

# CMAP Regional Economic Impact Model

Presented By:



# What is Impact Analysis?

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- Identifies *measurable* effects associated with a specific activity in a specific location
- Typical economic development activities include:
  - Value of existing business base
  - Retention, reduction or expansion
  - Creation of a new business
  - New business attraction
- An increase in “export” activity will result in spin-off spending in the local economy

# Why Are Impacts Important?

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- Assign value to services you provide
- Prioritize projects
- Measure department performance
- Publicize value of new or existing business
- Provide input to long term planning process

# Purpose of the Model

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- Project-based model tailored for economic development
- Designed to evaluate economic and revenue benefits of new and existing businesses
  - Quantify economic and revenue impacts of a business on a local community
  - Demonstrate supplier impacts of businesses on related local industries (i.e. banking, construction, retail)
  - Demonstrate the value of economic development

# Impact Components

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- Economic
- Real Estate
- Revenue

# Economic Impacts

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- Jobs, output, income, supported population
- Direct, supplier and consumer
- Operations (on-going) and construction (one-time) impacts
- Multipliers for 66 NAICS-based industry types based on Minnesota IMPLAN group data
- Custom multipliers for 8 Illinois counties, 2 Wisconsin counties and 1 Indiana county

# Multiplier Guidelines

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- There is no “**universal**” multiplier—differs for each sector and activity and location
- Multipliers usually range between **1** and **3**
- Employment multipliers are generally larger than income or output multipliers
- The greater the interaction between industries in an area, the more local supplier and consumer spending will occur and the greater the impact

# Real Estate Impacts

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- Supported square feet by type
- Supported housing units
- Includes total of direct and indirect impacts
- Based on employment by industry from economic impact



# Revenue Impacts

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- Revenue results include direct revenues (project only) and total revenues (multiplier effect)
- Includes **local** and **state** taxes
  - **Property, sales and utility taxes, permits and fees**
  - **Sales, income, utility taxes**
- Can also show distribution of indirect (employee-based) property and sales tax revenues by county
- Model allows user to update tax rates
- Tax rates based on project location

# Incentive Options

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- Override tax rates for property and sales tax
- Modify assessment ratio
- Automatically calculate 12 year property tax abatement
- Abate construction sales tax
- Incorporate delinquent taxes paid by local governments
- Incorporate lump sum for “other” incentives
- Total value of incentives summarized on revenue report

# Data Requirements

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- Type of industry and location
- Number of direct jobs, payroll
- Percent of employees living in county and city
- Direct taxable sales (if applicable)
- Annual building lease costs and/or land and construction costs or building purchase costs, square footage
- Value of taxable and non-taxable equipment
- Corporate income
- Monthly utility usage (gas, electric, telecom)
- Permit, water and sewer connection fees
- Employee commuting patterns (if available)

# Model Applications

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- Quantify and evaluate potential benefits of a prospective business and evaluate incentives
- Measure impact of business assistance resulting in retention or expansion
- Quantify impacts of a potential loss of an existing business to support retention efforts

# Model Applications

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- Demonstrate multiplier impacts of a new locate on other existing business sectors in the local economy
- Identify potential supplier leakages through non-local impact summary
- Document the cumulative value of economic development activities in your community for fund development efforts or annual reporting

# Example:

## New Company Analysis

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- What is the purpose?
  - Quantify the value of a new locate
    - Quantify how different types of businesses impact your economy (i.e. capital intensive, labor intensive, varying supplier needs)
    - Determine if incentives are justified
    - Understand the relative importance of different types of companies in order to prioritize attraction efforts
  - Measure individual performance
  - Demonstrate the value of business attraction

# Impact Example for ABC Trucking

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- 208 new jobs to start, 282 in 3 years
- Average payroll starting at \$36,700
- Company will construction 160,000 square foot facility to include corporate office, maintenance area and warehouse
- Capital investment
  - Land - \$4 million
  - Building - \$5 million
  - Equipment - \$20 million

# Impact Results

## Impact of ABC Trucking on Madison County

	2005	2006	2007
<b><i>Total Projected Increase in Economic Activity</i></b>	\$32,091,771	\$39,298,029	\$44,116,278
Total Number of Jobs	208	250	282
Cumulative new jobs	na	42	74
Direct local payroll	\$7,632,634	\$9,346,554	\$10,492,515
Average wage	\$36,695	\$37,386	\$37,208
Secondary local jobs created	127	156	175
Payroll for secondary jobs created	\$3,844,661	\$4,707,986	\$5,285,222
Total Retail Sales	\$6,197,739	\$7,589,451	\$8,519,978
<b><i>State and Local Revenue Impacts</i></b>			
State sales tax	\$152,351	\$186,561	\$209,435
State income tax	\$234,758	\$288,033	\$323,188
State utility tax	\$5,693	\$6,971	\$7,826
Local food and beverage tax	\$12,604	\$15,435	\$17,327
Local income tax	\$58,862	\$72,220	\$81,035
Local property tax	\$225,249	\$270,732	\$305,385



# What Characteristics of Companies Create Greater Impacts

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- Economic Impacts
  - Higher average wages
  - Industries that are complimentary to existing supplier base and capital - intensive
  - Companies located in more developed economic regions
- Revenue Impacts
  - Higher average wages
  - Larger capital investment (building and/or equipment depending on tax structure)
  - Significant local equipment purchases
  - Large utility users
  - Direct taxable sales

# Analysis of Expanding Companies

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- What is the purpose?
  - Assign economic value to the business assistance services you provide
  - Evaluate general business assistance or specific programs such as workforce development, revolving loan funds, etc.
- Calculate aggregate impacts of multiple companies
- Must be programs that result in additional jobs, increased payroll or support capital investment to increase production

# Data Requirements

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- Historical evaluation
  - Must be able to track data on individual companies, preferable over time, including industry type, new jobs created, new payroll by industry
  - Potentially other data for revenue impacts including capital investment, taxable sales, corporate income
- Future projections
  - Job creation goals by general industry type
  - Payroll by industry type
  - Potentially capital investment

# Example:

## Business Assistance Program

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- Business assistance program
  - Year 1: 10 companies assisted
    - Created 60 new manufacturing jobs with combined payroll of \$2.4 million
    - Created 30 new retail jobs with a combined payroll of \$660,000
    - Created 50 service jobs with a combined payroll of \$1.75 million
  - Year 2: 7 companies assisted, plus follow up information obtained from 10 original companies
    - Created 40 new manufacturing jobs; 50 jobs retained from companies participating in previous year with payroll of \$3.6 million
    - Created 20 new retail jobs; 30 jobs retained; \$1.1m payroll
    - Created 30 new service jobs; 40 jobs retained; \$2.5m payroll

# Impact Results of Business Assistance Program

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- Year 1
  - 140 direct jobs, 228 total jobs
  - \$4.8m direct payroll, \$7.6m total payroll
  - \$12.8m direct output, \$20.3m total output
- Year 2
  - 210 direct jobs, 342 total jobs
  - \$7.2m direct payroll, \$11.3m total payroll
  - \$19.2m direct output, \$30.3m total output
- This information can be used to calculate a return on investment based on program costs

# Sample Reports

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- Project Description
- Local Economic Impact by Type
- Economic Impact by Industry
- Construction Impact
- Revenue Impact
- Regional Indirect Revenue Impact
- Project Summary

# **Lake County Partners Regional Project Assessment System - Project Description** **Example Project in Kendall County, IL**

Project Name:

Start Year:

Last Update:

Region:

Percent Living In County:  %

Industry Type:

Percent Living In City:  %

## **Annual Project Data**

Year	Employment Payroll	Skill Mix: Semi Unskilled	Real Estate Costs		Equipment Purchases: Taxable Non-Taxable	Override Tax Rates:		Corporate Income Taxable Sales Delinquent Taxes Other Incentives	Fees Permit Fees Water Tap On Sewer Tap On	Utilities Telecommunications Therms Gas Usage KWH
			Const. Cost Land Cost Exclude Sales Tax	Purchase Annual Lease Building SqFt		Assessment Ratio Start Abatement	Real Property County Sales			
1	50	18.6%	\$0	\$0	\$5,000,000	<input type="text" value="33.330%"/>	<input type="text"/>	\$1,500,000	\$0	\$500
	\$1,750,000	63.1%	\$0	\$150,000	\$100,000	<input type="checkbox"/>	<input type="text"/>	\$50,000	\$0	20,000
		18.3%	<input type="checkbox"/>	20,000				\$0	\$0	\$2,000
								\$0		175,000
2	100	18.6%	\$0	\$0	\$2,500,000	<input type="text" value="33.330%"/>	<input type="text"/>	\$1,500,000	\$0	\$500
	\$3,000,000	63.1%	\$0	\$150,000	\$50,000	<input type="checkbox"/>	<input type="text"/>	\$75,000	\$0	20,000
		18.3%	<input type="checkbox"/>	20,000				\$0	\$0	\$2,000
								\$0		175,000
3	150	18.6%	\$4,000,000	\$0	\$2,500,000	<input type="text" value="33.330%"/>	<input type="text"/>	\$1,500,000	\$35,000	\$500
	\$4,500,000	63.1%	\$350,000	\$0	\$50,000	<input type="checkbox"/>	<input type="text"/>	\$75,000	\$2,000	20,000
		18.3%	<input type="checkbox"/>	60,000				\$0	\$2,000	\$2,000
								\$0		175,000

**Chicago Metropolitan Agency for Planning Regional Project Assessment System - Economic Impact by Type  
for Kendall County, IL -- Operation of Example Project on Kendall County, IL**

<b>Impact Type</b>	<b>Year</b>	<b>Employment</b>	<b>Supported Population</b>	<b>Grade School Population</b>	<b>High School Population</b>	<b>Supported Households</b>	<b>Personal Income</b>	<b>Output</b>
<b>Direct</b>								
	2007	50	28	4	2	10	\$1,750,000	\$8,779,738
	2008	100	57	9	4	20	\$3,000,000	\$15,050,980
	2009	150	85	13	5	29	\$4,500,000	\$22,576,470
	<b>Total:</b>						\$9,250,000	\$46,407,189
<b>Supplier</b>								
	2007	13	7	1	0	1	\$557,454	\$1,592,170
	2008	22	12	2	1	1	\$955,635	\$2,729,435
	2009	32	18	3	1	2	\$1,433,453	\$4,094,152
	<b>Total:</b>						\$2,946,541	\$8,415,758
<b>Consumer</b>								
	2007	9	5	1	0	1	\$243,977	\$859,779
	2008	15	9	1	1	1	\$418,247	\$1,473,907
	2009	23	13	2	1	1	\$627,371	\$2,210,861
	<b>Total:</b>						\$1,289,595	\$4,544,547
<b>Total</b>								
	2007	72	40	6	3	11	\$2,551,431	\$11,231,688
	2008	137	78	12	5	22	\$4,373,882	\$19,254,322
	2009	205	116	17	7	33	\$6,560,823	\$28,881,483
	<b>Total:</b>						\$13,486,137	\$59,367,494



**Total Disaggregated Impact**  
**Example Project (continued)**

Year: 2007		
Industry Type	Output	Employment
Motor Vehicle and Parts Dealers	\$26,304	0.3
Furniture and Home Furnishings	\$14,390	0.1
Electronics and Appliance Stores	\$2,104	0.0
Building Materials and Garden S	\$28,011	0.3
Food and Beverage Stores	\$37,426	0.6
Health and Personal Care Stores	\$15,409	0.2
Gasoline Stations	\$4,616	0.1
Clothing and Accessory Stores	\$6,825	0.1
Sporting Goods, Hobby, Books,	\$1,160	0.0
General Merchandise Stores	\$39,183	0.7
Miscellaneous Store Retailers	\$4,643	0.2
Nonstore Retailers	\$8,232	0.1
Publishing	\$5,372	0.1
Broadcasting and Media Producti	\$16,858	0.1
Telecommunications	\$48,471	0.1
Information Svcs and Data Proce	\$9,603	0.0
Finance and Insurance	\$195,431	1.3
Real Estate	\$49,236	0.3
Equipment Rental and Repair	\$37,900	0.2
Professional and Scientific Servic	\$152,486	1.2
Computer Programming and Syst	\$16,542	0.2
Scientific Research and Develop	\$24	0.0
Management of Companies/Enter	\$15,450	0.2
Administrative and Support Servi	\$80,662	1.4
Education	\$2,984	0.1
Health Services	\$47,001	0.7
Social and Religious Services	\$51,339	1.1
Arts, Entertainment, Recreation	\$12,456	0.3
Accomodation and Food Services	\$97,273	2.3
Personal Services	\$52,889	0.8
Federal Government and Military	\$135	0.0
State and Local Government	\$76,978	1.3
<b>TOTAL:</b>	<b>\$11,231,688</b>	<b>73</b>

Year: 2008		
Industry Type	Output	Employment
Motor Vehicle and Parts Dealers	\$45,092	0.5
Furniture and Home Furnishings	\$24,668	0.2
Electronics and Appliance Stores	\$3,606	0.1
Building Materials and Garden S	\$48,019	0.5
Food and Beverage Stores	\$64,159	1.1
Health and Personal Care Stores	\$26,416	0.4
Gasoline Stations	\$7,913	0.1
Clothing and Accessory Stores	\$11,699	0.2
Sporting Goods, Hobby, Books,	\$1,989	0.1
General Merchandise Stores	\$67,172	1.3
Miscellaneous Store Retailers	\$7,959	0.3
Nonstore Retailers	\$14,112	0.2
Publishing	\$9,209	0.1
Broadcasting and Media Producti	\$28,900	0.2
Telecommunications	\$83,093	0.2
Information Svcs and Data Proce	\$16,463	0.1
Finance and Insurance	\$335,024	2.2
Real Estate	\$84,405	0.5
Equipment Rental and Repair	\$64,971	0.4
Professional and Scientific Servic	\$261,405	2.1
Computer Programming and Syst	\$28,358	0.3
Scientific Research and Develop	\$42	0.0
Management of Companies/Enter	\$26,486	0.4
Administrative and Support Servi	\$138,277	2.4
Education	\$5,116	0.2
Health Services	\$80,572	1.2
Social and Religious Services	\$88,010	2.0
Arts, Entertainment, Recreation	\$21,354	0.5
Accomodation and Food Services	\$166,753	3.9
Personal Services	\$90,667	1.3
Federal Government and Military	\$231	0.0
State and Local Government	\$131,963	2.2
<b>TOTAL:</b>	<b>\$19,254,322</b>	<b>140</b>

Year: 2009		
Industry Type	Output	Employment
Motor Vehicle and Parts Dealers	\$67,638	0.7
Furniture and Home Furnishings	\$37,002	0.3
Electronics and Appliance Stores	\$5,410	0.1
Building Materials and Garden S	\$72,028	0.8
Food and Beverage Stores	\$96,238	1.6
Health and Personal Care Stores	\$39,624	0.6
Gasoline Stations	\$11,869	0.2
Clothing and Accessory Stores	\$17,549	0.3
Sporting Goods, Hobby, Books,	\$2,983	0.1
General Merchandise Stores	\$100,757	1.9
Miscellaneous Store Retailers	\$11,938	0.5
Nonstore Retailers	\$21,168	0.3
Publishing	\$13,814	0.2
Broadcasting and Media Producti	\$43,350	0.3
Telecommunications	\$124,639	0.3
Information Svcs and Data Proce	\$24,694	0.1
Finance and Insurance	\$502,537	3.3
Real Estate	\$126,608	0.8
Equipment Rental and Repair	\$97,456	0.5
Professional and Scientific Servic	\$392,108	3.2
Computer Programming and Syst	\$42,538	0.4
Scientific Research and Develop	\$63	0.0
Management of Companies/Enter	\$39,729	0.6
Administrative and Support Servi	\$207,416	3.6
Education	\$7,674	0.3
Health Services	\$120,859	1.8
Social and Religious Services	\$132,014	2.9
Arts, Entertainment, Recreation	\$32,030	0.8
Accomodation and Food Services	\$250,130	5.9
Personal Services	\$136,001	1.9
Federal Government and Military	\$346	0.0
State and Local Government	\$197,944	3.2
<b>TOTAL:</b>	<b>\$28,881,483</b>	<b>210</b>

**Chicago Metropolitan Agency for Planning Regional Project Assessment System**  
**Construction Impact by Type**

**Construction of Example Project on Kendall County, IL**

<b>Impact Type</b>	<b>Year</b>	<b>Employment</b>	<b>Supported Population</b>	<b>Supported Households</b>	<b>Personal Income</b>	<b>Output</b>
<b>Direct</b>						
	2007	0	0	0	\$0	\$0
	2008	0	0	0	\$0	\$0
	2009	36	68	23	\$2,018,197	\$4,000,000
	<b>Total:</b>				\$2,018,197	\$4,000,000
<b>Supplier</b>						
	2007	0	0	0	\$0	\$0
	2008	0	0	0	\$0	\$0
	2009	6	11	4	\$211,881	\$613,569
	<b>Total:</b>				\$211,881	\$613,569
<b>Consumer</b>						
	2007	0	0	0	\$0	\$0
	2008	0	0	0	\$0	\$0
	2009	8	16	5	\$232,595	\$823,169
	<b>Total:</b>				\$232,595	\$823,169
<b>Total</b>						
	2007	0	0	0	\$0	\$0
	2008	0	0	0	\$0	\$0
	2009	50	95	33	\$2,462,673	\$5,436,738
	<b>Total:</b>				\$2,462,673	\$5,436,738

**Chicago Metropolitan Agency for Planning Regional Project Assessment System - Direct and Total Revenue Impacts**  
**Operation of Example Project on Joliet and Kendall County, IL**

Year	Local						State				
	Real Property Tax	Sales Taxes		Utility Taxes	Permits and Fees	Total	Sales Tax	Corporate Income Tax	Personal Income	Utility Taxes	Total
		City	County								
Direct Impact											
2007	\$26,527	\$117,000	\$26,000	\$3,673	\$0	\$173,200	\$325,000	\$109,500	na	\$8,028	\$442,528
2008	\$26,527	\$61,313	\$13,625	\$3,673	\$0	\$105,138	\$170,313	\$109,500	na	\$8,028	\$287,840
2009	\$109,899	\$116,438	\$25,875	\$3,673	\$39,000	\$294,884	\$323,438	\$109,500	na	\$8,028	\$440,965
Total	\$162,954	\$294,750	\$65,500	\$11,019	\$39,000	\$573,222	\$818,750	\$328,500	na	\$24,083	\$1,171,333
Total Impact											
2007	\$135,789	\$120,875	\$27,033	\$3,673	\$0	\$287,370	\$368,055	\$109,500	\$72,223	\$8,028	\$557,806
2008	\$227,570	\$67,955	\$15,396	\$3,673	\$0	\$314,594	\$244,122	\$109,500	\$122,996	\$8,028	\$484,646
2009	\$410,667	\$126,402	\$28,532	\$3,673	\$39,000	\$608,274	\$434,151	\$109,500	\$184,525	\$8,028	\$736,204
Total	\$774,026	\$315,232	\$70,962	\$11,019	\$39,000	\$1,210,238	\$1,046,329	\$328,500	\$379,744	\$24,083	\$1,778,656

- Corporate income tax includes personal tax replacement.

<b>Total Value of Incentives Reflected in Revenue Totals:</b>	\$0
<b>Total Value of Other Incentives and Delinquent Taxes Paid:</b>	\$0
<b>Total Value of All Incentives:</b>	\$0

## Chicago Metropolitan Agency for Planning Regional Project Assessment System

### Regional Indirect Revenue Impact - Example Project

County	Year	Total Jobs	Supported Population	Indirect Revenues by County	
				Indirect Revenues	
				Real Property Tax	County Sales Tax
Cook County, IL	2009	0	91.0	\$72,458	\$5,314
DuPage County, IL	2009	0	38.9	\$62,745	\$886
Grundy County, IL	2009	0	19.8	\$21,039	\$221
Kane County, IL	2009	0	42.2	\$62,810	\$443
Kendall County, IL	2009	205	116.3	\$300,858	\$2,657
Lake County, IL	2009	0	21.3	\$44,532	\$221
McHenry County, IL	2009	0	19.7	\$34,198	\$221
Will County, IL	2009	0	20.9	\$31,023	\$221
Outside Region	2009	0	313.9		
<b>Total</b>		<b>205</b>	<b>684.1</b>	<b>\$629,662</b>	<b>\$10,186</b>

Note: Total jobs include direct jobs plus supported employment at other local businesses through the multiplier effect.

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## Chicago Metropolitan Agency for Planning Project Assessment System - Project Summary

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**For the Years: 2007-2009**

### **Jobs and Payroll**

New direct jobs created	150
New direct payroll	\$4,500,000
Average payroll per employee	\$30,000

### **Capital Investment**

Value of new construction	\$4,000,000
Value of new equipment purchases	\$10,200,000

### **Economic Impact\***

Total value economic impact	\$59,367,494
Total new jobs supported	205
Total new payroll supported	\$13,486,137
Household spending supported	\$11,902,696

### **New Tax Revenue\***

#### **Local Taxes**

Real Property	\$774,026
Personal Property	\$0
Sales	\$386,194
Utility Taxes	\$11,019

#### **State Taxes**

Sales	\$1,046,329
Corporate Income	\$328,500
Personal Income	\$379,744
Utility Taxes	\$24,083

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\* Includes jobs, payroll, output and tax revenues of companies assisted by the Chicago Metropolitan Agency for Planning as well as secondary impacts at other local businesses. Report includes only impacts created in 2007-2009. Additional impacts will be generated in future years.