



# **Economic Impact of Salina Airport Industrial Center**

**January 2011**

Prepared by  
Center for Economic Development and Business Research  
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This study was conducted by the Center for Economic Development and Business Research, W. Frank Barton School of Business at Wichita State University. The study presents estimates of the economic impact of Salina Airport Industrial Center activity and was completed at the request of the Salina Airport Authority. The Center identified three components to industrial center activity:

1. Kansas State University Salina – Appendix A
2. Military activity – Appendix B
3. Business activity – Appendix C

For methodology of individual studies please refer to the respective appendix.

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## Findings

### Kansas State University Salina – FY 2010

Universities are economic drivers. An economic driver is an organization or an industry that brings new money into the area from outside. Construction expenditures and K-State Salina employment contributed to 181 direct employees in fiscal year 2010 in the Salina area. In addition, there were an estimated 808 indirect/induced employees in the Salina area from the operations of K-State Salina, including 716 students.<sup>1</sup> This combines for a total employment impact of 988. Tax impacts for Kansas State University Salina operations were estimated to be \$852,574.

KANSAS STATE UNIVERSITY SALINA*	
<b>Employment</b>	
Direct	181
Indirect/Induced	808
<b>Total Employment</b>	<b>988</b>
<b>Payroll</b>	
Direct	\$5,741,304
Indirect/Induced	\$22,134,658
<b>Total Payroll</b>	<b>\$27,875,962</b>
<b>Net Tax Impact</b>	
Salina	\$92,225
Saline County	\$61,274
Kansas	\$699,075
<b>Combined Tax Impact</b>	<b>\$852,574</b>
*Sum may not add to total due to rounding.	

### Military Activity - 2009

The complete analysis, found in Appendix B, includes estimated impacts for Saline County, the Saline County region and Kansas. The Center identified two components of military impacts that are included in the full report:

1. The number of retirees and their pay, direct military pay to civilians, active duty military personnel, and reserve and National Guard personnel, and visitors to military installations (**military activity**).
2. The value of procurement contracts from ALL U.S. military issued to companies in the Saline County region (**contracts**).

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<sup>1</sup>It is assumed that each of Kansas State University's students in Salina are there to attend that specific university. These students have incomes regardless of employment. For simplicity, these students and their incomes are counted as indirect employees based on their expenditure impact potential.

When assessing the impact of the Salina Airport Industrial Center, only active duty, reserve and National Guard impacts are included. Contract data and retiree impacts cannot be directly tied to the existence of military activity at the Salina Airport Industrial Center. Furthermore, the information in this section has been edited to provide impacts to Salina, Saline County and Kansas.

There were 223 military employees<sup>2</sup> in fiscal year 2009 at the Salina Airport Industrial Center. These individuals received total military wages<sup>3</sup> of \$6.6 million in 2009. Military employees contributed to \$1.2 million in tax revenue in Salina, Saline County and Kansas.

<b>MILITARY WAGES and PERSONNEL*</b>			
	<b>Direct</b>	<b>Indirect/Induced</b>	<b>Total</b>
<b>Military Employees<sup>2</sup></b>			
Active Duty Military	57	55	112
Reserve and National Guard	166	159	325
<b>Military Wages<sup>3</sup></b>			
Active Duty Military	\$1,687,340	\$1,345,316	\$3,032,656
Reserve and National Guard	\$4,914,007	\$3,917,938	\$8,831,945
<b>TOTAL</b>			
Employment Impact	223	214	437
Wage Impact	\$6,601,347	\$5,263,254	\$11,864,601
<b>Net Tax Impact<sup>+</sup></b>			
Salina			\$223,325
Saline County			\$117,338
Kansas			\$849,080
<b>Combined Tax Impact</b>			<b>\$1,189,743</b>
*Sum may not add to total due to rounding.			
+Data found in this section is not available in the full report due to differences in geographies.			

## **Business Activity - 2010**

Business activity at the Salina Municipal Airport includes 71 private and public sector entities. These entities increase the demand for output, employment and earnings. Increased demand creates fiscal impacts, or tax revenues, to cities, counties and the state of Kansas.

A total of 8,669 employees in the Salina area are due to business activity at the Salina Municipal Airport. Business activity at the airport can be attributed to nearly \$284 million in payroll. Combined tax revenues total approximately \$13.8 million.

<sup>2</sup> Military employees include: active duty, reserve and National Guard and civilian employees.

<sup>3</sup> Military wages include: wages paid to active duty, reserve and National Guard and civilian employees.

IMPACT OF FIRM OPERATIONS BY MAJOR INDUSTRY				
	Employment		Payroll	
	Direct	Total	Direct	Total
Construction	206	939	\$7,586,447	\$36,091,074
Manufacturing	1,171	3,859	\$46,668,153	\$109,441,166
Wholesale Trade, Retail Trade, Transportation and Utilities	1,888	3,098	\$64,963,899	\$119,315,139
Services	476	765	\$11,154,221	\$18,917,193
Government	4	8	\$75,000	\$134,798
<b>Combined Impact</b>	<b>3,745</b>	<b>8,669</b>	<b>\$130,447,720</b>	<b>\$283,899,371</b>
<b>Net Tax Impact</b>				
Salina				\$1,773,096
Saline County				\$1,376,246
Kansas				\$10,616,768
<b>Combined Impact</b>				<b>\$13,766,110</b>

**Combined Impact of Salina Airport Industrial Center - 1-Year Impact**

Total employment impact from Salina Airport Industrial Center activity was estimated to be 10,094. Airport activity can be tied to more than \$323.6 million in wages. In addition, net tax impacts were estimated to be more than \$15.8 million when combining impacts to Salina, Saline County and Kansas.

SALINA AIRPORT INDUSTRIAL CENTER IMPACT*	
<b>Employment</b>	
Direct	4,148
Indirect/Induced	5,946
<b>Total Employment</b>	<b>10,094</b>
<b>Payroll</b>	
Direct	\$142,790,371
Indirect/Induced	\$180,849,563
<b>Total Payroll</b>	<b>\$323,639,934</b>
<b>Net Tax Impact</b>	
Salina	\$2,088,645
Saline County	\$1,554,859
Kansas	\$12,164,922
<b>Combined Tax Impact</b>	<b>\$15,808,426</b>
*Sum may not add to total due to rounding.	



**Appendix A: Economic Impact of Kansas State University  
Salina**

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## **Summary of Findings: Economic Impact of Kansas State University Salina**

This study was conducted by the Center for Economic Development and Business Research, W. Frank Barton School of Business at Wichita State University. The study presents estimates of the economic impact of direct operations of Kansas State University on the Saline County economy in fiscal year 2010. This report presents an analysis of the University's impact on employment, output and fiscal revenues to government entities. The study was prepared at the request of the Salina Airport Authority.

Universities are economic drivers. An economic driver is an organization or an industry that brings new money into the area from outside. Kansas State University Salina created the following impacts in fiscal year 2010:

- The university reported capital expenditures of \$579,440, creating a combined tax impact<sup>1</sup> of \$46,226.
- There were an estimated 4,000 visitors to K-State Salina facilities, creating a combined tax impact of \$18,823.
- The university reported a year-round average student head count of 716, creating a combined fiscal impact of \$529,203
- K-State Salina directly employed 174 individuals, creating a combined tax impact of \$258,321.
- The total jobs impact of K-State Salina was estimated to be 988. The total combined tax impact of university activity was estimated to be \$852,574.

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<sup>1</sup> Combined tax impact refers to tax collections of Salina, Saline County and Kansas.

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## Introduction

This study was conducted by the Center for Economic Development and Business Research, W. Frank Barton School of Business at Wichita State University. The study presents estimates of the economic impact of direct operations of Kansas State University on the Saline County economy in fiscal year 2010. This report presents an analysis of the University's impact on employment, output and fiscal revenues to government entities. The study was prepared at the request of the Salina Airport Authority.

Universities are economic drivers. An economic driver is an organization or an industry that brings new money into the area from outside. For example, universities bring student tuition and expenditures into the local economy. In addition, universities bring state and federal money into the economy that would otherwise be spent in other communities. These new monies are distributed within the community through wages paid to university employees, visitor expenditures and student expenditures and activity.

## Methodology

Expenditures by university students on housing, food, transportation and other living expenses have a considerable impact on the local economy. Some impact methodologies exclude expenditures of students when estimating the economic impact of a university, based on the belief that students would spend money on housing, food, transportation and other living expenses whether they attend college or not. In the Center's judgment, this is not valid for Kansas State University Salina students. It is unlikely students would stay in Salina if the university was not present due to the absence of a similar institution. Instead, students would likely transfer to a similar institution outside of the Saline County area. For this reason, CEDBR will include student impacts.

This analysis focuses on the economic impact of Kansas State University Salina activity at the Salina Municipal Airport on the City of Salina, Saline County and the State of Kansas.

In order to calculate the fiscal and economic impact of business activity to Kansas and specific regions, the following data were used:

- Capital expenditures
- Visitor Impacts
- Student purchases
- Student headcount
- Employment
- Annual payroll

## **Assumptions**

### **Fiscal Benefit Cost Model**

CEDBR calculates benefits and costs using the Fiscal Benefit Cost Model. The model takes into account industry substitution and multipliers. In addition, it looks at the flow of money from a company or entity to taxing districts and the flow from the taxing district to the company. CEDBR looks at income streams from construction spending, sales and purchases of the entity under review, employees and the payrolls associated with employees.

The model takes each benefit and rolls it through the appropriate tax. As an example, employees get wages, which are income taxed. The employees spend their income on housing, which is assessed a property tax, and on retail trade, which is assessed a retail sales tax.

It is assumed that 35 percent of all wages are subject to retail sales tax. It is further assumed that 100 percent of wages are subject to federal income tax, as well as state income tax.

CEDBR then takes the fiscal benefits (tax collections) to the city, county, and state and compares them to the costs. Costs include the cost of providing incentives, the cost of providing for students in school districts and any additional costs associated with an entity. For the purpose of this project, costs associated with students were calculated. Any additional costs of providing services at the city and county levels were omitted due to the variability between taxing regions.

To calculate the benefit-cost ratio, we simply divide the benefits by the costs.

### **Substitution Effect**

Substitution occurs when new investment merely displaces current resources and jobs from one entity to another. This analysis measures the impact of all university activity at the Salina Municipal Airport, excluding possible substitution effects.

### **RIMS II Multipliers**

RIMS II multipliers from the Bureau of Economic Analysis, aggregated for the state of Kansas, were used to calculate total economic impacts from industry expansion, net of substitution. The notion of a multiplier effect arises due to the interrelatedness of local industries. For example, if the demand for aviation products increases, this will lead to an increase in demand from industry suppliers. Therefore, payroll increases as a direct result of the expanding firm's operations and indirectly as a result of the expanding firm's increase in demand for locally supplied inputs. The multiplier also addresses the relationship between wages and employee demands on supporting industries, such as retail trade. There is a need for additional employees, who earn wages, as sales in retail trade industries increase. This induced effect

measures the impact of expenditures of direct and indirect employees to retail and other industries. The total effect of expansion is the sum of these direct, indirect and induced effects.

RIMS II direct effect multipliers are reported for both employment and earnings impacts and were used in determining the direct effect of business activity. Direct effect multipliers calculate the change in total employment based on a change in a specific industry's employment.

For the purpose of this report, NAICS code 611A00 (Colleges, universities, and junior colleges) was used.

### Visitor Spending

In calculating visitor spending, 50 percent of visitors were assumed to be business travelers, while the remaining 50 percent were expected to be leisure visitors. Duration of trip was defined by Kansas State University Salina. Furthermore, it was assumed that visitors would make 90 percent of purchases within Salina, and 100 percent of purchases would be made in the county and state.

Visitor spending amounts were based on the CEDBR Fiscal Impact Model values, which were derived from the CEDBR's 2003 Economic Impact of Tourism Report and are shown in the following table:

Visitor Expenditures	
\$85.00	Average daily spending for business visitors per person (excluding hotel expenses)
\$55.00	Average daily spending for leisure visitors per person (excluding hotel expenses)

### Employee Residence

This methodology assumes that 90 percent of Kansas State University Salina employees live within Saline County. Furthermore, it was assumed that, if K-State Salina did not exist, half of the employees living in Saline County would leave. In other words, 45 percent of K-State Salina employees live in the region due to the location of their employer. In addition, 70 percent of individuals are assumed to own a home.

### Limitations

The Center for Economic Development and Business Research acknowledges that additional impacts do exist from Kansas State University Salina. These additional impacts include, but are not limited to:

- Lifetime earnings and value-added benefits from retained students in Kansas.
- Tax impacts from additional output (purchases of K-State Salina) of local firms.

## Findings

### Capital Expenditures

Kansas State University Salina reported capital expenditures of \$579,440 for fiscal year 2010. Construction expenditures directly employed seven individuals. Indirect and induced impacts create an additional seven jobs for a total employment impact of 14. K-State Salina construction expenditures created a combined tax impact of \$46,226.

<b>Construction Expenditures</b>	<b>\$579,440</b>
<b>Direct Employment</b>	<b>7</b>
<b>Total Employment</b>	<b>14</b>
<b>Tax Impact</b>	
Salina	\$3,034
Saline County	\$1,587
Kansas	\$41,606
<b>Combined Tax Impact</b>	<b>\$46,226</b>

### Visitors

Kansas State University Salina reported 4,000 day visitors in fiscal year 2010. Visitors are estimated to have spent \$252,000 within the city of Salina, and an additional \$28,000 in Saline County for total expenditures of \$280,000 in Kansas. Visitor spending created combined tax impacts of nearly \$19,000.

<b>Visitors Impact</b>	
<b>Visitors - Business and Leisure</b>	<b>4,000</b>
Average Days	1
Average Nights	-
<b>Expenditures</b>	<b>\$280,000</b>
<b>Tax Impact to Salina, Saline County and Kansas</b>	<b>\$18,823</b>

## Students

Kansas State University Salina reported 796 students in the 2009 fall semester and 635 students in the 2010 spring semester. The average, year-round student count was estimated to be 716. Each student was expected to have an income of \$25,536<sup>2</sup>, including federal grants and loans and scholarships. The combined tax impact of students was estimated to be \$529,203.

<b>Student Impact - Indirect Employment<sup>3</sup></b>	
<b>Year-round Students</b>	<b>716</b>
<b>Available Income per Student</b>	<b>\$25,536</b>
<b>Tax Impact</b>	
Salina	\$41,736
Saline County	\$21,823
Kansas	\$465,645
<b>Combined Tax Impact</b>	<b>\$529,203</b>

## Employees

There were 174 employees in fiscal year 2010 at Kansas State University Salina. Indirect and induced employment was estimated to be 85, for a combined total employee impact of 259. The combined tax impact of employees was estimated to be \$258,321.

<b>Employee Impact</b>	
<b>Direct Employees</b>	<b>174</b>
<b>Indirect/Induced</b>	<b>85</b>
<b>Total Employees</b>	<b>259</b>
<b>Tax Impact</b>	
Salina	\$43,942
Saline County	\$36,893
Kansas	\$177,486
<b>Combined Tax Impact</b>	<b>\$258,321</b>

## Total Impact of Capital Expenditures, Visitors, Students and Employees

Construction expenditures and K-State Salina employment contributed to 181 direct employees in fiscal year 2010 in the Salina area. In addition, there were an estimated 808 indirect/induced employees in the Salina area from the operations of K-State Salina, including 716 students.<sup>3</sup> This combines for a total employment impact of 988. Tax impacts for Kansas State University Salina operations were estimated to be \$852,574.

<sup>2</sup>Nielson 2010 Data for PCensus, Average Annual Income for 15-24 year olds, Saline County, KS.

<sup>3</sup>It is assumed that each of Kansas State University's students in Salina are there to attend that specific university. These students have incomes regardless of employment. For simplicity, these students and their incomes are counted as indirect employees based on their expenditure impact potential.

<b>KANSAS STATE UNIVERSITY SALINA*</b>	
<b>Employment</b>	
Direct	181
Indirect/Induced	808
<b>Total Employment</b>	<b>988</b>
<b>Payroll</b>	
Direct	\$5,741,304
Indirect/Induced	\$22,134,658
<b>Total Payroll</b>	<b>\$27,875,962</b>
<b>Net Tax Impact</b>	
Salina	\$92,225
Saline County	\$61,274
Kansas	\$699,075
<b>Combined Tax Impact</b>	<b>\$852,574</b>
*Sum may not add to total due to rounding.	



## **Appendix B: Economic and Fiscal Impact of Military Activity in the Saline County Region**

**January 2011**

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## Summary of Findings

The Center for Economic Development and Business Research, W. Frank Barton School of Business, Wichita State University, was given the task of analyzing the economic impact of military activity at the Salina Airport and in the Saline County region. The objective was to determine the fiscal and economic impact from military employment, wages and contracts.

Military activity in the Saline County region includes contracts awarded to companies in the region (**contracts**) as well as payments to retired individuals and payments to active duty, civilian, and reserve and National Guard personnel and visitors to installations (**military activity**). Military contracts go to companies, in this case, in the Saline County region. These companies then create a product to fulfill that contract. It requires employees to create products. The demand for additional output, employment and earnings create fiscal impacts, or tax revenues, to cities, counties and the state of Kansas.

A summary table follows this page. Notable findings are listed below:

- The impact from **military activity** in the *Saline County region* was 1,555 jobs and \$35.1 million in earnings in 2009.
- The economic impact to output from **military activity** and **contracts** was \$5.1 million with employment impacts of 1,206 and earnings impact of \$27.5 million in *Saline County*.
- The economic impact to output from **military activity** and **contracts** was \$9 million, creating 1,485 jobs that earned more than \$34 million in wages in 2010 in the *Saline County region*.
- The economic impact to output from **military activity** and **contracts** to *Kansas* was \$10.8 million, creating 1,669 jobs that earned more than \$38.4 million in wages in 2010.
- The total fiscal impact from **military activity** and **contracts** was \$294,391 to *Saline County*, \$399,375 to the *Saline County region's* revenues and \$1.7 million to *Kansas* state tax revenues.

<b>Summary Table of Findings - Saline County Military Region*</b>		
<b>Impact from Military Activity**</b>		
	<b>Direct</b>	<b>Total</b>
Employment	1,323	1,555
Earnings	\$29,339,301	\$35,092,682
<b>Economic Impact - Military Activity and Contracts to Saline County</b>		
	<b>Direct</b>	<b>Total</b>
Output	\$3,025,610	\$5,085,018
Employment		1,206
As a percent of County employment		4.0%
Earnings		\$27,482,632
As a percent of County earnings		2.8%
<b>Economic Impact - Military Activity and Contracts to Saline County Region</b>		
	<b>Direct</b>	<b>Total</b>
Output	\$6,422,267	\$8,958,720
Employment		1,485
As a percent of Region Employment		2.7%
Earnings		\$34,042,420
As a percent of Region Earnings		1.9%
<b>Economic Impact - Military Activity and Contracts to Kansas</b>		
	<b>Direct</b>	<b>Total</b>
Output	\$6,422,267	\$10,793,638
Employment		1,669
As a percent of Total Kansas Employment		0.1%
Earnings		\$38,384,524
As a percent of Total Kansas Earnings		0.1%
<b>Fiscal Impact</b>		
Total Public Benefits - County		\$294,391
Total Public Benefits - Region		\$399,375
Total Public Benefits - State		\$1,731,644
*Compared to Bureau of Economic Analysis 2009 Data		
**Includes: payments to retired individuals and payments to active duty, civilian, and reserve and National Guard personnel and visitors to installations		

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## Introduction

The Center for Economic Development and Business Research, W. Frank Barton School of Business, Wichita State University, was given the task of analyzing the economic impact of military activity at the Salina Airport and in the Saline County region. The objective was to determine the fiscal and economic impact from military employment, wages and contracts.

The Center identified two components of military impacts:

1. The number of retirees and their pay, direct military pay to civilians, active duty military personnel, and reserve and National Guard personnel, and visitors to military installations (**military activity**).
2. The value of procurement contracts from ALL U.S. military issued to companies in the Saline County region (**contracts**).

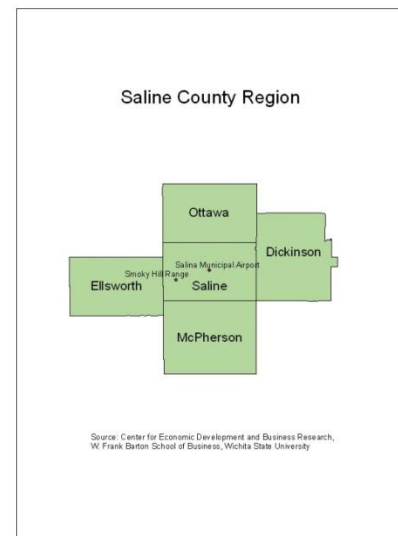
In doing so, CEDBR was able to follow the flows of money from the military to individuals, companies and taxing entities in the state.

## Methodology

The initial phase of the project required CEDBR to define two parameters, time period and regional installation borders. The time period was defined by the availability of comparable data. In order to calculate the fiscal and economic impact of military activity to Kansas and specific installation regions, the following data were needed:

- Active duty, reserve and National Guard, and civilian employment and wages, which was obtained from the Salina Airport Authority.
- Contracts information which was obtained from the Department of Defense for fiscal year 2010.
- Retiree information, which obtained from the Department of Defense, Office of the Actuary, for fiscal year 2010.

Journey to work data provided by the 2000 Census was used to define installation regions. The economic impact of the installation was assessed to Kansas, the Saline County region and Saline County. The economic region includes Saline, McPherson, Ellsworth, Dickinson and Ottawa Counties.



## **Assumptions**

### **Fiscal Benefit Cost Model**

It was assumed that 35 percent of all wages were subject to retail sales tax. It was further assumed that 100 percent of wages were subject to federal income tax, as well as state income tax, except for retiree pay. The average household size in Kansas was based on Census Bureau, 2005-2007 American Community Survey 3-Year Estimates. The household size used was 2.47.

CEDBR calculates benefits and costs using the Fiscal Benefit Cost Model. The model takes into account industry substitution and multipliers. In addition, it looks at the flow of money from a company or entity to taxing districts and the flow from the taxing district to the new company. CEDBR looks at income streams from construction spending, new sales and purchases of the entity under review, employees and the payrolls associated with employees.

The model takes each benefit and rolls it through the appropriate tax. As an example, the employees get wages which are income taxed. The employees spend their income on housing, which is assessed a property tax, and on retail trade, which is assessed retail sales tax.

CEDBR then takes the fiscal benefits (tax collections) to the city, county, and state and compares them to the costs. Costs include the cost of providing incentives, the cost of providing for new students in school districts and any additional costs associated with an entity. For the purpose of this project, costs associated with new students were calculated. Any additional costs of providing services at the city and county levels were omitted due to the variability between taxing regions.

To calculate the benefit-cost ratio we simply divide the benefits by the costs.

All data is subject to a multiplier effect, as well as a substitution effect.

### **Substitution Effect**

Substitution occurs when new investment merely displaces current resources and jobs from one entity to another. Expansion in some industries leads to no net economic impact on the region. For example, expansion of a fast-food chain will generally displace consumers and workers from existing fast-food restaurants, but not contribute to new consumers or additional jobs to the local economy. Likewise expansion of healthcare facilities may enhance the ability to serve the local community, but if it does not bring in new patients from either inside or outside the local community, it does not necessarily lead to economic expansion. Though it could be argued that the new facility offers new services unique to the local community, these cases must be reviewed individually.

## RIMS II multipliers

RIMS II multipliers from the Bureau of Economic Analysis, aggregated for the state of Kansas, were used to calculate total economic impacts from industry expansion, net of substitution. The notion of a multiplier effect arises due to the interrelatedness of local industries. If the demand for aviation products increases, this will lead to an increase in demand from industry suppliers. Therefore, payroll increases as a direct result of the expanding firm's operations and indirectly as a result of the expanding firm's increase in demand for locally supplied inputs. The multiplier also addresses the relationship between wages and employee demands on supporting industries, such as retail trade. There is a need for additional employees, who earn wages, as sales in retail trade industries increase. This induced effect measures the impact of expenditures of direct employees to retail and other industries. The total effect of expansion is the sum of these direct, indirect and induced effects.

RIMS II multipliers are available for final demand output, earnings and employment and were used to assess the economic impact of military contracts. Final demand multipliers are used to assess the effect a change in output in one industry has on other industries within an economic region. Contract data were obtained from 2010 Department of Defense procurement data. Contract data were sorted by expenditures, by industry within the Saline County region. It is assumed that the value of procurement contracts is all value-added by the end contract recipient.

Direct effect multipliers are reported for both employment and earnings impacts and were used in determining the direct effect of active duty, reserve and National Guard, and civilian employment and wages. Direct effect multipliers calculate the change in total employment based on a change in a specific industry's employment.

For the purpose of this report, active duty, reserve and National Guard, and civilian data were classified as **Other Government Enterprises, NAICS code S00A00**. For the purpose of this report the **Household multiplier, NAICS code H00000** was used in correlation with retiree data.

## Economic Impact of Military Operations

### Military Wages and Personnel

Data used to assess the economic impact of **military activity** can be found below. There were 223 military employees<sup>1</sup> in fiscal year 2009 in the Saline County region. These individuals received total military wages<sup>2</sup> of \$6.6 million in 2009. There were 1,100 retired military individuals receiving \$22.7 million in net pay in the Saline County region in 2010.

<b>Military Wages and Personnel</b>	
<b>Active Duty, Reserve and National Guard, and Civilian Employment</b>	<b>223</b>
Active Duty Military	57
Reserve and National Guard	166
<b>Active Duty, Reserve and National Guard, and Civilian Wages</b>	<b>\$6,601,347</b>
Active Duty Military	\$1,687,340
Reserve and National Guard	\$4,914,007
<b>Retired Military - 2010 Department of the Actuary Retiree Payments</b>	
Individuals Receiving Retired Military Pay	1,100
Retired Military Pay	\$22,737,954

Using RIMS II multipliers, the economic impact of **military activity** in the Saline County Region can be found in the table.

<b>Military Wages and Personnel - with Multiplier*</b>			
	<b>Direct, Table 2</b>	<b>Indirect/Induced</b>	<b>Total</b>
<b>Military Employees<sup>1</sup></b>			
Active Duty Military	57	55	112
Reserve and National Guard	166	159	325
<b>Military Wages<sup>2</sup></b>			
Active Duty Military	\$1,687,340	\$1,345,316	\$3,032,656
Reserve and National Guard	\$4,914,007	\$3,917,938	\$8,831,945
<b>Retired Military</b>			
Individuals Receiving Retired Military Pay	1,100	18	1,118
Retired Military Pay	\$22,737,954	\$490,127	\$23,228,081
<b>TOTAL<sup>+</sup></b>			
Employment Impact	1,323	232	1,555
Wage Impact	\$29,339,301	\$5,753,381	\$35,092,682

\*Sum may not add to total due to rounding.

<sup>+</sup>Total includes to military employees and retirees.

<sup>1</sup> Military employees include: active duty, reserve and National Guard and civilian employees.

<sup>2</sup> Military wages include: wages paid to active duty, reserve and National Guard and civilian employees.

## Contracts

**Contracts** are expenditures of the DoD and are revenues to companies in Kansas for fiscal year 2010. Total revenues to Saline County region's companies from **contracts** were \$6.4 million in 2010. The impact of **contracts** to Saline County businesses totaled \$3 million in 2010.

Contracts	
Revenues to <i>Kansas</i> Businesses from <b>Contracts</b>	\$6,422,267
As a Percentage of Total Expenditures	100.0%
Revenues to <i>Saline County Region's</i> Businesses from <b>Contracts</b>	\$6,422,267
As a Percentage of Total Expenditures	100.0%
Revenues to <i>Saline County</i> Businesses from <b>Contracts</b>	\$3,025,610
As a Percentage of Total Expenditures	47.1%

Using RIMS II multipliers, the economic impact of **contracts** to Kansas, the Saline County region and Saline County companies can be found. The total economic impact on output by **contracts** to *Kansas* was \$10.8 million, to the *Saline County region* was \$9 million and to *Saline County* was \$5.1 million in 2010.

Economic Impact - Contracts - Total Output - with Multiplier*			
	Contract Dollar Impacts - to <i>Kansas</i>	Contract Dollar Impacts - to <i>Saline County Region</i>	Contract Dollar Impacts - to <i>Saline County</i>
<b>Revenues - from contracts</b>	<b>\$10,793,638</b>	<b>\$8,958,720</b>	<b>\$5,085,018</b>
Agriculture, forestry, fishing, and hunting	\$69,456	\$57,648.27	\$32,721.47
Mining	\$30,208	\$25,072.50	\$14,231.29
Utilities	\$155,522	\$129,083.02	\$73,268.22
Construction	\$2,383,729	\$1,978,495.00	\$1,123,004.43
Manufacturing	\$2,898,917	\$2,406,101.47	\$1,365,716.17
Wholesale trade	\$684,995	\$568,545.76	\$322,709.64
Retail trade	\$553,328	\$459,262.61	\$260,679.93
Transportation and warehousing	\$243,036	\$201,720.04	\$114,497.38
Information	\$205,830	\$170,838.82	\$96,969.04
Finance and insurance	\$254,542	\$211,269.88	\$119,917.92
Real estate and rental and leasing	\$433,544	\$359,841.90	\$204,248.20
Professional, scientific, and technical services	\$171,649	\$142,468.36	\$80,865.81
Management of companies and enterprises	\$150,763	\$125,133.21	\$71,026.28
Administrative and waste management services	\$278,984	\$231,556.96	\$131,432.98
Educational services	\$42,665	\$35,412.30	\$20,100.21
Health care and social assistance	\$437,095	\$362,789.26	\$205,921.14
Arts, entertainment, and recreation	\$24,197	\$20,083.16	\$11,399.31
Accommodation and food services	\$1,131,537	\$939,175.46	\$533,081.05
Other services	\$643,640	\$534,221.58	\$303,227.05

\*Sum may not add to total due to rounding.

**Contracts** go to companies, in this case, in the Saline County region in Kansas. These companies then create a product to fulfill that **contract**. This requires labor input. Total impacts to

earnings and employment based on **contracts** can be calculated using RIMS II multipliers. Using **contract** data, the table below illustrates the economic impact to earnings in the state of Kansas, the Saline County region and Saline County.

<b>Economic Impact - Contracts - Total Earnings - with Multiplier*</b>			
	<b>Contract Dollar Impacts - to Kansas</b>	<b>Contract Dollar Impacts - to Saline County Region</b>	<b>Contract Dollar Impacts - to Saline County</b>
<b>Earnings - from contracts</b>	<b>\$3,291,842</b>	<b>\$2,732,229</b>	<b>\$1,550,828</b>
Agriculture, forestry, fishing, and hunting	\$7,361	\$6,109.38	\$3,467.72
Mining	\$5,841	\$4,848.44	\$2,752.00
Utilities	\$28,639	\$23,770.14	\$13,492.06
Construction	\$875,319	\$726,514.89	\$412,373.77
Manufacturing	\$635,921	\$527,814.40	\$299,590.30
Wholesale trade	\$213,565	\$177,258.63	\$100,612.95
Retail trade	\$181,187	\$150,384.85	\$85,359.25
Transportation and warehousing	\$73,637	\$61,119.05	\$34,691.50
Information	\$50,511	\$41,924.37	\$23,796.50
Finance and insurance	\$61,059	\$50,679.00	\$28,765.67
Real estate and rental and leasing	\$15,904	\$13,200.13	\$7,492.46
Professional, scientific, and technical services	\$80,209	\$66,573.67	\$37,787.57
Management of companies and enterprises	\$74,318	\$61,684.01	\$35,012.18
Administrative and waste management services	\$94,839	\$78,716.57	\$44,679.95
Educational services	\$18,115	\$15,035.32	\$8,534.13
Health care and social assistance	\$211,365	\$175,433.06	\$99,576.75
Arts, entertainment, and recreation	\$9,994	\$8,295.06	\$4,708.32
Accommodation and food services	\$420,938	\$349,378.58	\$198,309.16
Other services	\$233,120	\$193,489.45	\$109,825.65

\*Sum may not add to total due to rounding.

The table below illustrates the economic impact to employment in the state of Kansas, the Saline County region and Saline County. The total economic impact to earnings based on **contracts** in 2010 was \$3.3 million in *Kansas*, \$2.7 million in the *Saline County region* and \$1.6 million in *Saline County*. **Contracts** supported 114 full-time equivalent positions in *Kansas*, 95 in the *Saline County region* and 54 in *Saline County* in 2010.

<b>Economic Impact - Contracts - Total Employment - with Multiplier*</b>			
	<b>Contract Dollar Impacts - to Kansas</b>	<b>Contract Dollar Impacts - to Saline County Region</b>	<b>Contract Dollar Impacts - to Saline County</b>
<b>Employment - from contracts</b>	<b>114</b>	<b>95</b>	<b>54</b>
Agriculture, forestry, fishing, and hunting	1	1	0
Mining	0	0	0
Utilities	0	0	0
Construction	26	21	12
Manufacturing	14	12	7
Wholesale trade	4	3	2
Retail trade	9	8	4
Transportation and warehousing	2	1	1
Information	1	1	0
Finance and insurance	1	1	1
Real estate and rental and leasing	1	1	0
Professional, scientific, and technical services	2	1	1
Management of companies and enterprises	1	1	1
Administrative and waste management services	4	3	2
Educational services	1	1	0
Health care and social assistance	6	5	3
Arts, entertainment, and recreation	1	1	0
Accommodation and food services	30	25	14
Other services	11	9	5

\*Sum may not add to total due to rounding.

## Fiscal Impact

The fiscal impact of **military activity** and **contracts** can be calculated based on the above findings. Fiscal benefits come from new retail spending, property taxes and personal income taxes. Fiscal costs are associated with the costs of educating new students.

CEDBR used the tax rate of Saline County and the average tax rate of region specific counties to calculate the fiscal impact to Saline County and the Saline County region. The total fiscal impact to *Saline County* was \$294,391. The fiscal impact to all counties in the *Saline County region* was \$399,375. The public benefit to the state of *Kansas* from **military activity** and **contracts** in the Saline County region was \$1,731,644, with costs estimated to be \$516,666 for a benefit-cost ratio of 3.35.

<b>FISCAL IMPACT</b>		
<b>Saline County</b>		<b>Discounted</b>
Present value of net benefits		\$294,391
<i>Rate of Return on Investment</i>		
Net public benefits 1-year period		\$294,391
Public costs 1-year period		\$0
ROI		--
<i>Benefit-Cost Ratio</i>		
Public benefits 1-year period		\$294,391
Public costs 1-year period		\$0
Benefit-Cost Ratio		--
<b>Saline County Region</b>		<b>Discounted</b>
Present value of net benefits		\$399,375
<i>Rate of Return on Investment</i>		
Net public benefits 1-year period		\$399,375
Public costs 1-year period		\$0
ROI		--
<i>Benefit-Cost Ratio</i>		
Public benefits 1-year period		\$399,375
Public costs 1-year period		\$0
Benefit-Cost Ratio		--
<b>State Fiscal Impacts</b>		<b>Discounted</b>
Present value of net benefits		\$1,214,977
<i>Rate of Return on Investment</i>		
Net public benefits 1-year period		\$1,214,977
Public costs 1-year period		\$516,666
ROI		235.2%
<i>Benefit-Cost Ratio</i>		
Public benefits 1-year period		\$1,731,644
Public costs 1-year period		\$516,666
Benefit-Cost Ratio		3.35



**Appendix C: Economic and Fiscal Impact of Salina Airport and  
Salina Airport Industrial Center Activity in Saline County  
January 2011**

Prepared by  
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## Summary of Findings

The Center for Economic Development and Business Research, W. Frank Barton School of Business, Wichita State University, was given the task of analyzing the economic impact of business activity at the Salina Airport on the Saline County region. The objective was to determine the fiscal and economic impact from Salina Airport business employment, wages and contracts.

Business activity at the Salina Municipal Airport includes 71 private and public sector entities. These entities increase the demand for output, employment and earnings. Increased demand creates fiscal impacts, or tax revenues, to cities, counties and the state of Kansas.

Notable findings are listed below:

- Nearly 8,700 jobs were dependent upon business activity at the Salina Municipal Airport in 2010.
- More than \$283.9 million were paid to employees due to business activity at the Salina Municipal Airport.
- The manufacturing industry at the Salina Municipal Airport had the largest impact on employment for the area, directly employing more than 1,171, and creating an additional 2,688 jobs in the Salina area.
- The trade sector had the largest impact on wages for the area, directly paying nearly \$65 million in wages.
- Salina gained nearly \$1.8 million in tax revenues in 2010 from business activity at the Salina Municipal Airport.
- Saline County gained nearly \$1.4 million in tax revenues in 2010 from business activity at the Salina Municipal Airport.

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## Introduction

The Center for Economic Development and Business Research, W. Frank Barton School of Business, Wichita State University, was given the task of analyzing the economic impact of business activity at the Salina Municipal Airport and Salina Airport Industrial Center on the Saline County region. The objective was to determine the fiscal and economic impact from Salina Airport business employment, wages and contracts. In doing so, CEDBR was able to model the flow of money from businesses to individuals, companies and taxing entities in the state.

The Salina Airport Authority provided the Center with survey data on businesses, employees, payroll and taxes paid, as a basis for the analysis. Survey data for all of the 71 businesses located at the airport and industrial center are included in this report. These 71 businesses do not include military operations or Kansas State University – Salina.

## Methodology

The initial phase of the project required CEDBR to define two parameters, time period and geography under analysis. The time period was defined by the availability of comparable data; the analysis uses data from 2010. This analysis focuses on the economic impact of business activity at the Salina Municipal Airport to Kansas providing impacts for the City of Salina, Saline County and the State of Kansas.

In order to calculate the fiscal and economic impact of business activity to Kansas and specific regions, the following data were used:

- Employment
- Annual payroll
- Gross revenue
- Purchases
- Visitor counts

## Assumptions

### Fiscal Benefit Cost Model

CEDBR calculates benefits and costs using the Fiscal Benefit Cost Model. The model takes into account industry substitution and multipliers. In addition, it looks at the flow of money from a company or entity to taxing districts and the flow from the taxing district to the company. CEDBR looks at income streams from construction spending, sales and purchases of the entity under review, employees and the payrolls associated with employees.

The model takes each benefit and rolls it through the appropriate tax. As an example, the employees get wages, which are income taxed. The employees spend their income on housing, which is assessed a property tax, and on retail trade, which is assessed a retail sales tax.

It is assumed that 35 percent of all wages are subject to retail sales tax. It is further assumed that 100 percent of wages are subject to federal income tax, as well as state income tax.

CEDBR then takes the fiscal benefits (tax collections) to the city, county, and state and compares them to the costs. Costs include the cost of providing incentives, the cost of providing for students in school districts and any additional costs associated with an entity. For the purpose of this project, costs associated with students were calculated. Any additional costs of providing services at the city and county levels were omitted due to the variability between taxing regions.

To calculate the benefit-cost ratio, we simply divide the benefits by the costs.

All data is subject to a multiplier effect.

### **Substitution Effect**

Substitution occurs when new investment merely displaces current resources and jobs from one entity to another. This analysis measures the impact of all business activity at the Salina Municipal Airport, excluding possible substitution effects.

### **RIMS II multipliers**

RIMS II multipliers from the Bureau of Economic Analysis, aggregated for the state of Kansas, were used to calculate total economic impacts from industry expansion, net of substitution. The notion of a multiplier effect arises due to the interrelatedness of local industries. For example, if the demand for aviation products increases, this will lead to an increase in demand from industry suppliers. Therefore, payroll increases as a direct result of the expanding firm's operations and indirectly as a result of the expanding firm's increase in demand for locally supplied inputs. The multiplier also addresses the relationship between wages and employee demands on supporting industries, such as retail trade. There is a need for additional employees, who earn wages, as sales in retail trade industries increase. This induced effect measures the impact of expenditures of direct and indirect employees to retail and other industries. The total effect of expansion is the sum of these direct, indirect and induced effects.

RIMS II direct effect multipliers are reported for both employment and earnings impacts and were used in determining the direct effect of business activity. Direct effect multipliers calculate the change in total employment based on a change in a specific industry's employment.

For the purpose of this report, firm specific NAICS codes were used.

### **Visitor Spending**

In calculating visitor spending, all visitors to businesses were assumed to be business travelers. Duration of trip was defined by individual NAICS code and based on survey responses. Furthermore, it was assumed that visitors would make 90 percent of purchases within Salina and 100 percent of purchases would be made in the county and state. Visitor spending

amounts were based on the CEDBR Fiscal Impact Model values, which were derived from the CEDBR’s 2003 Economic Impact of Tourism Report and are shown in the following table:

<b>VISITOR EXPENDITURES</b>	
\$45.00	Average hotel expense per overnight business visitor
\$27.00	Average hotel expense per overnight leisure visitor
\$85.00	Average daily spending for business visitors per person (excluding hotel expenses)
\$55.00	Average daily spending for leisure visitors per person (excluding hotel expenses)

### Employee Residence

This methodology assumes that 90 percent of Salina Municipal Airport and Salina Airport Industrial Center employees live within Saline County. Furthermore, it was assumed that, if the companies under consideration did not exist, half of the employees would leave the Saline County Region. In other words, 45 percent of Salina Municipal Airport and Salina Airport Industrial Center employees live in the region due to the location of their employer. In addition, 70 percent of individuals are assumed to own a home.

## Results

### Economic Impacts

The Salina Municipal Airport and Salina Airport Industrial Center hosts 71 business operations in the private and public sector. These businesses directly employ 3,745 workers and account for a total of 8,669 total jobs in Saline County based on RIMS II multipliers (see Methodology section for complete explanation). Direct one-year payroll earnings amount to more than \$130.4 million and total payroll earnings for a one-year period amount to more than \$283.9 million.

<b>ECONOMIC IMPACT OF FIRM OPERATIONS*</b>	
<i>Number of jobs 1-year period</i>	
Direct	3,745
Total	8,669
<i>Payroll earnings for 1-year period</i>	
Direct	\$130,447,720
Total	\$283,899,371
*Excludes Military Operations and Kansas State University Operations	

The table below provides economic impact information by major industry group. A total of 3,859 employees in the Salina area are due to manufacturing business activity, creating the largest employment impact. Wholesale trade, retail trade and transportation and utility industries contribute the largest impact to Salina area payroll. Based on multiplier impacts, trade sector payroll at the Salina Municipal Airport contributed to more than \$119.3 million in total wages paid in the Salina area.

<b>ECONOMIC IMPACT OF FIRM OPERATIONS BY MAJOR INDUSTRY*</b>				
	<i>Employment</i>		<i>Payroll</i>	
	<i>Direct</i>	<i>Total</i>	<i>Direct</i>	<i>Total</i>
Construction	206	939	\$7,586,447	\$36,091,074
Manufacturing	1,171	3,859	\$46,668,153	\$109,441,166
Wholesale Trade, Retail Trade, Transportation and Utilities	1,888	3,098	\$64,963,899	\$119,315,139
Services	476	765	\$11,154,221	\$18,917,193
Government	4	8	\$75,000	\$134,798
*Excludes Military Operations and Kansas State University Operations				

## Fiscal Impacts

Total benefits and net benefits accrue to each taxing entity and are reflected in the following tables. These results reflect the impacts of total employment and payroll (direct plus the multiplier effects). Benefits include sales tax revenues, income tax revenues, property tax revenues, and other revenues to the taxing entity. Costs reflect the costs of providing public services.

Property tax data for the Salina Municipal Airport and Salina Airport Industrial Center was provided by the Salina Airport Authority and is included in the impacts.

The Salina Municipal Airport business activity contributed to more than \$26.1 million in tax revenues to Salina, Saline County, USD 305 and Kansas. At the same time, total costs were estimated to be nearly \$9.9 million, creating a benefit-cost ratio of 2.65

<b>FISCAL IMPACTS*</b>				
	<i>Benefits</i>		<i>Benefit/Cost</i>	
	<i>Benefits</i>	<i>Costs</i>	<i>Net Benefits</i>	<i>Ratio</i>
Salina	\$1,773,096	\$0	\$1,773,096	N/A
Saline County	\$1,376,246	\$0	\$1,376,246	N/A
USD 305 - Salina	\$8,420,760	\$5,918,120	\$2,502,640	1.42
Kansas	\$14,562,181	\$3,945,413	\$10,616,768	3.69
<b>Combined Impact</b>	<b>\$26,132,284</b>	<b>\$9,863,534</b>	<b>\$16,268,750</b>	<b>2.65</b>
*Excludes Military Operations and Kansas State University Operations				

The table below provides fiscal impact information by major industry group. A total of \$12.5 million was added to tax collections at the city, county, school district and state levels by the trade sector. At the same time, total costs from the industry were estimated to be nearly \$5 million, creating a benefit-cost ratio of 2.52.

<b>FISCAL IMPACT OF FIRM OPERATIONS BY MAJOR INDUSTRY**</b>					
	<i>Salina</i>	<i>Saline County</i>	<i>USD 305 - Salina</i>	<i>Kansas</i>	<i>Combined Impact</i>
Construction					
<i>Benefits</i>	\$104,555	\$79,618	\$460,246	\$1,058,436	<b>\$1,702,854</b>
<i>Costs</i>	\$0	\$0	\$325,580	\$217,053	<b>\$542,633</b>
<i>Benefit/Cost Ratio</i>	N/A	N/A	1.41	4.88	<b>3.14</b>
Manufacturing					
<i>Benefits</i>	\$572,230	\$426,369	\$2,590,324	\$5,826,666	<b>\$9,415,589</b>
<i>Costs</i>	\$0	\$0	\$1,850,746	\$1,233,831	<b>\$3,084,577</b>
<i>Benefit/Cost Ratio</i>	N/A	N/A	1.40	4.72	<b>3.05</b>
Wholesale Trade, Retail Trade, Transportation and Utilities					
<i>Benefits</i>	\$929,290	\$730,214	\$4,247,867	\$6,638,109	<b>\$12,545,481</b>
<i>Costs</i>	\$0	\$0	\$2,983,162	\$1,988,775	<b>\$4,971,937</b>
<i>Benefit/Cost Ratio</i>	N/A	N/A	1.42	3.34	<b>2.52</b>
Services					
<i>Benefits</i>	\$156,306	\$136,860	\$1,053,071	\$998,378	<b>\$2,344,615</b>
<i>Costs</i>	\$0	\$0	\$752,310	\$501,540	<b>\$1,253,850</b>
<i>Benefit/Cost Ratio</i>	N/A	N/A	1.40	1.99	<b>1.87</b>
Government					
<i>Benefits</i>	\$10,715	\$3,185	\$8,831	\$38,129	<b>\$60,860</b>
<i>Costs</i>	\$0	\$0	\$6,322	\$4,215	<b>\$10,537</b>
<i>Benefit/Cost Ratio</i>	N/A	N/A	1.40	9.05	<b>5.78</b>
*Excludes Military Operations and Kansas State University Operations					
**Excludes property tax collections by industry.					