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City of Dayton Economic Development Incentive Programs: Costs and Benefits

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ABSTRACT

The City of Dayton Office of Economic Development currently employs two unique incentive programs to attract businesses to grow and locate within city limits. These programs cost the taxpayers of the city significant amounts of money while also providing profits to our local economy and a bolstered tax base for the city government.
The goal of this research thesis is to compare the two programs currently in place in Dayton using two different cost-benefit economic analysis methods and to provide a recommendation for increased efficiency to the city based upon the results of the analysis.

INDUSTRY QUICK VIEW

The economic development industry has grown increasingly competitive in the past 60 years. Nations, states and cities compete with each other by offering incentives and grants to firms. Especially at the local and regional levels, this practice has resulted in cannibalism. Economic activity and growth is not added to on a national level by these practices; rather, it is simply geographically redistributed. Firms who promise large job growth command the marketplace and choose their location and business expansion plans based off of which municipality accommodates them the most. Municipalities must play the game to compete and support their tax base while at the same time show effectiveness with public funds.

DAYTON PROGRAMS

<u>The Dayton Development Fund:</u>
This program is offered to firms in the city looking to expand their operations and make capital investments. Firms promise a job growth number resulting from the project and receive gap financing from the city in the form of a grant.
<u>Dayton Economic Attraction Program (DEAP):</u>
This program gives firms back a grant reward based upon how much the city gained from that firm's new growth in the form of payroll taxes.

MODEL 1- PROGRAM EFFECTS ON CITY BUDGET

The aim of Model 1 is to place a number on the value for the city budget effect for each of the two programs. From data provided by the Dayton Office of Economic Development for years 2009 – 2011, we were able to determine how much each program cost the city and how much each program contributed to the city budget through increased tax revenue. Over 60% of the city's budget revenue comes from income tax revenue from payroll withholding for workers within the city limits.
Calculation
Jobs added in the period at firm A were multiplied by the average wage at firm A to get the payroll increase at firm A. The payroll increase multiplied by 2.25% (the income tax to the city for workers) gives the revenue generated by the city directly from the project at firm A. All projects under each respective program were summed and net benefits to the city budget were calculated below along some summarizing ratios.

Development Fund

Change in Payroll	New Payroll Withholding Income	Total City Grant	Net Benefit to City Budget
$17,141,835	$385,691	$2,147,000	($1,761,309)
	every $1 spent = $0.18 back to city budget		

DEAP

Change in Payroll	New Payroll Withholding Income	Total City Grant	Net Benefit to City Budget
$18,160,485	$408,611	$223,127	$185,484
	every $1 spent = $1.83 in money to city budget		

DEAP was ten times as effective at returning city funds to the city budget than was the Development Fund.

MODEL 2 – GDP COST-BENEFIT ANALYSIS

Regional Multipliers

Economists study the impact of economic inputs on a regional scale using economic impact studies. Specific geographic formulas (called RIMS II multipliers) supplied from the Bureau of Economic Analysis are typically used for these studies. These formulas serve as multipliers that appropriately scale the effects a certain economic activity has over the entire region. The six counties highlighted in pink in the map below show the statistical area studied under Model 2. RIMS II multipliers can be used to calculate numerous measures of economic impact – for example, regional GDP growth.

Model 2 aims to expand the notion of benefits beyond just the effects the program has on the city budget. Regional multipliers were utilized to convert payroll growth data into measures of increased economic activity on a regional level. Each program spent a certain amount of city money but the two programs saw vastly different benefit amounts accrue at the regional level. The tables below show how GDP growth was stimulated by each dollar spend on projects for each program. Likewise the tables show how much the city "invested" in each new job created within the region. The multipliers swell the effects of the economic development programs based off the principle of the income effect and the multiplicative power of money in the economy.

Development Fund

Amount Granted by City	Change in Payroll	Final Demand Change	Value Added Impact = GDP Growth	Jobs Impact	Gov $ / 1 New Regional Job
$2,147,000	$17,141,835	$53,678,829	$54,509,135	837	$2,565.11
		For every $1 spent by City on DEV Fund, $25.39 of GDP in the region is created			

DEAP

Amount Granted by City	Change in Payroll	Final Demand Change	Value Added Impact = GDP Growth	Jobs Impact	Gov $ / 1 New Regional Job
$223,127	$18,160,485	$45,493,400	$51,062,565	691	$322.62
		For every $1 spent by City on DEAP firms, $228.9 of GDP in the region is created			

RESULTS

1) There is no doubt by looking at these models that DEAP is more effective. The City should be confident to invest more funds in that program because they are earning a return and improving their relationships with local firms in the process.

2) These models do not tell the full story (see Further Research) and the Development Fund is a program that exists to serve a different need than DEAP. Firms need a place to go to receive financing when the lending market is dormant due to economic uncertainty; the Development Fund could serve that role in Dayton.

FUTURE RESEARCH & APPLICATIONS

❖ Using Models 1 and 2 as tools for evaluating more economic development projects in Dayton. Grant and tax incentive programs like Development Fund and DEAP need to be compared to systemic investments and programs e.g. job training, infrastructure, transportation.

❖Deepening models with more data from city. Data on corporate income, property acquisitions, salary of new employees, and annual employee totals will greatly increase accuracy of model assessments.

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