

# FLETCHER GROUP ECONOMIC CALCULATOR

## RESULTS REPORT

PREPARED FOR: EXAMPLE HOUSE

2026

**RECOMMENDED CITATION:** Ashworth, M., Johnson, D., & Thompson, R. (2024). Adaptable Tool for Modeling the Benefits and Costs of Substance Use Disorder Recovery Programs. *Journal of Benefit-Cost Analysis*, 15(2), 335–350. doi:10.1017/bca.2024.26

This report was supported by the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services (HHS) under grant number UD9RH33631-01-00 as part of an award totaling \$3.3 M with 0% financed with non-governmental sources. The contents are those of the authors and do not necessarily represent the official views of, nor endorsed by HRSA, HHS, or the US Government. As the Rural Communities Opioid Response Program (RCORP)-Rural Center of Excellence on SUD Recovery provides access to a wide range of resources on relevant topics. Inclusion on this webpage and/or document does not imply endorsement of, or agreement with, the contents by FGI or the Health Resources and Services Administration.

**FOR QUESTIONS, PLEASE CONTACT DR. MADISON ASHWORTH  
(MASHWORTH@FLETCHERGROUP.ORG).**

## INTRODUCTION

In this report, we provide results from the Fletcher Group Economic Calculator, a customizable cost-benefit analysis developed by the RCORP-Rural Center of Excellence on Substance Use Disorder (SUD) Recovery at the Fletcher Group.<sup>1</sup> This tool is designed to be utilized by recovery organizations such as recovery houses and recovery community organizations based in the United States. The cost-benefit analysis includes economic benefits associated with recovery program engagement such as avoided healthcare utilization, reduced criminal justice involvement, and increased market and household productivity, as well as increased health and well-being as reflected by reduced morbidity and premature mortality.

*Avoided Healthcare Costs:* The model estimates the healthcare costs associated with SUD, including those associated with inpatient and outpatient hospital stays, health insurance administration, crime victim healthcare, treatment, and other costs associated with emergency services and prescription drugs, using data from the Recovery Centers of America and the National Survey of Drug Use and Health.<sup>2,3</sup>

*Avoided Criminal Justice Costs:* Criminal justice costs are estimated using state level criminal justice expenditures, including wages, capital outlays, and other expenditures related to police protection, judicial and legal functions, and Department of Corrections, provided by the Bureau of Justice Statistics.<sup>4</sup>

*Avoided Productivity Costs:* Productivity costs associated with SUD, including all the labor market and household productivity lost due to premature death, incarceration, and absenteeism, are estimated using data from the Recovery Centers of America.<sup>2</sup>

*Value of Mortality and Morbidity Risk Reductions:* The value of mortality and morbidity risk reductions is estimated using the value of a statistical life year (e.g., the economic measure of an individual's willingness to pay for health risk reductions<sup>5</sup>) and quality-adjusted life year (e.g., a measure of the increased wellbeing of improved health status<sup>6</sup>) concepts. With these concepts, the model estimates the value of improved health status and reduced premature mortality risk per year.

The economic costs included in the model are the annual operating costs, including staffing, supplies, and programming, as well as any capital costs related to infrastructure and land purchases. All economic cost figures are provided directly by the recovery organization.

A complication of conducting cost-benefit analyses of recovery programs is modeling the recovery process itself. SUD recovery is often not a linear process where a treatment intervention occurs, and a person enters recovery for the rest of their life. SUD is characterized as a chronic, relapsing disease, and studies have shown that people seeking recovery have an average of five recovery attempts before long-term recovery is achieved.<sup>7</sup> Further, once long-term recovery is

achieved, there may be a delay before the benefits of recovery start accruing. Research assessing different aspects of recovery across time, including recovery capital, quality of life, and psychological distress, found that many recovery indicators take between 2 and 5 years to reach levels of individuals across those aspects who do not have a SUD.<sup>8</sup> As such, we include a parameter to model the delay of recovery benefits and discuss how results may change as a result of this time lag.

A full description of the methods used in this report may be found here: [Fletcher Group Economic Calculator Methodology](#).

## RESULTS

In this section, we discuss the results from the Fletcher Group Economic Calculator based on the inputs provided by the recovery program. The recovery program characteristics provided are displayed in Table 1. These inputs underly the main results presented in Table 2.

**TABLE 1. RECOVERY ORGANIZATION CHARACTERISTICS<sup>1</sup>**

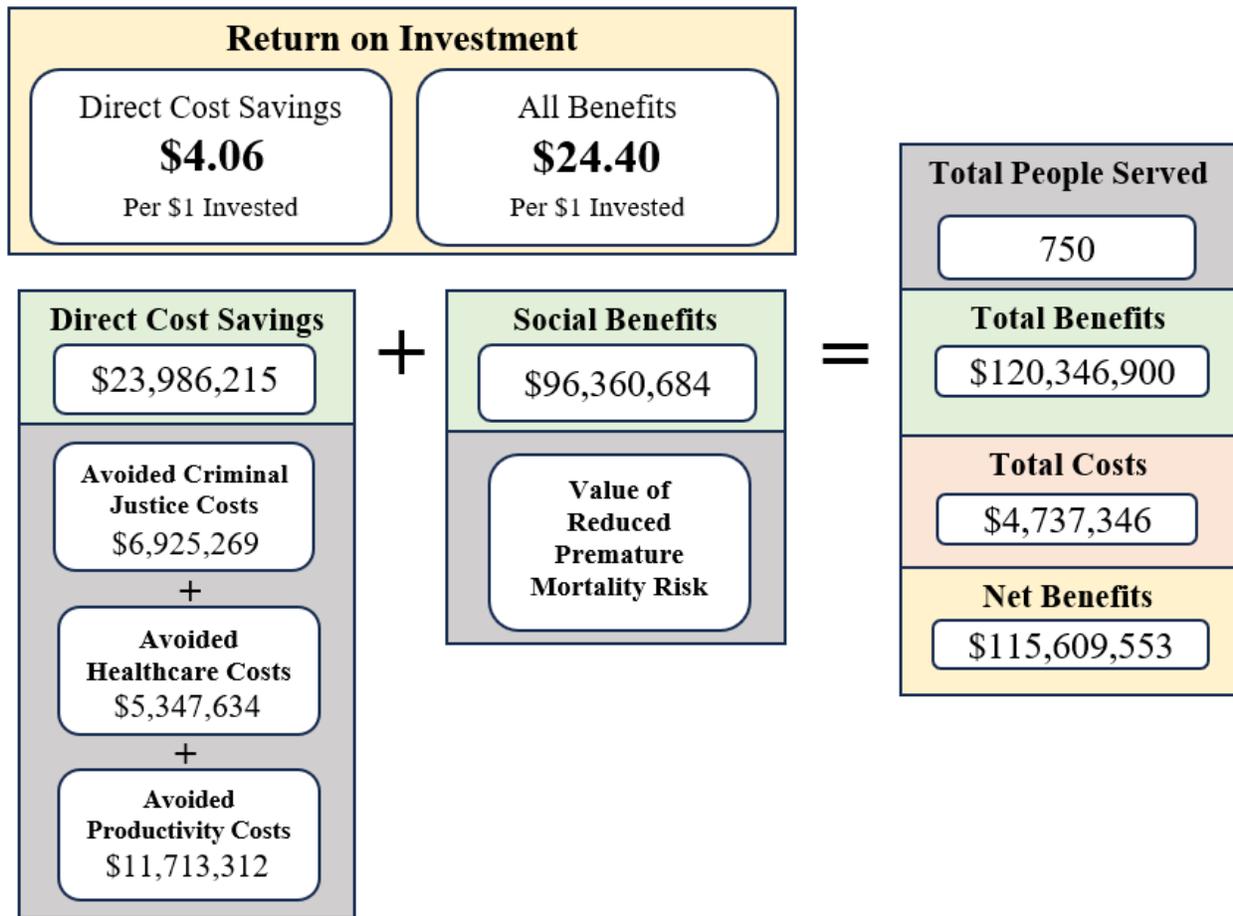
Annual Operating Cost	\$250,000
Start-Up Cost	\$670,000
State	Wyoming
Rural	Yes
Success Rate	35%
Number of Individuals Served Annually	50
Number of years benefits/costs are estimated	15 years

The recovery program serves approximately 50 individuals each year and spends \$250,000 each year on operating costs. The program invested \$670,000 in start-up and/or capital costs. The program is in rural Wyoming. Of the 50 individuals the program serves each year, 35% enter long-term recovery after departing from the program. The benefits and costs of the program are calculated over a timeframe of 15 years.

The benefits of the recovery program can be divided into *Direct Cost Savings* in the form of avoided criminal justice, healthcare, and productivity costs, and *Social Benefits* in the form of reduced premature mortality risk, or the reduction in deaths occurring before the average age of death in a particular population. **The total benefit of one person in recovery in rural Wyoming is \$75,071 per year.**

<sup>1</sup> The model results are based off provided by the recovery program and are not audited for accuracy by the Fletcher Group.

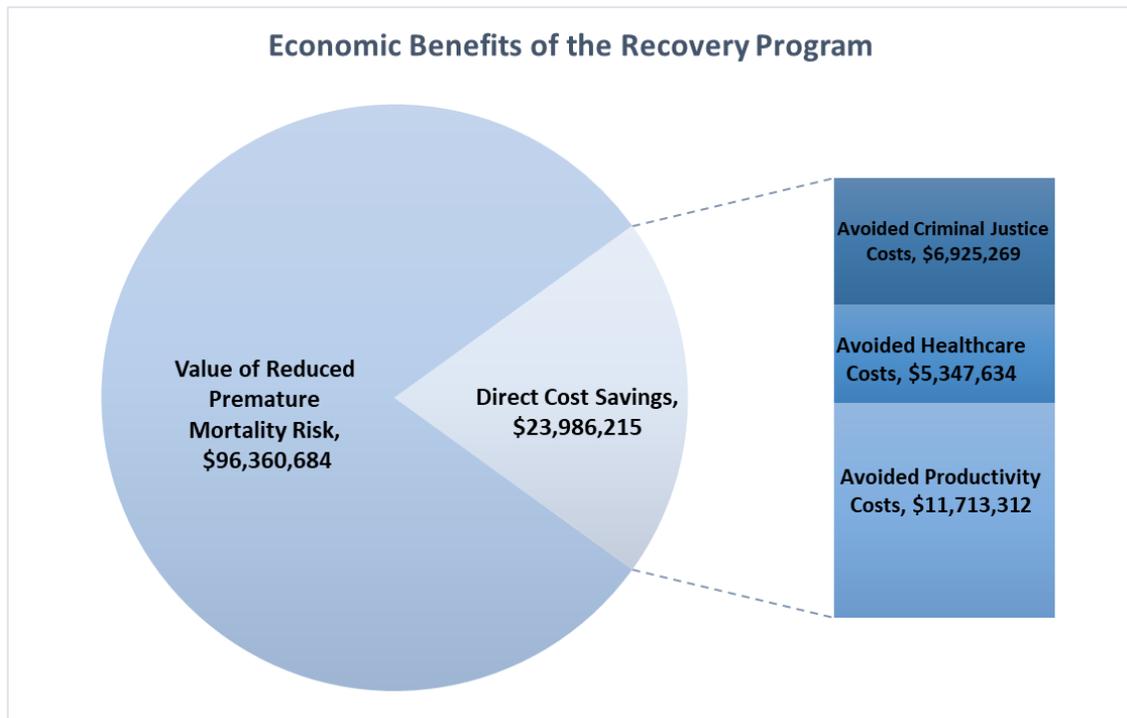
**FIGURE 1. ECONOMIC BENEFITS, COSTS, AND RETURN ON INVESTMENT OF RECOVERY PROGRAM**



The recovery program yields approximately \$120 million in total benefits over 15 years. Approximately 20% (\$24 million) was due to cost savings to the state, with 6% due to avoided criminal justice costs (\$6.9 million), 4% due to avoided healthcare costs (\$5.3 million), and 10% due to avoided productivity costs (\$11.7 million). **Accounting for only the direct cost savings attributable to the recovery program, the cost savings return on investment (csROI) over 15 years was \$4 in direct cost savings per dollar invested.**

When factoring in the program’s impact on participant’s health and survival, the program generates about \$96 million in economic value by reducing premature death and illness among successful participants. The recovery program’s operating costs over 15 years (adjusted to present value) are about \$4.7 million. After subtracting these costs, the net benefits equal \$116 million over a 15-year period, reflecting the full range of societal benefits tied to the program. **The recovery program yields a social return on investment (sROI) of \$24 for every \$1 spent over 15 years.**

**FIGURE 2. ECONOMIC BENEFITS OF RECOVERY PROGRAM**



Next, we show how the economic benefits of the recovery program change based on more conservative modelling of the recovery process (Table 2). Time delays in the benefits of recovery help account for the complexities of recovery, including return to use episodes. In the *No Delay* scenario, the benefits of an individual’s recovery begin accruing immediately after they leave the recovery program. In the *2-Year Delay* and *5-Year Delay* scenarios, individuals leaving the recovery program accrue a fraction of the full suite of benefits of recovery until 2 or 5 years after leaving the program. This delay in benefits models a common stabilization period in early recovery. This model also accounts for potential return to use episodes a person may have in the immediate years after leaving the recovery program.

**TABLE 2. RESULTS ACROSS DIFFERENT MODELS OF RECOVERY**

Variable	No Delay	2-Year Delay	5-Year Delay
<i>Total Benefits</i>	\$120,346,900	\$112,170,031	\$82,932,762
<i>Total Costs</i>	\$4,737,346	\$4,737,346	\$4,737,346
<i>Net Benefits</i>	\$115,609,553	\$107,432,685	\$78,195,415
<i>Total Return on Investment</i>	\$24.40	\$22.68	\$16.51

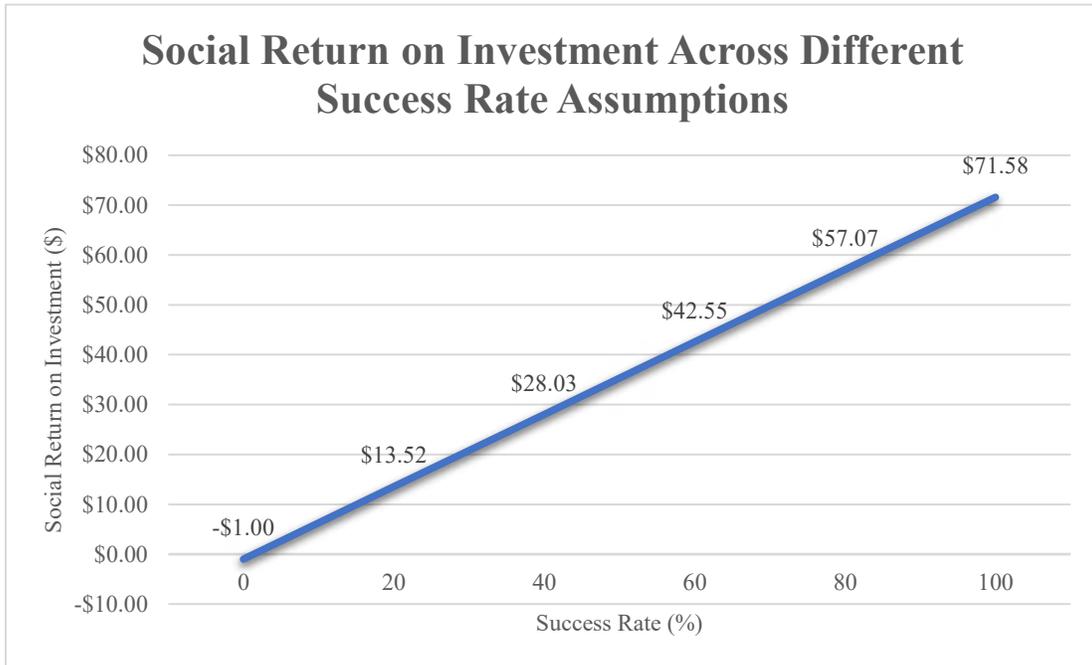
Accounting for the lag in benefits that may be associated with recovery decreases the net benefits of the program by approximately 7% under the two-year delay scenario or approximately 32% under the 5-year delay scenario. However, even under the most conservative modelling of recovery involving a 5-year delay in benefits, the net benefits of the program are positive at \$78 million, and the return on investment is \$16.51 per dollar invested.

As the success rate of the program can be the most difficult to estimate accurately and is often most important to funders, we also calculate the present value of net benefits and total return on investment for different success rates (Table 3). In this analysis, we use the baseline recovery model that does not incorporate any delay in benefits. **Note, most recovery programs have an estimated success rate (e.g., the percentage of individuals served by the program that goes into long term recovery) of between 20% to 40%.**

**TABLE 3. NET BENEFITS AND TOTAL RETURN ON INVESTMENT ACROSS DIFFERENT SUCCESS RATE ASSUMPTIONS**

Success Rate (%)	Net Benefits	Total Return on Investment
0	-\$4,737,346	-\$1.00
20	\$64,032,310	\$13.52
40	\$132,802,000	\$28.03
60	\$201,571,600	\$42.55
80	\$270,341,300	\$57.07
100	\$339,110,900	\$71.58

**FIGURE 3. RETURN ON INVESTMENT ACROSS DIFFERENT SUCCESS RATE ASSUMPTIONS**



## REFERENCES

1. Fletcher Group. Economic Calculator - Fletcher Group. October 2, 2023. Accessed November 27, 2023. <https://www.fletchergroup.org/2023/10/02/economic-calculator/>, <https://www.fletchergroup.org/2023/10/02/economic-calculator/>
2. Recovery Centers of America. *Economic Cost of Substance Abuse Disorder in the United States, 2019*. Recovery Centers of America; 2019. Accessed January 31, 2023. <https://recoverycentersofamerica.com/resource/economic-cost-of-substance-abuse-disorder-in-united-states-2019/>
3. SAMHSA. *2019 National Survey of Drug Use and Health (NSDUH) Releases*. Substance Abuse and Mental Health Services Administration; 2020. Accessed March 24, 2023. <https://www.samhsa.gov/data/release/2019-national-survey-drug-use-and-health-nsduh-releases>
4. Prisons Report Series: Preliminary Data Release, 2023 | Bureau of Justice Statistics. Accessed January 23, 2025. <https://bjs.ojp.gov/library/publications/prisons-report-series-preliminary-data-release-2023>
5. Ashenfelter O. Measuring the Value of a Statistical Life: Problems and Prospects. *Econ J*. 2006;116(510):C10-C23. doi:10.1111/j.1468-0297.2006.01072.x
6. Salomon JA. Quality Adjusted Life Years. In: Quah SR, ed. *International Encyclopedia of Public Health (Second Edition)*. Academic Press; 2017:224-228. doi:10.1016/B978-0-12-803678-5.00368-4
7. Kelly JF, Greene MC, Bergman BG, White WL, Hoepfner BB. How Many Recovery Attempts Does it Take to Successfully Resolve an Alcohol or Drug Problem? Estimates and Correlates From a National Study of Recovering U.S. Adults. *Alcohol Clin Exp Res*. 2019;43(7):1533-1544. doi:10.1111/acer.14067
8. Kelly JF, Greene MC, Bergman BG. Beyond Abstinence: Changes in Indices of Quality of Life with Time in Recovery in a Nationally Representative Sample of U.S. Adults. *Alcohol Clin Exp Res*. 2018;42(4):770-780. doi:10.1111/acer.13604