



Corrections Spending in Colorado: Examining the Effects of Alternatives to Incarceration for Non-Violent Drug Offenders

Policy Memorandum
University of Denver
Institute for Public Policy Studies

Timothy P. Griesmer
Faculty Advisor: Governor Richard Lamm
Spring Quarter 2012



TABLE OF CONTENTS

Executive Summary.....	3
Problem Definition.....	4
Methods.....	10
Issue Analysis.....	13
Proposed Solutions.....	19
Alternative #1: Expanded Use of Drug Courts.....	20
Alternative #2: Therapeutic Community Rehabilitation.....	21
Alternative #3: Enhanced Probation.....	23
Alternative #4: Privatization of the Prison System.....	23
Strategic Recommendations.....	24
Weaknesses and Limitations.....	28
Cost-Benefit Analysis.....	29
Appendix A: Construction of CBA.....	42
Works Cited.....	45

EXECUTIVE SUMMARY

Over the last several decades, the incarceration rate in the state of Colorado grew at a rate which outpaced the rest of the country, calculated at 5% above the national average in 2006. As a consequence, one of the most rapidly and relentlessly growing budget items in the state of Colorado is the budget allocation for corrections, which in FY 2011-12 equated to 15.2% of general fund expenditures. In spite of the disproportionate amount of the budget being spent on corrections, state agencies still claim that additional money is necessary to reach ideal funding scenarios. The limitations on raising additional revenue created by Colorado's TABOR laws force policy makers to cut funding out of other budget items to meet corrections requirements, leading to the phenomenon of crowding out in other areas of spending.

Almost one out of every five adults incarcerated in the state of Colorado are guilty of a non-violent drug offense, such as simple possession or trafficking. Within this category, the majority of these offenders are ultimately sent back to prison for a repeat offense, and once released typically demonstrate diminished employment prospects and increased dependence on public assistance programs. Meanwhile, there is no clear benefit to the state in terms of preventing drug possession or trafficking by the isolation of these individuals as consumption of controlled substances is a uniquely inelastic market.

A number of different initiatives have been tested in an attempt to select a policy choice which will do justice to the law while lowering recidivism rates and preventing offenders from incurring the negative employment consequences, educational failings, and generational effects often associated with incarceration. To date, none have been adopted as a main policy choice, the result being no real improvement in the costs or results of corrections policy.

The state of Colorado should expand the use of drug courts as an alternative to incarceration for non-violent drug offenders in order to maximize the social benefit of corrections policy as well as reducing the economic and social setbacks associated with incarceration. The proportion of non-violent drug offenders who are not drug-addicted should also be dealt with through the use of drug courts because they would be well served by the holistic approach used by this alternative.

Problem Statement: Exponentially increasing spending on trial and incarceration of adult, non-violent drug offenders in the state of Colorado is threatening to crowd out other public spending.

I. PROBLEM DEFINITION

According to the September 2011 edition of “*The Colorado Outlook*,” published by the Colorado Office of State Planning and Budgeting, “An historic recession that began in 2008 combined with higher demands on state services has laid bare a difficult and persistent structural gap in the General Fund budget.”¹ Between FY 2007-08 and FY 2011-12, state revenues decreased by 7.8%, and not surprisingly triggered a series of significant cuts to most sectors of public spending, including higher education and K-12 education, reducing overall general fund appropriations by 5.1% over the same span of time.² Every sector of state spending was reduced with two exceptions. Health and human services saw a rise in spending of 7.2%, most likely attributed to increased demand for Medicaid services coupled with the effects of an aging population.³ Corrections, public safety, and the judiciary, dubbed “Public Safety and Courts,” collectively increased by 6.0%.⁴ This sector of general fund spending includes the Department of Corrections, the Department of Law, and the Department of Public Safety, which among other tasks assume responsibility for the state’s legal, incarceration, and probation services.⁵ The state’s FY 2011-12 appropriations for spending on corrections, public safety, and the judiciary totaled approximately \$1.06 billion dollars, or 15.2% of general fund expenditures.⁶ In real dollar terms, this expenditure represents a staggering increase within this sector of public spending over the last several decades, which stood at a mere \$76 million in FY1988.⁷

¹*The Colorado Outlook: Economic and Fiscal Review*, Governor’s Office of State Planning and Budgeting, September 20, 2011, p. 4

² *Ibid.*, p. 5

³ *Ibid.*, p. 5

⁴ *Ibid.*, p. 5

⁵ Colorado General Assembly Joint Budget Committee, *Budget in Brief, FY 2011-12*, p. 11, 23, 30

⁶ *The Colorado Outlook: Economic and Fiscal Review*, Governor’s Office of State Planning and Budgeting, September 20, 2011, p. 5

⁷ Przybylski, Roger, *What Works: Effective Recidivism Reduction and Risk-Focused Prevention Programs: A Compendium of Evidence-Based Options for Preventing New and Persistent Criminal Behavior*, RKC Group, February 2008, p. 5

State of Colorado General Fund Spending on Corrections, FY11-12⁸			
Department	General Fund Appropriation	Percent of State General Fund	Functions
Department of Corrections	\$634,934,029	9.1%	Correctional Facilities Inmate Programs Community Services Parole Board
Judicial Branch	\$340,243,578	4.9%	Trial Courts Probation Services Public Defender
Department of Public Safety	\$82,676,491	1.2%	State Patrol Division of Criminal Justice Bureau of Investigation
Total	\$1,057,854,098	15.2%	

Due to the fact that spending growth in these two sectors was impossible to control despite severe negative economic circumstances lawmakers had to look to other spending areas for cuts, in effect crowding out other necessary areas of spending. For this reason, these policy areas should be analyzed for structural problems and appropriate alternatives should be weighed in the consideration of a solution to this phenomenon. This memorandum addresses the causes of runaway spending and potential solutions for the Departments of Corrections, the Judiciary, and Public Safety; which will hereafter be referred to under the umbrella term “corrections.”

While it is true that the general fund appropriation to these activities does not represent their entire budget, that there are significant cash funds, reappropriated funds, and federal funds which help to finance corrections activity, general fund appropriations are examined in this discussion because they are the most volatile revenue source, particularly during times of economic distress.

Incarceration Trends in Colorado. Since 1990 the increase in Colorado’s incarceration rate has significantly outpaced the national average. In 1990, the incarceration rate in Colorado was 23% below the national average but by 2006 the state’s incarceration rate had risen to 5% above the national average, increasing the state’s prison incarceration rate from 30th to 18th highest in the nation in just that short span

⁸ Colorado General Assembly Joint Budget Committee, *Budget in Brief, FY 2011-12*, p. 11, 23, 30

of time.⁹ The Colorado Department of Corrections measures the state's incarceration rate as the number of people incarcerated per 100,000 citizens.¹⁰ As of 2010 the state's incarceration rate was 445.3.¹¹ Lending more evidence to the upward trend in incarcerations, the Colorado Department of Public Safety's Division of Criminal Justice wrote in a January 2009 Justice Assistance Grant application that projections indicate a population increase among inmates in the state of 21.7% between 2008 and 2014.¹² In November 2007, anticipating this additional strain on the budget, the Department of Corrections requested an appropriation of nearly \$500 million for prison construction to deal with Colorado's projected need for incarceration.¹³ A Colorado Department of Public Safety report estimates that construction represents only 10% of the cost of operating a prison over 50 years, meaning that the projected cost of operations for this new prison construction could reach \$5 billion between now and 2057.¹⁴

Offender Population. As of September 30, 2011, there were 22,508 adult inmates in the state of Colorado, including those incarcerated in DOC facilities, contract facilities, off-grounds, accounted for in jail backlogs, fugitives, and those in community-based supervision programs.¹⁵ A significant proportion of the prison population in Colorado is represented by drug offenders, many of whom are repeat offenders, and whose crimes are generally non-violent, limited to possession and trafficking convictions. According to research conducted by the Colorado Criminal Justice Reform Coalition, the proportion of the prison population comprised of non-violent drug offenders quadrupled between 1987 and 2001, from 5% to 20% of the state's prison population.¹⁶ As of 2008, 73.5% of all incarcerations in the state of

⁹ Przybylski, Roger, *What Works: Effective Recidivism Reduction and Risk-Focused Prevention Programs: A Compendium of Evidence-Based Options for Preventing New and Persistent Criminal Behavior*, RKC Group, February 2008, p. 23

¹⁰ Allen, Steve, *FY2012-13 Staff Budget Briefing*, Department of Corrections, Denver: Joint Budget Committee Staff, December 20, 2011, p.7

¹¹ *Ibid*, p.8

¹² *Edward Byrne Memorial Justice Assistance Grant Application*, Colorado Department of Public Safety, Division of Criminal Justice, January 2009, p. 4

¹³ *Ibid*, p. 18

¹⁴ *Ibid*, p. 18

¹⁵ *General Statistics*, Colorado Department of Corrections, September 30, 2011, available from <http://www.doc.state.co.us/print/general-statistics>

¹⁶ Raher, Stephen, *Incarceration and Correctional Spending in Colorado: A Legislator's Handbook on Criminal Justice Policy, 2003*, Colorado Criminal Justice Reform Coalition, 2003, p. 2

Colorado were due to non-violent crimes, and 22.1% of this category was non-violent drug crimes, such as trafficking and possession, the highest proportion by classification in the state corrections system.¹⁷

The projected increase in the state’s prison population and incarceration rate generated by the corrections community in 2009 was recently contradicted in an analysis performed by the Colorado Legislative Staff Economics Section. The analysis of inmate population trends, published in December 2011 as part of a report on economic and revenue forecasts, indicated that the prison inmate population in Colorado actually declined by an average annual rate of 1.2% from 2009-2011 after peaking at 23,220 inmates in July 2009.¹⁸ Further, the prison population is projected to decline at an average annual rate of 1.5% between June 2011 and June 2014, although the report claims that after 2014 these declines will level out.¹⁹ The cause of this decline, according to the report, was the result of fewer admissions into the prison system during those years, particularly in drug related crime. Over the last several years, the inmate population incarcerated for non-violent drug offense has averaged 18.94%.²⁰ Based on those figures, the following table estimates the prison population and proportion of non-violent drug offenders over the next several years.

State of Colorado				
Projected Prison Population and Proportion of Drug Offenders, 2011-2014				
Year	2011	2012	2013	2014
Adult Prison Population	22,508	22,147	21,814	21,486
Drug Offenders ²¹	4,264	4,195	4,132	4,070

Legislative Issues. A number of legislative initiatives in the 2010 legislative session are identified as having been part of the reversal in the upward trajectory of incarcerations in Colorado, including HB10-1338, which allowed some offenders, namely those convicted of a Class 2 through 6 felony to be sentenced to probation rather than prison; as well as House Bill 10-1352, which made some

¹⁷Edward Byrne Memorial Justice Assistance Grant Application, Colorado Department of Public Safety, Division of Criminal Justice, January 2009, p. 19

¹⁸Focus Colorado: Economic and Revenue Forecast, Colorado Legislative Council Staff, Natalie Mullins, Chief Economist, December 20, 2011, p. 79

¹⁹Ibid, p. 79

²⁰Allen, Steve, FY2012-13 Staff Budget Briefing, Department of Corrections, Denver: Joint Budget Committee Staff, December 20, 2011, p. H-4

²¹Based on a proportion of 18.94% of the total adult prison population

drug related crimes misdemeanors rather than felonies.²² Despite the recent positive trend in incarcerations in Colorado, current projections still indicate that reductions in the incarceration rate will level off by 2014, making this trend a fleeting bit of good news that will not help to bring down costs associated with corrections in the long run. Secondly, it will remain true that an outsized proportion of the corrections population (somewhere around a fifth of inmates) will be incarcerated for drug offenses, not violent or property crimes. It is instructive to note that the major contributing factor to the decrease in the inmate population beginning in 2009 came from changing sentencing guidelines for drug offenders.

It is evident from these statistics that spending on trial and incarceration of drug offenders is one of the decisive contributors to the disproportionate amount of the state budget consumed by corrections. This spending not only continues to grow in spite of negative downward pressure on state revenues being caused by national economic circumstances, but is furthermore described as being still underfunded. The Fiscal Stability Commission, formed by legislative action in 2009 in order to assess the fiscal stability of the state, indicated in their final report that spending on the judiciary and corrections was still insufficient and in need of further funds to alleviate backlogs in court dockets and increased demand on the prison system. At that time, the commission calculated that the judiciary and corrections required a 59% and 41% increase in their budgets in order to achieve “ideal” scenario funding.²³

This problem takes on a special significance when considering the unique structure by which the state of Colorado is permitted to raise revenue under the Taxpayers Bill of Rights (TABOR). Article X, Section 20 of the Constitution of the State of Colorado discusses the requirements of TABOR, and specifically limits the revenue growth of the state to a formulaic calculation defined as the sum of inflation plus population growth in the previous calendar year. Any revenue over this amount must be returned to the taxpayers unless a public referendum decides that the state can keep the funds.²⁴ This requirement gives the state very little leverage to raise additional revenues rather than opting for austerity

²² *Focus Colorado: Economic and Revenue Forecast*, Colorado Legislative Council Staff, Natalie Mullins, Chief Economist, December 20, 2011, p. 83

²³ *Fiscal Stability Commission Report to the General Assembly*, Colorado Legislative Council, Research Publication No. 590, December 2009, p.13

²⁴ *The Colorado Outlook: Economic and Fiscal Review*, Governor’s Office of State Planning and Budgeting, September 20, 2011, p. 17

measures. As general fund revenues cannot be increased any faster than the standard TABOR formula, this creates another layer of difficulty on government departments which depend on the general fund for the majority of their operations, including the Department of Corrections, which derives 88.1% of its budget from general fund revenues.²⁵

Impacts of Incarceration. To reiterate, the current ongoing era of budget cuts necessitated by global economic conditions, the increasing allocation of the state's general fund budget to corrections required to enforce current law poses the very real threat of crowding out other sectors of public spending. If the amount of money appropriated to corrections continues to rise by virtue of the state's obligation to enforce the law, then the inevitable second-order effect of this continuing increase will be necessary and possibly continuous reductions in other areas of spending. The state must therefore make a critical examination of the categories of individuals who are arrested and incarcerated, and make a distinction among those who do and do not pose a threat to public safety. Finding an alternative method to deal with low-risk individuals other than incarceration has the potential to save a significant amount of money from projected general fund allocations, as well as to generate other societal benefits.

Aside from confronting the fact that the largest percentage of the prison population in the state is non-violent drug offenders, it is also important to note that this problem is exacerbated by the high number of non-violent drug offenders that are recidivist. The current means of punishing unlawful behavior is not serving a preventative function and the state often times is forced to pay on the same offender multiple times as well as incur additional costs associated with this manner of punishment. In Colorado, about 53% of all offenders released from prison are returned to incarceration within three years and approximately one third of these readmissions were technical offenses.²⁶

Although this memorandum focuses on the state of Colorado, this problem is not at all unique to just that state. The Bureau of Justice Statistics reports that in state prisons across the country, 27.4% of new court commitments are drug offenses, and 30.2% of parole revocations are likewise attributed to drug

²⁵ Allen, Steve, *FY2012-13 Staff Budget Briefing, Department of Corrections*, Denver: Joint Budget Committee Staff, December 20, 2011, p. 1

²⁶ *Colorado Commission of Criminal and Juvenile Justice 2008 Annual Report*, Office of Research and Statistics, Division of Criminal Justice, and Department of Public Safety, December 2008, p. 1

offenses.²⁷ Incarceration rates that are abnormally high by international standards occur all over the United States, and a viable alternative to the financial resources expended on drug offenders would have important ramifications all over the country.

II. METHODS

This research constructs an ex ante cost-benefit analysis considering the use of scarce resources, in this case public funds, for an alternative project to the status quo, defined as continuing to incarcerate non-violent drug offenders according to current laws. This research is conducted under the assumption that drug laws will not change in terms of legalization or decriminalization of illicit substances, and therefore success for any given alternative is defined by the ability of an option to relieve throughput in the court and prison system, saving the state money and creating measurable benefits for society. The major objective of this policy memorandum is to find a way to reduce the corrections appropriation within the state of Colorado without circumventing current law. This objective can be accomplished by removing inmates from the traditional court and incarceration system through a cost-effective alternative which also prevents recidivism. The purpose of this memorandum is to put this issue into a fiscal context particular to the state of Colorado in order to find an alternative which can help to protect other sectors of spending, especially during times of recession; the threat to which was dramatically exposed during the financial downturn of 2008.

Many states, including Colorado, have already sought to try to construct alternatives to the growing fiscal problem emanating from current incarceration rates. This analysis constructs alternatives by considering evidence-based studies developed by a selection of public policy groups and government entities and compiling several of the recommended alternatives. These studies include a report by the RKC Group prepared for the Colorado Commission on Criminal and Juvenile Justice in February 2008 entitled *“What Works: Effective Recidivism Reduction and Risk-Focused Prevention Programs: A*

²⁷ Bonczar, Tom, *State Prison Admissions, 2009: Sentence Length, by Offense and Admission Type*, Bureau of Justice Statistics National Corrections Reporting Program, May 5, 2011

Compendium of Evidence-Based Options for Preventing New and Persistent Criminal Behavior,” which expressly seeks to derive low-cost alternatives to incarceration that have the added benefit of preventing recidivate behavior. This report specifically mentions substance abuse treatment and drug courts as two of the viable alternatives to incarceration. Another report which compiled evidence useful for this study is *“Evidence-Based Public Policy Options to Reduce Future Prison Construction, Criminal Justice, Costs, and Crime Rates,”* published by the Washington State Institute for Public Policy, which examined and consider best practices from other states. The Washington State study advocated various community-based supervision and treatment programs for non-violent offenders. Under the assumption that the recent reduction in the state prison population represents a stabilization in the growth of the incarceration rate, each alternative was evaluated based upon its ability to create a structural reduction in the corrections budget.

Quantitative data was then considered for each of the alternatives with attention paid to their ability to statistically reduce recidivism or show a successful model for treatment with the ability to enhance an offender’s chance for employment and reentry to society. In order to outline the various problems associated with the incarceration of non-violent offenders, multiple studies compiling quantitative evidence were considered which identified and examined the linkage between incarceration and increased instances of recidivism among so called “low-risk” offenders, evidence considering employment trends for formerly incarcerated individuals, the relationship between length of incarceration and recidivism, incarceration and crime prevention, as well as the success of community-based drug and alcohol treatment as opposed to prison-based treatment. The data from these studies is used in this memorandum to build the case that use of incarceration, particularly for non-violent drug offenders ultimately costs the state more money in terms of repeat offenses, inability to suppress crime, and second-order damages to the state’s fiscal situation caused by lower employment rates among offenders.

In preparing the problem statement and background data, information was used whenever possible which originated from state government sources, including the Office of State Planning and

Budgeting, reports issued by the Department of Corrections, the Colorado Commission on Criminal and Juvenile Justice, the Colorado Legislative Council Staff, and the Colorado Department of Public Safety. National data from the Bureau of Justice Statistics was used to construct a profile of non-violent drug offenders in terms of average time sentenced because it was difficult to find this data compiled by the Colorado Department of Corrections specific to the state. The rationale for extrapolating from national level data is that Colorado has an incarceration rate higher than the national average, and it is reasonable to assume incarceration data in Colorado varies higher than the national mean, and therefore national data would represent, at the very least, a best-case scenario in Colorado.

Beyond strict consideration of costs per individual to the state General Fund, other public costs considered in the cost-benefit analysis are those that are incurred by the state due to the fact that convicted offenders often have worse prospects in the labor market and heavier reliance on social welfare programs. In keeping with the idea of the issue being a largely fiscal problem, data was compiled regarding average hours worked by offenders and non-offenders, average amount of income and consumption taxes paid by citizens in the state of Colorado, and the cost per day for each offender housed in the Department of Corrections systems. Most of this data was compiled from DOC general statistics or research done by the Colorado Legislative Staff.

In order to maintain focus on the fiscal nature of this policy problem, certain social costs and benefits associated with alternatives to incarceration and reduction of recidivism, such as generational effects on family education and income potential, are not specifically factored into the cost-benefit analysis, but are discussed qualitatively. Obviously there are monetary values to addressing these issues, but this memorandum focuses on real dollar costs and benefits which feed into the state's budget and are affected by the incarceration rate.

Another facet of the body of research done on this topic which is omitted from this memorandum concerns the effects of childhood prevention programs on incarceration rates. While there is significant evidence that testifies to the utility of childhood prevention programs on targeted youth in preventing

criminal endeavor, the research for this memorandum seeks to find alternatives to a fiscally unsound policy problem that needs to be solved in the present, rather than waiting for the effects of a prevention program aimed at youth to take effect after a necessary number of years have lapsed.

III. ISSUE ANALYSIS

The discussion within the state government over the issue of corrections spending is not new to policy experts or lawmakers. In 2002, the legislature passed Senate Bill 39, which aimed to lower the classification for smaller drug offenses rather than undertake a different alternative to incarceration.²⁸ The legislation's authors reasoned that a lower classification of offense for drug crimes would translate to fewer and shorter periods of incarceration, and therefore would obviate the need for increased prison construction. The legislation promised to utilize money saved from projected but hopefully unnecessary prison construction to fund treatment programs, but was vetoed by the governor citing risks to public safety.²⁹ In this case, the governor's veto message also cited in-prison treatment programs as being a better way to rehabilitate an offender than a community-based treatment program.³⁰ The debate within the state government has therefore acknowledged the viability of treatment as an option to address drug offending, but is not in agreement on whether that treatment should be prison-based or community-based. In any event, legalizing drug use or eliminating sanctions for drug offenders would likely have a very low political feasibility. It appears that lawmakers are at least amenable to discussing alternatives, and as a consequence, a multitude of organizations have compiled evidence-based findings to recommend appropriate alternatives meant to alleviate the crowding in the prison system.

A report commissioned by the Colorado Commission on Criminal and Juvenile Justice in 2008 succinctly described the problem inherent in this policy area as well as echoed the debate over SB39 by saying "Recidivism reduction and crime prevention are widely recognized as key components of a

²⁸ Raher, Stephen, *Incarceration and Correctional Spending in Colorado: A Legislator's Handbook on Criminal Justice Policy*, 2003, Colorado Criminal Justice Reform Coalition, 2003, p.14

²⁹ *Ibid*, p.14

³⁰ *Ibid*, p.14

comprehensive and cost-effective public safety strategy, and they have taken on even more importance in recent years as criminal justice policy makers in many jurisdictions have been asked to find ways to curb correctional costs without compromising public safety.”³¹ Among the major aims of this report was to present evidence regarding reduction in recidivism rates among various initiatives as well as to assess these initiatives for cost-effectiveness.³² Among the recommendations of the report was expanded use of drug courts and community-based treatment rather than incarceration. Legislative debate and policy research over the last several years has therefore focused on what ends are trying to be achieved by incarceration of offenders, and among these are public safety, or the prevention of additional criminal acts, prevention of recidivism, and enhancing employment prospects.

Crime Prevention. Among the main justifications for seeking an alternative to incarceration for non-violent drug offenses is evidence which suggests incarcerating individuals for drug crimes yield no measureable effect in reducing criminal activity as well as an unacceptable recidivism level.³³ A major argument in favor of incarceration and its continued or even expanded use in the criminal justice system is that when an offender is behind bars, they are unable to commit crimes that are costly to society. Often times, however, it is difficult to appropriately estimate the number and monetary value of crimes that are being prevented, because most of the data is either extrapolated from criminal histories or compiled from self-reporting by convicted offenders.³⁴ The data often indicates that incarceration in the case of drug offenders not only fails to prevent major criminal activity, but also fails to prevent drug trafficking itself. According national data collected several years ago, 71% of individuals incarcerated for drug offenses reported that their involvement in drugs never went beyond simple possession or small scale drug trafficking (often to finance a personal habit), and the same study estimates that the fraction of incarcerated drug offenders with no history of violent crime could be as high as 74%.³⁵ While these

³¹ Przybylski, Roger, *What Works: Effective Recidivism Reduction and Risk-Focused Prevention Programs: A Compendium of Evidence-Based Options for Preventing New and Persistent Criminal Behavior*, RKC Group, February 2008, p. 5

³² Ibid, p. 1

³³ Ibid, p. 1

³⁴ Ibid, p. 24

³⁵ King, Ryan S. and Marc Mauer, *Distorted Priorities: Drug Offenders in State Prisons*, Washington, DC: The Sentencing Project, September 2002, p. 7-8

statistics where compiled mainly from self-reporting, if they are remotely reliable then it is highly questionable whether or not incarceration of drug offenders is preventing any significant level of violent or property crime.

Particularly when considering drug offenses, incarceration does very little to prevent illegal drug activity. In spite of the high percentage of drug offenders in state prisons, research indicates that incarceration fails to prevent drug crimes such as possession and trafficking because of a replacement effect which occurs in most communities.³⁶ This effect is caused in part by the fact that nationally 30.1%, or nearly a third, of parole violations that result in readmission to prison are drug offenders.³⁷ A significant proportion of the drug offender population in prison is represented by offenders being returned for a parole violation, and therefore many others associated with trafficking or possession offenses remain in their communities.

It is also noteworthy that the median age in the prison population has increased in the last several years. Between 1984 and 2002, the median age of incarceration in state prisons increased by 5.2 years.³⁸ Since older individuals are less likely to engage in criminal behavior, the prison cohort is represented by a less dangerous population, leaving the criminally active in the communities.

More importantly, however, is the fact that the market for illegal drugs in the United States is a very inelastic market; individuals suffering from addiction will continue to look for sources for their drug of choice, regardless of supply disruptions or price increases caused by incarceration of traffickers. This creates an important incentive for other low-level dealers to continue supplying drugs regardless of the incarceration of their primary supplier.

Recidivism. Steven Raphael concludes in a study conducted in 2007 that increased incarceration rates across the United States in the last 20 years are attributed primarily to changes in sentencing law,

³⁶ Przybylski, Roger, *What Works: Effective Recidivism Reduction and Risk-Focused Prevention Programs: A Compendium of Evidence-Based Options for Preventing New and Persistent Criminal Behavior*, RKC Group, February 2008, p. 1

³⁷ Bonczar, Tom, *State Prison Admissions, 2009: Offense, by Type of Admission*, Bureau of Justice Statistics National Corrections Reporting Program, May 5, 2011

³⁸ Raphael, Steven, *The Impact of Incarceration on the Employment Outcomes of former Inmates: Policy Option for Fostering self-Sufficiency and an Assessment of the Cost-Effectiveness of current Corrections Policy*, University of California-Berkeley: Goldman School of Public Policy, July 2007, p.35

both an increase in sentence lengths as well as to an increase in the likelihood of being returned to prison for a parole infraction.³⁹ According to Raphael's research, an increase in criminal behavior accounts for only 15% of the increase in incarceration, and thus the overwhelming majority of incarcerations are based on stricter sentencing and increased recidivism or increased technical parole and probation violations, rather than an increase in criminal activity. When a large portion of the prison population is composed of drug offenders to begin with, the consequence is that this demographic of incarcerated individuals will climb dramatically. The aggregate effect in the incarceration system is a higher concentration of less dangerous offenders.⁴⁰

Particular to the state of Colorado, in FY2007 nearly 40% of total admissions to Department of Corrections facilities were due individuals who violated the terms of their probation or parole, although only about a quarter of that amount were being returned to prison with a new conviction, while the vast majority were re-incarcerated for some sort of technical violation. Furthermore, the Colorado Commission on Criminal and Juvenile Justice estimated that 53% of all offenders released from incarceration will return within three years.⁴¹ Thus a major underlying factor in the mushrooming incarceration rate in Colorado (as well as nationally) is recidivism. It can be argued that the parole/probation systems in the state require reform themselves in order to help reduce this number. With the absence of this research for this particular policy analysis however, the issue of recidivism will be addressed in the context of its relationship to incarceration.

A report titled *The Effects of Prison Sentences on Recidivism (1999)* conducted a meta-analysis to evaluate the relationship between incarceration and both recidivism and crime rates, and found a significant correlation between recidivism and incarceration, as opposed to some other community-based sanction.⁴² The authors concluded, based upon evidence from fifty studies involving over 300,000

³⁹ Raphael, Steven, *The Impact of Incarceration on the Employment Outcomes of former Inmates: Policy Option for Fostering self-Sufficiency and an Assessment of the Cost-Effectiveness of current Corrections Policy*, University of California-Berkeley: Goldman School of Public Policy, July 2007, p.32

⁴⁰ Ibid, p.33

⁴¹ *Colorado Commission of Criminal and Juvenile Justice 2008 Annual Report*, Office of Research and Statistics, Division of Criminal Justice, Department of Public Safety, December 2008, p. 1

⁴² Gendreau, Paul, Claire Goggin, and Francis T. Cullen, *The Effects of Prison Sentences on Recidivism*, Public Works and Government Services Canada, 1999, p. 1

offenders of various magnitudes that significant correlations exist between the length of time someone is in prison and the likelihood of recidivism; as well as serving in prison as opposed to a community-based sanction.⁴³ More importantly, this correlation with incarceration and recidivism was strongest among low risk offenders.⁴⁴ According to the quantitative data compiled by this study, there was an increase of 3% in the recidivism rate (26% to 29%) among offenders who spend a longer period of time in prison (12.9 months v. 30 months). Among low-risk offenders, measured by the same sentence lengths, there was an increase in recidivism of 4%. Additionally, a comparison between incarceration and community-based supervision showed an increase in recidivism of 7% for those who were incarcerated (42% to 49%).⁴⁵

Based on this information, the problem for the state of Colorado comes into a clearer focus. The incarceration of low-level offenders, including non-violent drug offenders, does not prevent the occurrence of crime in a community nor dampen the activities which precipitated incarceration in the first place. Additionally, these individuals have a statistically significant chance of becoming recidivate, not only incurring more cost on public resources, but also affecting society with additional long-term costs.

Employment Prospects. In his research compiled in 2007 regarding the effect of incarceration on employment prospects, Steven Raphael found that "...incarceration is also likely to have a dynamic lagged impact on the employment prospects of former inmates...The dynamic effects are derived from the failure to accumulate human capital while incarcerated as well as the stigmatizing effects (sometimes exacerbated by state and federal policy) associated with a prior felony conviction and incarceration."⁴⁶ Raphael came to these conclusions by comparing groups of incarcerated and never-incarcerated youth who were exact matches in terms of age, region of residence, educational attainment at age 22, and race.⁴⁷ Raphael found that for the for the average "never-incarcerated" individual, typical employment statistics measured in weeks worked per year increased from 33 weeks to 40 weeks over a five year period of

⁴³ Gendreau, Paul, Claire Goggin, and Francis T. Cullen, *The Effects of Prison Sentences on Recidivism*, Public Works and Government Services Canada, 1999, p. 1

⁴⁴ Ibid, p. 2

⁴⁵ Ibid, p. 9-10

⁴⁶ Raphael, Steven, *The Impact of Incarceration on the Employment Outcomes of former Inmates: Policy Option for Fostering self-Sufficiency and an Assessment of the Cost-Effectiveness of current Corrections Policy*, University of California-Berkeley: Goldman School of Public Policy, July 2007, p.11

⁴⁷ Ibid, p.17

observation. Among the incarcerated, there is an average pre-incarceration peak of 22 weeks per year of employment, which drops to 11 weeks per year in the first post-incarceration year observed. On average, it takes a full five years for an incarcerated individual to recover to the peak of 22 weeks of employment, at which point their never-incarcerated counterparts have reached 40 weeks of employment per year.

Raphael further discovered that after the re-attainment of the 22 week peak, average weeks worked for an incarcerated individual will not rise again for eight years.⁴⁸ Raphael also found additional disparities in pre-incarceration work rates as well as earnings.

Comparison of Never-Incarcerated and Incarcerated Individuals⁴⁹ (Reflects difference in base wages and work hours)		
Metric	Incarcerated	Never-incarcerated
Weeks worked per year (Pre-incarceration)	X	X + 9.5 weeks
Post-incarceration years (Post-incarceration)	X	X + 17.4 weeks
Annual Earnings (Pre-incarceration)	\$1.00	\$1.50
Annual Earnings (Post-incarceration)	\$1.00	\$2.60

The conclusion from examining this data is that individuals who experience incarceration at some point in their life often come from disadvantaged circumstances to begin with. Raphael’s study compared incarcerated and never-incarcerated individuals with matching backgrounds. Despite the similarity of the individuals, those who would be incarcerated already had a lower earning potential and fewer average weeks worked. After incarceration, their ability to work and earn is obviously severely damaged. This disparity has societal implications as well. Those who emerge from prison with a statistically lower earning-potential will be more dependent on public assistance programs and will contribute less money to government functions by way of income, property, and sales taxes.

⁴⁸ Raphael, Steven, *The Impact of Incarceration on the Employment Outcomes of former Inmates: Policy Option for Fostering self-Sufficiency and an Assessment of the Cost-Effectiveness of current Corrections Policy*, University of California-Berkeley: Goldman School of Public Policy, July 2007, p.18

⁴⁹ Ibid, p.18

IV. PROPOSED SOLUTIONS

A 2006 report prepared by the Washington State Institute for Public Policy lists three specific policy options that could address the problem of increasing funding requirements for prison construction and criminal justice costs: intervention programs, meant to address offenders in the system by lowering recidivism rates; prevention programs, directed mostly at children to prevent first-time offending; and sentencing options, meant to give judges the latitude to assign offenders to alternatives other than incarceration based on need or eligibility for a different option.⁵⁰ This research does not take prevention programs into account, but a list of alternatives is constructed around the goals of intervention and sentencing, as well as on the recommendations of reports considered previously.

The alternatives to the status quo in this memorandum examine solutions other than incarceration that may have a more significant effect in preventing recidivism at a lower cost per offender to the state. As previously mentioned, different studies indicate that incarceration is actually associated with higher levels of recidivism as other alternatives.⁵¹ Therefore, alternatives must focus on the promotion of desistance, defined as the transition from criminal to non-criminal conduct, which are the specific aim of drug courts and substance abuse treatment programs.⁵² The report prepared by the Colorado Criminal Justice Reform Coalition cites two major factors as catalysts for the explosive growth of the prison population in Colorado: parole laws and drug policy, specifically the availability of successful treatment programs.⁵³ Drawing upon these conclusions, the alternatives under consideration for this policy problem are expanded use of drug courts, mandatory community-based treatment programs in the model of the therapeutic community halfway house, or mandatory enrollment of non-violent drug offenders exclusively in the intensive supervision parole system. A forth alternative that will be considered, specifically to address the fiscal nature of the issue is the privatization of the prison system. Most of these

⁵⁰ Aos, Steve, Marna Miller, and Elizabeth Drake, *Evidence-Based Public Policy Options to Reduce Future Prison Construction, Criminal Justice Costs, and Crime Rates*, Olympia: Washington State Institute for Public Policy, 2006, p. 2

⁵¹ Przybylski, Roger, "What Works: Effective Recidivism Reduction and Risk-Focused Prevention Programs: A Compendium of Evidence-Based Options for Preventing New and Persistent Criminal Behavior," RKC Group, February 2008, p. 2

⁵² *Ibid.*, p. 29

⁵³ Raheer, Stephen, *Incarceration and Correctional Spending in Colorado: A Legislator's Handbook on Criminal Justice Policy, 2003*, Colorado Criminal Justice Reform Coalition, 2003, p.11

alternatives, with the exception of prison privatization, attempt to address the demand side of the drug equation by mandating treatment in different settings. Historical drug policy and current incarceration rates are a result of attempting to cut into the supply of drugs by arresting users and dealers, but the stability of the demand for illicit substances has made that policy ineffective.

The RKC report prepared for the Colorado Division of Criminal Justice cites evidence that substance abuse programs not only reduce drug use and crime, but that when publicly funded can produce a return on investment in terms of prevention.⁵⁴ The report also cites reduced drug consumption as one of the major factors in promoting desistance from crime, along with a family support structure, stable employment, education, and age.⁵⁵ Treatment methods are the surest way to positively affect the demand for drugs, thereby having a positive impact on the reduction in trafficking, possession, and related crimes, and the first two alternatives considered focus on this goal.

Alternative 1: Use of Drug Courts. Drug courts are specially sanctioned judicial institutions created specifically to deal with non-violent drug offenders. They combine mandatory drug testing and rehabilitation with judicial supervision and increasing sanctions to offer an alternative to incarceration and the subsequent effects of incarceration on the quality of life and earning potential of a non-violent offender. The key mission of the drug court system is to select non-violent offenders and to treat them for drug and alcohol abuse with the intention of preventing criminal behaviors associated with those addictions through a multi-phased program which includes stabilization, treatment, and transition phases.⁵⁶ A key characteristic of the drug court system is that beyond treatment, it seeks to offer a full spectrum of support services to holistically rehabilitate an offender, including vocational training, money management classes, transitional housing, social opportunities and anger management or other cognitive therapies.⁵⁷ Accountability and measurement of success are established in the drug court system through frequent alcohol and drug testing as well as regular interaction with the judge and attorneys assigned to

⁵⁴ Przybylski, Roger. "What Works: Effective Recidivism Reduction and Risk-Focused Prevention Programs: A Compendium of Evidence-Based Options for Preventing New and Persistent Criminal Behavior," RKC Group, February 2008, p. 2

⁵⁵ Ibid, p. 29

⁵⁶ *Defining Drug Courts: The Key Components*, U.S. Department of Justice, Bureau of Justice Assistance, October 2004, p. 1

⁵⁷ Ibid, p. 9

the particular drug court. Offenders who are discovered to not be succeeding in the program and who relapse into drug use are subject to sanctions of increasing severity, which may include increased monitoring, fines, community service, or ultimately incarceration.⁵⁸

Drug courts are predicated on the idea that a first time arrest of a non-violent offender is such a dramatic event in their life that it creates a window of opportunity where the subject will be receptive to the idea of treatment.⁵⁹ A major selling point of drug courts is both their effectiveness in preventing recidivism through treatment as well as cost-effectiveness. Research indicates that there is no real difference in result for a person who is forced to enter a treatment program as opposed to someone who volunteers for treatment, and therefore the mandatory treatment typical of drug courts is just as effective as traditional treatment programs.⁶⁰ Additionally, research conducted in the 1990s by the Office of national Drug Control Policy concluded that treatment is a far more cost-effective alternative than traditional policing activities.⁶¹

National research involving drug courts found that on average there is a 13% decline in re-arrest rates for first-time offenders who have successfully completed the drug court program, and that there was an accompanying 8% decline in crimes associated with drug use.⁶² On average, drug courts cost approximately \$4,300 per graduate and produce a recidivism rate of 16.4%.⁶³

Alternative 2: Community-Based Rehabilitation/Therapeutic Communities. One of the commonalities among those individuals convicted of a drug crime is personal addiction to a controlled substance. Among those incarcerated for a drug offense in state prisons, 68% have used illegal drugs within the month prior to their arrest, and 41% were reportedly under the influence of drugs at the time of their arrest.⁶⁴ Additional data shows that among inmates with a prior conviction, only 34% had ever participated in a treatment program while incarcerated and for those who had been previously sentenced

⁵⁸ *Defining Drug Courts: The Key Components*, U.S. Department of Justice, Bureau of Justice Assistance, October 2004, p. 14

⁵⁹ *Ibid.*, p. 5

⁶⁰ *Ibid.*, p. 1

⁶¹ *Ibid.*, p. 7

⁶² King, Ryan S. and Jill Pasquarella, "Drug Courts: A Review of the Evidence," Washington, DC: The Sentencing Project, April 2009, p. 5

⁶³ *Ibid.*, p. 8

⁶⁴ King, Ryan S. and Marc Mauer, *Distorted Priorities: Drug Offenders in State Prisons*, Washington, DC: The Sentencing Project, September 2002, p. 9

to probation or parole, a mere 21% had participated in treatment programs.⁶⁵ The lack of attention given to treating addiction is a major contributing factor to incarceration rates, especially to re-arrest rates.

A study conducted by the California Department of Alcohol and Drug Programs in 1994 found that while residential treatment for drug abuse does have merit, out-patient treatment was the most cost-effective approach to treating addiction and therefore preventing recidivism.⁶⁶ This alternative seeks to save the state money by diverting offenders to mandatory community-based rehabilitation programs rather than incarcerating them and relying upon prison-based treatment. While drug courts utilize a specialized judicial structure to treat cases individually, therapeutic communities offer offenders the opportunity to receive treatment within a support group while still maintaining many of the liberties of normal life. Therapeutic communities offer an offender the ability to maintain family support structure, stable employment, and educational pursuits, promoting lifestyle change as a main goal of treatment.⁶⁷

The major advantage to community-based treatment is that drug offenders are not isolated in the state prison system, but instead placed in a halfway house and still able to interact with the community. Thus many of the difficulties associated with reintegration, including employment problems, are avoided and losses to society associated with the difficulties of reintegration are minimized. Research conducted by the Colorado Department of Public Safety indicates that between 2000 and 2004, offenders who were sentenced to community halfway houses managed to earn over \$115 million in direct employment compensation, contributed more than \$2.6 million in state taxes and paid out over \$36 million in rent.⁶⁸ In the state of Colorado, community-based corrections have an average recidivism rate of 17.6%.⁶⁹

There is a distinction within community-based halfway houses that must be noted in the analysis of their effectiveness in reducing recidivism. Currently, offenders treated by community-based are categorized as either transition or diversion offenders. A transition offender is someone who was

⁶⁵ King, Ryan S. and Marc Mauer, *Distorted Priorities: Drug Offenders in State Prisons*, Washington, DC: The Sentencing Project, September 2002, p. 9

⁶⁶ *Defining Drug Courts: The Key Components*, U.S. Department of Justice, Bureau of Justice Assistance, October 2004, p. 8

⁶⁷ McCollister, Kathryn, Michael French, James Inciardi, Clifford Butzin, Steven Martin, and Robert Hooper, *Post-Release Substance Abuse Treatment for Criminal Offenders: A Cost-Effectiveness Analysis*, Journal of Quantitative Criminology, Vol 19, No 4, December 2003, p. 392

⁶⁸ Hetz-Burrell, Nicole and Kim English, *Community Corrections in Colorado: A Study of Program Outcomes and Recidivism, FY00-04*, Denver: Office of Research and Statistics, Division of Criminal Justice, Colorado Department of Public Safety, May 2006, p. 7

⁶⁹ *Ibid*, p. 25

incarcerated for a period of time and then was moved to a halfway house for completion of sentence. A diversion offender is someone who was sentenced to community-based sanction in lieu of incarceration. In some instances, offenders in the halfway houses are still put on normal probation after completion of the community-based sentence. Transition offenders in the therapeutic community system recidivate at a higher rate, meaning that the experience of incarceration jeopardizes the success of the program.⁷⁰ For the purpose of this analysis, therapeutic communities are examined as a diversion program.

Alternative 3: Intensive Supervision Probation. Another vehicle for treating non-violent offenders utilizes the probation system in an effort to prevent drug abuse and thus recidivism. The state of Colorado utilizes a special type of probation known as Intensive Supervision Probation (ISP), designed as a diversion from prison for offenders who are facing prison sentences but are determined by the court to not be a threat to society. Intensive Supervision Probation is characterized by daily supervision and interaction with a probation officer and drug testing, allowing an offender the opportunity to avoid actual incarceration but still convicting them of a crime.⁷¹ While far cheaper than the other alternatives considered thus far, ISP does not seem to have a great effect on lowering recidivism rates, partly because mandatory drug treatment is not a feature of the alternative, but more importantly because under current parole and probation guidelines, instances of failure with return to prison are due to technical violations, not necessarily repeat criminal conduct.

Alternative 4: Privatization of the prison system. Another alternative that could relieve the state of the financial burdens brought on by management of the corrections system while not lowering the judicial standards currently in place would be privatization of the prison system, or contracting of prison services to private entities for drug offenders.

Currently, the state of Colorado contracts 4,455 prison beds among four private facilities in order to house some offenders, as well as 636 additional beds effectively rented from county jails to

⁷⁰ Hetz-Burrell, Nicole and Kim English, *Community Corrections in Colorado: A Study of Program Outcomes and Recidivism, FY00-04*, Denver: Office of Research and Statistics, Division of Criminal Justice, Colorado Department of Public Safety, May 2006, p. 11

⁷¹ *Crime and Justice in Colorado*, Office of Research and Statistics, Division of Criminal Justice, Kerry Cataldo, Project Manager, March 2011, p. 26

accommodate overflow in the prison population. On average, the cost per offender per day in these private prisons is \$61.06, substantially lower than what is paid by the DOC.⁷² Use of private prisons also relieves the state of the massive construction costs associated with building new facilities, although the trend in prison construction has reversed itself recently. Typically, a new prison costs \$250 million to build and \$45 million a year to operate.⁷³

This alternative would likely take a massive financial burden off of the state budget, but little evidence exists to suggest that a private, for-profit model of corrections can prevent recidivism or slow the growth of the incarceration rate within the state. In the past, the DOC exempted the four private prisons managed in the state from comprehensive program reviews.⁷⁴ Without the necessary data pertaining to the success of privately run prisons, little additional benefit beyond savings from management and construction costs can be ascertained and quantified.

Summary of Alternatives Effectiveness and Cost		
Alternative	Recidivism Rate at 12 months	Cost⁷⁵
DOC Incarcerations	31.1% ⁷⁶	\$88.61/day
Drug Courts	16.4% ⁷⁷	\$4,300/offender
Therapeutic Communities	17.6% ⁷⁸	\$43.68/day
ISP	33.5% ⁷⁹	\$23.02/day
Private Prisons	31.1% ⁸⁰	\$61.06/day

V. STRATEGIC RECOMMENDATIONS

The result of the evidence compiled in this analysis, both qualitative and quantitative (see Cost-Benefit Analysis) suggests that the Colorado Department of Corrections should adopt Alternative #1:

⁷² *General Statistics*, Colorado Department of Corrections, September 30, 2011, available from <http://www.doc.state.co.us/print/general-statistics>

⁷³ Aos, Steve, Marna Miller, and Elizabeth Drake, *Evidence-Based Public Policy Options to Reduce Future Prison Construction, Criminal Justice Costs, and Crime Rates*, Olympia: Washington State Institute for Public Policy, 2006, p. 1

⁷⁴ Raher, Stephen, *Incarceration and Correctional Spending in Colorado: A Legislator's Handbook on Criminal Justice Policy, 2003*, Colorado Criminal Justice Reform Coalition, 2003, p.19

⁷⁵ *General Statistics*, Colorado Department of Corrections, September 30, 2011, available from <http://www.doc.state.co.us/print/general-statistics>

⁷⁶ *Pre-Release Termination and Post-Release Recidivism Rates of Colorado's Probationers: FY 2009 Releases*, Evaluation Unit, Division of Probation Services, Colorado Judicial Branch, October 10, 2010, p. x

⁷⁷ Roman, John, Wendy Townsend and Avinash Singh Bhati, *Recidivism Rates for Drug Court Graduates: Nationally Based Estimates, Final Report*, The Urban Institute, July 2003, p. 27

⁷⁸ *Crime and Justice in Colorado*, Office of Research and Statistics, Division of Criminal Justice, Kerry Cataldo, Project Manager, March 2011, p. 149

⁷⁹ *Pre-Release Termination and Post-Release Recidivism Rates of Colorado's Probationers: FY 2009 Releases*, Evaluation Unit, Division of Probation Services, Colorado Judicial Branch, October 10, 2010, p. x

⁸⁰ *Ibid*, p. x

Drug Courts, as an alternative to incarceration for non-violent drug offenders. It is interesting to note that while Alternative #2: Therapeutic Communities has a similar recidivism rate and a substantially higher employment rate after completion, drug courts yield the highest net social benefit and the highest net present value after both discounting and controlling for changes in the prison population in the sensitivity analysis (See Section VII: Cost-Benefit Analysis).

As referenced earlier, nearly three quarters of individuals incarcerated in state prisons for drug offenses claim anonymously to be guilty of no other form of crime beyond possession or trafficking. Those who fall outside this category often admit to committing a crime to either finance their own drug habit or to obtain money for drugs. The Colorado Department of Corrections estimates that fully 78% of state inmates have substance abuse needs.⁸¹ Therefore, the prevention of recidivist behavior must include some sort of provision for treatment. Not only by virtue of the fact that it is a less expensive alternative that result in lower recidivism rates, but also because they include mandatory treatment provisions, drug courts and therapeutic communities are the most effective alternatives.

Research conducted on the subject attempts to unpackaged the relationship between community-based treatments and prison-based treatment to see which has a better result, or if maximum efficiency is achieved when they are used together. The question is whether or not prison-based treatment or a period of incarceration is a necessary component in ensuring the success of community treatment. Studies conducted to address the subject make note of the importance of community-based treatment in successfully holding down recidivism rates and promoting employment. Most offenders who receive exclusively prison-based treatment experience rates of recidivism that were similar to offenders who were incarcerated with no treatment at all.⁸² Research points to the importance of a continuum of treatment, but studies agree that a post-release component of care is critical; inferring that by forgoing the treatment that

⁸¹ Engleman, Laura and Kasey R. Weber, *Overview of Substance Abuse Treatment Services: FY 2010*, Colorado Springs: Colorado Department of Corrections Office of Planning and Analysis, May 2011, p. 59

⁸² McCollister, Kathryn, Michael French, James Inciardi, Clifford Butzin, Steven Martin, and Robert Hooper, *Post-Release Substance Abuse Treatment for Criminal Offenders: A Cost-Effectiveness Analysis*, *Journal of Quantitative Criminology*, Vol 19, No 4, December 2003, p. 391

might take place in an incarceration setting, the result of treatment in a community or drug court setting will not be diminished.

Determining whether treatment is more effective in a drug court or a therapeutic community is difficult, although the CBA does show that drug courts have a greater net social benefit, aside from a lower recidivism rate. The lower recidivism rate of drug courts is possibly accounted for due to unintended consequences of the community setting. It is very possible that under the TC model, the socialization aspect is a hindrance as well as a benefit, leading to the lower recidivism rate in drug courts. Members of a therapeutic community spend the majority of their time with like individuals and can be inappropriately influenced by those who are failing the program. In a drug court, the offender also receives treatment but also regularly appears in a setting that is far more imposing than a community of peers, that of a court.

One of the major factors mentioned in this research regarding the negative effects of incarceration on employment prospects, and thus the prospect of a fully successful transition back to normal life, is the stigma associated with incarceration. Under the chosen alternative, as well as the other alternatives explored, offenders still go to court and are convicted of an existing crime; it is the sentence that is different. Therefore, the question should be asked whether an alternative to incarceration without a more lenient outcome in the judiciary might still lead to the same stigma, and not help to assuage the negative consequences associated with conviction.

Research supports the conclusion that many of the negative effects on upward economic mobility and behavior are a consequence of incarceration, not necessarily of conviction. During the 1990s, when many of the current laws regarding incarceration for drug offenses were put into place in an effort to deal with surging rates of violent crime, two major studies conducted found that incarceration has a far greater effect on employment prospects, and thus on recidivism, than simply conviction with no time spent in prison. Research conducted by Freeman (1991) and Grogger (1995) both found that when controlling for demographic, criminal, educational, and other individual attributes, negative employment consequences

that can lead to recidivism are far more attributable to incarceration than to conviction.⁸³ It is apparent then that if a non-violent drug offender can be kept out of the prison system and successfully treated, their probability of re-entering society with the likelihood of finding employment and staying out of the corrections system are substantially enhanced. This is also a key to the political feasibility of these alternatives, because drug offenders are still held to the standard of the law, but dealt with in the most economically efficient manner.

In terms of the other alternatives explored, Alternative #3: Intensive Supervision Probation, applied to all non-violent drug offenders in Colorado simply cannot compete with drug courts (or therapeutic communities) in terms of success rate. This may be attributable in part to the culture of the probation (and parole) systems. The vast majority of parole failures in Colorado are due to technical violations. The ratio of probation officers to offenders on probation is such that officers are often less concerned about initiatives to treat or rehabilitate their cases as they are about strictly monitoring them and enforcing sanctions against prohibited infractions.⁸⁴

Therefore, Drug Courts offer the best alternative because they are cheaper in real dollar terms, have the best success rate, and set the necessary conditions to minimize the personal economic impact of incarceration. It is crucial to note that the population of non-violent drug offenders is not universally addicted to controlled substances, and so the treatment component central to the drug court model would not necessarily be useful in addressing their legal infraction if addiction was an underlying factor. It is difficult to determine if the services offered by a drug court, or a therapeutic community for that matter, have any utility in reforming an offender who is not addicted. For those offenders who are not physically addicted to a controlled substance, intensive supervision probation represents a much cheaper alternative to traditional incarceration with a greater social benefit, notwithstanding a higher recidivism rate.

⁸³ Western, Bruce, and Becky Pettit, *Collateral Costs: Incarceration's Effect on Economic Mobility*, Washington, D.C.: The PEW Charitable Trusts, 2010, p. 10

⁸⁴ McCollister, Kathryn, Michael French, James Inciardi, Clifford Butzin, Steven Martin, and Robert Hooper, *Post-Release Substance Abuse Treatment for Criminal Offenders: A Cost-Effectiveness Analysis*, *Journal of Quantitative Criminology*, Vol 19, No 4, December 2003, p. 390

However, because drug courts offer a complete continuum of care and resources, it would still be more appropriate to treat sober offenders in this medium, as they can still benefit from the services offered.

VI. WEAKNESSES AND LIMITATIONS

Weaknesses. The major weakness of this analysis is that it ignores as an alternative one of the first solutions that would be proposed by many people confronting this issue, namely the legalization of controlled substances. This alternative is worthy of consideration in the context of this subject, but the problem for this memorandum is accessing appropriate data to properly construct a cost-benefit analysis, given that data related to crime statistics and recidivism would have to come from foreign countries who have legalized drugs and would have to be overlaid on the population characteristics specific to Colorado.

Another weakness of this analysis is the ease of selling an alternative to the general public. The majorities of citizens are law abiding, or at least have never had an experience in the criminal justice system, and so the type of sympathy that would make one of these alternatives politically feasible is questionable. Most people probably believe that those who violate the law should be punished, because they have made a decision to engage in behavior that is illegal. The most difficult part of selecting one of these alternatives would be to convince the general public that its adoption is in their interests because the current system is an inefficient use of public resources.

The RKC report identifies a number of factors that can be related to desistance from crime, and includes on that list attributes such as a solid family support structure, stable employment, education, and age.⁸⁵ Some of these factors, namely age and family support, are difficult to promote strictly through public policy, and therefore the full spectrum of factors which could affect recidivism in non-violent offenders cannot be accurately gauged in this research.

Limitations. A limitation of this research is in the cost-benefit analysis calculations of wages and tax revenues. Unpredictable economic downturns or unusually robust rates of growth that may occur

⁸⁵ Przybylski, Roger, *What Works: Effective Recidivism Reduction and Risk-Focused Prevention Programs: A Compendium of Evidence-Based Options for Preventing New and Persistent Criminal Behavior*, RKC Group, February 2008, p. 29

in the future would change the average wages and tax revenues collected by the state. For this reason, the projections of employment earnings and tax receipts for each alternative going into the future may not be completely reliable figures.

Within the state of Colorado, a number of non-violent drug offenders have previously had exposure to the juvenile justice system. This fact necessarily begs the question as to what effect investment in prevention programs would have on the incarceration rate within the state. This research and analysis focuses exclusively on adult offenders, but evidence does exist to suggest that prevention programs aimed at minors can have a positive effect on preventing first-time offenses. This data is not considered in this research, because the immediacy of the policy problem does not allow for the passage of time to appropriately evaluate the effect of juvenile prevention programs.

Another possible alternative to this problem which would likely be far more politically feasible would be the expansion of judicial discretion rather than wholesale adoption of one alternative. The major limitation of performing a CBA on this policy alternative would be to try to find a way to predict, and therefore to quantify, the frequency with which judges would opt for diversion programs over incarceration and what criteria an individual judge would use to remand an offender to the appropriate alternative. Across the United States, there are generally limitations on whether a judge can practice any discretion in sentencing a convicted offender based upon an individually tailored analysis of circumstance or need. Judicial discretion in sentencing could be a method by which to apply the best alternative to each individual case and thus maximize the efficiency that could be gained by utilizing the entire portfolio of alternatives, but it would be problematic to do an appropriate cost-benefit analysis on such a solution.

VII. COST-BENEFIT ANALYSIS

Cost-Benefit Framework. The table below outlines the stakeholders involved in this policy analysis as well as the costs and benefits incurred by each under different alternatives. It is important to note that each of the alternatives considered resulted in a negative net benefit. This is to be expected,

however, given that the focus of each alternative is to minimize the cost to society incurred by appropriately dealing with offenders (see Microeconomic Analysis below). Drug offenses, prosecuted under the current law, represent a negative externality. Under any alternative considered, society will incur a deadweight loss, as the state is forced to make expenditures for offenders whose actions have placed a set of costs on society. Any method by which the costs and benefits are calculated will show that society is losing in terms of wages, productivity, and tax revenues among other categories. Nevertheless, this cost-benefit analysis shows that the cost to society can be minimized, and that an appropriate alternative can continue to hold down social costs over a period of years.

Stakeholders. The major stakeholders assessed in this analysis are the offender, the criminal justice system, and the state of Colorado. It can be argued that private citizens also have a major stake in the most efficient administration of the criminal justice system, but this primarily translates to tax revenues paid to the state which in turn are applied to the corrections system, and therefore individual citizens are not separated out as distinct group of stakeholders.

Stakeholder	Benefit	Cost
The Offender	Wages	
The Criminal Justice System		Cost for first time offenders Cost for repeat offenders
The State of Colorado	Income Tax Revenues Sales Tax Revenues Property Tax Revenues	Unemployment benefits

As a stakeholder, offenders will have their lives most dramatically affected in terms of employment prospects, as well as multiplying social effects that could benefit their future and that of their family. These social effects are difficult to quantify, and will be discussed qualitatively. In terms of monetizing, a higher earning potential is the major immediate benefit to this stakeholder and the one which will most immediately affect them, while there really is no cost to any of the alternatives, as each would allow them the freedom to move on from an altercation with the justice system.

Similarly, the criminal justice system is quantified only through the costs borne by this stakeholder, the cost of both first time and repeat offenders entering the system. In this cost-benefit analysis, it is assumed that regardless of the alternative, a repeat offender will be sentenced to prison time, and therefore the numbers of recidivist offenders determined by the recidivism rate for each alternative are assumed to enter the traditional state prison system. The criminal justice system is used as an umbrella term to include the courts, the prison system, probation officers, the alternative treatment programs, and any other item included in the corrections budget.

Alternatives. To review, the alternatives analyzed in this cost-benefit analysis are summarized below. For a complete discussion of each alternative, see Section IV: Proposed Solutions.

- **Alternative 1: Drug Courts (DC).** Utilizes a full spectrum of options including mandatory drug testing, rehabilitation support services, vocational training, money management classes, transitional housing, social opportunities, anger management and other cognitive therapies in order to alter an offender's behavior and prevent degradation of job skills.
- **Alternative 2: Community-based rehabilitation/therapeutic communities (TC).** A diversion program which sentences offenders to a mandatory community-based rehabilitation program in a network of halfway houses. In addition to mandatory treatment, therapeutic communities offer opportunities for socialization, community interaction, and training of job skills while affording the offender a degree of independence.
- **Alternative 3: Intensive Supervision Probation (ISP).** Designed as a diversion from prison for offenders who are facing prison sentences but are determined by the court to not be a threat to society, this alternative is characterized by daily supervision and interaction with a probation officer and drug testing, but lacks a treatment component.

- **Alternative 4: Privatization of the prison system (PP).** An expansion of the state's current use of privately contracted prison facilities in order to dramatically reduce the cost of incarceration and prison construction.

CBA Matrix. See Appendix A for detailed derivation of costs and benefits.

Benefits					
Benefits	Status Quo	Alternative 1: Drug Courts	Alternative 2: TC	Alternative 3: ISP	Alternative 4: Privatize Prisons
The Offender (.5)					
1. Wages Earned by Offenders	\$28,945,749.61	\$43,618,516.64	\$53,600,931.15	\$35,147,151.84	\$28,945,749.61
Criminal Justice System (.1)					
State of Colorado (.4)					
1. Income Tax Revenue	\$2,836,972.92	\$4,275,050.82	\$5,253,427.26	\$3,444,772.35	\$2,836,972.92
2. Property Tax Revenue	\$ 867,793.57	\$ 1,307,683.13	\$ 1,606,955.92	\$ 1,053,711.61	\$ 867,793.57
3. Sales Tax Revenue	\$ 790,797.88	\$ 1,191,657.87	\$ 1,464,377.44	\$ 960,220.19	\$ 790,797.88
Total Benefits:	\$ 33,441,313.98	\$ 50,392,908.46	\$ 61,925,691.77	\$ 40,605,855.99	\$ 33,441,313.98
Costs					
Costs	Status Quo	Alternative 1: Drug Courts	Alternative 2: TC	Alternative 3: ISP	Alternative 4: Privatize Prisons
The Offender (.5)					
Criminal Justice System (.1)					
1. Cost for first time offenders	\$ 238,034,815.20	\$ 18,335,200.00	\$ 40,416,579.84	\$ 61,839,086.40	\$ 164,026,699.20
2. Cost for repeat offenders	\$42,889,717.54	\$22,617,085.77	\$24,271,994.49	\$46,199,534.97	\$29,554,747.24
State of Colorado (.4)					
1. Unemployment benefits to offenders	\$19,227,096	\$14,120,334.38	\$2,420,461	\$10,743,733	\$19,227,096
Total Costs:	\$ 300,151,628.36	\$ 55,072,620.15	\$ 67,109,035.23	\$ 118,782,354.05	\$ 212,808,542.06
Net Social Benefits:	\$ (266,710,314.38)	\$ (4,679,711.70)	\$ (5,183,343.46)	\$ (78,176,498.06)	\$ (179,367,228.09)

The total benefit yielded by each alternative is listed below. Alternative 1: Drug Courts and Alternative 2: Therapeutic Communities, have a substantially larger net social benefit than the status quo or any of the other alternatives.

Alternative	Net Benefit
Status Quo	\$ (266,710,314.38)
Alternative 1: Drug Courts	\$ (4,679,711.70)
Alternative 2: Therapeutic Communities	\$ (5,183,343.46)
Alternative 3: ISP	\$ (78,176,498.06)
Alternative 4: Privatization	\$ (179,367,228.09)

Discounting. In order to further analyze the utility of each alternative, the standard formulas for calculating net present value are utilized to aggregate the costs and benefits expected over the next several years. For this analysis, a social discount rate of 7% is used. A difficulty encountered in this data is how to determine the current distribution of offenders in the corrections system, that is to say the current

numbers of non-violent drug offenders as they are distributed among the status quo and the alternatives under consideration. It should be understood that migrating the entire population of non-violent drug offenders to a single alternative would involve an initial capital cost, such as standing up additional physical structures in the case of drug courts and therapeutic communities, or hiring additional personnel in the case of most of the alternatives. Additionally, reduction in the state prison population could signal closure of some prison facilities, particularly if the inmate population remains stabilized. For this analysis, these capital costs have been omitted from the discounting because of the difficulty in determining the exact redistribution that would have to take place in the prison population.

In terms of judicial costs, these alternatives are diversion programs determined to be suitable for an offender based upon risk level. It is further assumed that non-violent drug offenders will still have to negotiate the traditional court system before a judge determines that they meet the criteria to be treated under the adopted alternative. Therefore, the cost of trial is not specifically listed in the cost-benefit analysis and should be understood to be held constant throughout.

The final comparison of costs and benefits is listed below:

Alternative	Benefit	Cost
Status Quo	\$33,441,314	\$300,151,628
Alternative 1: Drug Courts	\$50,392,908	\$55,072,620
Alternative 2: Therapeutic Communities	\$61,925,692	\$67,109,035
Alternative 3: ISP	\$40,605,856	\$118,782,354
Alternative 4: Privatization	\$33,441,314	\$212,808,542

The costs and benefits associated with these alternatives are projected over a period of three years using the following table:

	2012		2013		2014	
	V_B^{86}	V_C^{87}	V_B	V_C	V_B	V_C
Status Quo	\$33,441,314	300,151,628	\$31,253,564	\$280,515,541	\$29,208,939	\$262,164,057
Alt 1: DC	\$50,392,908	\$55,072,620	\$47,096,176	\$51,469,738	\$44,015,118	\$48,102,559
Alt 2: TC	\$61,925,692	\$67,109,035	\$57,874,478	\$62,718,725	\$54,088,297	\$58,615,630
Alt 3: ISP	\$40,605,856	118,782,354	\$37,949,398	\$111,011,546	\$35,466,727	\$103,749,108
Alt 4: Priv.	\$33,441,314	212,808,542	\$31,253,564	\$198,886,488	\$29,208,939	\$185,875,222

⁸⁶ Based on the equation $V_B = V_B / (1+r)^n$, where PV(B)=present value of benefits, V_B =value of benefit, r =discount rate and n =number of years

⁸⁷ Based on the equation $V_C = V_C / (1+r)^n$, where PV(C)=present value of costs, V_C =value of cost, r =discount rate and n =number of years

Finally, net present value for each alternative is calculated below:

	PV(B) ⁸⁸	PV(C) ⁸⁹	NPV ⁹⁰
Status Quo	\$93,903,817	\$842,831,225	\$(748,927,408)
Alt 1: DC	\$141,504,202	\$154,644,918	\$(13,140,715)
Alt 2: TC	\$173,888,468	\$188,443,390	\$(14,554,923)
Alt 3: ISP	\$114,021,981	\$333,543,008	\$(219,521,027)
Alt 4: Priv.	\$93,903,817	\$597,570,252	\$(503,666,435)

Throughout these calculations Alternative #1: Drug Courts maximizes the net social benefit to the state of Colorado. A sensitivity analysis of this data is conducted in Appendix B.

Another way of examining this data is to determine the number of offenders who would not be well served by a given alternative, meaning the number who are not drug addicted and therefore might not be helped by an alternative focused on treatment, and thus would be in need of incarceration. According to the Colorado Department of Corrections, 78% of the inmate population is identified as having substance abuse problems. Again, it is not readily apparent what the distribution is across criminal classes. Using the same methodology as was used to calculate the initial CBA table and applying the 78% substance abuse rate to the population of non-violent drug offenders, the results are ultimately very similar:

⁸⁸ $PV(B) = \sum [V_B / (1+r)^n]$

⁸⁹ $PV(C) = \sum [V_C / (1+r)^n]$

⁹⁰ $NPV = PV(B) - PV(C)$

Benefits					
Benefits	Status Quo	Alternative 1: Drug Courts	Alternative 2: TC	Alternative 3: ISP	Alternative 4: Privatize Prisons
The Offender (.5)					
1. Wages Earned by Offenders	\$22,577,684.69	\$34,022,442.98	\$41,808,726.30	\$27,414,778.43	\$22,577,684.69
Criminal Justice System (.1)					
State of Colorado (.4)					
1. Income Tax Revenue	\$2,212,838.88	\$3,334,539.64	\$4,097,673.26	\$2,686,922.43	\$2,212,838.88
2. Property Tax Revenue	\$ 676,878.99	\$ 1,019,992.84	\$ 1,253,425.61	\$ 821,895.06	\$ 676,878.99
3. Sales Tax Revenue	\$ 616,822.35	\$ 929,493.14	\$ 1,142,214.40	\$ 748,971.75	\$ 616,822.35
Total Benefits:	\$ 26,084,224.90	\$ 39,306,468.60	\$ 48,302,039.58	\$ 31,672,567.67	\$ 26,084,224.90
Costs					
Costs	Status Quo	Alternative 1: Drug Courts	Alternative 2: TC	Alternative 3: ISP	Alternative 4: Privatize Prisons
The Offender (.5)					
Criminal Justice System (.1)					
1. Cost for first time offenders	\$ 185,667,155.86	\$ 14,301,456.00	\$ 31,524,932.28	\$ 48,234,487.39	\$ 127,940,825.38
2. Cost for repeat offenders	\$33,453,979.68	\$17,641,326.90	\$18,932,155.70	\$36,035,637.27	\$23,052,702.85
State of Colorado (.4)					
1. Unemployment benefits to offenders	\$14,997,135	\$11,013,860.82	\$1,887,959	\$8,380,111	\$14,997,135
Total Costs:	\$ 234,118,270.12	\$ 42,956,643.72	\$ 52,345,047.48	\$ 92,650,236.16	\$ 165,990,662.81
Net Social Benefits:	\$ (208,034,045.22)	\$ (3,650,175.12)	\$ (4,043,007.90)	\$ (60,977,668.49)	\$ (139,906,437.91)

Sensitivity Analysis. In order to address uncertainty in the calculation contained in the cost-benefit analysis, a partial sensitivity analysis is conducted to control for variables which might be subject to change. In this case, the two variables controlled for are the social discount rate as well as the prison population. First, a social discount rate of 10% is applied to the net present value of the CBA to determine reliability of the data:

	2012		2013		2014	
	V _B	V _C	V _B	V _C	V _B	V _C
Status Quo	\$33,441,314	\$300,151,628	\$30,401,195	\$272,865,117	\$27,637,450	\$248,059,197
Alt 1: DC	\$50,392,908	\$55,072,620	\$45,811,735	\$50,066,018	\$41,647,032	\$45,514,562
Alt 2: TC	\$61,925,692	\$67,109,035	\$56,296,083	\$61,008,214	\$51,178,258	\$55,462,013
Alt 3: ISP	\$40,605,856	\$118,782,354	\$36,914,415	\$107,983,958	\$33,558,559	\$98,167,235
Alt 4: Priv.	\$33,441,314	\$212,808,542	\$30,401,195	\$193,462,311	\$27,637,450	\$175,874,828

	PV(B)	PV(C)	NPV
Status Quo	\$91,479,958	\$821,075,942	\$(729,595,984)
Alt 1: DC	\$137,851,675	\$150,653,201	\$(12,801,525)
Alt 2: TC	\$169,400,033	\$183,579,262	\$(14,179,229)
Alt 3: ISP	\$111,078,829	\$324,933,547	\$(213,854,718)
Alt 4: Priv.	\$91,479,958	\$582,145,681	\$(490,665,723)

Here, the net present values of each alternative are calculated again with a social discount rate of 4%:

	2012		2013		2014	
	V _B	V _C	V _B	V _C	V _B	V _C
Status Quo	\$33,441,314	\$300,151,628	\$32,155,110	\$288,607,335	\$30,918,375	\$277,507,053
Alt 1: DC	\$50,392,908	\$55,072,620	\$48,454,720	\$52,954,442	\$46,591,077	\$50,917,733
Alt 2: TC	\$61,925,692	\$67,109,035	\$59,543,934	\$64,527,918	\$57,253,783	\$62,046,075
Alt 3: ISP	\$40,605,856	\$118,782,354	\$39,044,092	\$114,213,802	\$37,542,396	\$109,820,963
Alt 4: Priv.	\$33,441,314	\$212,808,542	\$32,155,110	\$204,623,598	\$30,918,375	\$196,753,460

	PV(B)	PV(C)	NPV
Status Quo	\$96,514,798	\$866,266,016	\$(769,751,218)
Alt 1: DC	\$145,438,705	\$158,944,796	\$(13,506,091)
Alt 2: TC	\$178,723,409	\$193,683,029	\$(14,959,620)
Alt 3: ISP	\$117,192,345	\$342,817,119	\$(225,624,775)
Alt 4: Priv.	\$96,514,798	\$614,185,600	\$(517,670,802)

The second variable controlled for in the sensitivity analysis is the prison population itself. As indicated previously, the incarceration rate in the state of Colorado has recently stabilized after showing a period of reduction. It is not currently clear however if this is a temporary condition or a lasting trend. If the prison population were to begin climbing again by the annualized rate of 1.5%, then by 2014 the population would be approximately 23,537; if the population were to continue dropping by the same rate, the prison population in 2014 would be approximately 21,486. Holding constant the 18.94% proportion of the population represented by non-violent drug offenders, the populations of this classification would be 4,467 and 4,070 respectively.

Increase in offender population:

Benefits					
Benefits	Status Quo	Alternative 1: Drug Courts	Alternative 2: TC	Alternative 3: ISP	Alternative 4: Privatize Prisons
The Offender (.5)					
1. Wages Earned by Offenders	\$30,262,699.75	\$45,603,036.39	\$56,039,622.67	\$36,746,248.33	\$30,262,699.75
Criminal Justice System (.1)					
State of Colorado (.4)					
1. Income Tax Revenue	\$2,966,047.20	\$4,469,553.60	\$5,492,443.42	\$3,601,499.80	\$2,966,047.20
2. Property Tax Revenue	\$ 907,275.74	\$ 1,367,179.03	\$ 1,680,067.89	\$ 1,101,652.52	\$ 907,275.74
3. Sales Tax Revenue	\$ 826,776.96	\$ 1,245,874.95	\$ 1,531,002.49	\$ 1,003,907.50	\$ 826,776.96
Total Benefits:	\$ 34,962,799.65	\$ 52,685,643.97	\$ 64,743,136.47	\$ 42,453,308.16	\$ 34,962,799.65
Costs					
Costs	Status Quo	Alternative 1: Drug Courts	Alternative 2: TC	Alternative 3: ISP	Alternative 4: Privatize Prisons
The Offender (.5)					
Criminal Justice System (.1)					
1. Cost for first time offenders	\$ 248,864,729.40	\$ 19,169,400.00	\$ 42,255,420.48	\$ 64,652,590.80	\$ 171,489,452.40
2. Cost for repeat offenders	\$44,841,078.98	\$23,646,099.53	\$25,376,301.93	\$48,301,483.79	\$30,899,405.06
State of Colorado (.4)					
1. Unemployment benefits to offenders	\$20,101,874	\$14,762,769.85	\$2,530,585	\$11,232,542	\$20,101,874
Total Costs:	\$ 313,807,682.75	\$ 57,578,269.38	\$ 70,162,307.47	\$ 124,186,616.87	\$ 222,490,731.83
Net Social Benefits:	\$ (278,844,883.10)	\$ (4,892,625.41)	\$ (5,419,171.00)	\$ (81,733,308.71)	\$ (187,527,932.18)

Decrease in offender population:

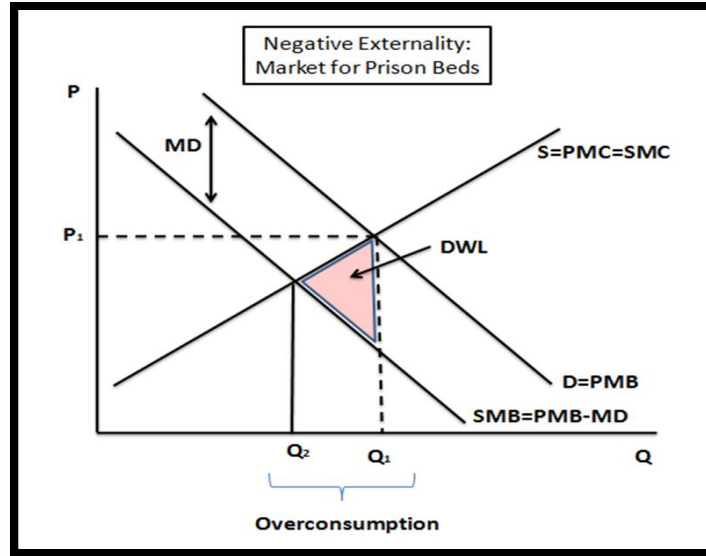
Benefits					
Benefits	Status Quo	Alternative 1: Drug Courts	Alternative 2: TC	Alternative 3: ISP	Alternative 4: Privatize Prisons
The Offender (.5)					
1. Wages Earned by Offenders	\$27,628,799.46	\$41,633,996.88	\$51,162,239.63	\$33,548,055.34	\$27,628,799.46
Criminal Justice System (.1)					
State of Colorado (.4)					
1. Income Tax Revenue	\$2,707,898.64	\$4,080,548.03	\$5,014,411.11	\$3,288,044.90	\$2,707,898.64
2. Property Tax Revenue	\$ 828,311.41	\$ 1,248,187.23	\$ 1,533,843.94	\$ 1,005,770.70	\$ 828,311.41
3. Sales Tax Revenue	\$ 754,818.80	\$ 1,137,440.79	\$ 1,397,752.39	\$ 916,532.87	\$ 754,818.80
Total Benefits:	\$ 31,919,828.31	\$ 48,100,172.94	\$ 59,108,247.07	\$ 38,758,403.82	\$ 31,919,828.31
Costs					
Costs	Status Quo	Alternative 1: Drug Courts	Alternative 2: TC	Alternative 3: ISP	Alternative 4: Privatize Prisons
The Offender (.5)					
Criminal Justice System (.1)					
1. Cost for first time offenders	\$ 227,204,901.00	\$ 17,501,000.00	\$ 38,577,739.20	\$ 59,025,582.00	\$ 156,563,946.00
2. Cost for repeat offenders	\$40,938,356.09	\$21,588,072.02	\$23,167,687.05	\$44,097,586.14	\$28,210,089.41
State of Colorado (.4)					
1. Unemployment benefits to offenders	\$18,352,317	\$13,477,898.90	\$2,310,337	\$10,254,923	\$18,352,317
Total Costs:	\$ 286,495,573.98	\$ 52,566,970.93	\$ 64,055,762.99	\$ 113,378,091.22	\$ 203,126,352.30
Net Social Benefits:	\$ (254,575,745.67)	\$ (4,466,797.98)	\$ (4,947,515.92)	\$ (74,619,687.41)	\$ (171,206,523.99)

In both cases, the net present value of Alternative 1 still exceeds that of Alternative 2. On the basis of the sensitivity analysis in both the social discount rate and the prison population, Alternative 1 is still the best recommendation.

Microeconomic Analysis. The evidence considered in the analysis of this issue leads to the conclusion that incarceration for non-violent offenders not only fails to prevent repetitions of the crime for which they are incarcerated, but also has a tendency to increase rates of recidivism, and thus overall incarceration levels, as a significant number of offenders are eventually returned to prison.

In terms of market failure, the judiciary system in the United States is incorporated under the category of public goods, and in the case of incarceration policy the question is not one of whether the government should or should not intervene, but rather what is the best form of intervention. In this case, however, the amount of money being spent on incarceration of low threat individuals for the minimal benefit that is being achieved represents a negative externality being absorbed by society. It is estimated that the incarcerations budget in Colorado costs each household approximately \$713 per year, and for this expenditure, communities are not made measurably safer, drug trafficking is not reduced, and employment prospects are suppressed, along with tax revenues, as well as the potential for continued upward mobility of future generations of an offender's family.

If the corrections department were illustrated by the market for prison beds, then market equilibrium would be achieved at a point where the supply of prison beds and the demand for prison beds produced maximum social efficiency in terms of preventing loss to society by crimes which resulted in deaths, theft, or property loss; as well as rehabilitating offenders so as to avoid needlessly incarcerating those who no longer need rehabilitation and removing their productivity from society. Specifically, this situation represents a negative consumption externality. In the case of non-violent drug offenders, the high recidivism rates and employment rates that are lower under the status quo than under the alternatives represent the marginal damage caused by an inefficient system. The private marginal benefit achieved by each resident of Colorado is decreased by the marginal damage, yielding a social marginal benefit that creates an overconsumption of prison beds and a deadweight loss to society.



As noted earlier, any alternative chosen to maximize efficiency and social benefit in the corrections system will, by the very nature of the system, result in a deadweight loss to society. The goal is to decrease the marginal damage caused by inefficient techniques which cause second and third order negative effects, and thus minimize the deadweight loss suffered as the result of degraded employment prospects, tax contributions, cost to the general fund and reliance on public assistance. The deadweight loss, expressed in terms of the net social benefit, is minimized under Alternative #1: Drug Courts.

Qualitative Benefits. Research compiled over the last several years indicates that incarceration has a dramatic impact on the future economic mobility of both the offender and their family. In terms of earnings distribution, of the people who begin their professional career in the bottom fifth of the earnings distribution, about 15% will achieve the top fifth of the earning distribution by the end of their life. For individuals who have been incarcerated, the number who will make this progression is 2%.⁹¹ The family income of an incarcerated individual is 22% lower in the year after incarceration than in the year prior.⁹² As discussed previously, it takes a significant amount of time for an offenders' earning to recover to pre-incarceration levels. The effect of incarceration on economic mobility is due in large part to the isolation typical of incarceration. Inmates, many of whom do not have advanced educations, will see job skills

⁹¹ Western, Bruce, and Becky Pettit, *Collateral Costs: Incarceration's Effect on Economic Mobility*, Washington, D.C.: The PEW Charitable Trusts, 2010, p. 4

⁹² *Ibid*, p. 5

erode and the development of social networks degrade, as well as face potentially large debts incurred by their families while in prison due to the lack of income.⁹³ Over half of the adult population in prison in the United States is the primary earners for their households.⁹⁴

Incarceration also has a dramatic effect on the children of offenders. Statistically, the children of incarcerated offenders are far more likely to be suspended or expelled from school, and thus more likely to not complete high school.⁹⁵ This is a risk-factor which is highly associated with an individuals' probability for incarceration and lower lifetime earning potential. Simply put, incarceration will normally cause second and third-order effects on the lives and livelihoods of those behind bars that can create generational cycles of low educational attainment and low earnings, leading to lower productivity, less tax contributions, and higher reliance on public assistance. In the case of non-violent offenders who have committed no crime beyond trafficking or possession of a controlled substance (the substantial majority of that classification) incarceration leads to diminishing returns in terms of society garnering a benefit from their isolation.

CBA Limitations. This CBA is predicated on the entirety of the population of non-violent drug offenders being subject to a given alternative and success considered in terms of the average recidivism rate for each. The omission in this technique is that most of these alternatives have a general success rate, and that the recidivism rates will affect those offenders who have first successfully completed the program. The difficulty in factoring those success rates into the CBA is that the success rates reported in most studies vary widely and a reliable success rate cannot be determined. Secondly, if the state were to concentrate resources on an alternative as the treatment option for the entire offender population, it is likely that success rates would improve. Additionally, if the alternative became a sentence rather than a matter of judicial discretion, offenders would likely have to stay until complete with the program. Lastly, many of the alternatives as practiced now follow a period of incarceration, which theoretically would

⁹³ Western, Bruce, and Becky Pettit, *Collateral Costs: Incarceration's Effect on Economic Mobility*, Washington, D.C.: The PEW Charitable Trusts, 2010, p. 9

⁹⁴ *Ibid*, p. 3

⁹⁵ *Ibid*, p. 5

degrade their chance of being successful. Using the alternatives as a diversion might increase an offenders chances of success. Regardless, any of the alternatives considered are preferable to incarceration. For these reasons, the CBA was calculated costs and benefits of each alternative under the assumption that all offenders would go through the program and that the determinant of success would be post-release recidivism.

Another aspect not included in the CBA was an effort to calculate the value of non-violent crimes, such as property crimes, prevented by adoption of an alternative. The data considered is not clear about the major causes of recidivism, whether it refers to an additional possession or trafficking charge, or whether it involves some other form of non-violent crime. Rather than attempting to decompose a very vague data set, it should be understood that a decrease in recidivism under one any of the alternatives would imply a decrease in non-violent crimes that would benefit the state proportionally to the net social benefit of each alternative.

APPENDIX A: Construction of CBA

From 2006-2010, the time frame for which data is most complete, the inmate population whose most severe offense is non-violent drug offense has averaged 18.94%.⁹⁶ The current adult inmate population, including DOC facilities, contract facilities, therapeutic community and ISP placements is 22,508, meaning approximately 4,264 of these inmates are non-violent drug offenders. It is difficult to definitively determine the current distribution of non-violent drug offenders among sentencing options being considered as alternatives. Therefore, the CBA for this memorandum will consider the non-violent drug offending population as a whole, taken as a moment in time in which the full impact of treating non-violent drug offenders according to exclusively one alternative can be illustrated.

Table 1 calculates the total cost per offender of the status quo and each alternative based upon the average length of time of each type of sentence as well as the average daily cost per alternative. In the case of drug courts, a flat rate per offender is applied. In the case of Alternative 2: Therapeutic Communities, the length of sentence is the average amount of time spent by an offender who successfully completes the rehabilitation program, whether they are a transition or a diversion commitment. An advantage of this alternative is the shorter amount of time that could be spent by an offender in the system. In the case of Alternative 3: Intensive Supervision Probation, the same length of sentence as a typical drug-related commitment to a DOC facility is used. Probation sentences vary widely, and in an effort to standardize the exclusive use of ISP as an alternative in this memorandum, it is assumed that the sentence length would be equivalent to a typical sentence to a DOC facility.

Table 1: Cost Per Offender			
Alternative	Length of Sentence	Cost of Sentence	Total Cost Per Offender (Annual)
Status Quo	21 months ⁹⁷ (average sentence)	\$88.61/day	\$55,824.30
Alternative 1 (Drug Courts)	90 days	\$4,300/offender	\$4,300.00
Alternative 2 (Community)	217 days (average length of a successful termination) ⁹⁸	\$43.68/day	\$9,478.56

⁹⁶ Allen, Steve, *FY2012-13 Staff Budget Briefing, Department of Corrections*, Denver: Joint Budget Committee Staff, December 20, 2011, p. H-4

⁹⁷ Bonczar, Tom, *Time Served in Prison, By Offense and Release Type*, Bureau of Justice Statistics National Corrections Reporting Program, May 5, 2011

⁹⁸ *Colorado Community Corrections: Annual Report FY2007*, Denver: Division of Criminal Justice Office of Community Corrections, 2008, p.19

Alternative 3 (ISP)	21 months	\$23.02	\$14,502.60
Alternative 4 (Private Prison)	21 months	\$61.06/day	\$38,467.80

Table 2 utilizes the standard recidivism rate for each alternative in order to calculate the number of offenders who will be returned to prison either because of committing of a new crime or a technical violation of the conditions of the sentence. In this scenario, it is assumed that a recidivist offender will be incarcerated in a DOC facility, and therefore the cost of the second sentence is calculated based upon the average daily rate for DOC facilities, with the exception of private prisons. The average length of a subsequent sentence is based on national data.

Alternative	Recidivism Rate	Number Returned to Incarceration (based on 4,264 offenders)	Average Length of Subsequent Sentence ⁹⁹	Cost	Cost of Repeat Offense
Status Quo	31.10%	1,326	12 months	\$88.61/day	\$42,889,718
Alternative 1 (Drug Courts)	16.40%	699	12 months	\$88.61/day	\$22,617,086
Alternative 2 (TC)	17.60%	750	12 months	\$88.61/day	\$24,271,994
Alternative 3 (ISP)	33.50%	1,428	12 months	\$88.61/day	\$46,199,535
Alternative 4 (Private Prison)	31.10%	1,326	12 months	\$61.06/day	\$29,554,747

Table 3 calculates the employment rate and subsequent tax revenues based upon the average employment rate of offenders treated under each alternative upon completion of treatment. For the status quo and Alternative 4: Private Prisons, the average employment rate is based upon the number of paroled offenders who are employed. For the other alternatives, the employment rate is based upon the number of offender employed after termination from a specific program. It is true that for the alternatives being considered, many offenders will be able to maintain employment throughout treatment, but the research focuses on employment outcomes to the exclusion of employment while under treatment in order to weigh effectiveness of a given alternative. The tax revenues are calculated on an annual basis. The

⁹⁹ Bonczar, Tom, *Time Served in Prison, By Offense and Release Type*, Bureau of Justice Statistics National Corrections Reporting Program, May 5, 2011

number of successful termination is calculated by subtracting the projected recidivism rate for each alternative from 4,264.

Table 3: Employment and Tax Data

Alternative	Number of Successful Terminations	Average employment rate	Number employed	Income (based on \$7.64 minimum wage full time)	State and Local Taxes (\$98.01 per \$1,000 income) ¹⁰⁰	Property Taxes (\$29.98 per \$1,000 income) ¹⁰¹	Sales Taxes (\$27.32 per \$1,000 income) ¹⁰²
Status Quo	2,938	62% ¹⁰³	1821	\$28,945,749.61	\$2,836,972.92	\$867,793.57	\$790,797.88
Alternative 1 (Drug Courts)	3,565	77% ¹⁰⁴	2745	\$43,618,516.64	\$4,275,050.82	\$1,307,683.13	\$1,191,657.87
Alternative 2 (TC)	3,514	96% ¹⁰⁵	3373	\$53,600,931.15	\$5,253,427.26	\$1,606,955.92	\$1,464,377.44
Alternative 3 (ISP)	2,836	78% ¹⁰⁶	2212	\$35,147,151.84	\$3,444,772.35	\$1,053,711.61	\$960,220.19
Alternative 4 (Private Prison)	2,938	62%	1821	\$28,945,749.61	\$2,836,972.92	\$867,793.57	\$790,797.88

Table 4 calculates the liability to the state in terms of unemployment benefits based upon the employment rates for each alternative estimated in Table 3. Unemployment benefits are also calculated at an annual basis.

Table 4: Unemployment Benefits

Alternative	Average Unemployment Rate	Number Unemployed	Average Unemployment Benefit Colorado	Unemployment Benefit
Status Quo	38%	1116	\$331.20/week	\$19,227,095.63
Alternative 1 (Drug Courts)	23%	820	\$331.20/week	\$14,120,334.38
Alternative 2 (TC)	4%	141	\$331.20/week	\$2,420,460.90
Alternative 3 (ISP)	22%	624	\$331.20/week	\$10,743,732.68
Alternative 4 (Private Prison)	38%	1116	\$331.20/week	\$19,227,095.63

¹⁰⁰ Kirk, Ron, *How Colorado Compares In State and Local Taxes*, Denver, Colorado Legislative Council Staff, July 6, 2009, p. 2

¹⁰¹ Ibid, p. 3

¹⁰² Ibid, p. 3

¹⁰³ *Colorado Department of Corrections Strategic Plan 2011-2012*, Tom Clements, Executive Director, 2011, p. 60

¹⁰⁴ Peters, Roger H., Amie Haas and Mary R. Murrin, *Predictors of Retention and Arrest in Drug Courts*, p. xliii

¹⁰⁵ *Colorado Community Corrections: Annual Report FY2007*, Denver: Division of Criminal Justice Office of Community Corrections, 2008, p.19

¹⁰⁶ King, Ryan S. and Marc Mauer, *Distorted Priorities: Drug Offenders in State Prisons*, Washington, DC: The Sentencing Project, September 2002, p. 10

WORKS CITED

Aos, Steve, Marna Miller, and Elizabeth Drake, *Evidence-Based Public Policy Options to Reduce Future Prison Construction, Criminal Justice Costs, and Crime Rates*, Olympia: Washington State Institute for Public Policy, 2006

Allen, Steve, *FY2012-13 Staff Budget Briefing, Department of Corrections*, Denver: Joint Budget Committee Staff, December 20, 2011

Bonczar, Tom, *State Prison Admissions, 2009: Sentence Length by Offense and Admission Type*, Bureau of Justice Statistics National Corrections Reporting Program, May 5, 2011

Bonczar, Tom, *Time Served in Prison, By Offense and Release Type*, Bureau of Justice Statistics National Corrections Reporting Program, May 5, 2011

Budget in Brief, FY 2011-12, Colorado Joint Budget Committee Staff

Colorado Commission of Criminal and Juvenile Justice 2008 Annual Report, Office of Research and Statistics, Division of Criminal Justice, and Department of Public Safety, December 2008

Colorado Community Corrections: Annual Report FY2007, Denver: Division of Criminal Justice Office of Community Corrections, 2008

Colorado Department of Corrections Strategic Plan 2011-2012, Tom Clements, Executive Director, 2011

Crime and Justice in Colorado, Office of Research and Statistics, Division of Criminal Justice, Kerry Cataldo, Project Manager, March 2011

Defining Drug Courts: The Key Components, U.S. Department of Justice, Bureau of Justice Assistance, October 2004

Edward Byrne Memorial Justice Assistance Grant Application, Colorado Department of Public Safety, Division of Criminal Justice, January 2009

Engleman, Laura and Kasey R. Weber, *Overview of Substance Abuse Treatment Services: FY 2010*, Colorado Springs: Colorado Department of Corrections Office of Planning and Analysis, May 2011

Fiscal Stability Commission Report to the General Assembly, Colorado Legislative Council, Research Publication No. 590, December 2009

Focus Colorado: Economic and Revenue Forecast, Colorado Legislative Council Staff, Natalie Mullins, Chief Economist, December 20, 2011

Gendreau, Paul, Claire Goggin, and Francis T. Cullen, *The Effects of Prison Sentences on Recidivism*, Public Works and Government Services Canada, 1999

General Statistics, Colorado Department of Corrections, September 30, 2011, available from <http://www.doc.state.co.us/print/general-statistics>

Hetz-Burrell, Nicole and Kim English, *Community Corrections in Colorado: A Study of Program Outcomes and Recidivism, FY00-04*, Denver: Office of Research and Statistics, Division of Criminal Justice, Colorado Department of Public Safety, May 2006

King, Ryan S. and Jill Pasquarella, “*Drug Courts: A Review of the Evidence*,” Washington, DC: The Sentencing Project, April 2009

King, Ryan S. and Marc Mauer, *Distorted Priorities: Drug Offenders in State Prisons*, Washington, DC: The Sentencing Project, September 2002

Kirk, Ron, *How Colorado Compares In State and Local Taxes*, Denver, Colorado Legislative Council Staff, July 6, 2009

McCollister, Kathryn, Michael French, James Inciardi, Clifford Butzin, Steven Martin, and Robert Hooper, *Post-Release Substance Abuse Treatment for Criminal Offenders: A Cost-Effectiveness Analysis*, Journal of Quantitative Criminology, Vol 19, No 4, December 2003

Peters, Roger H., Amie Haas and Mary R. Murrin, “*Predictors of Retention and Arrest in Drug Courts*”

Pre-Release Termination and Post-Release Recidivism Rates of Colorado’s Probationers: FY 2009 Releases, Evaluation Unit, Division of Probation Services, Colorado Judicial Branch, October 10, 2010

Przybylski, Roger, *What Works: Effective Recidivism Reduction and Risk-Focused Prevention Programs: A Compendium of Evidence-Based Options for Preventing New and Persistent Criminal Behavior*, RKC Group, February 2008

Raher, Stephen, *Incarceration and Correctional Spending in Colorado: A Legislator’s Handbook on Criminal Justice Policy, 2003*, Colorado Criminal Justice Reform Coalition, 2003

Raphael, Steven, *The Impact of Incarceration on the Employment Outcomes of former Inmates: Policy Option for Fostering self-Sufficiency and an Assessment of the Cost-Effectiveness of current Corrections Policy*, University of California-Berkeley: Goldman School of Public Policy, July 2007

Roman, John, Wendy Townsend and Avinash Singh Bhati, *Recidivism Rates for Drug Court Graduates: Nationally Based Estimates, Final Report*, The Urban Institute, July 2003

The Colorado Outlook: Economic and Fiscal Review, Governor’s Office of State Planning and Budgeting, September 20, 2011

Western, Bruce, and Becky Pettit, *Collateral Costs: Incarceration’s Effect on Economic Mobility*, Washington, D.C.: The PEW Charitable Trusts, 2010