The costs and effectiveness of fiscal incentive programs:

The case of Champaign

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# Table of content

A. Introduction 3
B. Theoretical Background 4
   B1. A controversial discussion 5
   B2. The Concept of Enterprise and Empowerment Zones 7
   B3. Research Questions 8
C. The City of Champaign – Study Area and Champaign County Enterprise Zone 9
   C1. The Real Estate Tax Abatement Program 11
   C2. The Sales Tax Exemption 11
D. Methods 12
   D1. Qualitative interviews 12
   D2. Economic impact analysis 13
   D3. IMPLAN 14
   D4. Selection of the case study companies 16
E. The results 17
   E1. Job creation 19
   E2. The costs of the incentive program 20
   E3. The opportunity costs 22
   E4. The interviews 24
F. Conclusion 25
G. References 28
H. Appendix 32
   H1. Interview request 32
   H2. Interview transcripts 33
   H3. Database sales tax exemption 45
   H4. Database real estate tax abatement 45
   H5. Enterprise zone Application packet 45
   H6. Economic impact 25% scenario 46
   H7. Economic impact 10% scenario 47
A. Introduction:
The purpose of this study is to examine the effectiveness of the fiscal incentives, which the city of Champaign is offering to companies that locate in the city’s Enterprise Zone (EZ), and to place the findings in a general theoretic background through which policy recommendations will be discussed.

This study was conducted for the Network of European and United States Regional and Urban Studies (NEURUS), in which the author participated in 2007 at the University of Illinois at Urbana-Champaign.

Regarding this topic, a large discrepancy between theory and urban reality is obvious because fiscal incentives are widely used on all level of administration whereas their theoretic justification is weak. Theoretically, it is clear that a tax cut must have an effect at the margin since it reduces business costs. However, taxes account only for a small fraction of total business costs and therefor their influence on business location decision-making must be considered marginal (Gold 1979, Nunn 1994).

Nevertheless, tax incentives are a widely used instrument of economic development on all administration levels; federal, state, and local.

This study gives an evaluation of the costs and benefits of Champaign’s fiscal incentives program through the analysis of a case study. The question if they could alter firm’s decision making process will be addressed with qualitative interviews.

The loss of tax revenue the city is facing by offering the fiscal incentives is considered as an investment and is compared to the economic impact of the newly created jobs so that the city’s return on its investment can be calculated - the investment being the loss in tax revenue and the return being the indirect business taxes generated by the employment growth. The economic impact analysis is carried out using the economic input-output-model of the IMPLAN software. Additionally, the costs per job are calculated. A special focus lies on which industries are most beneficial for the city.

It will be assumed that the newly created jobs (the number has to be provided within the application form for the tax incentives) are a result of the fiscal incentives.

Since the city does not control whether these jobs were created according to the application form (expert interview) I designed two other scenarios. One problem when evaluating economic development programs is isolating the effects of the development programs from the general economic growth in the region. Previous studies found out that only 20%-30% of employment growth can be linked to to EZ benefits (Tym & Partners
1984). To take this problem into account I create a 25% scenario in which I multiply the number of created jobs with 0.25 and put the result as an input into the IMPLAN software. Morse and Farmer (1986) found that the percentage of investment influenced by fiscal incentives to be 25%.

Since the possibility exists that the benefits have only a marginal effect I also create a „worst-case“ scenario in which I link only 10% of the created jobs to the benefits. I choose 10% and not 0 because even pessimists must admit that the fiscal incentives reduce the costs of doing business and thereby have effect at the margin.

Furthermore, I want to present the opinion of the recipients of the fiscal incentives. An attempt to achieve qualitative interviews with all the selected case study companies could not be realized. Unfortunately, only 2 of 15 companies responded positively to my interview request. Nevertheless, the two realized interviews gave some interesting views of the fiscal incentives program and are presented briefly. More importantly, they can help to place the results of the IMPLAN analysis and the policy recommendations I derive in a general theoretic context.

**B. Theoretical Background**

Fiscal incentives are an instrument provided mainly on the subnational level. Their purpose is to reduce the costs of doing business (Anderson & Wassmer 2000) in a particular location and thereby attract new businesses and retain existing. Fiscal incentives exist in the form of abatements, credits, exemptions and special treatments (Anderson & Wassmer 2000).

From a theoretical perspective taxes and development incentives are a spatially variable business cost, and thus should influence location and investment decisions at the margin.

„Tax incentives lower the marginal effective tax rate and thereby encourage additional investment in the tax preferred activity until after tax rates of return are equalized.“ (Shah 1995)

The neo-classical justification of tax incentives is that the social benefit of an additional activity exceeds the private costs of it, so that the total social welfare increases if the „state“ closes this „gap“ by a subsidy. This is often the case when a local government wants to balance out first-mover-disadvantages to attract companies to a new business park or enterprise zone.

The property tax is the most important incentive on the local level.

Another field with risk of underinvestment is research and development because the social
returns of investment are bigger than the private returns a company can internalize. By eliminating that wedge between social and private welfare a higher welfare level can be achieved. For example it is estimated that the social rate of return on R+D capital exceeds the private rate by two-thirds, (Shah, 1995). Scott (1989) estimates that the marginal social rates of return to investment in the U.K. (1951-1973) and the USA (1948-1973) exceed the marginal private return by 7%. The latter being 5.3% whereas the marginal social rate of return is 12.6%. Scott claims that taxation accounts for one-third of this gap. Therefore, investment incentives are intended to induce firms to invest more by increasing the rate of return from holding assets.

The social rate of return is higher due to positive externalities like economies of scale, workforce training, technology transfer and other factors.

The interference of tax incentives is justified by inefficiency in the way capital markets allocate investment, (Shah 1995).

Furthermore, one can distinguish between a supply-policy and a new-wave-policy approach (Blakely & Bradshaw 2002). The supply side approach focuses on reducing the cost of doing business by reducing the tax burden or providing necessary infrastructure. The new-wave-policy focuses on providing tailored job training for the local workforce and networking. This is important because many times a new company brings a qualified workforce with it. By increasing the skills of the local workforce it is anticipated that more jobs will be obtained by the local unemployed population.

It is argued that indirect fiscal benefits are a better way of promoting investment than direct subsidies because fiscal incentives are more neutral in regard to allocation decisions (Hutschenreiter, 2001). Indirect incentives are easier to apply for and their administration costs are lower. Hutschenreiter also argues that the intensity of one instrument (direct and indirect promotion) lowers the impact of the other one.

Indirect incentives tend to be more persistent which can be a negative factor if the incentive is inefficient.

**B1. A controversial discussion**


Bartik (1991) concluded that taxes generally have a concrete and negative effect on
businesses. He estimated that an increase in local taxes of 10% results in a 10 to 30% long-run reduction of business activities. The interregional elasticity of economic activity with respect to taxes was estimated between -0.6 and -0.1, the average being -0.3. This means that a 10% tax cut will raise employment, investment or firm birth between 1% and 6% (Bartik 1991).

Wasylenko (1997) also finds that "...taxes have a small but statistically significant effect on interregional location behaviour." The suggested interregional elasticity is -0.2. Though Bartik (1991) estimates the costs of locally supplied labor are about 14 times the costs of state and local businesses taxes. So the effects on business location decisions must be modest. Business location decisions are based on the traditional factors: availability and cost of labor, access to markets, energy costs, raw material and spacial needs.

Studies that found an insignificant effect of taxes include (Tannenwald, 1996, Carroll & Wasylenko, 1994, Carlton, 1983, Schmenner, 1982).

Theoretically there is no evidence that tax incentives can influence a firms location decision since taxes only account for a small amount of a firm’s total production cost (HUD study 1986). But of course, if the traditional factors are constant (Fisher & Peter 1994) taxes and development incentives are a spatially variable business cost and thus should influence location and investment decisions at the margin.

Taxes influence the factor utilization, adjustment, and output expansion through changes in factor prices and through their effect on technological change (Shah 1995). Other authors argue that even if they had an impact the public costs would still exceed the social benefits and lead to fiscal competition with a redistribution of jobs. Answering this question for the case of Champaign is the purpose of this study.

Yet, tax incentives are widely provided on the local and the state level. The theoretical justification implies that within localities which serve as substitutes to each other, tax incentives might make a difference between these localities (Rubin & Wilder 1996).

Another argument for tax benefits is the market failure approach, arguing that the government should use its taxation power to overcome undesired effects of the market (Bartik 1991). Often development incentive programs have additional goals other than economic development, such as employment of marginal groups and welfare case reduction even if this is not compatible with attracting the largest number of establishments (Erickson & Friedmann 1990). The area is too distressed to be attractive to private investment and its development potential is rather poor.

Planners often use a trick when designating zones - they include an area which is
distressed enough to receive state or federal benefits and then combine it together with a neighboring area which is attractive enough to private investment. This seems to happen in Champaign, too (expert interview).

Other goals of incentive policy include: attracting FDI, externalities of investment, job creation (second-best solution because labor markets policies would be more appropriate), risk-sharing and financing problems (start-ups).

Taxes affect investment in many ways, but they can only affect the investment side of the economy and not the saving side. From a macro-economic perspective tax benefits can not influence the accumulation of capital at all.

The same incentive can have different effects on different types of investment decisions. The most common problem being that labor is replaced with capital.

Another problem of EZ fiscal incentives, in the form of forgone tax revenue and public capital expenditures, is the increase of the tax burden for non-zone firms and residents. A more pragmatic view of the tax incentives effectiveness problem is that since almost all states and municipals offer tax incentives, a particular place can not afford not to offer tax incentives because it would loose its competitiveness with other locations. This is consistent with the approach of seeing tax incentives as a signal for a competitive (good quality) place - easing the prospective company’s uncertainty about future government decisions (Shah 1995).

„Fiscal incentives are useful but not critical-“ ......“they serve as tie-breakers“ (Wilder & Rubin 1988). Theory predicts and is confirmed by my own findings that firms seem to regard fiscal incentives as a signal for a positive business environment and an administration with an „open ear“ for businesses needs; thereby having a „symbolic“ function as an index of good business climate and commitment of the public sector.

Guisinger and others (1985) carried out a survey with executives which indicated that „in this hypothetical case (would they have chosen the same location), the absence of incentives would have affected their decision, even though, in the real instance, the presence of incentives was not a major factor in their decision.“ This shows that a counter factual analysis of the problem must be carried out carefully.

B2. The concept of Enterprise or Empowerment Zones

Fiscal incentives are often conceded in EZ’s. An EZ is a defined area where planning controls are kept to a minimum and financial incentives are offered to developers and occupants.
The concept of EZ’s was introduced in the U.K. in the late 1970’s by Peter Hall. It is based on the Hong Kong record of increased job attraction through reduced regulation and partial relief of the tax burden (Zehner 1991).

The idea emerged in the U.S. with the Kemp-Garcia Bill in 1982. It took a long legislation process and in the meantime several states started to designate EZ’s. Thirty-seven states have created EZ legislation and literally thousands of zones have been designated. They vary tremendously in their size, number per state and application of economic development tools. Louisiana alone has 750 EZ’s; and in Ohio, virtually all of Toledo and Cleveland have been declared EZ’s under state legislation (Blakely & Bradshaw 2002). In Illinois there are 95 EZ’s offering a number of state and local tax incentives. Eligibility varies according to specific incentive requirements. Interestingly, the the idea of regulatory relief does not play a major role in the Illinois EZ program.

The Tax Foundation’s State Business Tax Climate Index (SBTCI) has ranked Illinois as having the 25th best SBTC in the USA for the fiscal year 2007. Erickson and Friedman (1990) compare the effectiveness of EZ’s by job creation and number of firms in the EZ. They find that the scope of incentive packages is correlated with the zones performance. The number of EZ’s designated is negatively correlated with with the number of investing establishments, highlighting the sparing and judicious use of EZ’s. States that use EZ programs to target fewer areas achieve better results. Even without a theoretical basis and reliable evaluation tools, EZ’s have become the urban reality which stands against the theory prediction I mentioned above. One has to treat them as the reality they are and evaluate them with all short comings their effects have in order to give political recommendations for.

**B3. Research Questions**

The theory implications lead to the following research questions:

1. Do the real estate tax abatement program and the sales tax exemption for construction material have any influence on the firms location decision?
2. Do the costs of the program exceed the economic impact of the newly created jobs measured with IMPLAN?
3. How much is the cost per job?
4. What is the cost ratio - return of investment per dollar - in forgone tax revenue?
5. How many additional jobs were induced per initial employment growth?
Champaign is a medium sized city in central Illinois. Together with its twin city Urbana it forms a metropolitan area which is home to the University of Illinois at Urbana Champaign.
Tab1: Champaign county statistical information:

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>185,682</td>
</tr>
<tr>
<td>Employment</td>
<td>118,584</td>
</tr>
<tr>
<td>Households</td>
<td>77,493</td>
</tr>
<tr>
<td>Number of industries</td>
<td>216</td>
</tr>
<tr>
<td>Income per household</td>
<td>72,531</td>
</tr>
<tr>
<td>Total personal income</td>
<td>5,620,627,000</td>
</tr>
<tr>
<td>Area (square miles)</td>
<td>997</td>
</tr>
<tr>
<td>Year of data</td>
<td>2006</td>
</tr>
</tbody>
</table>

(Source: IMPLAN)

The EZ is a joined effort of the city and the county of Champaign. Currently, 78 businesses are located in the EZ which encompasses approximately seven square miles in and around the City of Champaign. The benefits that this study is referring to are conceded to companies which locate in the city’s enterprise zone. In July of 1986, the State of Illinois certified the establishment of the City of Champaign – Champaign County Enterprise Zone (Commercial enterprise zone application packet, City of Champaign). The zone aims at stimulating economic growth and neighborhood revitalization by encouraging private investment in the designated areas. The local incentives include a sales tax exemption and the real estate tax abatement.

Companies located in the EZ can also apply for the following state incentives:

- Investment Tax Credit
- Work Opportunity Tax credit
- Income Tax Deduction for financial Institutions
- Dividend Deduction
- Corporate Contribution Deduction
- Utility Tax Exemption

To qualify for these benefits the company must meet the local eligibility criteria which are location, timing and project definition.

Location: A project must be located within the area designated as the City of Champaign – Champaign County Enterprise Zone. Projects within a Tax Increment Finance District are not eligible for property tax abatements.
**Project Timing:** For projects initiated after July 1st, 1986, applications must be submitted with building-related permit applications prior to any site preparation, site improvements or construction of any buildings.

**Project Definition:** In order to qualify as a commercial project, the primary use of the land and building must be of a professional service nature. The term does not include retail projects, personal services, restaurants or auto repair. Rehabilitation of existing commercial space, regardless of the use, qualifies for incentives.

**C1. The Real Estate Tax Abatement Program**

Upon completion of improvements to the property and reassessment by the Township Assessor, the City and County will abate 100% of the taxes on the increase in assessment resulting from the improvement. The abatement is for a 5 or 10 year period (depending on the type of industry and number of created jobs), beginning with the tax year in which the total new assessment is in effect. Properties located within a Tax Increment Finance (TIF) District are not eligible for property tax abatement. Due to the lapse in time between building permits being issued and the complete assessment being in place it may be 1 to 3 years before this abatement first appears on the tax bill. To calculate the value of the abatement the city, subtracts the building value of the base year from the current value and multiplys it with 0.1256 and the EAV (1/3 of market value), the city’s real estate tax. This value gets deducted from the real estate tax bill every year over the abatement’s period.

**C2. The Sales Tax Exemption**

In order to receive the sales tax exemption, the purchaser must comply with the following:

1. Apply to the City of Champaign zone administrator for EZ incentives. If project meets criteria the applicant receives a „Certificate of Eligibility“.
2. Only building material purchased within the state of Illinois through a legitimate building materials retailer or distributor are subject to sales tax exemption
3. The materials purchased must be permanently affixed to the real estate.
4. To receive the sales tax exemption the purchaser must present a valid „Certificate of Eligibility“ and complete a purchaser’s statement.
5. Building materials installed by the retailer making the sale are not eligible for this
incentive, unless the retailer’s supplier is located in the state of Illinois.

D. Methods
The main data source are the enterprise zone applications and the EZ database of the City of Champaign. From them I chose the case study companies according to the data availability on jobs created and benefits received which limits the selection of case study companies. For the chosen companies I carried out an economic impact analysis using IMPLAN. To capture the point of view of affected companies I did qualitative interviews with two of the firms CEO’s.

D1. Qualitative interviews
Obviously, many factors affect the decision to invest. Only some of these factors are the conventional ones which affect price and income. At the same time, there are many more intangible influences on the decision to invest, many of them specific to a given place. These include the political climate, the reliability of fiscal commitments, capital markets and the availability of cash, and both economic and political uncertainty. It is difficult to capture all these factors in an analytical framework.

Qualitative research with open interview questions can lead to an understanding of the specific issues a particular company is facing at a particular location.

Opinion surveys of firm executives are a commonly used instrument to evaluate the effect of fiscal incentives. Even though an objective assessment is not possible with that method they can serve as a complement to more rigorous empirical analysis of that issue (Boadway & Shah 1995).

Interviews vary in their degree of standardization: standardized, semi-standardized and non-standardized interviews. For this case study, the semi-standardized interview is used. This empirical method of research collection allows the inclusion of all subject areas. The semi-standardized interview guide also provides sufficient opportunities and space for additional adjustments and more detailed inquiries during the interview process. Results obtained during the interview can easily be incorporated in the ongoing interview (Kromrey 1994). On one hand, the interview guide consists of a standardized part comprising standardized questions. On the other hand, parts of the interview guide are composed of explicitly open qualitative questions that intend to specify standardized answers and explores individual opinions of the interview partners. Some questions are generally formulated to assess which criteria is spontaneously considered positive
or negative. The interview method is employed in this research by using face-to-face dialogues. The initial plan of doing qualitative interviews with all case study companies had to be dropped because the contacted firms did not reply to my request. The first request was sent out by a letter and two weeks later I sent e-mails. I phoned those companies which did not reply to my e-mails either. In the e-mails and phone calls, I was told that the companies did not want to discuss the topic.

A shoe retailer, who had just relocated from Champaign to Savoy, a neighboring town also refused to give me an interview. Savoy advertises itself on its homepage (www.village.savoy.il.us) with having lower tax rates than Urbana-Champaign and rumors in the Champaign business community (interviews) claim that this was the reason for the shoe retailer’s relocation.

In the end, only 2 interviews with case study companies are carried out. These companies are a chemical research company and a book publisher.

The interviews with the city’s economic development manager (expert interview) happened on an informal basis and were not recorded. I met with him regularly at the city hall when I was researching information on the tax records.

D2. Economic impact analysis

Economic impact simulations predict the economic effects upon a regional or state economy of a new business location or a new project venture occurring in the state or regional economy.

It does so by tracing spending through an economy and measuring the cumulative effects of that spending. One way of measuring economic impact is to forecast the number of jobs created or lost by an event. In this case, I only forecast the effect of jobs created. An economic impact analysis can show impacts in each of as many as 500 separate sectors of a region's economy. Economic impact studies measure the effect of a business, organization, industry or event on the local, regional, or state economy. The advantage of an input-output model is that it provides impact estimates in a general equilibrium framework instead of single-market analysis (referred to as "partial equilibrium"). The input-output model captures not only the direct impact of employment change but also the indirect and induced impacts in the regional economy.
D3. IMPLAN

For carrying out the impact analysis of the jobs created and the opportunity costs, I used the IMPLAN (IMPact Analysis for PLANning) software. This software was developed by the USDA Forest Service together with the Federal Emergency Management Agency and the USDI Bureau of Land Management to assist the Forest Service in land and resource management planning.

The work on the necessary database started in 1987 at the University of Minnesota and led to the formation of the IMPLAN Group in 1993. The first version IMPLAN 1 was released in 1996.

The IMPLAN software is used to analyze a wide range of issues, including for example:

- Industry relocation
- Military base closure
- Stadium development
- Natural resource issues
- Economic base analysis

It features two components: the software and the database.

The software itself consists of two major parts: 1. the national level technology matrices and 2. estimates of regional data for institutional demand and transfers, value added, industry output and employment for each county in the USA, as well as state and national totals.

Data and accounts closely follow the accounting conventions used in the „input-output study of the U.S. Economy“ by the Bureau of Economic Analysis (1980) and the rectangular format recommended by the United Nations.

The software provides the interface to change the region’s economic makeup, creating impact scenarios and forecasting changes to the local model. It also performs the calculations using study area data and creating models.

There are two different models constructed for each region.

1. The descriptive model describes the transfers of money between industries and institutions. It contains the social accounts and the input-output accounts.
2. The predictive model is the set of input-output multipliers which “predict” total regional activity based on a change in consumption - i.e., a vector of expenditures.

The default trade flow assumptions are Regional Purchase Coefficients (RPC’s). RPC’s are derived with an econometric equation that predicts local purchases based on the region’s characteristics.
The ratio of locally purchased to imported goods is perhaps the most significant factor affecting subsequent multipliers. The greater quantity of goods purchased locally, the more local economic activity will be stimulated and, hence, the larger the resulting multiplier. Social Accounting Matrix (SAM) multipliers are the direct, indirect, and induced effects where the induced effect is based on information in the social account matrix. This relationship accounts for social security and income tax leakage, institution savings, and commuting. It also accounts for inter-institutional transfers.

**Direct Effects**
Represent the response (e.g. change in employment) for a given industry per million dollars of final demand for that same industry.

**Indirect Effects**
Represent the response by all local industries caused by the iteration of industries purchasing from industries per million dollars of final demand for a given industry.

**Induced Effects**
Represent the response by all local industries caused by the expenditures of new household income generated by the direct and indirect effects per million dollars of final demand for a given industry. Induced effects may also reflect government or investment if these are selected by with the SAM multiplier.

**Total**
Total multiplier effect is the sum of the direct, indirect and induced effects. It represents the entire response per million dollars of final demand.

(Source: IMPLAN manual)

As mentioned above, I use the software in reverse and manipulate the employment, not the demand.

First I assign the case study companies to a specific sector. Then I change the employment of this sector by the number of jobs created which I derive from the EZ application form. I do three scenarios: one with 100% of the jobs created; one with 25% of the jobs created, one with 10% of the jobs created. Tym and partners (1984) estimated that 25% of the newly created jobs in EZ’s in the UK were attributed to zone designation. Halvorsen (in Shah 1995 ) uses number of jobs created in in the application for promotion to the Board of investment Thailand. Firms have an incentive to misstate the characteristics of projects to increase the amount of incentives received. Rubin, Brooks, Buxbaum (1992) use an input-output model to perform a cost-benefit
A common problem for this kind of study is separating the effects of the fiscal incentives from the overall regional economic performance. The problem with case studies is that incentive programs are often very small relative to the local economy. Another difficulty is the poor quality of data at the local level. It was difficult to get consistent data for the selected case study companies. So I was forced to reduce the number and do the case study only for companies for which I could get all the data I needed.

Compliance is also a big issue here and since the city does not control whether the jobs really are created, the 100% scenario must be regarded as highly optimistic. The 25% scenario is more realistic because even if all the jobs were to be created, they still would not be linked totally to the fiscal incentives. Tym (1984) estimates that only 20%-30% of the created jobs in the British EZ program were linked to zone designation and fiscal incentives given. Other studies in the U.K. and the U.S. found the same percentage (Morse and Farmer 1986). From the interviews I learned that this number is probably even smaller because the amount of tax benefits is too low to change a company’s location decision-making behaviour. This is why I also use a 10% scenario.

**D4. Selection of the case study companies**

The selection of case companies is a sample of the different type of businesses in the EZ. I included large and small companies, service and manufacturing industries, and both relatively old and young companies. The initial set of companies had to be changed several times due to limitations in data availability and decreased from 15 to 7, leaving only one manufacturing company.

Another task was assigning the selected companies to the sectors of the IMPLAN accounting matrix.

The IMPLAN sector classification of the case study companies:

- wholesale trade
- electronic components manufacturing
- data processing services
- hotel
- scientific research
- courier and messengers
- book publisher

company x1
company x2
company x3
company x4
company x5
company x6
company x7
E. The results
In this section I present the results of the interviews and the IMPLAN analysis and perform a cost benefit analysis.
As mentioned above this study researches only companies which chose to locate in the EZ. The sample of companies represent the different types of industries and the different sizes. The affected region is the Champaign county since the real estate abatement and the sales tax exemption are local incentives.
The industries initially affected are the companies I chose to include in the study. There is more than one phase but I exclude the construction phase because I want to research the impact of the created jobs.
The following table Tab2 shows the results of the IMPLAN economic impact analysis which is the base for my further calculations. They are organized by changes in output, employment and indirect business taxes due to a raise of direct employment. These categories are split up in direct, indirect, induced and total effects. The change in direct employment is the number of created jobs the case study companies provided in the EZ application form.
Furthermore, the same economic impact analysis was performed using 25% and 10% of the number of created jobs from the EZ application form. The tables can be found in the appendix.

Example for reading the table:
The first company x1 is a whole seller assigned to IMPLAN sector 390. The number of new jobs created from the EZ application form is 10. The economic impact of these 10 jobs on Champaign County is an increase in the region’s total output of $1,855,177 which can be split up in direct, indirect and induced output. The effect on employment is 2.3 indirect jobs and 3 induced jobs. Also $223,309 of indirect business taxes are generated in total.
Tab2: The economic impact of the jobs created by the case study companies

<table>
<thead>
<tr>
<th>Name/sector</th>
<th>Category</th>
<th>Direct</th>
<th>Indirect</th>
<th>Induced</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>x1 / 390-wholesale trade</td>
<td>Output in $</td>
<td>1,330,952</td>
<td>237,218</td>
<td>287,007</td>
<td>1,855,177</td>
</tr>
<tr>
<td>x1</td>
<td>employment</td>
<td>10</td>
<td>2.3</td>
<td>3.0</td>
<td>15.4</td>
</tr>
<tr>
<td>x1</td>
<td>IBT¹ $</td>
<td>194,797</td>
<td>10,202</td>
<td>18,311</td>
<td>223,309</td>
</tr>
<tr>
<td>x2 302 all other electronic components manufacturing</td>
<td>Output $</td>
<td>1,246,750</td>
<td>284,789</td>
<td>198,410</td>
<td>1,729,949</td>
</tr>
<tr>
<td>x2</td>
<td>employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x2</td>
<td>IBT $</td>
<td>6</td>
<td>1.9</td>
<td>2.1</td>
<td>10</td>
</tr>
<tr>
<td>x3 / 424 data processing services</td>
<td>Output $</td>
<td>14,804,098</td>
<td>3,965,919</td>
<td>3,334,386</td>
<td>22,104,492</td>
</tr>
<tr>
<td>x3</td>
<td>employment</td>
<td>73</td>
<td>43.2</td>
<td>35.3</td>
<td>151.6</td>
</tr>
<tr>
<td>x3</td>
<td>IBT $</td>
<td>90,187</td>
<td>150,325</td>
<td>212,731</td>
<td>453,242</td>
</tr>
<tr>
<td>x4 /479 hotel</td>
<td>Output $</td>
<td>2,958,419</td>
<td>645,572</td>
<td>634,166</td>
<td>4,238,157</td>
</tr>
<tr>
<td>x4</td>
<td>employment</td>
<td>50</td>
<td>5.4</td>
<td>6.7</td>
<td>62.1</td>
</tr>
<tr>
<td>x4</td>
<td>IBT $</td>
<td>272,733</td>
<td>24,001</td>
<td>40,460</td>
<td>337,194</td>
</tr>
<tr>
<td>x5 /446 scientific research and development</td>
<td>Output $</td>
<td>404,291</td>
<td>107,220</td>
<td>125,258</td>
<td>636,769</td>
</tr>
<tr>
<td>x5</td>
<td>employment</td>
<td>4</td>
<td>1.1</td>
<td>1.3</td>
<td>6.4</td>
</tr>
<tr>
<td>x5</td>
<td>IBT $</td>
<td>1,497</td>
<td>4,679</td>
<td>7,992</td>
<td>14,167</td>
</tr>
<tr>
<td>x6 /399 couriers and messengers</td>
<td>Output $</td>
<td>1,204,969</td>
<td>150,821</td>
<td>290,061</td>
<td>1,645,851</td>
</tr>
<tr>
<td>x6</td>
<td>employment</td>
<td>18</td>
<td>1.5</td>
<td>3.1</td>
<td>22.5</td>
</tr>
<tr>
<td>x6</td>
<td>IBT $</td>
<td>17,465</td>
<td>5,862</td>
<td>18,505</td>
<td>41,831</td>
</tr>
<tr>
<td>x7 /415 book publisher</td>
<td>Output $</td>
<td>2,577,033</td>
<td>587,825</td>
<td>334,590</td>
<td>3,499,448</td>
</tr>
<tr>
<td>x7</td>
<td>employment</td>
<td>10</td>
<td>4.1</td>
<td>3.5</td>
<td>17.6</td>
</tr>
<tr>
<td>x7</td>
<td>IBT $</td>
<td>14,805</td>
<td>20,465</td>
<td>21,347</td>
<td>56,617</td>
</tr>
</tbody>
</table>

(source: own illustration with IMPLAN results)

¹ IBT= Indirect business taxes
E1. Job creation

By summing indirect and induced employment and dividing it by direct employment I calculated how many jobs were created in addition to the directly created jobs. The ratio stays the same in all scenarios.

Tab3: Job creation by industry

<table>
<thead>
<tr>
<th>Sector</th>
<th>Employment direct</th>
<th>Employment induced</th>
<th>Induced employment/direct employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data processing services</td>
<td>73</td>
<td>78.5</td>
<td>1.07</td>
</tr>
<tr>
<td>Book publisher</td>
<td>10</td>
<td>7.6</td>
<td>0.76</td>
</tr>
<tr>
<td>Electronic component manufacturing</td>
<td>6</td>
<td>4</td>
<td>0.66</td>
</tr>
<tr>
<td>Scientific research</td>
<td>2</td>
<td>2.4</td>
<td>0.6</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>10</td>
<td>5.4</td>
<td>0.54</td>
</tr>
<tr>
<td>Courier messenger service</td>
<td>18</td>
<td>4.5</td>
<td>0.25</td>
</tr>
<tr>
<td>Hotel</td>
<td>50</td>
<td>12.1</td>
<td>0.24</td>
</tr>
</tbody>
</table>

(own calculations)

Ratio of induced employment and direct employment

![Graph showing the ratio of induced employment to direct employment for various sectors](graph.png)

(own illustration)
**E2. The costs of the incentive program**

The cost structure of the program will be analyzed in regards to four aspects:

1. The costs per job
2. The ratio of indirect business taxes and foregone tax revenue
3. The administrative costs
4. The opportunity costs

The costs per job are the sum of the values of the real estate tax abatement and the sales tax exemption divided by the number of jobs created. It is important to notice that this study is looking at the fiscal year 2006 as a point of time. Whereas the real estate tax abatement is conceded over a period of either 5 or 10 years. This has two reasons: First, the IMPLAN software analyses for a certain point in time, in this case 2006, and the sales tax exemption is a one time only event. So the results must be regarded as costs per job in the year 2006.

The ratio of indirect business taxes and foregone tax revenue is a simple indicator for the cost effectiveness of the program. It shows the indirect business generated per dollar of foregone tax revenue.

### Tab4: The costs in the 100% scenario

<table>
<thead>
<tr>
<th>Name</th>
<th>RE Abatement</th>
<th>ST Exemption</th>
<th>Foregone tax revenue</th>
<th>IBT</th>
<th>Jobs created</th>
<th>Jobs induced</th>
<th>Costs per job</th>
<th>ratio¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>x1</td>
<td>4,885.15</td>
<td>9,180</td>
<td>14,065.15</td>
<td>223,309</td>
<td>10</td>
<td>5.4</td>
<td>913.32</td>
<td>15.8</td>
</tr>
<tr>
<td>x2</td>
<td>2,043.23</td>
<td>9,000</td>
<td>11,043.23</td>
<td>27,643</td>
<td>6</td>
<td>4</td>
<td>1,104.32</td>
<td>2.5</td>
</tr>
<tr>
<td>x3</td>
<td>407.84</td>
<td>127,208.47</td>
<td>127,616.31</td>
<td>453,242</td>
<td>73</td>
<td>78.5</td>
<td>841.80</td>
<td>3.5</td>
</tr>
<tr>
<td>x4</td>
<td>27,771.56</td>
<td>72,000</td>
<td>99,771.56</td>
<td>337,194</td>
<td>50</td>
<td>12.1</td>
<td>1,606.63</td>
<td>3.3</td>
</tr>
<tr>
<td>x5</td>
<td>4,143.76</td>
<td>9,900</td>
<td>14,043.76</td>
<td>14,167</td>
<td>4</td>
<td>2.4</td>
<td>2,194.33</td>
<td>0.9</td>
</tr>
<tr>
<td>x6</td>
<td>30,628</td>
<td>7,200</td>
<td>37,828</td>
<td>41,831</td>
<td>18</td>
<td>4.5</td>
<td>1,681.24</td>
<td>1.1</td>
</tr>
<tr>
<td>x7</td>
<td>3,130</td>
<td>19,806.3</td>
<td>22,936.30</td>
<td>56,617</td>
<td>10</td>
<td>7.6</td>
<td>1,303.20</td>
<td>2.4</td>
</tr>
</tbody>
</table>

¹ ratio = IBT/foregone tax revenue

(Source: own calculations)

In the 100% scenarios these costs range from $841.80 in data processing services per job per year to $2,194.33 in scientific research per job per year.
Tab 5: The costs in the 25% scenario

<table>
<thead>
<tr>
<th>Name</th>
<th>RE Abatement</th>
<th>ST Exemption</th>
<th>Foregone tax revenue</th>
<th>Indirect business taxes</th>
<th>Jobs created</th>
<th>Jobs induced</th>
<th>Costs per job</th>
<th>ratio¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>x1</td>
<td>4,885.15</td>
<td>9,180</td>
<td>14,065.15</td>
<td>55,827</td>
<td>2.5</td>
<td>1.3</td>
<td>3,701.35</td>
<td>3.9</td>
</tr>
<tr>
<td>x2</td>
<td>2,043.23</td>
<td>9,000</td>
<td>11,043.23</td>
<td>6,911</td>
<td>1.5</td>
<td>1</td>
<td>4,417.29</td>
<td>6.0</td>
</tr>
<tr>
<td>x3</td>
<td>407.84</td>
<td>127,208.47</td>
<td>127,616.31</td>
<td>113,311</td>
<td>18.3</td>
<td>19.6</td>
<td>3,367.18</td>
<td>0.9</td>
</tr>
<tr>
<td>x4</td>
<td>27,771.56</td>
<td>72,000</td>
<td>99,771.56</td>
<td>84,299</td>
<td>12.5</td>
<td>3</td>
<td>6436.87</td>
<td>0.8</td>
</tr>
<tr>
<td>x5</td>
<td>4,143.76</td>
<td>9,900</td>
<td>14,043.76</td>
<td>3542</td>
<td>1</td>
<td>0.6</td>
<td>8777.35</td>
<td>0.25</td>
</tr>
<tr>
<td>x6</td>
<td>30,628</td>
<td>7,200</td>
<td>37,828</td>
<td>10,458</td>
<td>4.5</td>
<td>1.1</td>
<td>6755</td>
<td>0.27</td>
</tr>
<tr>
<td>x7</td>
<td>3,130</td>
<td>19,806.3</td>
<td>22,936.30</td>
<td>14,154</td>
<td>2.5</td>
<td>1.9</td>
<td>5212.79</td>
<td>0.6</td>
</tr>
</tbody>
</table>

¹ ratio = IBT/foregone tax revenue  
(Source: own calculations)

In the 25% scenario these costs range from $3,367.18 per job per year in data processing services to $8,777.35 per job per year in scientific research.

Tab 6: The costs in the 10% scenario

<table>
<thead>
<tr>
<th>Name</th>
<th>RE Abatement</th>
<th>ST Exemption</th>
<th>Foregone tax revenue</th>
<th>Indirect business taxes</th>
<th>Jobs created</th>
<th>Jobs induced</th>
<th>Costs per job</th>
<th>ratio¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>x1</td>
<td>4,885.15</td>
<td>9,180</td>
<td>14,065.15</td>
<td>22,331</td>
<td>1</td>
<td>0.5</td>
<td>9,376.76</td>
<td>1.5</td>
</tr>
<tr>
<td>x2</td>
<td>2,043.23</td>
<td>9,000</td>
<td>11,043.23</td>
<td>2,764</td>
<td>0.6</td>
<td>0.4</td>
<td>11,043.23</td>
<td>0.25</td>
</tr>
<tr>
<td>x3</td>
<td>407.84</td>
<td>127,208.47</td>
<td>127,616.31</td>
<td>45,324</td>
<td>7.3</td>
<td>7.9</td>
<td>8,395.80</td>
<td>0.35</td>
</tr>
<tr>
<td>x4</td>
<td>27,771.56</td>
<td>72,000</td>
<td>99,771.56</td>
<td>33,719</td>
<td>5</td>
<td>1.2</td>
<td>16092.18</td>
<td>0.33</td>
</tr>
<tr>
<td>x5</td>
<td>4,143.76</td>
<td>9,900</td>
<td>14,043.76</td>
<td>1,417</td>
<td>0.4</td>
<td>0.2</td>
<td>23,406.26</td>
<td>0.1</td>
</tr>
<tr>
<td>x6</td>
<td>30,628</td>
<td>7,200</td>
<td>37,828</td>
<td>2,928</td>
<td>1.8</td>
<td>0.3</td>
<td>18,013.33</td>
<td>0.07</td>
</tr>
<tr>
<td>x7</td>
<td>3,130</td>
<td>19,806.3</td>
<td>22,936.30</td>
<td>5,662</td>
<td>1</td>
<td>0.8</td>
<td>12,742.34</td>
<td>0.24</td>
</tr>
</tbody>
</table>

¹ ratio = IBT/foregone tax revenue  
(Source: own calculations)

In the 10% scenario these costs range from $8,395.80 per job per year in data processing services to $23,406.26 in scientific research.

The administrative costs of the program are not included. If one assumes that one full time job is devoted to the management of the EZ and the fiscal incentives program the labor costs for an urban planner in Champaign would be approximately $40,000 per year (source: www.salary.com).

I could not include the administration costs in the study because there are only two employees of the city working with the EZ, neither of them full time. Furthermore, I do not know their annual earnings.
E3. The opportunity costs of the fiscal incentives program

By adding the total value of the real estate tax abatement and the sales tax exemption, I calculate the total cost for the City/County of Champaign. It must be mentioned that the data for the EZ is not complete so that the true cost for the city must be estimated a bit higher.

Tab7: Cost of the fiscal incentive program in 2006

<table>
<thead>
<tr>
<th>Sum of sales tax</th>
<th>1,117,292.69</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of real estate tax abatement</td>
<td>291,065.47</td>
</tr>
<tr>
<td>Total value of fiscal incentives</td>
<td>1,408,358.16</td>
</tr>
</tbody>
</table>

As the numbers show the sales tax exemption is far more important in terms of costs for the City and as an incentive for companies. This confirms my findings from the company interviews and the literature review.

These total numbers are what I used to estimate the opportunity costs of the program.

The costs of the fiscal incentive program do not only consist of the forgone tax revenue. One must also consider the opportunity costs of the program. The money lost in forgone tax revenue could be used to build roads, schools or could be given to the households.

To estimate the opportunity costs of the incentive program I used the IMPLAN software.

In several scenarios I used the total value of the fiscal incentives mentioned above and raised the output of several sectors by that amount.

Similarly, I simulated a tax break or a subsidy for the poorest households and raised government spending in several sectors.

The results of the economic impact analysis for the the opportunity costs are shown in the table below.

The highest job creation (192.6) occurred when the private households were given a subsidy.

Calculating the costs per job the result was a cost of 7,312.34$ per job.

The highest indirect business taxes were generated when raising the income of the private households to $50-$75k.

Tab8: Economic impact of the program’s value spent in other sectors
<table>
<thead>
<tr>
<th>sector</th>
<th>Category</th>
<th>Direct</th>
<th>Indirect</th>
<th>Induced</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>12003 state/local</td>
<td>output</td>
<td>1,408,358.16</td>
<td>153,106</td>
<td>207,085</td>
<td>1,768,550</td>
</tr>
<tr>
<td>12003</td>
<td>employment</td>
<td>6.9</td>
<td>1.5</td>
<td>2.2</td>
<td>10.5</td>
</tr>
<tr>
<td>12003</td>
<td>IBT</td>
<td>5,246</td>
<td>5,673</td>
<td>13,212</td>
<td>24,131</td>
</tr>
<tr>
<td>12002 State/local</td>
<td>output</td>
<td>1,408,358.16</td>
<td>25,151</td>
<td>505,471</td>
<td>1,938,980</td>
</tr>
<tr>
<td>12002</td>
<td>employment</td>
<td>23.4</td>
<td>0.2</td>
<td>5.4</td>
<td>28.9</td>
</tr>
<tr>
<td>12002</td>
<td>IBT</td>
<td>3,659</td>
<td>1,002</td>
<td>32,248</td>
<td>36,909</td>
</tr>
<tr>
<td>12001 state/local</td>
<td>output</td>
<td>1,408,358.16</td>
<td>61,410</td>
<td>338,546</td>
<td>1,808,314</td>
</tr>
<tr>
<td>12001</td>
<td>employment</td>
<td>11.7</td>
<td>0.6</td>
<td>3.6</td>
<td>15.9</td>
</tr>
<tr>
<td>12001</td>
<td>IBT</td>
<td>10,454</td>
<td>2,680</td>
<td>21,598</td>
<td>34,732</td>
</tr>
<tr>
<td>494 private households</td>
<td>output</td>
<td>1,408,358.16</td>
<td>0</td>
<td>845,241</td>
<td>2,253,599</td>
</tr>
<tr>
<td>494</td>
<td>employment</td>
<td>183.6</td>
<td>0</td>
<td>9.0</td>
<td>192.6</td>
</tr>
<tr>
<td>494</td>
<td>IBT</td>
<td>0</td>
<td>0</td>
<td>53,928</td>
<td>53,928</td>
</tr>
<tr>
<td>497 state/local</td>
<td>output</td>
<td>1,408,358.16</td>
<td>201,550</td>
<td>650,164</td>
<td>2,260,072</td>
</tr>
<tr>
<td>497</td>
<td>employment</td>
<td>18.7</td>
<td>1.6</td>
<td>6.9</td>
<td>27.2</td>
</tr>
<tr>
<td>497</td>
<td>IBT</td>
<td>0</td>
<td>7,287</td>
<td>41,479</td>
<td>48,765</td>
</tr>
<tr>
<td>503 state&amp;local</td>
<td>output</td>
<td>1,408,358.16</td>
<td>0</td>
<td>628,429</td>
<td>2,036,787</td>
</tr>
<tr>
<td>503</td>
<td>employment</td>
<td>29.3</td>
<td>0</td>
<td>6.7</td>
<td>36</td>
</tr>
<tr>
<td>503</td>
<td>IBT</td>
<td>0</td>
<td>0</td>
<td>40,092</td>
<td>40,092</td>
</tr>
<tr>
<td>504 state&amp;local no</td>
<td>output</td>
<td>1,408,358.16</td>
<td>0</td>
<td>628,429</td>
<td>2,036,787</td>
</tr>
<tr>
<td>504</td>
<td>employment</td>
<td>19.8</td>
<td>0</td>
<td>6.7</td>
<td>26.4</td>
</tr>
<tr>
<td>504</td>
<td>IBT</td>
<td>0</td>
<td>0</td>
<td>40,092</td>
<td>40,092</td>
</tr>
<tr>
<td>10001 households lt 10k</td>
<td>output</td>
<td>1,408,358.16</td>
<td>150,108</td>
<td>141,649</td>
<td>1,700,160</td>
</tr>
<tr>
<td>10001</td>
<td>Employment</td>
<td>7.7</td>
<td>1.4</td>
<td>1.5</td>
<td>10.5</td>
</tr>
<tr>
<td>10001</td>
<td>IBT</td>
<td>49,187</td>
<td>6,984</td>
<td>9,040</td>
<td>65,211</td>
</tr>
<tr>
<td>10006 households 50-75 k</td>
<td>output</td>
<td>1,408,358.16</td>
<td>148,544</td>
<td>139,027</td>
<td>1,695,939</td>
</tr>
<tr>
<td>10006</td>
<td>Employment</td>
<td>8.2</td>
<td>1.3</td>
<td>1.5</td>
<td>11.0</td>
</tr>
<tr>
<td>10006</td>
<td>IBT</td>
<td>52,790</td>
<td>6,839</td>
<td>8,870</td>
<td>68,499</td>
</tr>
<tr>
<td>10009 households 150k+</td>
<td>output</td>
<td>1,408,358.16</td>
<td>151,930</td>
<td>141,825</td>
<td>1,702,113</td>
</tr>
<tr>
<td>10009</td>
<td>Employment</td>
<td>8.6</td>
<td>1.4</td>
<td>1.5</td>
<td>11.5</td>
</tr>
<tr>
<td>10009</td>
<td>IBT</td>
<td>52,040</td>
<td>7,061</td>
<td>9,048</td>
<td>68,150</td>
</tr>
<tr>
<td>499 other state&amp;local</td>
<td>output</td>
<td>1,408,358.16</td>
<td>434,197</td>
<td>252,849</td>
<td>2,095,404</td>
</tr>
<tr>
<td>499</td>
<td>employment</td>
<td>6.0</td>
<td>3.7</td>
<td>2.7</td>
<td>12.4</td>
</tr>
<tr>
<td>499</td>
<td>IBT</td>
<td>201</td>
<td>12,135</td>
<td>16,131</td>
<td>28,467</td>
</tr>
</tbody>
</table>

(source: own illustration with IMPLAN results)
E4. The Interviews

Two companies replied to my request, agreeing to be interviewed. These companies are a chemical research company and a publisher. The interviewed persons are the companies’ CEO’s.

Both declare that the incentives had no influence on their firm’s site selection process. The research company did not even know that its site was located in the EZ when selecting it. Yet, both companies report that the sales tax exemption made their investment less expensive and consider it more important than the real estate tax abatement. This is consistent with the literature suggesting that the: „most valued incentives are those that can be taken immediately“ (M. Rubin 1994).

A reason why both companies did not do a site selection process might be that both owners have close ties to Champaign, having graduated and worked for the UIUC.

The most important site selection factor for the chemical research company is the university and the network the CEO has with it. Another important factor is the relatively moderate salary level and the low costs of living which are linked to the the quality of life. “Our salaries are lower than at the east coast or in Chicago or in California but people get more house for their dollar here.“ (quote from interview)

The chemical research company even turned down a significantly larger incentive package from Iowa City because its network with UIUC and the university’s excellent chemistry department are eminent business factors.

As for the number of created jobs the CEO of the chemical research company confirms the number from the EZ application and also mentions that he was planning on hiring more people; whereas the CEO of the book publisher can not confirm that number and declares that the company’s lawyers took care of the application process.

The most important site selection factor for the publisher is the availability of space to expand.

Furthermore the publisher emphasizes the good working relationship with the city and the city’s construction of a street leading to a newly built warehouse of the company.

A good working relationship with the city is also considered important from the chemical research company but the CEO mentioned problems when applying for a building permit.

The results of the interviews support my hypothesis that fiscal incentives have no influence on a firm’s site selection. Though, they also suggest that making investment cheaper is a positive effect of the EZ.
F. Conclusion

If one follows the political point of view that the created jobs were linked 100% to Champaign’s fiscal incentive program it would be an astonishing success and a great investment for the city. The cost ratio ranges from 0.9 in scientific research and development to 15.9 in wholesale trade - all but one sector having a cost ratio that is larger than 1. This means that for every dollar in forgone tax revenue, the city gets $15.9 in additional indirect business taxes when conceding tax breaks to a whole seller and $0.90 when conceding tax breaks to a research company.

In data processing services occurs the second best result with a cost ratio of 3.4. This case also has the lowest costs per job, at $841.80. Additionally, this is the sector where the highest indirect and induced job creation occurs. The highest costs per job occur in scientific research where every job costs $2,194.33 in foregone tax revenue.

The worst ratio of induced jobs per created job occurs in the hotel, where the per job creation is only 0.24 additional jobs. Interestingly, the cost ratio is 3.9 in this case.

As I mentioned above the 100% scenario seems unrealistic to me. First, because the city does not control whether the number of jobs stated in the application reflect the number of jobs created. Secondly, even if they were to be created as stated the linkage to the incentives still seems improbable.

So the 25% scenario is the realistic one in my opinion and consistent with literature (Tym 1984; Morse and Farmer 1986). In this scenario the cost ratio is not favorable for the city’s return on investment. The cost ratio ranges from 0.25 in scientific research to 3.3 in wholesale trade. Wholesale trade being the only sector with a positive cost ratio.

In this scenario the data processing service and the hotel share the second place in the cost ratio. Both with a cost ratio of 0.8 which is still acceptable in my opinion. The costs per job range from $3,367.18 per job in data processing services to $8777.35 per job in scientific research.

Costs per job are still on a moderate level compared to the costs per job one can find in literature but the return on the city’s investment is too low if a strong emphasis is placed on the cost ratio.

The 10% scenario is really a „worst case scenario“. The cost ratio ranges from 0.07 in courier and messenger services to 1.5 in wholesale trade. Second best outcome in cost ratio which, is 0.35, occurs again in data processing services. The lowest costs per job can also be found in this sector with $8,395.80.
The highest costs per job occur in scientific research and are $23,406.26 with a cost ratio of 0.1.

Ultimately, the number of jobs created as shown in the application form of the EZ is far too high if one assumes that they are directly linked to the benefits. Politicians and planners should keep this in mind. As the total value of the incentives is rather low, the effect this has on a company's decision making must also be low. The traditional site selection factors are more important.

From interviews with a local research company and a local publisher, I learned that the incentive program did not have any impact on their decision making process at all. Nonetheless, since the tax benefits may increase a local firm's competitiveness due to their cost reducing character and their total amount is rather low compared to the economic impact of the industries in which they occurred, incentives can still be justified. Especially, considering the opportunity costs, the incentive program maybe a good investment as none of the sectors I considered for the opportunity costs exhibited a higher job creation per Dollar. Thus would be a better investment for the city. Therefore, it is important to mention that the incentive programs are not necessarily a waste of money but rather could be a reasonable investment.

Literature puts a strong emphasis on fiscal incentives for research and development (Shah, Pottelsberghe, 1995). As a strategy of creating high-tech-clusters fiscal incentives might be justified. Though, in this sector occurs the highest cost per job, or in other words, the lowest multiplier effect per Dollar of forgone tax revenue. If one regards merely the multiplier effects derived from IMPLAN, incentives for high-tech-industry may not seem to be an optimal idea. Whole sale trade yields the best cost ratio and data processing services induce the most jobs.

In my opinion, the University is the biggest asset of Champaign. Special attention should be brought to utilizing this asset in promoting spin-offs. The city is doing so with its research park and the business incubators. In the case of the chemical research company this strategy proved successful since it „grew up“ in the business incubator and now moved to the EZ.

The book publisher can also be regarded a spin-off from the University. It was founded because the owner could not find a publisher to publish a study which he wrote, so he formed the company and then published it himself. He proved so successful that his company now has over 200 employees. When expanding to a new warehouse, the city built a small connecting street which the publisher emphasized much more than the fiscal
incentives. Furthermore, I learned from the interviews that a good working relationship with the city seems to be more important to the companies than the fiscal incentives. These two examples show the importance for the city not only to focus on fiscal incentives but also on traditional location factors such as infrastructure or new wave policies like the incubator which ultimately proved successful for the research company in this case study. I recommend a rearrangement of the fiscal incentives program. The tax expenditure currently given to the EZ companies should be put in an infrastructure fund for improvements of the traditional site selection factors in the EZ. Companies would still receive the state tax benefits which are larger than the city benefits and the city could allocate its scarce resources more efficiently. To achieve this the city’s incentives should not be granted “as right“ but rather negotiated case by case with companies that specially apply for them. By doing so, the attainment of benefits by companies that actually do not need them could be avoided. Then more targeted benefits paid by the infrastructure fund could be conceded to companies who apply for them on a case-by-case basis. This could be a way of assuring that the city’s efforts are directed toward activities where they could make the most difference and thereby attract companies which otherwise would not settle in Champaign. A further advantage for the city to negotiate benefits case by case is that it can establish penalties to make sure the companies really create the jobs they promise. Compliance is always an issue when talking about subsidies and to date Champaign does not have any compliance instruments. The incentive program can also be seen as necessary for Champaign’s competitiveness with other cities and indicates a good business climate index. Wong (1996) states that: “...increasingly researchers have found business climate an important location factor.” Cutting the incentives would mean a tax increase which surely would have negative influence on the business climate. This problem could be eased by a good communication strategy of promoting the infrastructure found as a new, more efficient tool of economic development, especially, since the companies do not seem to value the tax benefits. This also shows the dilemma of fiscal incentives: Nobody likes them and since they are available everywhere they loose their power but if they are cut back it is seen as a tax increase with all the negative implications. The city manager for development uttered a very pragmatic view when I discussed this problem with him saying: „Fiscal incentives are like a lottery ticket. You don’t always win but without it you have no chance of winning at all.“
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Dear Sir or Madam:

I am a German exchange student in the Department of Urban and Regional Planning at UIUC and I am doing research for my master thesis. My project is supervised by Prof. Edward Feser of UIUC and Prof. Elmar Kulke of Humboldt Universität Berlin. Craig Rost from the City of Champaign (and adjunct professor at UIUC) is also advising me.

My research project focuses on the institutional site selection factors in business location decision-making. I would like to determine the role the Enterprise Zone played in your decision to locate at your present site.

Therefore I would like to interview a senior manager of your company. The interview will take approximately 45 minutes. I would be very glad if you could find time for me and if your are interested in the outcome I would be glad to send you the results.

If you decide to participate or have any questions please contact me at: pscheer2@uiuc.edu or 217 377 5318

Thank you very much for your assistance.

Yours Sincerely,

Philipp Scheerer
H2. Interview transcripts

Interview 1:

Interview with chemical research company (BB), Interviewer (I)

I: „Your new facility is located in the EZ?“
BB: „ We are located in an EZ, that is correct.“
I: „And you get a real estate tax abatement.“
BB: „We get a modest tax abatement. I can’t remember the actual numbers but they are pretty modest.“
I: „O.K., so what I am basically interested in is how much influence this abatement had in your decision making process in the site selection search and for that I am going to ask you several questions and if you got anything else to say please don’t hesitate.“
I: „So to start things up I would like to know what your company actually does. What is your product or service?“
BB: „We are unique for the area. We are a chemical research company. We perform synthetic and organic chemistry, we make high-tech research chemicals and we also have a service whereby we the equivalent of renting a chemist for research purposes. We specialize in uniquely difficult things, there are a lot of competitors in the field and so we specialize in things that most of our competitors wouldn’t consider doing because they are so hard technically or from a intellectual level.
I: „So you opened the new facility in the EZ this summer, right?“
BB: „We completed it in September.“
I: „Where were you located before?“
BB: „ We occupied 2 locations one in each of the incubators of the University of Illinois. One was...the first one was called the CCL for the technology commercialization labs. It’s on Wright street...extended. And the other place is where the enterprise works itself, the TCL something we named it. But we started out in the CCL and we were there for 4 years perhaps and then we had to expand and the logical expansion place was at the enterprise works. They didn’t have the infrastructure we need for what we are doing.“
I: „How long does your company exist though?“
BB: „ Our company has existed since 2001, late 2001.“
I: „You are the owner?“
BB: „The sole owner.“
I: „And does this correspond with the CEO?“
BB: „ I am the great Puba. I have all the titles. My wife was just made the vice president for pragmatic reasons. But...because of issues of inheritance. But further than that I hold all the major roles.“
I: „What are ties with Champaign?“
BB: „ I got my PhD here at the UIUC in the chemistry department in 3 years and 3 months between 1981 and 1984 and actually actually was awarded the degree in 1985 but I was done before that.2“
I: „And since then you have been living and working here?“
BB: „ No, I have been all over. I worked, my first job after this was at...well, before that I had a master and worked in (not understandable). I came here as a....the idea being to improve my training....had a handshake agreement and even if I was really fast in getting my degree the people with whom I had an agreement though left so I had no way back into (not understandable). So I went to a different company after got my degree which FMC corporation in Princeton New Jersey. I was there for 5 years and I worked in agriculture chemicals at that time. And after that, in 1990 I was laid off and I went...after a 9 month
period I decided to change what I was trying to do and I took a hard left turn in my career and instead of being a discovery person I went to be....I got into an area which was new at that time which was outsourcing. It was a company that was started by a guy who wass a freshmen at the same highschool I was a senior. The company was called medic cap and I worked there for 2 year maybe 3 and after a while, I learned a lot. It gave me some background which was saleable but it was clear that the management was incompetent and so I left to a company which had much ore competent management. And with that company called Albany (not understandable) research doing the same thing. I fact that company waas smaller than my company is now. I was brought on for a large number of stock options. It was worthless at that time until we made it something. Well about a year or so in my time the company came up with a profit on (not understandable) which suddenly made them very cash rich. I worked there until about 2000 and in 1998 they went public and all this worthless stock options were worth something and I decided then, well before the bubble bursted to cash in and I retired. I came here because I was thinking I just tinker at the university and it turns out that the university........(not understandable).....

So I wasn’t able to do anything at the university so I said O.K. I will just set up my own company and this is the chance for me to tinker and it turns out that a lot of people asked me to do work, Many of our first customers were professors. And the first 3 years were a struggle we lost a quater of a million dollars each year. And in the third year at about the time I had to make a decision on the company I was approached by my professor who was involved in starting up a company and he had pointed them toward us as a contractor. And we have been doing a 7 figure income since then."

I: „ But when it came to open your own company why did you choose Champaign?“
BB: „ By the time I was in Albany NY and we have settled there because we have been there many years. My wife was only considering 2 places: staying there or going back to Champaign. The reasons is we had been here and we liked the place. Has friends here already. Also it has a world class library and one of the top five ranked chemistry departments. And at the time many of the professors were people I knew."

I: „ So you didn’t really do a site selection search?“

BB: „ The university was the choice. And there was another additional reason. It was the cost of living. If you decide being a contractor it is very different from being an abbot(?). An abbot for instance has a huge cash-flow coming in from all the machines that make the products. Simply dividing it in small portions for the research people so there is no direct connection between their research people the chemists and the (not understandable) and what they are being paid and actually doing business. It’s just people (not understandable), minor people. But for a contractor the salary portion is 60%-80% of the costs and there is a lot of competitors especially now in China and India. We couldn’t have survived anywhere else or we would barely survive anywhere else. Our salaries are lower than at the east coast or in Chicago or in California but people get more house for their dollar here. And so even if it is harder to get people here initially once they come in and look they often decide to stay."

I: „ And when you did the relocation or expansion, did you do a site selection search then? Or was it obvious that your expansion was going to take place in Champaign?“
BB: „ We looked at a number of places but we hava a very close....(not understandable)... to the university in both the....library that’s our lifeblood because science builds on prior knowledge, you have to have to access to a library. Also we have ...(not understandable)... all the instrumentation the chemistry department has. You’re talking million dollar machines and a start-up company doesn’t have these. And so by virtual being at the EZ or enterprise works we’re technically part of the university and we have access to the
machines. That’s the big draw, that’s a huge draw. It’s well, we’re getting lab time for 8 dollars an hour. It costs me more in parking to get my people up here."
I: “That’s interesting."
BB: “We now have our own machines but because we’re a little too far away but that was an major consideration. So access to the instrumentation. It’s not…..the structure of the university does provide for outsiders to use it but it isn’t easy in terms of accounting and there is no system at the university that you come in get an account number and start working. You get a ahhh very awkward system that…which have been done.
I: But basically any company located in Champaign might use the equipment?“
BB: „You have to have some sort of special status with the university.
I: “And how do you get this special status?“
BB: “I am a adjunct professor."
I: „Ahhh, ok.
BB: (laughs)“I run the university’s high pressure facility and I teach one of the courses for graduate students. I am volunteering in both, I am not paid at all. Which is which has to be under Illinois rules. If I am paid i can’t have a company. So they consider 2 jobs they cut interest but non paid job is volunteer work."
I:“Ahh that’s interesting.O.K. What are your main input factors? You already said labor was a big cost part but…?"
BB: “Because the well the university already has its dedicated..(not-understandable) …whether it is dry ice or liquid oxygen or helium or chemicals and so on. They already have shipping trucks coming in. It’s by negotiating with all these suppliers we get advantages of being here because of the university because all the have to do is put (not understandable) on the same truck that is going to the university. So we get free shipping by a number of companies just by virtually being here. You can buy a 30$ chemical and have 180$ in shipping due to the new rules after 9/11.“
I:“O.K. And your staff? It is mostly from here from the university or from all over the country?“
BB:“Well, we would like to get it from here. That was the original idea. In practice what happened I tried to…a student coming from here they work for 5 or 7 years on average and 99% of them want to get the hell out. And because they had very little life other than graduate life. There have been exceptions. There is …one of our best chemists is a townie he comes from champaign-Urbana but he is local. He went away he came back here. And was real happy to come back home. And we have to do (not understandable) a few students coming out of university…especially if they have a spouse they are waiting for.
We..what we do is kind of especially difficult and as a the it is difficult to get reinforcements for our team. How do you do that? So 1 of the strategies we used is to…ahhh….we sponsored some students who are foreign….ahh…and ahh…a lot of students want to get out of town but the ones looking for a green card they aren’t. They are looking to stay somehow. So we have sponsored students who get a green card. We have…we also used the strategy of…which was successful in a number of cases where some student coming out of graduate school came out with very high credit card debts. And we provided a much lower rate just above the legal limit at the low end to accept that which means they were getting 3% instead of 28% on their credit card debt which was less (not understandable) to pay that. So we hope to settle with that. Of course the other side of that was a agreement they would stay for a period of time. We kept it about 5 years. Didn’t want to (not understandable). But you know it was for least the term of (not understandable) and ahh but the another strategy we used. We’ve also used……infect we do that strategy with locals as well. But it is difficult to get students out of the university here like i said. Most of them want to leave not all. Ohh but the other strategy was that we also found that graduate
students who have a spouse that is also a graduate student but at another time line and they might be ahead a year or 2 years and so on and we employ them that way. We prefer to hire people as post-docs first. And the reason is not everybody works out in our environment. It’s very demanding environment intellectually and not everyone is up to it. Some people have good resumes but they are just not up to it and so what we do is to give them a year where they can show what they can do. and if they are everything they said they were they are converted into a permanent employee. It’s not well if with 1 year post-doc nobody gets hurt by determination of it. If you have to fire somebody and let them go it leaves a mark on their and it’s a hassle for us. So we like to use that strategy (not-understandable) also post-docs give you a good laugh."

I: “So if I understand you right all of your employees have a PhD?

BB: “All lab chemists have a PhD and that’s due to the nature of what we do. We don’t do any cookbook chemistry. Most of our competitors especially in China and India have 1 PhD and then a lab full of Bachelor chemists who have just and what you get there is people who just...as long as things work they can turn the (not understandable) and do the handwork but as soon as something doesn’t work there is a problem they are frozen. They don’t know what to do. That’s one of the reasons I left medicap. They were running onto that.”

I: “But you said all of your frontline chemists have PhD so you have people without PhD working there?

BB: “We don’t have any..hum...now and then we take in an intern. And we have several (not understandable). And the business plan that we originally started out with envolved starting up just doing service work. In other words if something comes up like: We need half a kilo of that and then we would make it. And I view that as chemical prostitution. It’s kind of a ad-hoc chemistry. In terms of a business model it is very peculiar because you never know when your are gonna get it. You can’t go to the bank an borough money out on that because you never know when it’s gonna come. And you never know if there is going to be a long dry period so it’s very peculiar. However right now and especially at the time I did it there was enough business to keep things on their way. And there was also not quite so much competition when I started. Now there is a lot of competition. And but that’s not where the money is. And the logical thing to do is develop your own intellectual property and develop your own product lines. Product lines have much pretty long (not understandable) because what will happen...especially we also use the ad-hoc requests as a marketing tool because people will come in and say they need 100g of this, half a kilo of that and what we do is (not understandable) if somebody wants this. And then first what we do is we take a look at that and say: Is this unique to this individual or are there other people in that area that would want this. Is this part of an upcoming new drug? And if this is the case, is it worth to work a while on the process to make it more efficiently on a large scale. In chemistry it works just the same as with sugar. If you need a teaspoon of sugar you use a teaspoone. If you need 50,000 teaspoons you don’t use a teaspoone you use a completely different method. And so if we feel that it is part of an upcoming drug to develop a process or if we feel a lot of different people will want this material. What we do is make that material for the customer. And when we worked out how to do it instead of 100g for that customer we make 5 kilos and put the rest on the shelf. And after we will advertise the fact that we have it on the internet. And we don’t have to do anymore work because all the work has already been done.

I: “So how many employees do you have currently?”

BB: “Ahh, we have including myself I believe 9 chemists and 5 overhead people."

I: “What are overhead people?”

BB: “People who don’t make money.”
I: “Like an intern?”
BB: “No, no interns make money.”
I: “Oh really in Germany no.”
BB: “I differentiate because you gotta think like a business men in the sense that there are people who don’t make money but are necessary, o.k. The chemists are the people who make money. They do the job the customer pays for. So the ability to make money is directly proportional to the number of those people you have. Your profit margin is decreased by the people you don’t make such money, right. So we don’t hire interns unless they are helping somebody else to make money. We have a business manager, a HR person, a system operator who runs our computer system. Ahhh we a secretary and let me see ahh I would count my wife as vice president who gets a salary as a overhead person. And in my case to be honest this is a hobby company. I would describe that ahh it’s a hobby company in the sense that I don’t get paid. I get no benefits other than a tax reduction. (laughs) The company does make money and all the money gets back to the company. I live of my investments. It’s a hobby company in the sense, take a step back a think of me as a self-funding professor. That’s kind of what I have. There is a certain amount of obligatory things I have to do to maintain that status. Which has worked doing business but in there i can go and say this is gonna be a product. I get to choose what i want to do.”
I: “And did you bring all the workforce with you to the new place or was there an extension?”
BB: “Ohh, lets see. We are currently in the phase of hiring another 5 chemists. The ones that we had already were a necessity. We went from 3,000 sf and 5 labs to 20,00 sf.”
I: “Ohh, let me write that down.”
BB: “O.K.”
BB: “It’s roughly 625sf a lab, 5 two-men labs. To nearly 20,000 sf. And in chemistry you only make your money in a hood so we could only have 2 hoods a room. In the new facility we have 2 6-men labs that are fitted out. Another 2 rooms that are not fitted out but designated already as infrastructure for expansion and then a fifth room which is a kilo scale lab for doing large scale chemistry. We deliver ahh we beginn that way because it makes sense from an economic approach. That would mean we have room for 14 chemists at the (not-understandable). And room for another 12 chemists if we choose to expand. The facility is actually remarkably roomy compared to just about any other facility you look at. And this is an artefact of what we do because we do such a high variety of things, of technics, what we have is a high variety in equipment and so we can role them in use them and then role them out. And we have a central storage location for that and most chemists are trained in school or anywhere to do one thing ahh...cattle chemistry. You do one thing you cook it up and you are done. But actually in industry it does’t work with that type of technics. (not understandable) And you have to go through industry to learn about those things. I have (laughs). We have this technic in....and I am not just a chemist in this context. I am also a machinist. I got my own machine shop....I make violins.
I: “You make violins?”
BB: “In fact I worked on my 5th violin today and one cello. But ahh i also work on radio controlled planes. I do lots and lots of things. I bare all this things together with chemistry because we do the hard things. And often the solution to hard things is unorthodox . You can’t do it by the standard ways because it doesn’t work by the standard ways. You have to thinking and try something else and often that takes training in more areas and you realize that you can’t.
I: “But coming back to the expansion. You said you were in the process of looking for new chemists. So how..
B: “We want to add 5 this year if we can.
I: “And this is due to the expansion or would you have hired them anyway?”
BB: “No, no here is the situation: In the incubator under the current rules and current...ahh well. At the incubator there is this encouragement to turn the crank real quickly on companies. Get them incubated and get them out but in fact it doesn’t work that way. And the reason why they want to that is because the members of the board have an interest that this happens (rest not understandable). They want to fill up their buildings.”
I: “In the research park?”
BB: “In the research park. But the problem is if you think about taking the time for incubation.....(not understandable) ..which is 6 weeks for a mouse and 2 years for an elephant as an average you gonna kill either the elephant or the mouse. You can’t do it on average it has to be case by case. In our case we were one of the early people in and the people at enterprise works, especially Scott worked with us very closely and they got us a lot of lee-wind where we lasted 5 years a little bit more maybe in the incubator. Whereas a lot of companies had be pushed out. Even having said this it wasn’t for the fact that I already had personal funds withdrawn. They would have killed the company. So...remember if you are doing fine little business with some people and now suddenly you take on 4 and half million dollar debts. Your gross may be in the 7 figures but your net is a lot less than that. So that...the number of people that were allowed...(not understandable) we couldn’t grow at all large enough in order to have enough cash-flow to pay for that. So the consequences...the first year we were going to loose money. We knew it, we planned for it and that was what happened but in the other company that would have killed it. It’s just that I had the resources and so I am a unique case but other companies got out the incubator and died right on because it was too soon. We actually needed more space really the incubator was not for a company like us. In terms of the physical infrastructure they were but in terms of the design of how it is supposed to work. A company has to come up with a certain critical mass before it can get out of the incubator. And the model for the critical mass they were using for cash-flow...(not understandable). And that can be devastating for a lot of companies. And again we are special and chemical operations probably has possible the highest overhead demand in terms of operation and in terms of infrastructure. To give you an idea: I said the building was 4.5Mio $. Only 600,000$ of that was the shell of the building. All the rest is what’s inside. (laughs)
I: “So is it right if I assume you have an employment of 9 chemist and 5 overhead people ?
BB: “5 overhead and we are trying to get 5 more.”
I: “So is it correct that due to your expansion to the new facility you will create 5 new chemist jobs?”
BB: “That is correct. “
I: “And now comes the picky question you don’t have to answer. Answer the way you can. It’s regarding the payroll. Can you give me any idea about how much a chemist earns?”
BB: “Sure. Well what i said: We underpay our people compared to other companies. If you look at the magazine for chemists which chemical and engineering news they give the medium payroll at something around 80,000$ for people with about 3-5 years on. We pay...ahm...now that’s across the whole country including people in Boston, Cambridge and people in Los Angeles and includes people elsewhere. And we pay an incoming post-doc between 40 and 45 and another chemist is 50 and the highest chemist we have is 65. And if adjust for the local economy these are...well I live in Mohammod which is just a stone throw away I got a 4 bedroom house on an acre, 3 car garage and a lake and I paid 220,00$ for that. You can’t touch this. “
I: “Yeah, in a suburb of chicago you get a tiny little shet for that”
BB: “You can’t even get a bungalow for that. So yes we can pay bad and get away with it.”
I: "What is the average salary for your highest overhead people?"
BB: "Well our secretary is part-time. If she would be full-time it would be the equivalent 26,000-28,000. Our HR person gets about 35. Our business manager just got a promotion. We went from 43 to 50. Our systems operator she gets like 32. They are not high salaries but there isn’t high demand neither."

I: "Thank you for your openness on that question. That was the one I was most afraid of. Where are your customers located? Is there a concentration or is it all over the world?"
BB: "The answer is yes to both questions. And it’s because of our unique marketing. First of all our initial badge of customers which we still exploit very well is the university. Not just our university, other universities. It’s due to our networking. It started out with the chemistry department and expanded through nutrition and chemical engineering and others. And so the reason why we have it world wide though is because of the strategy we discovered and have been exploiting. There is a number of...and we specialize in high-tech things and the biggest special case in high-tech things are catalysts. Catalysts and ligands that pull to certain receptors for people doing research.

And a professor comes to us and says: Can make this for me. And we do and we give him his 100g And we say look: We give you an 150g if you just put a footnote in your next publication and say that we are the source. And so now they publish that and the publication goes worldwide. From then on we do no marketing for that material. Because only the people who are interested see it. The people who want to use or reproduce that technology have already read the footnote. And they call us directly. Just last year we’ve had sales to Japan Switzerland, Brazil, Germany, France, China, well all over the U.S. And where else...Spain so overall."

I: "So there are 2 parts. 1 is the university and the rest is all over the world?"
BB: "Actually it’s a bit of a problem for us because having to go to customs...."

I: "I was going to ask this..how do you get it delivered?"
BB: "Well it’s difficult, especially these days with the paranoia of chemicals and how to describe these things. Fortunately, so far people only want relatively small quantities of any things so they barely hit the level of attention for custom agents but you know but frequently they want to know what is it about and of course none of this agents has clue because this are all new things and they are not on any standard list of commercial items. And so sometime there are big delays going through customs."

I: "And just out of curiosity. Can you ship them by FedEx or is there any specialized chemical delivery service?

BB: "No. We started out with FedEx and we found out that the number of times we used it their relation with the customs agent wasn’t as near as good as DHL. Now we use DHL."

I: "O.K. We are almost finished. I got one more question where I want to ask you to summarize the advantages of locating in Champaign and especially in the EZ."

BB: "Well I mentioned the cost of living. And number one I got a lot of contacts here. But I also realized well the company evolved like I said from a retirement kind of situation to something where I had to get serious and so my initial time here when I made initial contacts when I was thinking somehow being ...(not understandable) university faculty which ironically is happening but well I wanted to come back to a facility which I knew was really good. Also Champaign has made a big change from the time I was here 20 years ago. Downtown Champaign was a lot (not understandable) now it has come back. We are also very active in a number of things especially with the university. I am not the only one in my company but I also have other people who interact with the university and my staff. And in fact I drafted 2 people out of my old research group. So there is a synergy of coming back here. In term with the town itself...the processes I described the pluses. One of the minuses we discovered was with when we decided to build. Now this is a university
town it’s full of research facilities. They are all controlled internally they all use the codes of the university. And they are not....the city itself has no contribution relationship or any like that. So we decided to build a chemical research facility in Champaign not at the university. We are now having to deal with people who have no exposure to this. There are the building people in Champaign that their exposure to building is in regard to homes, apartments things like that. And almost never a chemical research facility and so their reaction was overreaction. They were a bit like a dole in the headlights. When we showed our plans to them they were horrified. And they made us do some things that didn’t make a lot of sense in terms of the construction of the building but if we wanted to have it we had to (not understandable) And ahh but we were not allowed t have stairs to our second level we use ladders. What kind of sense does this make? But you know it’s an equipment plattform so why not have stairs to it. But they were afraid we might use it."

I: “To expand?”
BB: “Well yeah but we use it for equipment and so there is a equipment storage and nothing else. But there is a number of other things like that which i don’t want to go into details but were an issue we had to adress. Now we try to be good citizens for the town. We made sure that we albeit by all rules that are set out for us. About the EZ. One of the things. We actually only discovered afterwards the fact that we were in a EZ. I bought the property simply because it was there and the owner wanted to get out. He wanted to buy another piece of property somewhere else. And the price was right. It is 2 acres and it was exactly the amount of land that we needed. Instead of the 180,000$ it was worth I got it for 130,000. Reasonable savings. And after we purchased it when we wanted to build we found out that it was an EZ. And so we looked into it and well you have to do it. They gave us 12 pages of paperwork to fill up. And so we went through all this paperwork you know you have to do this you have to do that. And the result was that ahh we got a token of a giveback on the of the property taxes. OK it is there but it is nothing to crow about. And there was actually a second program from the state which was so honerous so punitive that it would have been silly to even consider it. So we objected it. (not understandable)

We through all the paperwork and on the last page there was this requirement that in order to qualify we had to prove by documentation that we could have gotten a better deal somewhere else.”

I: “For the city?”
BB: “For the city. What!! i mean why would I be here if I could have gotten a better deal somewhere else. But we had to prove by documentation that we could have gotten a better deal somewhere else. And so this caused well it caused a lot of turmoil and ok we do. We approached Indiana and Iowa and Iowa City. And remember that i said the shift...“

I: “And you had already bought the land?”
BB: “i had already bought the land and we were looking to built and we already talked to the architect and already had plans and everything. And so we were gettin on our way. So We had an offer to go out to Iowa City from the university there. We were met by the local (end of tape)

Iowa City offered significant higher tax cuts but since the chemist department of the university isn’t as good as UIUC and BB hab no network there he decided to stay in Champaign.
Interview 2
Interview with publisher (HK), Interviewer (I)

I: “You used the real estate tax abatement program. Is that true?”
HK: “I am not really sure what we used. If it was a complete real estate abatement or not. The city told you we used?”
I: “Yes. Well we can come back to it later. But first to start things of i would like to ask you which is your position in the company?”
HK: “CEO.”
I: “And please could you explain we HK exactly does?”
HK: “We’re a publishing company. And actually at one time we just published books and journals but today we do a wide range of products including online products. Online courses that are used for continuing education. Online (not understandable) university textbooks, high school textbooks. We also DVD’s and video products and stream online products. All of our journals are online. We are publishing over 200 products every year and it ranges from college textbooks to consumer books to DVD’s to online products.”
I: “Are they printed here?”
HK: “No. Nothing is printed here except for promotional products and things like that. The books are printed all around the world. It depend on the type of book and the format. If it’s one color and paperback it’s probably printed in Illinois. If it’s 2 color and hardcover it’s printed somewhere in the Mid-West maybe in Michigan because there are a lot printers that are specialized in that kind of printing. We also do global printing in places like Hong Kong and France where we also have material printed.”
I: “So in this facility is where you produce the content.”
HK: “Exactly. This is where all the material is created it’s where the ideas occur it’s where all the product are prepared to the point that they can go to the printer. Or to the duplication service if it’s a DVD.”
I: “You have shown me all the expansions of your company. Could tell me since when the company exists at this location and then the dates of the expansions?”
HK: “We moved to this location around 1980.”
I: “Where have you been before?”
HK: “And before that we were in champaign but actually the business was operated out of different small houses and you know we had maybe 10 to 15 employees at that time. Business was started in 1974 and at that time was run literally out of the founders house. A person by the name of Rainer Martens who was actually born in Germany.”
I: “That’s a typical german name Rainer Martens.”
HK: “Yeah”
I: “And then when did the expansions happened?”
HK: “OK. The first expansion was in 1988 we moved into that little wing that was added on to the original building and then about in 1992 we added we did another major expansion which added offices and a cafeteria enclosed our courtyards where we developed basketball courts, tennis courts and kind of a patio out of the cafeteria where our staff can eat. Then about 5 or 6 years ago we did a warehouse expansion which added...dramatically increased our warehouse space.”
I: “How much square meters of warehouse space do you have here?”
HK: “Let me get you this number we 59,000 sf of warehouse and another 59,000sf of offices. In total we have 16 acres here. Then we also got, we are currently leasing 12,220 sf and that’s that white building I was telling you about.”
I: “The owner, was he from Champaign?”
HK: “Right he was on the faculty with the university at what is now the College of Applied
Life Sciences. He was a sports psychologist and still is and got involved with publishing by producing proceedings nobody else wanted to publish and so decided that he would get in printed."

I: "Why was this particular location chosen?"

HK: "Ahh Champaign or this location in Champaign?"

I: "Both."

HK: "Well I think initially Champaign because that was simply where he was located and he was still affiliated with the university for the first 7 or 8 years of the companies existence. And so he was on the faculty when he was starting up this business. So it was critical that is was located in Champaign. It remained in Champaign because it thrived here. We were able to find a good staff and encountered staff to work here. This part of Champaign was chosen because it was here that the affordable space was located as well as space that could fit ahhh provide both office and warehouse space need. At that time there was a construction company in part of the space and there was a small children publisher that was using the warehouse space at that time. So it did provide...it had been used as a book warehouse prior of us moving here. So it kind of naturally fit to move into this location."

I: "Was there anything like a site selection search? Or were there other sites taken into consideration?"

HK: "That was before my time here. That would have been in the early 80’s. But I joined HK in 1987 and have been the CEO for the last 10 years. You know Rainer I think he looked and all the properties available in Champaign-Urbana and then settled on this site."

I: "What is the particular advantage of this site here? You mentioned office and warehouse needs."

HK: "That is a big part. It’s allowed to stab both capabilities in the same location which isn’t the case with most publishers. Many publishers have their warehouse apart from their offices and we were able to have it both in one location. Too, it allowed us to expand at the same site rather than having either to relocate or having expansion occurring at another part of the city or the county."

I: "Is the nearby highway important for you as well?"

HK: "Ahhhh.....not particular. It would not be a factor in why we are here. It’s more because business started in Champaign and this was a good place to grow within Champaign. I am sure it’s convenient for deliveries and outgoing shipments. Here it’s convenient for the truckers to get on and off and with the loading docks we developed it made it also convenient as well."

I: "Ahh...what would you say are your main input factors that are used here?"

HK: "Main input factors?"

I: "Well it’s more an industrial question and since you are a publisher."

HK: "Yeah, you know I guess we are more of a creative company in the sense that the value of our products is really the information and the knowledge that we can develop by working with experts around the world to help and then develop these information products."

I: "So human capital would be the biggest factor?"

HK: "Yeah. That would be the answer to your question. Human capital and then technology. Because of the changes in our industry, the entire information business. The internet and the delivery of information and products over the internet. That has changed our business quite a bit."

I: "And are you able to recruit your experts here in Champaign?"

HK: "We recruit from all over the country. Especially fo high level positions. We are trying to obtain expertise in a particular field that’s not always available here in Champaign and so we do a nationwide search for these positions but 90% of our positions are filled with
people who live within Champaign county.

I: "Does the university play a major role in that process? Are a lot of your staff members graduates from UIUC?"

HK: "We have fe UofI grads here, quite a few. But I think the greatest role that the university plays is making the community a good place to attract employees. It’s seen as a progressive community with good arts and entertainment and educational opportunities and therefor it’s a good destination for which to recruit people."

I: "And the skill level of your employees. Are they all university graduates?"

HK: "I would say the vast majority of the staff here has a university degree. We also have many employees here who have advanced degrees. In particular the field of physical activity. Many of our acquisition editors would have PhD’s or master degree’s in the area of sports and and exercise sciences. So i would say we are a very highly educated company."

I: "So ahh would you be able to give any idea about the different classes of payrolls within your employees?"

HK: " when you say classes of payroll....I could tell you what our total payroll is. Our total payroll is 12.5 Mio $. Our subsidiary payroll would 1.4 Mio $“

I: "What is the subsidiary payroll?"

HK: " It’s the payroll for our offices outside the U.S. So in addition to this location which is the corporate headquarters we also have offices in Canada, England and Australia with HK employees at those locations."

I: " And the number of employees here?"

HK: " We probably got...let me give you the exact number. We currently got 308 employees here and another 30 in those international offices."

I: " And of the 308 here, how many work in the warehouse which i suppose would be more the unskilled labor?"

HK: "Ahh..now let’s see. We got 14 people that do what we call shipping so they process orders. We got another 5 people in maintenance. We got another 7 people in inventory which you know they process products like combing a book with a DVD. And then we got 4 people in our mailing center. That’s pretty much it of..you know most of the other jobs would have a college degree associated with them."

I: " Coming back to the expansions could you give me any idea about how many jobs were created due to those expansions?"

HK: "Ahh, well if you think back in 1987 we had about 45 people here then. So we have expanded staffing dramatically over the years to the 300 and something that we have today. In some years we added as many as 15 new employees. Typically, all of those you know if we added a new building we were doubling in offices and so on. We were bursting at the sames. When we moved you know in the newer addition people moved from double offices into single offices. That’s the thing."

I: "OK. Where are your customers located? Is there any concentration?"

HK: "Ahh lets see. To give you an idea about 20 % of our products go outside the USA. The rest goes to the USA and is spread evenly around it. We are not relying for instance on the U-C area for our business. A very very meniscular part of our business. So we are a globall company and the sales is kind of rough (not understandable)."

I: "Your main customers would be universities"

HK: "It’s pretty evenly split. If you...I can give you an better idea (end of tape. answer not recorded)

I: "What are the benefits from being located in the EZ?"

HK: "Ahh. We got kind of a waiver of property tax. What was...this EZ allowed us to purchase materials for the building of the addition and the tax on that purchase was
I: "The sales tax exemption."
HK: "That was the benefit that we had for this area. A small part of the overall construction costs of the building."
I: "But within my information, you also......for the new investments, the value of that, I don’t know the exact calculation but it gets abated from your real estate tax every year. Do you know something about that?"
HK: "I don’t think so. Not much. I mean, I think we’ve been paying property tax at a pretty normal level here in this area. Maybe we should be getting more of a break (laughs). That’s what Gale’s understanding was. The main break was on the sales tax associated with the purchase of the building material. Maybe we should check i would be glad to be contradicted on that. I think Craig Rost might have a better idea of that."
I: "He is actually one of the supervisors of my project."
HK: "Yeah, he can tell you. OK. So if you wanna know where our business went in the past year ahh about 18% went to international channels. About 9% went to schools K12 so kindergarten through high-school, 14% went to higher education markets, 36% went to bookstores and libraries. We probably can break that down to 26% to bookstores and 10% to libraries that’s kind of a typically. We sold another 10% directly to consumers you know were interested professionals, coaches, acadmics who were buying their material directly from us. We sold another 8% to sport organizations park and rec departments and 5% to YMCA’s. That’s another part of our business. So I kind of gave you a breakdown."
I: "Yeah, that was very helpful. And so for delivering the books...."
HK: "Or DVD’s. We use UPS on most small shipments. We use different freight carriers on larger shipments. That carriers is usually specified by the account. So something like Barns&Nobel that’s a major bookstore chain might have a different freight carrier than (not understandable) we would use the freight carrier they ask us to use because they pay for the freight and they typically have contracts that they want to use that carrier so they can get a better rate."
I: "So overall from our conversation I got the impression that the fiscal incentives offered by the city/county of Champaign didn’t influence your decision much."
HK: "Ahhh, they did influence our decision to originally locate here or to expand here? Clearly, the city and HK have had a great working relationship that, they have helped with, they made street improvements out here at their expense. You when we did do the development that frontage road was developed and curving was put in when we did the expansion so they definitely helped in making street improvements, things like that."
I: "Yes but was that specially negotiated or did they offer it within some kind of program?"
HK: "I am not sure which program they might have used. They were very you know willing and eager to provide the improvement that we were expanding in this area, developing and investing in this particular part of the city so they were very happy to make this improvements."
I: "Good, so I think we are done so far."

Explaining my study. Then HK gave a conclusion.
HK: "I don’t know how much the sales tax exemption has amounted. Obviously, if we had relocated to some other place they probably would given us a deal to do that. But you know we initially located in this area as I said back in 80, 81 and decided to kind of stay here and expand here and it was a good decision for us. It can be challenging to recruit people to U-C. Most of the publishing business is located at the eastern part of the USA, particular in New York and often times it’s a challenge to maybe recruit somebody. We’ve done OK and have actually thrived here in this location. And the neighborhood has gotten
a lot better. I think...you know at one time there was a much bigger crime directly to the south of our location. There were a couple of old apartment buildings that tended to be sources of all kind of criminal activity and the city was very aggressive cleaning up those areas, tearing them down eventually. They’ve very aggressive in terms of properties that have fallen into decline and a lot of those buildings were vacated to either get them renovated, sold or to tear them down. I think that had been really good in terms of preserving the neighborhood. At one time these city, the schools were actually looking at building a school here out here in this area and of course we were interested in that area for further expansions. The schools were even talking about to perhaps take it through (not understandable) domain. The city of Champaign when they knew when they found that this was the site the school district was considering was very quick to come in and say that they wouldn’t support that site. That they much prefer the site where the school was eventually built if you know....(name) school......And what they wanted to was to replace that school with another elementary school that was more modern in its facilities. So this was an area they were looking for. Well if they had built it here it would have inhibited our ability to grow, too it would have been at the fringe of the student population which is more to the south because no students would live to the north of here. So the city was very interested in 2 things: 1. you know allowing us to continue to grow and 2. they were very interested in preserving that neighborhood and they felt that if they pulled the school out of the neighborhood that the neighborhood would continue to decline. So they said why not we acquire some of the properties adjunct to the current school and use that area over there and create what has become quite a nice school, educational campus now that they have used the older school as an alternative school for kids that had discipline issues within their schools and they are educated at the older school, Columbia School. They built a brandnew elementary school and adjunct to that they converted an old bakery that was abandoned into a a head start school program. So it’s a nice campus area that really has been an asset to that neighborhood and probably encourages people to either stay there or develop their homes there and so on. The city has been very good in terms of this part of the area continued to develop in a positive way. You know we played a key role in this kind of northern end of what is the market street area and with the work that we’ve done here ahh the city has been a great partner but as a company we are also very committed to have a nice facility for our staff and nice grounds and things like that and I am sure we would have done that regardless of the support that we got from the city."
I:“OK, so to conclude the support was nice to have made your expansion...“
HK:“Great working relationship but the financials were not that significant. It was more the working relationship that we had with the city as we have expanded, it has been really good rather than any huge tax breaks that we got. The fact that I can’t even tell you what these tax breaks are probably (laughs)"

H3. Database sales tax exemption
   (if required only)
H4. Database real estate tax abatement
   (if required only)
H5. Enterprise zone application packet
   (if required only)
## H6. The 25% scenario

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<th>Indirect</th>
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<th>total</th>
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(source: own illustration using IMPLAN)
### H7. The 10% scenario

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(source: own illustration using IMPLAN)