Prison Economics

Corrections Funding History

Fiscal Year	Special Revenue	Special Distribution		General Distribution	% of Total GR
1956	$ 946,755				0
1958	772,488	758,192			0
1960	1,105,555	1,088,972			0
1962	1,293,637	1,273,216			0
1967	1,370,015	1,349,465			0
1970	1,137,566	1,115,778			0
1971	1,076,778	1,060,626		500,000	0.19
1973	1,597,561	1,573,598		2,749,081	0.74
1977	2,161,746	2,129,320		5,981,803	0.98
1984	908,854	895,221		31,455,730	2.76
1994	8,010,584	PFDSF	DOC	90,011,115	3.97
		197,000	DCC	13,405,953	0.59
2004	12,660,625	6,613,913	DOC	201,830,355	5.61
		6,749,045	DCC	43,873,760	1.22
2014	15,751,006	15,491,114	DOC	312,998,229	6.23
		8,938,303	DCC	76,885,772	1.53

Marginal Product and the Law of Diminishing Returns

As you add workers, specialization tends to increase the marginal product. Think about how an assembly line works with one worker and then two, and then three, and so on. What happens after the each additional worker is added?

The third worker will produce an additional 10 units of production, the fourth gives five, and the fifth will produce two additional units! Therefore, the benefits of *specialization are exhausted.*

This phenomenon is called *law of diminishing returns* and can be seen clearly when the production function and the marginal product of labor are graphed.

The law of diminishing returns says that, in the short run, as you continue to add a variable input to a fixed input, the additional output from the variable input will eventually decline.

When you have some fixed input, then adding more workers does not allow for additional production.

In fact, it is possible that the marginal output would become negative as the workplace becomes cluttered with too many workers.

Production Function (Total product)
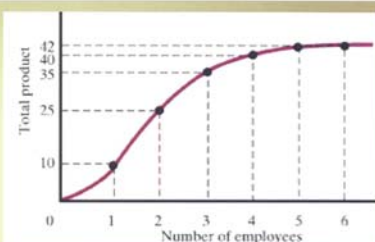
Marginal Product of Labor

The Bottom Line
The Costs and Benefits of State Incarceration

When incarceration (or any effective rehabilitative or prevention program) lowers the crime rate, benefits accrue to taxpayers and crime victims in the form of avoided costs.

That is, when crime is reduced, taxpayers do not have to spend as much money on the criminal justice system, and there are also fewer crime victims.

As we have seen, however, it costs taxpayers money to incarcerate people. We quantified these opposing factors to estimate the *net* economics of state incarceration.

Incarceration Rates: Benefit to Cost (B/C) Ratios
(Dollar of Benefit Received per Dollar Invested)
for Various Types of Offenders in Washington State

Type of Offender	Benefit/Cost Ratio		
	1980	1990	2001
Violent	$10.70	$6.60	$2.74
Property	$4.19	$5.03	$2.84
Drug	$9.22	$0.98	$0.37

The key to understanding the costs and benefits of prison as a crime-control strategy is the economic concept of *diminishing marginal returns*.

Washington State Diminishing Marginal Returns

When applied to prison policy, this fundamental axiom of economics means that, as *Washington* increased the incarceration rate significantly in the last two decades, the ability of the additional prison beds to reduce crime has declined.

In 1980, the state had about two people per 1,000 behind DOC bars; today the rate is over five people per 1,000. Diminishing returns means that locking up the fifth person per 1,000 did not, on average, reduce as many crimes as did incarcerating the second, third, or fourth person per 1,000.

Continued...
Washington State Diminishing Marginal Returns

When the state incarceration rate first began to expand in the early 1980s, there were, on average, 50 to 60 crimes avoided per year by imprisoning one more offender.

As the prison system continued to expand, however, the number of crimes avoided per average new prisoner declined.

By 2001, Washington State estimate that about 18 crimes were avoided per year by adding a new prison bed.

Therefore, an increase in the incarceration rate today avoids considerably fewer crimes than it did just a decade or two ago.

Diminishing marginal returns affects the effectiveness of prison in the same manner that diminishing returns affects any other industry. That is why it is one of the so-called "iron laws" of economics.

Washington State Conclusion

1. Looking back to 1980, there was a substantial net benefit to taxpayers and crime victims to expand the prison system, especially for violent offenders. As incarceration rates were increased over the ensuing two decades, however, diminishing returns began to erode the benefits of continued prison expansion.

2. Today, incarcerating more violent and high-volume property offenders continues to generate more benefits than costs, although diminishing returns has reduced significantly the net advantage of increasing incarceration rates for these offenders.

3. During the 1990s, the economic bottom line for increasing the incarceration rate for drug offenders turned negative. That is, it now costs taxpayers more to incarcerate additional drug-involved offenders than the average value of the crimes avoided.

4. We find that, today, some researched-based and well-implemented rehabilitation and prevention programs can produce better returns for the taxpayer's dollar than prison expansion. For example, some drug treatment programs give taxpayers a better return than increasing the incarceration rate for drug-involved offenders.