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# INFORMANALYTICS

POWERED BY CGR

## Explanation of Calculations



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# Introduction

InformAnalytics (IA) is a cost-benefit analysis tool developed by CGR. This document explains how some of the calculations in the report are derived. CGR has exercised reasonable professional care and diligence in the production and design of the IA tool. However, the data used is provided by users. IA does not independently verify, validate or audit the data supplied by users. CGR makes no representations or warranties with respect to the accuracy of the data supplied by users.

## Measuring Economic Impact

IA measures the economic impact of a proposed project in terms of jobs and payroll. While other measures may also be meaningful, these two undoubtedly are core.

The economic impact is measured over two time periods. The first is a temporary effect which occurs during the construction period. Once the project is complete and the company is up and running there is a permanent impact to the regional economy.

The number of jobs created or retained and the payroll related to the applicant is the referred to as the direct impact. As spending occurs in the regional economy there is a multiplier effect. This occurs when firms/employees spending money in the region spurring on additional jobs and income in the region. These effects are referred to as spillover effects in an IA report.

## Cost Benefit Analysis

### Measuring the Costs

The costs are the value of the incentive package under consideration. All costs are analyzed over the life of the project as defined by the IA user. They are presented in both nominal and discounted dollars.

#### Property Tax Exemptions

The cost of the property tax exemption is the difference between what the municipalities are expected to receive under a PILOT and what they hypothetically would receive if the investment would have occurred in the absence of the PILOT. This quantifies the value of the property tax exemption to the applicant.

#### Sales Tax Exemptions

Sales tax exemptions are the total of exemption on construction material purchases and other sales taxable purchases receiving exemptions. The IA user enters in the sales taxable purchased and identifies them as receiving the exemption. They also

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enter total construction spending. Part of this figure is on materials and the other part is on labor. A 40/60 materials/labor split is assumed but could be overridden by the IA user. It is assumed that the full value of the construction materials sales tax will be exempted. Again this assumption can be modified by the IA user.

## Mortgage Recording Tax Exemptions

The mortgage recording tax exemption is calculated by taking the total mortgage amount times the mortgage recording tax rate.

## Bond Financing

Bond financing benefits are measured as the differential between what the applicant would receive in the bond market vs what they are getting through the IDA.

## Measuring the Benefits

The benefits of the project are broken out by the effect (direct vs spillover), the recipient (private individuals vs the public), time period (temporary vs permanent) and the level of government (state vs region).

## Payroll

InformAnalytics uses IMPLAN, a regional input-output modeling system, to estimate payroll and employment impacts. The U.S. Forest Service developed IMPLAN in late 1970s. It is a widely accepted model of economic activity. The IMPLAN database consists of two major parts: 1) a national-level technology matrix and 2) estimates of sectoral activity for final demand, final payments, industry output and employment for each county in the U.S. along with state and national totals.

Payroll is a regional benefit that accrues to private individuals. The temporary payroll is estimated by applying IMPLAN multipliers to construction spending. The permanent payroll is estimated using IMPLAN derived average salary for the industry, or direct input by the IA user. All temporary payroll is assumed to occur in the first year. Permanent payroll is assumed to also start the first year. If the IA user decides to override these assumption they can phase in construction spending and permanent employment.

## Property Tax

The property tax benefit is accrued by the public. It is the difference between the expected property tax from the status quo netting out any property tax incentives.

## Sales Tax Revenue

Sales tax revenues benefit the public. Both the temporary and permanent sales tax revenue benefits are estimated off of their respective payroll estimates. These estimates are multiplied by the sales tax rate and the share of income in the region estimated to be spent on sales taxable items. These figures are broken out by the state and regional levels.

## **Income Tax Revenue**

Income tax revenue is estimated by using the effective income tax rates for the region multiplied by the estimated payroll. These benefits accrue to the state.