knowledge to have more than doubled. During the transition week following the program, parents and teachers noted about 86% of clients improved their behaviors. By the end of that same school year and according to their teachers, 57% of clients showed a marked improvement in their classroom behaviors, while 63% showed improved self-esteem. In 2018-2019, three quarters of the clients improved as a result of the programming at Pfeifer Camp. The program goal was set at 50% each year.¹³ In reality, program impact was much greater, since clients attending were likely to be at greater risk than average children.

The program’s impacts on Adverse Childhood Experiences (ACEs) were particularly notable. ACEs were several possibly distressing events that occurred during youth (ages 0-17) and undermined a client’s safety or stability.¹⁴ ACEs included: being a witness or survivor of violence, neglect or abuse (physical, emotional or sexual) and having family members get incarcerated, abuse substances, divorce/separate, display mental illness or die by suicide or other cause. If the trauma from one of these events went unresolved, the client potentially experienced negative impacts later in life as an adult.¹⁵ These negative impacts were most commonly the development of chronic diseases, mental illnesses, or substance misuses of their own. Less commonly, but still notably negative impacts were reduced education and employment closely linked to poverty or crime. The more unresolved ACE traumas, the greater the risks of negative outcomes and the more likely one was to pass dysfunction, distress, disorder, violence, neglect or abuse on to the next generation.¹⁶

Pfeifer Camp served 150 clients (76 females, 74 males) per year in its program. On average, 30 of the 150 “at-risk” clients were attending for low self-esteem and 120 exhibited inappropriate behavioral concerns. Of these 150, two thirds (or 100) also had significantly poor academic performance and were expected to fail a grade in the near future. Based on client tracking, Pfeifer Camp established an extremely conservative 50% impact on clients for most cost items. This meant that about half of clients in trouble would be able to avoid future difficulties and save governments, school districts, and businesses in Arkansas considerable money. By way of illustration, if 20 out of 150 clients (determined from state population percentages) were normally expected to lose muscle strength (based on the recent state rates of obesity), then about 10 of those would not lose muscle strength due to the programming they received (50% impact).

¹³ https://www.pfeifercamp.com/site/assets/files/1121/ace_report_2018-19_rev_10-21-19.pdf

¹⁴ <https://www.cdc.gov/violenceprevention/aces/index.html>

¹⁵ <https://www.cdc.gov/violenceprevention/pdf/preventingACES.pdf>

¹⁶ <https://www.cdc.gov/vitalsigns/aces/pdf/vs-1105-aces-H.pdf>

PROGRAM COSTS

The 2019-20 operating budget for all programs was \$1.074 million. This included volunteer time, donations, and miscellaneous costs. Simple division meant that the cost per client was \$7,161. The price for their parents was child transport to and from camp and a \$20 application fee. Financial assistance was available to those who requested it.

CLIENTS SERVED	150 (per year)	ANNUAL BUDGET	\$1,074,136	COST PER CLIENT	\$7,161
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1: FAMILY

Children in Arkansas reported having had their first tobacco cigarette and alcoholic drink at the average age of 12.5 years. Children who drank before the age of 15 years were four times likely to become alcohol dependent than an adult starter. Arkansas had the highest rate in the US for nonmedical use of pain relievers by children between the ages of 12 and 17 (6.15%) and the trend was increasing. Childhood use of other illicit substances appeared to not change during the past decade. The percentage of high school students injecting illegal drugs (7.4%) was more than five times the national average (1.4%). Within the state, Methamphetamine remained the drug of greatest concern for adults.¹⁷

In 2020, Arkansas spent \$27.1 million federal and \$2.98 million state monies on prevention of substance abuse¹⁸ and this served 17% of the general population or 513,037 youth between the ages of 5 and 18.¹⁹ Of these, about 9.2% or 47,199 were identified as potential substance abusers, having used at least one substance in their early lives.²⁰ Dividing \$30.1 million total by 47,199 substance abusers provided a value of \$638/substance abuser. Out of 150 clients (typical Pfeifer Camp annual enrollment), 13.8 (9.2%) would normally be expected to enroll in a substance addition prevention program each year. From its tracking of past clients, Pfeifer Camp has confidently reduced this number by half or at least 7 fewer.

Federal child welfare spent \$52 million²¹ and the state of Arkansas spent \$6.7 million to fund foster care youth at \$13,553/youth.²² About the same number of youth entered (3,223) than exited (3,256) foster care in 2019, so as to keep the total number stable at a quarterly average of about 4,331 foster care youth (0.62% of the youth population given 700,130 youth).²³ From 1 out of 150 clients normally destined for new foster care, Pfeifer Camp could not claim impact.

Sexually Transmitted Infections (STIs) in Arkansas were much higher than the national averages in 2020 with frequencies of 587.9 for Chlamydia, 243 for Syphilis, and 13.5 for Gonorrhea (out of 100,000 citizens).²⁴ Of particular importance was Acquired Immunodeficiency Syndrome (AIDS) caused by the Human Immunodeficiency Virus (HIV). In 2018, the state had 5,722 people living with HIV (0.19% of the population), 80 AIDS deaths, and 281 new HIV diagnoses. However, new diagnoses were considerably reduced below the expected number due to a successful 62% increase in the number of people taking medical prophylaxis precautions (830) from 2017 (511).²⁵ While 0.19% of the population equates to only 0.285 clients in the program, because of their high success rate with AIDS awareness, Pfeifer camp was confident that they have reduced this impact by 0.25 clients. The lifetime cost HIV treatment in Arkansas was \$501,000 in 2019.²⁶

¹⁷ https://afmc.org/wp-content/uploads/2019/06/OADP_SEOW-2019-State-Report-Book-20190515v1.5FINAL.pdf

¹⁸ https://humanservices.arkansas.gov/wp-content/uploads/FFY2020_Combined_SA-MH_Application_with_Notice_for_Comment_1.pdf

¹⁹ <https://www.census.gov/quickfacts/AR>

²⁰ https://arkansas.pridesurveys.com/dl.php?pdf=Arkansas_Report_2019.pdf&type=region

²¹ <https://caseyfamilypro-wpengine.netdna-ssl.com/media/state-data-sheet-AR.pdf>

²² https://humanservices.arkansas.gov/wp-content/uploads/2019_Annual_Statistical_Report.pdf

²³ https://humanservices.arkansas.gov/wp-content/uploads/4th_Qtr_QPR_SFY_2019_-_Final.pdf

²⁴ <https://www.alarms.org/std-statistics/>

²⁵ <https://aidsvu.org/local-data/united-states/south/arkansas/>

²⁶ <https://www.cdc.gov/hiv/pdf/policies/profiles/cdc-hiv-arkansas-PrEP.pdf>

The American teen pregnancy rate is trending steadily downwards, but Arkansas had the highest American rate at 45.9 pregnancies²⁷ followed by 30.4 births²⁸ per thousand females aged 15-19 in 2020.²⁹ The difference of 15.5 between the two rates was due to abortion and miscarriage of one third of the pregnancies.³⁰ With these rates and all things being equal, approximately 3.45 girls out of 76 (average number attending Pfeifer Camp per year) would be expected to become pregnant as a teen, but 1.15 would lose that pregnancy, and 2.30 would deliver. However, based on their past client analysis, Pfeifer Camp was certain that at least 1 (maybe 2) of these 2.30 births were successfully avoided.

Teen pregnancy cost \$11 billion annually across the USA (due to increased health care and public assistance, as well as decreased tax revenue and income from dropping out of school) and Arkansas' fair share of this national amount has been estimated at \$5,500 for each birth.³¹ The average cost of raising an unintended child born in 2017 for the first 17 years of its life was \$241,080 in urban areas³² (adjusted for inflation to \$301,970 using the consumer price index³³). Children of teen mothers were likely to have attained poor health and academics, dropped out or been expelled, become incarcerated or unemployed, and become involved with a teen pregnancy of their own. They were likely to have high risks of infant mortality or low birth weight, have reduced levels of cognitive stimulation or emotional support, be poorly prepared for learning due to behavioral problems, and present more than one chronic medical conditions.³⁴

In addition, the children of teen mothers also carried the burden of social consequences in their later lives.³⁵ Each child, once they became an adult, had an average lifetime cost of \$19,354 to tax payers for additional future health care, welfare, and incarceration.³⁶ Meanwhile, each teen mother who dropped out and was unable to graduate high school or go on to finish her college education lost a lifetime income of \$1.3 million and most likely ended up in poverty.³⁷

PROBABILITY	VALUE	SAVINGS	ITEM
7	\$638	\$4,466	Youth Substance Abuse Prevention (federal block grant)
0	\$13,553	\$0	Youth Foster Care (Pfeifer Camp had a negligible impact)
0.25	\$501,000	\$125,250	Avoidance of AIDS Treatment (due to practicing prophylaxis)
1	\$5,500	\$5,500	Teen Pregnancy Birth (initial delivery cost without any complications*)
1	\$301,970	\$301,970	Child Raising Costs (17 years: from birth to adulthood at 17)
1	\$19,345	\$19,345	Tax Payer Costs (for lifetime adult healthcare, welfare, incarceration)
1	\$1,300,000	\$1,300,000	Personal Income Lost (due to teen mother dropping out of school)

* The average price for initially delivering a teen pregnancy birth with complications was \$13,297 in 2014.³⁸

These calculations did not consider the costs saved from the consequences of gang affiliation, surviving abuse/neglect, or parents taking time off work to address family issues. For example, 13.8 per 1,000 children in Arkansas were abused or neglected and suffered more than one type: neglect (56.3%), physical abuse (20.9%), and sexual abuse (20.4%).³⁹ The 2015 lifetime cost of surviving or living with a history of abuse or neglect is given as \$16.6 million for each fatal case and \$830,928 for each nonfatal case.⁴⁰ However, Pfeifer Camp had no data on their success at impacting these numbers.

²⁷ <https://www.statista.com/statistics/295891/pregnancy-rates-among-us-teenagers/>

²⁸ https://www.americashealthrankings.org/explore/annual/measure/TeenBirth_MCH/state/AR

²⁹ <https://www.cdc.gov/nchs/pressroom/states/arkansas/ar.htm>

³⁰ https://www.guttmacher.org/sites/default/files/factsheet/ar_7.pdf

³¹ <https://youth.gov/youth-topics/pregnancy-prevention/adverse-effects-teen-pregnancy>

³² <https://www.usda.gov/media/press-releases/2013/08/14/parents-projected-spend-241080-raise-child-born-2012-according-usda>

³³ https://www.bls.gov/data/inflation_calculator.htm

³⁴ <https://youth.gov/youth-topics/pregnancy-prevention/adverse-effects-teen-pregnancy>

³⁵ http://media.khi.org/news/documents/2011/04/25/Public_Costs_of_Teen_Childbearing.pdf

³⁶ <https://powertodecide.org/sites/default/files/resources/primary-download/counting-it-up-key-data-2013.pdf>

³⁷ <https://www.ncsl.org/documents/health/TPinAREducandEcon214.pdf>

³⁸ https://www.healthy.arkansas.gov/images/uploads/pdf/Spring_2018_Teen_Pregnancy_Data_Deck_FINAL.pdf

³⁹ <https://www.cwla.org/wp-content/uploads/2018/04/Arkansas.pdf>

⁴⁰ https://stacks.cdc.gov/view/cdc/61245/cdc_61245_DS1.pdf

2: SCHOOL

During a 30 day period in 2019, 21.2% of Arkansas high school students carried a weapon (gun or knife), 5.3% brought it onto school property, and 9.3% did not attend for feeling unsafe in or on the way to school. During the previous year, 8.1% were injured or threatened by a weapon while at school, 17.1% had possessions stolen or deliberately damaged while at school, 22.2% were in a physical fight (8.3% on school property), and 22.6% were bullied (17.4% online). A further 12.6% reported having been forced into sexual intercourse, 13.4% experienced sexual violence (8.4% while dating), 10.0% experienced physical violence, 35.9% were depressed every day for more than two weeks in a row, 19.7% considered, 17.9% planned, and 4.5% attempted suicide.⁴¹ Two out of three students were economically disadvantaged.

In the local school district during 2019, discipline rates were highest for homeless and foster children, with 14% of students suspended out-of-school (dismissed for less than 10 days away for 5,735 students), 10% suspended in-school (less than 10 days away from classes, but served in school, for 4,096 students), and 1% expelled (more than 10 days of school dismissal for 408 students).⁴² Out of 150 clients, this equates to the potential for 21 to have suspended out, 15 suspended in, and 1.5 expelled. Since all clients at Pfeifer Camp were sent there to avoid suspensions or expulsions, these numbers were reduced by almost two thirds or 11, 8, and 1 respectively for a total reduction of at least 20 clients. Students suspended out-of-school (<10 days) or expelled (>10 days) must be provided with an alternative learning environment. The state set the initial funding as an extra \$4,640/student, increased slightly to about \$4,700 by 2020.⁴³

Truancy and chronic absenteeism were two different but related situations. Truancy, or missing classes without a valid excuse, involved the deliberate skipping of classes and may have resulted in arrest, since schools were legally stopped from suspending students for truancy (yet isolated cases may have occurred).⁴⁴ Chronic absenteeism was defined as missing more than 18 days or 10% of school in one year and was often the unintended consequence of poverty, fear of violence or school discipline, and overwhelming issues at home (food, housing, mental illness, or required to care for family members). Arkansas had a state absenteeism rate of 18.1% (15.3% for the nation) in 2018, but the two school districts served by Pfeifer Camp had much higher rates of 29.1% and 28.3% (averaged to 28.7%).⁴⁵ Similar absenteeism rates were present state-wide in kindergarten and first grade, particularly where early patterns led to later illiteracy,⁴⁶ poor attendance in elementary school and early drop out in high school.⁴⁷ For 150 clients, 43 (or 28.7%) would normally be expected to display chronic absenteeism throughout their school life, not including frequent occurrences of acute absenteeism. However, due to programming conducted with children and their parents, and evidence showing a 50% reduction in absenteeism for attending clients, Pfeifer Camp would have reduced this number by at least 20 clients. The cost of missing 18 days of school was calculated as \$1,694 or 10% of the school district's annual "expense per pupil."⁴⁸

With a 93% attendance rate for the local school district, graduation rates were 78.3% within four years and 83.4% within five years (one extra year) of high school.⁴⁹ The state dropout rate for 2018 was 5.6%, indicating the remaining 11% were held back at least two extra years before graduating high school.⁵⁰ This equated to 8.4 clients, who might be expected to drop out, but Pfeifer Camp programming would have prevented 2 of those. High school dropouts were twice as likely to end up in poverty and 5 times more likely to end up in prison than their graduating counterparts.⁵¹ Drop outs were 6 times more likely to be unemployed than if they had graduated and the under-employed would make \$16,000 less each year, but that discrepancy would have doubled to over \$30,000 by the end of their working lives.⁵² The under-employed would have reduced their income by \$900,000 (\$22,500/year for 40 years of working).

⁴¹ https://dese.ade.arkansas.gov/Files/20210104162014_2019_YRBS_State_Report_4-24-2020.pdf

⁴² <https://myschoolinfo.arkansas.gov/>

⁴³ [https://www.arkleg.state.ar.us/Bureau/Document?type=pdf&source=education%2fK12/AdequacyReports/2018%2f2017-11-29&filename=ALE,%20Categorical%20Report,%20BLR%20\(11\)](https://www.arkleg.state.ar.us/Bureau/Document?type=pdf&source=education%2fK12/AdequacyReports/2018%2f2017-11-29&filename=ALE,%20Categorical%20Report,%20BLR%20(11))

⁴⁴ <https://katv.com/news/local/76-arkansas-schools-break-law-with-banned-punishment>

⁴⁵ https://www.hamiltonproject.org/charts/chronic_absence_across_the_united_states_2017_18_school_year

⁴⁶ <https://www.attendanceworks.org/wp-content/uploads/2018/10/FINS-memo-web-version-9.13.18.pdf>

⁴⁷ <https://www2.ed.gov/datastory/chronicabsenteeism.html>

⁴⁸ <https://www.lrsd.org/site/handlers/filedownload.ashx?moduleinstanceid=7115&dataid=6848&FileName=2019-Community-Report.pdf>

⁴⁹ <https://myschoolinfo.arkansas.gov/>

⁵⁰ <https://usafacts.org/data/topics/people-society/education/k-12-education/high-school-dropout-rate/>

⁵¹ https://nces.ed.gov/programs/digest/d19/tables/dt19_219.85a.asp

⁵² <https://educationdata.org/high-school-dropout-rate#dropout-rate-statistics-employment-prospects>

Unemployed dropouts (aged 16-19) numbered 11,000 (7% of state youth in 2019).⁵³ With half of all dropouts requiring public assistance, the unemployed were expected to cost tax payers \$300,000 for a lifetime of social support services.⁵⁴

Last, but not least, pretesting and post testing presented a consistent (1996-2020) and clear pattern of clients advancing their academic performances over the one month program. Literacy and numeracy greatly improved: 6.3 months of gain in reading (Averaged Effect Size or AES=0.257), 2.4 months of enhancement in spelling (AES=0.111), and 7.4 months increase in mathematics (AES=0.466) for only one month of programming at Pfeifer Camp. In averaged combination and after subtracting for the initial month of programming, this was equivalent to 150 clients not failing half a grade level due to the insulating properties of their overall academic improvement. This remarkable pattern of growth, repeated over the last 24 years, was valued by the local district at an annual cost of \$16,944/client (“expense per pupil” in 2019).⁵⁵ However, this was conservatively applied to only 70 out of 150 clients, since common class under-enrollments meant not all students who were retained a grade ended up costing the school district until the cohort became over-enrolled.

PROBABILITY	VALUE	SAVINGS	ITEM
20	\$4,700	\$94,000	Discipline (reductions due to behavioral improvement)
20	\$1,694	\$33,880	Absenteeism (reductions due to behavioral improvement)
2	\$1,200,000	\$2,400,000	Drop Out (high school reductions due to behavioral improvement)
70	0.5 x \$16,944	\$593,040	Failing 0.5 Grade (avoided due to academic improvement)

These calculations did not consider the costs saved from special education for the learning disadvantaged or disabled. No security costs were saved since these districts did not employ additional security at the elementary school level. However, additional staff time for administrators and teachers were likely reduced because less time was likely spent dealing with behavioral issues, supervising detentions, and counseling more resilient students on their personal issues.

⁵³ <https://datacenter.kidscount.org/data/tables/7803-teens-ages-16-to-19-not-in-school-and-not-working-by-race?loc=5&loct=2#detailed/2/5/false/1729/13/15063,15064>

⁵⁴ <https://www.pbs.org/wgbh/frontline/article/by-the-numbers-dropping-out-of-high-school/>

⁵⁵ <https://www.lrsd.org/site/handlers/filedownload.ashx?moduleinstanceid=7115&dataid=6848&FileName=2019-Community-Report.pdf>

3: EMPLOYMENT

On the last day of December, 2019, a total of 5.8 million people were looking for work in the United States,⁵⁶ while companies had 6.4 million job openings that remained unfilled⁵⁷ due to a lack of workers and the poor education and training of an under and unemployed workforce.⁵⁸ This skills gap, with a worker availability ratio of 0.88,⁵⁹ cost the 2019 US manufacturing economy \$85 billion and the skills gap only worsened under pandemic conditions in 2020.⁶⁰

By the end of 2019 (pre-COVID-19), the average weekly wage in Arkansas was \$898 (50th in the country with a national average of \$1,185) and the average weekly wage for Pulaski County (containing the state capital area served by Pfeifer Camp) was \$1,010 (2nd highest in the state after Benton County home of Walmart's headquarters).⁶¹ Manufacturing, with thousands of unfilled job vacancies (one in four requiring higher education), paid this same average weekly wage for an average annual salary of \$52,520.⁶² Pfeifer Camp recognized that most of its program graduates would end up in manufacturing-like jobs and conservatively estimated that 3 out of 150 would fill previously unfilled job vacancies. This would save their annual salaries and bring a savings to their companies and the economy for cost of vacancy averted.

Cost of vacancy referred to the loss of productivity that a company endured because its workforce was missing workers. In 2015, 152,400 workers in manufacturing contributed \$2.7 billion to the state economy for a yearly contribution of \$17,716/worker.⁶³ That same year, the manufacturing sector had a job vacancy rate of 3.7% or 5,639 positions.⁶⁴ For the typical manufacturing worker, their cost of replacement for recruiting and hiring was an average of 20% of their annual salary or \$10,450.⁶⁵ Cost of vacancy was calculated by adding the yearly contribution lost to the replacement cost for a total of \$16,089/worker in 2015 and \$18,008 in 2020 (adjusted for inflation using the consumer price index).⁶⁶ Manufacturer costs were \$13,281/worker, where every \$1 saved had a 1.4 multiplier effect on the state economy.⁶⁷

PROBABILITY	VALUE	SAVINGS	ITEM
3	\$52,250	\$156,750	Annual Salary Enhancement (due to each individual's employment)
3	\$18,008	\$54,024	Productivity Loss (cost of vacancy for positions remaining open)
3	1.4 x \$13,281	\$55,780	Savings to Arkansas Economy & Manufacturing (1.4 multiplier)

These calculations considered only the manufacturing industry (aerospace/defense, food processing, metal refining, and paper/timber) and did not include other industries (logistics/distribution, agriculture/farming, healthcare/social services, retail/restaurants, education/government, and corporate/high tech).⁶⁸ Furthermore, these calculations did not consider the costs saved from self-sufficient salaries and taxes of high school graduates working above the minimum wage or the costs of having to hire paid workers to replace the volunteer pool that would be busy seeking gainful employment. Also, this factor did not take into account damage to the economy or decreased GDP growth rate due to vacant positions.⁶⁹

⁵⁶ <https://www.bls.gov/opub/mlr/2020/article/job-market-remains-tight-in-2019-as-the-unemployment-rate-falls-to-its-lowest-level-since-1969.htm>

⁵⁷ https://www.bls.gov/news.release/archives/jolts_02112020.htm

⁵⁸ <https://www.ipmorgan.com/commercial-banking/insights/why-us-has-millions-of-unfilled-jobs>

⁵⁹ <https://www.uschamber.com/series/above-the-fold/monthly-workforce-monitor-available-workers-open-job-falls-lowest-level-record>

⁶⁰ <https://documents.deloitte.com/insights/2018DeloitteSkillsGapFoWManufacturing>

⁶¹ https://www.bls.gov/regions/southwest/news-release/countyemploymentandwages_arkansas.htm

⁶² <https://www.arkansasedc.com/business-resources/existing-business-resources/programs-training/future-fit-arkansas-workforce-training-aedc>

⁶³ <https://talkbusiness.net/2015/11/arkansas-manufacturing-sector-may-fall-below-150000-jobs-down-100000-jobs-since-1995/>

⁶⁴ <https://talkbusiness.net/2018/08/arkansas-top-job-hunters-say-unfilled-jobs-hurting-economy-cite-skills-gap/>

⁶⁵ <https://www.americanprogress.org/issues/economy/reports/2012/11/16/44464/there-are-significant-business-costs-to-replacing-employees/>

⁶⁶ https://www.bls.gov/data/inflation_calculator.htm

⁶⁷ <https://apps.bea.gov/scb/2019/12-december/1219-rims2.htm>

⁶⁸ https://www.arkansasedc.com/docs/default-source/reports/economic_overview_2018.pdf

⁶⁹ <https://www.bea.gov/data/gdp/gdp-state>

4: POVERTY

In 2019, 16.3% of households and 24% of children lived below the Federal Poverty Level (46th in the nation) compared to national averages of 12.2% and 19% respectively.⁷⁰ The state had 15.1% of its homes unable to appropriately feed occupants (45th in the nation) compared to the national average of 11.7%.⁷¹ In 2018, 39% of households were below the median per capita income of \$24,426 and received supplemental support for the state.⁷² About 83% of counties were rural and 41% of the population lived rurally, compared with 14% nationally. Poverty was simply multi-generational.

Weekly unemployment insurance payments in Arkansas (pre-COVID-19) ranged from \$81 to \$451 with an average weekly check of \$220.⁷³ The seasonally adjusted unemployment rate for the state (pre-COVID-19) was 4.2%.⁷⁴ This represented 6.3 out of 150 clients and Pfeifer Camp staff were sure that they had reduced this number by at least 4.

The Supplemental Nutrition Assistance Program or SNAP (formerly known as Food Stamps) provided benefits to low-income households that were food insecure. Monthly SNAP benefits were \$112 per individual and \$649 per family.⁷⁵ In Arkansas, an average of 398,219 individuals and 190,222 families received benefits from SNAP during 2020.⁷⁶ Out of 150 individuals (Pfeifer Camp clients served annually), 19.9 would be expected to be an individual SNAP recipient in later adulthood and 9.5 would later need SNAP to help feed their families. However, data from Pfeifer Camp suggested these numbers were cut in half to save 10 individuals and 5 families from having to draw heavily upon SNAP resources.

ARWorks was a state and federal funding program that provided reduced cost access to health coverage from private insurance plans (Ambetter, BlueCross/BlueShield, QualChoice, etc.) by subsidizing premiums on behalf of families with household incomes lower than 138% of the Federal Poverty Level. ARWorks spent about \$147 million/month on subsidizing 257,540 enrollees (11.7% of the state population) at about \$571/enrollee monthly.⁷⁷ This represents 17.6 enrollees out of 150 clients from Pfeifer Camp and the program reduced this burden by half or at least 6 enrollees.

Arkansas Medicaid was a federally funded, state administered, program that partially funded healthcare costs for those in need. In 2019, it spent \$7,544 billion in program costs on 1,086,486 beneficiaries for an average annual cost of \$6,940/beneficiary.⁷⁸ The number of beneficiaries represented 36% of the state population. With this percentage, 54 out of 150 clients would be expected to utilize Medicaid support. However, Pfeifer Camp cut this by more than 30.

PROBABILITY	VALUE	SAVINGS	ITEM
4	25 x \$220	\$22,000	Unemployment Compensation (average amount for 25 weeks)
10	12 x \$112	\$13,440	SNAP/Food Stamps (individual/month, over 12 months)
5	12 x \$649	\$38,940	SNAP/Food Stamps (family/month, over 12 months)
6	12 x \$571	\$41,112	ARWorks (12 months share of average health insurance premiums)
30	\$6,940	\$208,200	Arkansas Medicaid (individual/year contributions to healthcare)

These calculations did not include the costs saved from: administration of the above programs, decreased need for social services, prescription drug subsidies, alternative amelioration or other forms of public assistance to counter poverty (CHIP or TANF). As annual illustrations, 34,902 enrollments for CHIP (Children's Health Insurance Program), 818,314 enrollments for supplemental medical cost coverage by low income families⁷⁹, and about 4,500 individuals and 2,300 families per month for TANF (Temporary Assistance for Needy Families) were the norms in 2020 Arkansas.⁸⁰

⁷⁰ https://www.americashealthrankings.org/explore/annual/measure/household_poverty/state/AR

⁷¹ https://www.americashealthrankings.org/explore/annual/measure/food_insecurity_household/state/AR

⁷² <https://mchb.tvisdata.hrsa.gov/Narratives/Overview/1f1a3043-99f5-45e2-99a0-a3084947e2e6>

⁷³ <https://www.cnbc.com/2020/07/23/average-unemployment-insurance-payment-in-each-us-state.html>

⁷⁴ <https://fred.stlouisfed.org/series/ARUR>

⁷⁵ <https://www.arhungeralliance.org/programs/food-assistance-resources/snap>

⁷⁶ <https://www.fns.usda.gov/pd/supplemental-nutrition-assistance-program-snap>

⁷⁷ https://humanservices.arkansas.gov/wp-content/uploads/Monthly-Enrollment-and-Expenditure-Report_DECEMBER-2020.pdf

⁷⁸ https://humanservices.arkansas.gov/wp-content/uploads/Medicaid_Program_Overview_SFY2017.pdf

⁷⁹ <https://www.medicaid.gov/medicaid/program-information/medicaid-and-chip-enrollment-data/report-highlights/index.html>

⁸⁰ <https://www.acf.hhs.gov/ofa/data/tanf-caseload-data-2020>

5: CRIME

In 2019, Arkansas experienced 207,786 crimes with some individuals committing more than one crime.⁸¹ In that same year, 8,861 juveniles (17 years old and under) and 123,364 adults (over 17 years old) were arrested for those crimes, while 75,561 crimes passed without arrest.⁸² Given 23.2% of the population was composed of 700,130 juveniles and 76.8% was composed of 2,317,674 adults, these arrests represented 1.3% and 5.3% of their respective population groups.⁸³ Under non-programming, 1.95 juveniles and 7.95 adults out of 150 clients would have been arrested for crimes. However, Pfeifer Camp programming reduced those numbers by at least 1 juvenile crime and 4 adult crimes.

As in most states, Arkansas juveniles and adults were administered separately by their state justice system, although juveniles were occasionally tried as adults for extremely violent crimes. Juveniles were detained pre-trial in a residential setting (youth home, state hospital, and juvenile correctional facility), adjudicated in juvenile courts, and confined to a residential facility, if found guilty.⁸⁴ Adults were bailed out or held for pre-trial, tried in adult courts, and incarcerated (in federal/state prisons or county/local jails), if found guilty. Costs were considerably different for these two sequences.

The Division of Youth Services managed juvenile crime. On average in 2016, pre-trial detention of each juvenile offender cost \$27,000.⁸⁵ Adjudicating each juvenile cost \$87,000 in 2017.⁸⁶ The 2104 cost of confining one juvenile offender for a sentence was \$115,734.⁸⁷ Adjusted for inflation using the consumer price index,⁸⁸ these annual figures became \$29,811 (detained), \$93,715 (adjudicated), and \$129,422 (confined) in 2020, without transportation costs to and from facilities.

The Arkansas Judiciary and Department of Corrections managed adult crime. In 2015, Arkansas held 63% of its adult offenders in county jails, while awaiting state court trial.⁸⁹ On average in 2017, the pre-trial holding of each adult state offender cost \$72/day⁹⁰ for 183 days of custody⁹¹ in a county jail. In 2019, trying all accused adult criminal offenders in court cost \$71,489,728⁹² for 14,826 felony and misdemeanor dispositions⁹³ for an administrative cost of \$4,822/adult, without transportation costs. Once lawyer and judiciary staff salaries were included, criminal trial cost was about \$34,822/adult. The 2020 expenditures for annual adult incarceration were \$534,502,121⁹⁴ and with a prisoner count of 19,576,⁹⁵ this was a yearly cost of \$27,304/prisoner. The average 2016 sentence for an adult offender was 2.6 years.⁹⁶

PROBABILITY	VALUE	SAVINGS	ITEM
1	\$29,811	\$29,811	Juvenile Detention (average for one stay awaiting trial)
1	\$93,715	\$93,715	Juvenile Adjudication (court and legal costs for one trial)
1	\$129,422	\$129,422	Juvenile Confinement (for an average sentence of less than one year)
4	183 x \$72	\$52,704	Adult Holding (average for 183 days awaiting trial/failed to post bail)
4	\$34,822	\$139,288	Adult Adjudication (court and legal costs for one trial)
4	2.6 x \$27,304	\$283,960	Adult Incarceration (one prisoner/year for 2.6 year average sentence)

These calculations did not contain damages to the victim, property, or society for crimes committed and the potential contributions lost by being people locked up for years. They also did not consider the costs saved from reduced police protection, arrest processing, non-criminal court and appeal costs, supervised parole and probation (53,000 supervised

⁸¹ <http://www.disastercenter.com/crime/arcrime.htm>

⁸² <https://www.dps.arkansas.gov/wp-content/uploads/2020/07/2019-Age-of-Persons-Arrested-State.pdf>

⁸³ <https://www.census.gov/quickfacts/AR>

⁸⁴ <http://jdaarkansas.org/>

⁸⁵ <http://www.aradvocates.org/wp-content/uploads/AACF.JuvJust.webfinal.11.27.17.pdf>

⁸⁶ <https://ojdp.ojp.gov/sites/g/files/xyckuh176/files/media/document/AR-FY18-State-Plan%20508.pdf>

⁸⁷ http://www.justicepolicy.org/uploads/justicepolicy/documents/factsheet_costs_of_confinement.pdf

⁸⁸ https://www.bls.gov/data/inflation_calculator.htm

⁸⁹ <https://www.vera.org/downloads/pdfdownloads/state-incarceration-trends-arkansas.pdf>

⁹⁰ <https://www.arkansasonline.com/news/2021/jan/04/pulaski-county-looks-at-22-for-jail-rate-change/>

⁹¹ <https://www.acluarkansas.org/en/know-your-rights/know-your-rights-criminal-court>

⁹² <https://www.dfa.arkansas.gov/images/uploads/budgetOffice/fy2020ActualExpenditures.pdf>

⁹³ https://public.tableau.com/profile/orjs.arcourts#!/vizhome/AR_Annual_Summary_Public_0/Dashboard1

⁹⁴ <https://www.dfa.arkansas.gov/images/uploads/budgetOffice/fy2020ActualExpenditures.pdf>

⁹⁵ https://www.dfa.arkansas.gov/images/uploads/budgetManuals/0480_correction.pdf

⁹⁶ <https://www.bjs.gov/content/pub/pdf/tssp16.pdf>

in 2018),⁹⁷ rehabilitation time, or transporting offenders between various facilities for trial. Arkansas was the fourth lowest spending state on police protection (\$224 per capita) and second lowest on courts (\$74 per capita) in 2017.⁹⁸ This analysis only included state prisons, but excluded federal prisons and local/county jails containing state offenders.⁹⁹

Too poor to pay their fines, fees or court costs, some people may be locked up for short periods.¹⁰⁰ Arkansas has prison alternatives for failure to pay, such as work release, where inmates can earn up to \$60/day toward paying their debt.¹⁰¹ State prisons reimbursed \$15.5 million to county jails for holding a backlog of 1,604 prisoners for debts owed in 2018.¹⁰² The crime problem perpetuated when even a short stay in prison or jail encouraged new future criminal behaviors.¹⁰³

Until partial reform in the last few years, mentally ill citizens of Arkansas were placed in prisons and jails more than in hospitals and treatment facilities.¹⁰⁴ One year of containment for mentally ill offenders cost 15 times more in a penal complex than at a treatment center.¹⁰⁵ Nevertheless, remnants of this old system have persisted through today.

6: MENTAL HEALTH

Arkansas reported 15.3% of its youth had a major depressive episode compared with 14% nationally¹⁰⁶ and 25% of adults were diagnosed with depression (47th in the country) against 20% nationally.¹⁰⁷ Poor mental health was self-reported by 17.8% of adults (48th in the country) for 2019 (a 27% increase from 2014), against 13.8% nationally.¹⁰⁸

Addiction treatment cost an average of \$9,000/person for outpatient and \$60,000/inpatient (added costs of lodging, food, etc.) for 90 days of treatment for an average of \$34,500/patient.¹⁰⁹ A total of 7,640 adults¹¹⁰ and 11,216 juveniles¹¹¹ (0.6% of the state population) received substance abuse treatment in 2019, while 2.3% of the entire state population needed, but were unable to receive, treatment for their addictions.¹¹² This represented a total of about 2.9% or 4.35 out of 150 clients. Pfeifer Camp reduced this by 2 clients not requiring treatment by averting substance abuse.

In 2020, suicide was the tenth leading cause of death in Arkansas and second for those under 35 years old.¹¹³ Despite this, the annual prevalence of serious thoughts of suicide was about 106,000 adults (4.7%) within the state.¹¹⁴ Each suicide cost the state \$1,208,615 in 2010¹¹⁵ (adjusted for inflation to \$1,459,025 in 2020 costs using the consumer price index¹¹⁶), with a 2018 suicide rate of 18.7 per 100,000 people.¹¹⁷ Since Pfeifer Camp had 150 clients annually, only 0.03 out of 150 clients would be expected to suicide without the programming. With no tracked suicides in any of the past

⁹⁷ <https://www.prisonpolicy.org/profiles/AR.html>

⁹⁸ <https://www.urban.org/policy-centers/cross-center-initiatives/state-and-local-finance-initiative/state-and-local-backgrounders/criminal-justice-police-corrections-courts-expenditures>

⁹⁹ <https://www.bjs.gov/content/pub/pdf/p19.pdf>

¹⁰⁰ <https://lawyerscommittee.org/wp-content/uploads/2019/09/CJP-AR-Toolkit-FINAL.pdf>

¹⁰¹ <https://www.arcounties.org/site/assets/files/4985/finecollectionguidebook2019.pdf>

¹⁰² <https://50stateblueprint.aclu.org/assets/reports/SJ-Blueprint-AR.pdf>

¹⁰³ https://issuu.com/socialchange/docs/edited_arkansas_s_manufactur_ed_inc

¹⁰⁴ https://www.treatmentadvocacycenter.org/storage/documents/final_jails_v_hospitals_study.pdf

¹⁰⁵ <https://static1.squarespace.com/static/55afb880e4b039b081c51cbc/t/55ba30fae4b0b0462f40a157/1438265594437/Mental+Health+Report.pdf>

¹⁰⁶ https://www.samhsa.gov/data/sites/default/files/reports/rpt32820/Arkansas-BH-Barometer_Volume6.pdf

¹⁰⁷ https://www.americashealthrankings.org/explore/annual/measure/Depression_a/state/AR

¹⁰⁸ https://www.americashealthrankings.org/explore/annual/measure/mental_distress/state/AR

¹⁰⁹ <https://www.help.org/90-day-rehab-programs/>

¹¹⁰ https://www.samhsa.gov/data/sites/default/files/reports/rpt32820/Arkansas-BH-Barometer_Volume6.pdf

¹¹¹ https://humanservices.arkansas.gov/wp-content/uploads/2019_Annual_Statistical_Report.pdf

¹¹² https://afmc.org/wp-content/uploads/2019/06/OADP_SEOW-2019-State-Report-Book-20190515v1.5FINAL.pdf

¹¹³ www.cdc.gov/injury/wisqars/fatal.html

¹¹⁴ https://www.samhsa.gov/data/sites/default/files/reports/rpt32820/Arkansas-BH-Barometer_Volume6.pdf

¹¹⁵ <https://aws-fetch.s3.amazonaws.com/state-fact-sheets/2020/2020-state-fact-sheets-arkansas.pdf>

¹¹⁶ https://www.bls.gov/data/inflation_calculator.htm

¹¹⁷ <https://www.americashealthrankings.org/explore/annual/measure/Suicide/state/AR>

program clients, but with more than half of clients talking with staff about their suicide ideation and experience with suicides around them, this reduction was estimated to be 0.02 clients that were prevented from committing suicide.

“Any” mental illness (20.6% of US adult population) was defined as a range of cognitive, behavioral, or emotional disorders, but the subset of “serious” mental illness (5.2% or about 1 in 4 with any mental illness) resulted in functional impairment that interfered with or severely limited major life activities.¹¹⁸ Adults with “serious” mental illness received psychiatric therapy and powerful pharmaceuticals delivered at state facilities and hospitals, while the remainder of the “any” adults received psychological counseling and mild medication delivered at community mental health centers.

In 2019, out of 460,000 adults with “any” mental illness (20% of the state adult population),¹¹⁹ 232,000 were treated (10% or half those with any mental illness), while 134,000 with “serious” mental illnesses were treated (about 1 in 3 of the any mental illness adults or 5.8% of the state adult population).¹²⁰ Out of the usual 150 clients, 30 (20%) would have developed “any” mental illness, and 15 of those 30 clients (10%) would have received psychological treatment, but 8.7 clients (5.8%) would have developed “serious” mental illness and required psychiatric treatment. Pfeifer Camp impacted these numbers by at least half preventing 5 “any” and 3 “serious” clients from needing treatment.

Expenditures for community mental health treatment in 2019 was \$68.6 million for 232,000 adults with “any” mental illness at an annual cost of \$296/adult. Expenditures for state facilities and hospitals was \$102.1 million for 134,000 adults with “serious” mental illness at an annual cost of \$761/adult. An additional \$118.6 million was paid for State Mental Health Agency operations and administration, but this is difficult to divide up between both service areas.¹²¹

PROBABILITY	VALUE	SAVINGS	ITEM
2	\$34,500	\$69,000	Substance Addiction Treatment (90-day rehab program)
0.02	\$1,459,025	\$29,180	Suicide (lifetime productivity losses)
5	\$296	\$1,480	Any Mental Illness Community Treatment (psychological+)
3	\$761	\$2,283	Serious Mental Illness State Treatment (psychiatric+)

These calculations did not consider the costs saved from accounting for loss of friends, difficulty forming healthy/stable relationships, mental health counseling, or suicide prevention programs. In addition, the over 3,000 mental health patients in state prisons and the over 1,000 in county jails were not included, despite their higher numbers and lower quality of treatment.¹²² These figures did not address 581 patients with serious mental illnesses living in state mental hospitals¹²³ at a cost of \$48 million¹²⁴ or the approximately 71,580 children with serious emotional disturbances.¹²⁵

¹¹⁸ <https://www.nimh.nih.gov/health/statistics/mental-illness.shtml>

¹¹⁹ <https://www.samhsa.gov/data/sites/default/files/NSDUH148/NSDUH148/sr148-mental-illness-estimates.pdf>

¹²⁰ https://www.samhsa.gov/data/sites/default/files/reports/rpt32820/Arkansas-BH-Barometer_Volume6.pdf

¹²¹ <https://www.samhsa.gov/data/sites/default/files/reports/rpt27932/Arkansas%202019%20URS%20Output%20Tables/Arkansas%202019%20URS%20Output%20Tables.pdf>

¹²² <https://www.bjs.gov/search/index.cfm?q=arkansas+incarcerated+mental+ill&Go.x=0&Go.y=0#gsc.tab=0&gsc.q=arkansas%20incaarcerated%20mental%20ill&gsc.page=1>

¹²³ <https://www.samhsa.gov/data/sites/default/files/reports/rpt27932/Arkansas%202019%20URS%20Output%20Tables/Arkansas%202019%20URS%20Output%20Tables.pdf>

¹²⁴ https://humanservices.arkansas.gov/wp-content/uploads/MHBG_FFY_2020_Report.pdf

¹²⁵ <https://www.nri-inc.org/our-work/projects/uniform-reporting-system-and-mental-health-client-level-data/>

7: PHYSICAL HEALTH

Chronic diseases accounted for most of the leading causes of death in Arkansas and the majority of these were 2-5 times higher in African Americans than in Caucasians.¹²⁶ The state was among the worst in the nation for smoking, inactivity, and poor nutrition, which led to obesity and hypertension that were underlying causes of the chronic diseases.¹²⁷ All of this can be traced back to early childhood. The more Adverse Childhood Experiences (ACE) one has not recovered from, the greater the risks of developing chronic disease.¹²⁸ Pfeifer Camp has helped resolve several of these ACE traumas.

Poor physical health was self-reported by 17.4% of adults (49th in America) versus 12.5% nationally.¹²⁹ Multiple chronic illnesses were present in 14.2% of the adult population (46th in America) versus 9.5% nationally.¹³⁰ Multiple chronic illnesses meant three or more of: arthritis, asthma, chronic kidney disease, chronic obstructive pulmonary disease, cardiovascular disease (heart disease/attack or stroke), cancer (excluding skin), depression, and diabetes. State risk factors were also prevalent for hypertension (41%, 47th rank), high cholesterol (37.4%, 47th rank), and obesity (37.4%, 48th rank) versus national norms of 32.5%, 33.3%, and 31.9% respectively.¹³¹ These were for 2019, before COVID-19.

On December 20, 2020, the USA surpassed 330 thousand COVID-19 deaths for its 330 million citizens (on that day) for a death rate of one per thousand.¹³² On that same date, and all things being equal, Arkansas should have experienced 3 thousand COVID-19 deaths for its 3 million citizens, but its death count was notably higher at 3,237 deaths.¹³³ The inequality was due to the comorbidity of chronic diseases that occurred in greater state prevalence than in the nation.¹³⁴

Healthcare costs for chronic disease were not available for Arkansas, so 2019 nation-wide costs were used and adjusted per capita. Treatment of chronic disease accounted for 75% of American healthcare spending in 2019 or about \$1.65 trillion/year.¹³⁵ Arkansas' share of this in 2019 was about 1.1% (3 out of 325 million population proportion with \$109 state healthcare spending per capita compared with \$91 nationally).¹³⁶ Therefore, the state spent \$18.2 billion/year on treating chronic disease in 2019. Arkansas had 1.9 million patients (63% of the state population) who had been living with these diseases in 2019,¹³⁷ so the final annual value for the state was \$9,579/patient. Under normal conditions, 94.5 out of 150 Pfeifer Camp clients (63%) would otherwise have been expected to develop at least one chronic disease, but program staff knew that a minimum of 30 clients were saved by programming designed to reduce ongoing ACE trauma.

For every 100,000 people in Arkansas, 10,210 potential living years (ranked 44th nationally)¹³⁸ were lost before the age of 76 (typical life expectancy¹³⁹) compared with 7,350 potential years across America. This was one indicator of premature death that included an early demise due to diseases: chronic, drug use disorder (death by overdose), and violence. Total Arkansas deaths in 2019 were 32,888.¹⁴⁰ Of these, 24,581 were due to chronic disease, drug use disorder, and violence, while the remaining 8,307 were due to natural cause, accident, disability, and suicide.¹⁴¹ The first category of death from chronic diseases represented 1.06% of Arkansas' adult population (2,317,674)¹⁴² and corresponded to 1.6 out of 150 clients at Pfeifer Camp, where staff was confident they had impacted half a client by reducing trauma from ACEs.

¹²⁶ <https://embed.resultsscorecard.com/Container/Embed?id=9945926>

¹²⁷ <https://www.cdc.gov/chronicdisease/resources/infographic/chronic-diseases.htm>

¹²⁸ <https://www.cdc.gov/violenceprevention/aces/fastfact.html>

¹²⁹ https://www.americashealthrankings.org/explore/annual/measure/Physical_distress/state/AR

¹³⁰ <https://www.americashealthrankings.org/explore/annual/measure/CHC/state/AR>

¹³¹ https://www.americashealthrankings.org/explore/annual/measure/risk_factors/state/AR

¹³² <https://www.worldometers.info/coronavirus/country/us/>

¹³³ <https://www.worldometers.info/coronavirus/usa/arkansas/>

¹³⁴ [https://www.healthy.arkansas.gov/images/uploads/pdf/Arkansas_Chronic_Disease_Toolkit_2019_\(002\).pdf](https://www.healthy.arkansas.gov/images/uploads/pdf/Arkansas_Chronic_Disease_Toolkit_2019_(002).pdf)

¹³⁵ https://www.fightchronicdisease.org/sites/default/files/docs/PFCD_ChronDisease_FactSheet3Final.pdf

¹³⁶ https://www.americashealthrankings.org/explore/annual/measure/PH_funding/state/AR

¹³⁷ <https://www.fightchronicdisease.org/states/arkansas>

¹³⁸ <https://www.americashealthrankings.org/learn/reports/2019-annual-report/state-summaries-arkansas>

¹³⁹ <https://www.worldlifeexpectancy.com/usa/arkansas-life-expectancy>

¹⁴⁰ <https://wonder.cdc.gov/mcd-icd10-expanded.html>

¹⁴¹ <https://www.cdc.gov/nchs/pressroom/states/arkansas/ar.htm>

¹⁴² <https://www.census.gov/quickfacts/AR>

The national cost of lost productivity due to early death from these diseases was \$1.1 trillion/year.¹⁴³ The state's share of this productivity loss due to premature death was \$12.1 billion/year (1.1% of the national \$1.1 trillion/year). Arkansas had 24,581 patients who died from these diseases in 2019,¹⁴⁴ so the annual loss of productivity was \$492,250/patient. Years of life lost was calculated from the difference between the average age at death and average life expectancy (76 years). The average age of death for a patient who lived with chronic diseases was 67 years (9 years lost).¹⁴⁵

PROBABILITY	VALUE	SAVINGS	ITEM
30	\$9,579	\$287,370	Treatment for Chronic Disease (annual healthcare costs per patient)
0.5	9 x \$492,250	\$2,215,125	Productivity Lost (death 9 years early due to chronic disease)

These calculations did not consider the costs saved from treatment of disabilities or premature death due to disability (35.2% of the general population lived with disabilities in 2019¹⁴⁶). Furthermore, it does not consider the savings in costs to the patient (who may be uninsured or partially covered by Medicaid, Medicare, or private/commercial insurance) for fewer hospital/medical visits and decreased duration of hospital stays (prices for which vary by location in the state).¹⁴⁷

DISCUSSION

Pfeifer Camp had high returns for the investments made across seven factors. The following discussion examines the various program components that likely contributed to the savings for each factor.

Families: The \$1.76 million savings in the family factor was due to positive impacts in substance abuse prevention, avoidance of AIDS/HIV and other Sexually Transmitted Infections, teen pregnancies, and reductions in child raising costs, taxpayer costs, and personal income losses. While becoming involved in Pfeifer Camp program was voluntary, attending weekly parenting meetings was mandatory in order for children to remain in the program. These weekly workshops focused on communication skills, problem solving strategies, teacher-parent relationships, violence prevention, AIDS, and drug and alcohol information, all of which directly related to parents' abilities to support their students in avoiding substance use, STI's, teen pregnancies and other family-related issues (Allen et al., 2016; Sandler et al., 2011).

School: The \$3.1 million savings in the school factor was due to preventing disciplinary referrals, dropping out of school, absenteeism and grade failure. These impacts were in part due to Pfeifer Camp's academic program during which students received access to highly structured instruction and low student to teacher ratio concentrating on insisted success and reciprocal teaching. Pfeifer Camp had a small student teacher ratio of 1:8, which was known to improve student achievement (Shin & Chung, 2009). They used a Reciprocal Teaching strategy which allowed students to ask "teacher-like" questions while taking turns as the teacher and has been demonstrated as effective (Coley et al., 1993; Kelly et al., 2001; Myers, 2005; Palincsar & Brown, 1984; Palincsar & Klenk, 1992; Rosenshine & Meister, 1994). Pfeifer Camp also insisted on success by requiring students to complete and score at least 80% on all academic work.

Employment: The \$266 thousand annual savings was due to positive impacts in salary enhancement, productivity loss, and state economy and manufacturing due to better employment by increased numbers of students graduating from high school than expected. These graduation impacts were due to Pfeifer Camp's academic programs (as discussed above), cooperative games and team building initiatives, and follow up. Cooperative games and team building initiatives have been shown to improve soft skills such as problem solving and prosocial behaviors that are important for employment (Casner-Lotto & Barrington, 2006; Spaulding, 2017). Follow up included a one week transition back to school, short term school visits every few weeks until grade 8, long term high school wraparound services (tutoring, counseling, mentoring, mediation, extramural activities, and youth action service council), return summer camp scholarships, and work experiences as future counselors and AmeriCorps staff. Wraparound services in school are known to support and stabilize children and help with their future employment opportunities (Burns & Hoagwood,

¹⁴³ <https://milkeninstitute.org/articles/annual-economic-impact-chronic-disease-us-economy-1-trillion>

¹⁴⁴ <https://wonder.cdc.gov/mcd-icd10-expanded.html>

¹⁴⁵ <https://wonder.cdc.gov/mcd-icd10-expanded.html>

¹⁴⁶ <https://www.cdc.gov/ncbddd/disabilityandhealth/impacts/arkansas.html>

¹⁴⁷ <https://www.hcup-us.ahrq.gov/reports/statbriefs/sb246-Geographic-Variation-Hospital-Stays.jsp>

2002). Early work experiences can be an important mechanism for building and demonstrating to employers these workplace skills and for exploring career interests (Sum et al. 2014).

Poverty: The \$323 thousand savings resulted from positive employment impacts in covering basic living expenses, unemployment insurance compensation, food stamps and alternative social programs. Pfeifer Camp was prevention-oriented and also focused on long-term follow-up and connection, all of which have been shown to improve youth poverty outcomes (Sheldon & Epstein, 2002). Pfeifer Camp began providing services when youth were in 3rd through 5th grade. Once campers became involved with the program, they had the opportunity to stay involved through their adulthood by accepting invitations to future camps both as campers and later as counselors. During the follow up phase, Pfeifer Camp connected graduates with other youth agencies in the county that catered to older populations.

Crime: The \$729 thousand savings was due to positive impacts in decreasing victim losses, police processing, detention, prosecution, imprisonment and rehabilitation. These impacts were due to Pfeifer Camp offering a social awareness program focused on Violence Prevention and personal safety as well as providing youth with opportunities for leadership and development. School-based violence prevention programs have had positive impacts on outcomes such as violence and gang affiliation (Ebensen et al. 2012; Wilson and Lipsey 2007). By providing youth with opportunities for leadership and subsequent employment, they were less likely to be involved with youth violence and crime (Jannetta & Okeke, 2017; Heller, 2014).

Mental Health: The \$100 thousand savings was due to saving on costs related to substance and addiction treatment centers, mental health counseling, and suicide prevention. These impacts were due to Pfeifer Camp providing wraparound support, suicide counseling, and social issue awareness. Providing a safe space for these topics to be discussed enables youth to better manage their feelings related to mental health (Walsh & Eggert, 2007; Kostenik & Ratnapalan, 2010). Wraparound services have been demonstrated to decrease problematic behaviors and improve functioning for youth (Aboutanos et al., 2011; Carney and Buttell, 2003; Clark et al., 1996; Ferguson, 2005). Several possible benefits of the program being outdoors were the restorative properties of nature, resilience building, stress reduction, and improving mental health overall (Jackson et al., 2021).

Physical Health: The \$2.5 million savings was due to preventing costs related to hospital and medical treatment of chronic disease and physical disabilities, premature death, and insurance. Youth also learned information about physical health practices through the social awareness programs including nutritious meals, daily exercise, and sufficient sleep. The outdoor activities took place in nature, which have been proven to improve physical health along with mental health and well-being of youth (Jackson et al., 2021).

Studies exploring connections between physical activity and exposure to nature demonstrate that these two factors work synergistically to provide greater positive impacts on physical and mental health than physical activity alone, highlighting the potential benefits of adolescent outdoor activities that incorporate physical activity in the form of outdoor play. Outdoor activities also play a pivotal role in the development and maintenance of social capital and cohesion, which can influence mental health for both adolescents and adults (p. 2, Jackson et al., 2021).

CONCLUSION

For an initial annual investment of \$1.074 million, Pfeifer Camp returned the following savings subtotals on the basis of publicly accessible facts, program evidence, and conservatively estimated impacts. Actual figures may have been considerably higher, but lack of access to data meant that some contributed savings had to be omitted.

No.	FACTOR	SAVINGS SUBTOTAL	R.O.I. RATIO
1	Family	\$1,756,531	1.64
2	School	\$3,120,920	2.91
3	Employment	\$266,554	0.25
4	Poverty	\$323,692	0.30
5	Crime	\$728,900	0.68
6	Mental Health	\$99,871	0.09
7	Physical Health	\$2,502,495	2.33
	TOTAL	\$8,699,092	8.10

The total savings of \$8.7 million corresponded to a return of \$7.7 million after program costs of about \$1.1 million. For every program dollar spent, \$8.10 would pay back. Some factors contributed more than others to these totals due their respective frequencies and severities compared internationally. For example, the family factor had an ROI ratio of 1.64 due to the high rates and exorbitant costs of teen pregnancy in America compared with other countries.¹⁴⁸ The school factor returned about three times the total investment and was due to the internationally high costs of dropping out or failing a grade and being retained one more year.^{149,150} The crime factor of two thirds return was due to the high state incarceration costs and rates (900) per 100,000 people being so much more than the national average (698) compared with other NATO countries like the UK (139) and Canada (114).¹⁵¹ The physical health factor had twice the return due to the extremely high costs of medical care in the USA¹⁵² and the drain on resources caused by large numbers of people with the most expensive combinations of chronic diseases.¹⁵³ One extreme cost, not included in any of the government figures quoted in this report, relates to the savings from not having to construct new schools, prisons, hospitals, and social service facilities. If construction costs were considered, the factor subtotals and ROI ratios would be much higher.

FUNDING SOURCES	CONTRIBUTING FACTORS	REVENUE CONTRIBUTION	SAVINGS SUBTOTALS	R.O.I. RATIO
EDUCATION: school districts, transportation, nutrition, etc.	School	\$426,557	\$3,120,920	7.32
SERVICE: Kiwanis, AmeriCorps, etc.	Employment, Poverty, Crime	\$291,199	\$1,319,146	4.53
OTHER: state grants, federal funding, foundations, etc.	Family, Mental Health, Physical Health	\$356,379	\$4,358,897	12.23
	TOTALS	\$1,074,136	\$8,699,092	8.10

The breakdown above shows the funding sources and their contributions to Pfeifer Camp revenue. Each funding source is matched with one or more impacting factors and a return on investment ratio is calculated for those savings subtotals. The money coming from educational sources (school districts and supplementary transport and meals) returned \$7.32 for every \$1 of revenue invested in Pfeifer Camp directly from the sole factor related to schools. For every \$1 raised by the service groups (Kiwanis, less facility maintenance, and AmeriCorps), \$4.53 were returned in improvements within the employment, poverty and crime factors combined. Lastly, for every \$1 granted by state, federal and private foundations, \$12.23 were returned in the pooled family, mental and physical health factors. This breakdown shows fair and equitable sharing of fund raising loads, coupled with healthy investment returns across all three funding groups.

¹⁴⁸ <https://www.guttmacher.org/fact-sheet/adolescent-pregnancy-and-its-outcomes-across-countries>

¹⁴⁹ <https://unesdoc.unesco.org/ark:/48223/pf0000232197>

¹⁵⁰ https://www.ncsl.org/documents/educ/International_Education_Systems_Draft_v5.pdf

¹⁵¹ <https://www.prisonpolicy.org/profiles/AR.html>

¹⁵² [https://www.healthy.arkansas.gov/images/uploads/pdf/Arkansas_Chronic_Disease_Toolkit_2019_\(002\).pdf](https://www.healthy.arkansas.gov/images/uploads/pdf/Arkansas_Chronic_Disease_Toolkit_2019_(002).pdf)

¹⁵³ https://www.fightchronicdisease.org/sites/default/files/download/PFCD_AR.FactSheet_FINAL1.pdf

One concern with return on investment numbers is that government sources do not report double counting. For example, the same teenager who gets pregnant (**family**), is also forced to drop out of **school**, and fails to find gainful **employment** later in life. This single person impacts three factors. Similarly people in **poverty** may also turn to **crime** or people with **mental health** issues may also develop chronic **physical health** concerns. Although these occurrences are few, they may have been double counted in government statistics. Therefore, their reported probabilities may have been slightly inflated, leading to higher returns. The only way to counter this minor error would be to recommend forming an expert panel to determine the overlaps by delphi consensus: repeated iterations until agreement is reached.

Finally, the logic and calculations in this document were audited by a panel composed of a corporate chief financial officer, private criminologist, public health epidemiologist, social worker, education professor, and consulting statistician. Please share the evidence of any errors, disagreements, or newly arising information, with Pfeifer Camp (info@pfeifercamp.com) and the researchers will update this document accordingly.

Many programs must compete for initial funding and their dividends for return on an early investment will come years later. However, Pfeifer Camp has been operating since 1988 and savings from their program have already been paying off for three decades. Since an ounce of prevention is worth a pound of cure, continued and additional new funding of this program will reap great benefits for many years to come.

REFERENCES

- Aboutanos, M. B., Jordan, A., Cohen, R., Foster, R. L., Goodman, K., & Halfond, R. W., et al. (2011). Brief violence interventions with community case management services are effective for high-risk trauma patients. *The Journal of Trauma*, 71(1), 228–236. doi:[10.1097/TA.0b013e31821e0c86](https://doi.org/10.1097/TA.0b013e31821e0c86).
- Allen, M. L., Garcia-Huidobro, D., Porta, C., Curran, D., Patel, R., Miller, J., & Borowsky, I. (2016). Effective parenting interventions to reduce youth substance use: a systematic review. *Pediatrics*, 138(2).
- Bowler D.E., Buyung-Ali L.M., Knight T.M., Pullin A.S. A systematic review of evidence for the added benefits to health of exposure to natural environments. *BMC Public Health*. 2010;10:1–10. doi: 10.1186/1471-2458-10-456.
- Burns, B. J., & Hoagwood, K. (2002). *Community treatment for youth: Evidence-based interventions for severe emotional and behavioral disorders*. Oxford University Press.
- Carney, M. M., & Buttell, F. (2003). Reducing juvenile recidivism: Evaluating the Wraparound services model. *Research on Social Work Practice*, 13(5), 551–568. doi:[10.1177/1049731503253364](https://doi.org/10.1177/1049731503253364).
- Casner-Lotto, Jill, and Linda Barrington. 2006. "Are They Really Ready to Work? Employer Perspectives on Applied Skills of New Entrants to the 21st Century Workforce." Washington, DC: The Conference Board, Corporate Voices for Working Families, the Partnership for 21st Century Skills, and the Society for Human Resource Management.
- Clark, H. B., Lee, B., Prange, M. E., & McDonald, B. A. (1996). Children lost within the foster care system: Can Wraparound service strategies improve placement outcomes? *Journal of Child and Family Studies*, 5(1), 39–54. doi:[10.1007/BF02234677](https://doi.org/10.1007/BF02234677).
- Coley, Joan & DePinto, Thommie & Craig, Sharon & Gardner, Rosalie. (1993). From College to Classroom: Three Teachers' Accounts of Their Adaptations of Reciprocal Teaching. *Elementary School Journal - ELEM SCH J*. 94. 10.1086/461765.
- Ferguson, C. M. (2005). California's title IV-E child welfare waiver demonstration project evaluation: An analysis of Wraparound in Alameda. (65), ProQuest Information & Learning, US. <http://offcampus.lib.washington.edu/login?url=http://search.ebscohost.com.unh.idm.oclc.org/login.aspx?direct=true&db=psyh&AN=2005-99100-001&site=ehost-live> Available from EBSCOhost psyh database.
- García-Hermoso A., Hormazábal-Aguayo I., Fernández-Vergara O., Olivares P.R., Oriol-Granado X. Physical activity, screen time and subjective well-being among children. *Int. J. Clin. Heal. Psychol*. 2020;20:126–134. doi: 10.1016/j.ijchp.2020.03.001.
- Heller, Sara B. 2014. "Summer Jobs Reduce Violence among Disadvantaged Youth." *Science* 346 (6214): 1219–23.
- House J.S., Landis K.R., Umberson D. Social relationships and health. *Science*. 1988;241:540–545. doi: 10.1126/science.3399889.

- Jackson, S. B., Stevenson, K. T., Larson, L. R., Peterson, M. N., & Seekamp, E. (2021). Outdoor Activity Participation Improves Adolescents' Mental Health and Well-Being during the COVID-19 Pandemic. *International journal of environmental research and public health*, 18(5), 2506. <https://doi.org/10.3390/ijerph18052506>
- Jannetta, J. and Okeke, C. (2017). Strategies for Reducing Criminal and Juvenile Justice Involvement. Urban Institute. Retrieved from: <https://www.urban.org/sites/default/files/publication/94516/strategies-for-reducing-criminal-and-juvenile-justice-involvement.pdf>.
- Janssen I., LeBlanc A.G. Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. *Int. J. Behav. Nutr. Phys. Act.* 2010;7:1–16. doi: 10.1186/1479-5868-7-40.
- Kelly, Marie & Moore, Dennis & Tuck, Bryan. (1994). Reciprocal Teaching in a Regular Primary School Classroom. *Journal of Educational Research - J EDUC RES.* 88. 53-61. 10.1080/00220671.1994.9944834.
- Kostenuik, M., & Ratnapalan, M. (2010). Approach to adolescent suicide prevention. *Canadian family physician Medecin de famille canadien*, 56(8), 755–760.
- Mitchell R. Is physical activity in natural environments better for mental health than physical activity in other environments? *Soc. Sci. Med.* 2013;91:130–134. doi: 10.1016/j.socscimed.2012.04.012.
- Mitchell R., Popham F. Effect of exposure to natural environment on health inequalities: An observational population study. *Lancet.* 2008;372:1655–1660. doi: 10.1016/S0140-6736(08)61689-X.
- Myers, Pamela. (2005). The Princess Storyteller, Clara Clarifier, Quincy Questioner, and the Wizard: Reciprocal Teaching Adapted for Kindergarten Students. *Reading Teacher - READ TEACH.* 59. 314-324. 10.1598/RT.59.4.2.
- Palincsar, Annemarie & Brown, Ann. (1984). Reciprocal teaching of comprehension-fostering and monitoring activities. *Cognition and instruction.* 1. 117-. 10.1207/s1532690xci0102_1.
- Palincsar, Annemarie & Klenk, Laura. (1992). Fostering Literacy Learning in Supportive Contexts. *Journal of learning disabilities.* 25. 211-25, 229. 10.1177/002221949202500402.
- Pilonieta, P., & Medina, A.L. (2009, October). Reciprocal Teaching for the Primary Grades: "We Can Do It, Too!" *The Reading Teacher*, 63(2), 120-129.
- Rosenshine, Barak & Meister, Carla. (1994). Reciprocal Teaching: A Review of the Research. *Review of Educational Research - REV EDUC RES.* 64. 479-530. 10.2307/1170585.
- Sandler, I. N., Schoenfelder, E. N., Wolchik, S. A., & MacKinnon, D. P. (2011). Long-term impact of prevention programs to promote effective parenting: lasting effects but uncertain processes. *Annual review of psychology*, 62, 299–329. <https://doi.org/10.1146/annurev.psych.121208.131619>
- Schurer Coldiron, J., Bruns, E.J. & Quick, H. A Comprehensive Review of Wraparound Care Coordination Research, 1986–2014. *J Child Fam Stud* 26, 1245–1265 (2017). <https://doi-org.unh.idm.oclc.org/10.1007/s10826-016-0639-7>
- Sheldon, S. B., & Epstein, J. L. (2002). Improving student behavior and school discipline with family and community involvement. *Education and urban society*, 35(1), 4-26.
- Shin, I. S., & Chung, J. Y. (2009). Class size and student achievement in the United States: A meta-analysis. *KEDI Journal of Educational Policy*, 6(2).
- Spaulding, S. (2017). Strategies for Promoting Successful Transitions to Adulthood Higher Education and the Workforce. Urban Institute. Retrieved from: https://www.urban.org/sites/default/files/publication/94506/strategies-for-promoting-successful-transitions-to-adulthood-higher-education-and-the-workforce_3.pdf.
- Sum, Andy, Ishwar Khatiwada, Mykhaylo Trubskyy, and Martha Ross. 2014. "The Plummeting Labor Market Fortunes of Teens and Young Adults." Washington, DC: Brookings Institution.
- Walsh E, Eggert LL. Suicide risk and protective factors among youth experiencing school difficulties. *Int J Ment Health Nurs.* 2007;16(5):349–59.