

# The Economic Impact of Joliet Junior College

November 2007



The **Economic Impact of Joliet Junior College** report was prepared by the Center for Governmental Studies at Northern Illinois University (NIU) in partnership with the Illinois Community College Board and the Illinois Community College Trustees Association. Questions and inquiries regarding the contents of this report may be directed to Diana L. Robinson at NIU (815/753-0955 or [drobinson@niu.edu](mailto:drobinson@niu.edu)).

The findings and conclusions presented in this report are those of the NIU project team alone and do not necessarily reflect the views, opinions, or policies of the officers and/or trustees of Northern Illinois University or those of the employees, officers, and/or trustees of the Illinois Community College Board, the Illinois Community College Trustees Association, or Joliet Junior College.

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## A. Introduction

Joliet Junior College, located in Joliet, Illinois, is one of 48 community colleges in the state that play a vital role in the educational and workforce preparation of the individuals and communities they serve. An integral part of Illinois' higher education system, Joliet Junior College provides high-quality, accessible, and cost-effective educational opportunities for residents in an eight-county area in northeast Illinois that includes portions of Cook, Du Page, Grundy, Kankakee, Kendall, La Salle, Livingston, and Will counties.

Joliet Junior College  
District Map



The oldest public community college in the nation, Joliet Junior College began in 1901 as an experimental postgraduate high school program. Today, Joliet Junior College offers academic and vocational-technical instruction through more than 100 associate degree, transfer, or certificate programs of study as well as adult and continuing education programs that serve as a gateway to higher education for many community residents, employers, and K-12 students. Courses are offered at two Joliet campuses, and in Romeoville, Morris, and 11 other educational sites throughout the district. Instruction is also offered through interactive telecourses and online courses.

Joliet Junior College contributes to the vitality of its service area in many ways: educationally, culturally, recreationally, civically, and economically. Perhaps the least measured and understood of these are the economic contributions. Consider that:

- Joliet Junior College adds skills to the workforce and boosts the competitiveness of area businesses.
- Joliet Junior College graduates generate millions of dollars annually in local, state, and federal tax revenues.
- A Joliet Junior College education increases earnings for workers. By completing courses, students gain skills that contribute to higher earnings and graduates enjoy even higher returns.
- As a major employer and business entity, Joliet Junior College generates millions of dollars in local sales and wages and an estimated 1,643 full- and part-time jobs.

This economic impact study was commissioned to better understand the return from investing in Joliet Junior College. It is modeled after a statewide economic impact analysis of the Illinois Community Colleges. The research and analysis for both studies were conducted by the Center for Governmental Studies (CGS) at Northern Illinois University. Three primary sources of district-level data were used:

1. financial and student data submitted by Joliet Junior College to the Illinois Community College Board,
2. employment, student, and visitor data collected from Joliet Junior College through an online survey developed by CGS, and
3. Unemployment Insurance wage record data collected by the Illinois Department of Employment Security.

Three major analyses were conducted using these data. One examined Joliet Junior College student enrollment and completion data over a 10-year period to understand the changes that have occurred over the past decade. A second analysis matched earnings data available through the Illinois Department of Employment Security with students who graduated or otherwise left Joliet Junior College for two full consecutive semesters. The third analysis estimated the effects of Joliet Junior College expenditures and jobs on the local economy using economic modeling software.

A summary of key findings is presented in the next section followed by the detailed study results. These address the student economic outcomes, estimated tax revenues paid by Joliet Junior College students, community college market penetration, and the economic impact of Joliet Junior College. Student-related characteristics used throughout this report, such as “completer,” “enrollee,” and “disadvantaged,” are consistent with definitions in ICCB’s Management Information System Manual.

Tables and charts are used throughout the body of the report to illustrate trends and characteristics. These graphics are supported by data presented in the appendix. It is important to note that the numbers in the appendix tables reflect unduplicated counts of student enrollees and completers and include adult education and English as a Second Language (ESL) students. As a result, they may vary from totals in previously published reports that represent unduplicated counts of enrollments and duplicated counts of graduates who complete multiple certificates or degrees in the same fiscal year.

## **B. Highlights of Significant Findings**

### ***Joliet Junior College adds skills to the area’s workforce and boosts the competitiveness of local businesses.***

- One out of every 10 area employers (11.1%) in the eight-county Joliet Junior College district had hired a Joliet Junior College student in 2005. When all Illinois Community College students hired over the past 10 years by area employers are counted, this percentage increases to more than seven out of 10 area employers (74.0%).

- Joliet Junior College students stay and work within the community college district. In 2005, more than eight out of 10 (86.4%) working students who had attended Joliet Junior College over the past 10 years were employed within the area served by the district.
- There was a 55.9% increase in students who completed a Joliet Junior College program from 1996 to 2006. The occupational program area with the largest completer earnings gains was health professions and related sciences.
- Joliet Junior College students who **attended** school in 1995 paid an estimated \$99,489,453 in state taxes and \$379,342,740 in federal taxes between 1996 and 2005.
- Joliet Junior College students who **graduated** in 1995 paid an estimated \$5,023,015 in state taxes and \$18,958,555 in federal taxes between 1996 and 2005.

***A Joliet Junior College education increases earnings for workers.***

- On average, all Joliet Junior College students who completed their education in FY05 and worked year-round saw a 35% increase in earnings over their pre-enrollment wages.<sup>1</sup>
- Students who complete their program of study realize even greater benefits. A 25-year-old Joliet Junior College program graduate can expect a total lifetime earnings premium of \$904,774. This is 75.4% more than the projected total lifetime earnings of \$1.2 million if they had not completed a program.<sup>2</sup>
- Joliet Junior College graduates employed full-time averaged \$36,160 in annual earnings after completing their programs of study.<sup>3</sup> This is about 264.9% of the state's minimum wage. (Illinois increased the state minimum wage to \$7.50 as of July 1, 2007).

***As a major employer and business entity, Joliet Junior College contributes local sales and wages and an estimated 1,643 jobs to the local economy.***

- In FY05, Joliet Junior College directly employed 382 full-time and 829 part-time staff with a total payroll of \$40,373,983.
- In addition to wages and salaries, Joliet Junior College reported \$9,605,668 in operating expenditures. These monies produced an estimated \$5,052,807 in output for a total economic impact of \$14,658,475 million and an estimated additional 211 jobs.

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<sup>1</sup> This figure measures the change in earnings between pre-enrollment and post-completion and represents graduates and individuals who did not re-enroll in FY06.

<sup>2</sup> Assumes an annual average salary of \$32,639 over 30 years with annual increases of 3%.

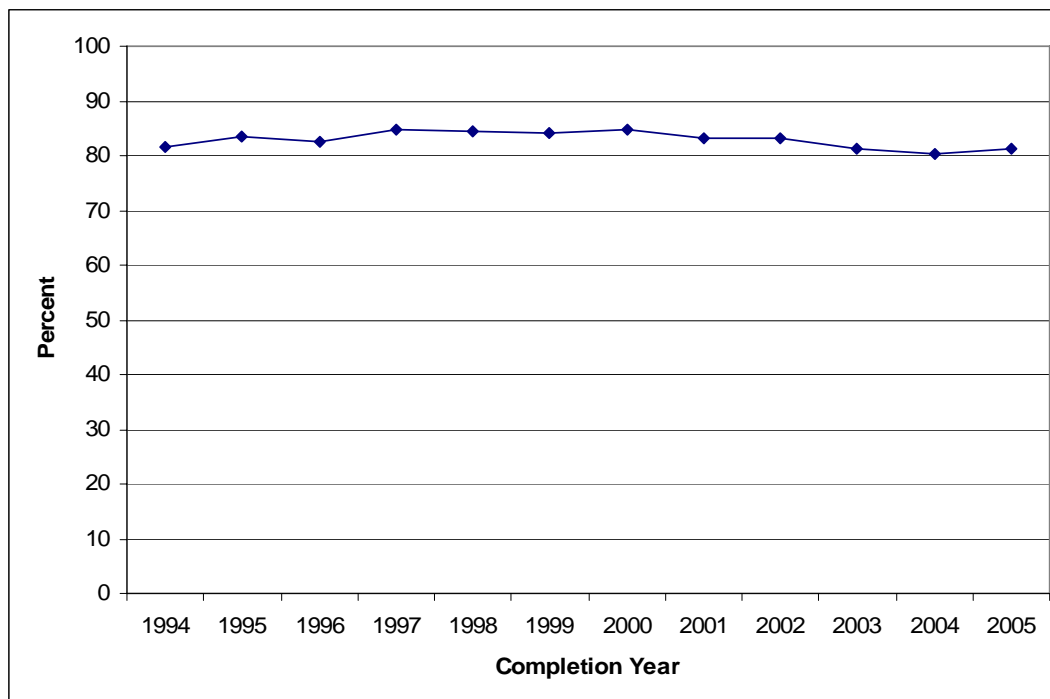
<sup>3</sup> This includes graduates reporting four continuous quarters of full-time earnings above minimum wage.

### C. Student Economic Outcomes

This section examines the economic outcomes for students who have left Joliet Junior College. The source of student employment and earnings data is the Unemployment Insurance (UI) wage record data reported by Illinois employers for each of their employees. UI data are collected on a quarterly basis by the Illinois Department of Employment Security (IDES) and maintained in a data warehouse by the Center for Governmental Studies at NIU. This comprehensive employment data source is estimated to cover 96 percent of total wage and salary civilian jobs.<sup>4</sup> Limitations of the UI wage records are that they contain neither the number of hours worked by participants nor the position they held.

The initial focus is on the percentage of completers who are identified as employed in the first or second full post-completion quarter<sup>5</sup>. Figure 1 displays employment rates of Joliet Junior College students who complete some college credit for each year from 1995 to 2005. Over this period there has been a decline in the employment rate from 84% in 1995 to 81% 2005. However, at least part of this decline may be due to the increase in the percentage of students who continue their education, move out of Illinois, or are self-employed.

**Figure 1**  
**Employed During the 1<sup>st</sup> or 2<sup>nd</sup> Post Completion Quarter**  
**Program Completers**

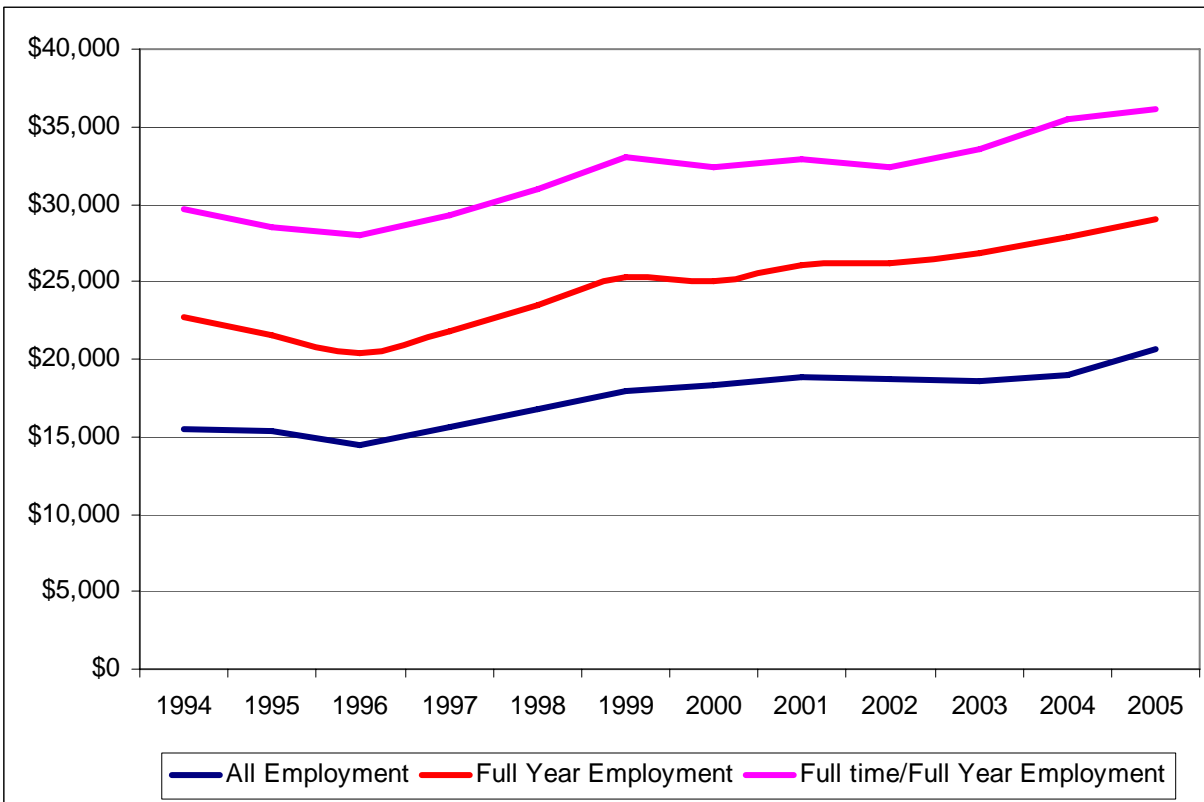


<sup>4</sup> See <http://lehd.dsd.census.gov/led/library/techpapers/tp-2002-16.pdf>. Examples of employment not covered by UI laws include self-employment and some agricultural and domestic work.

<sup>5</sup> The 1<sup>st</sup> full post completion quarter is the first full quarter after the completion of the program. This is to avoid using wages that were earned while the student was in the program.

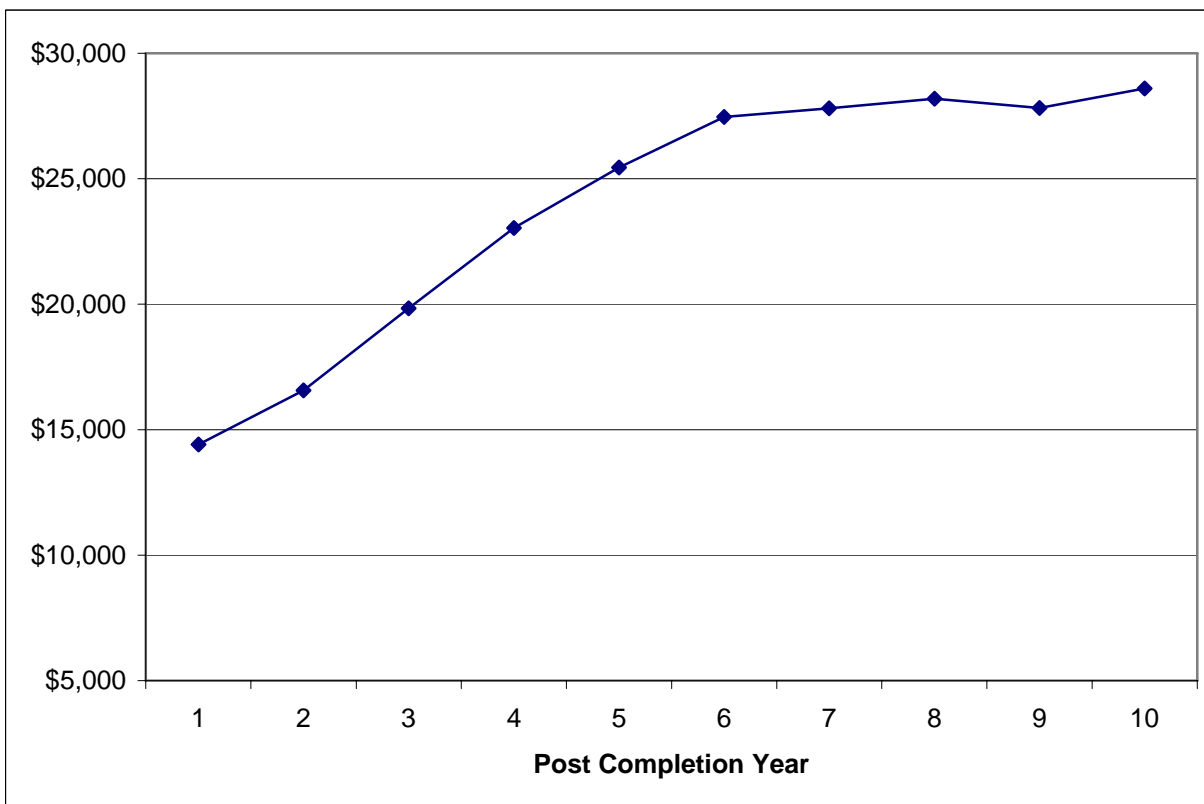
Figure 2 displays the average annual post-completion earnings for three groups of employed program completers from 1995 to 2005. The first group is the set of all completers and includes both part-time and part-year employees. The average annual post-completion earnings of this group rose from \$15,305 to \$20,604. For a more accurate picture, earnings gains were isolated for program completers that worked in each of the four post-program quarters (full-year) and those that worked each of the quarters at an earnings level that was above minimum wage for 30 hours per week (full-time). Those identified as full-year workers had earnings of \$21,585 in 1995 and \$29,084 in 2005, a 35% increase. The group identified as full-time, full-year in 1995 had earnings of \$28,551 and in 2005 earned \$36,160, an increase of 27%.

**Figure 2**  
**Average Annual Earnings**  
**Joliet Junior College Program Completers 1995 - 2005**



Another method of examining the post-completion earnings of community college students is to track the earnings of a specific cohort of completers over time. For this analysis, the average annual earnings of all 1995 completers were tracked over a 10-year period (see Figure 3). The results indicate that the former students' earnings continued to increase through this period with the largest increases occurring in the years immediately after program completion. These increased earnings compound and accrue over a working lifetime.

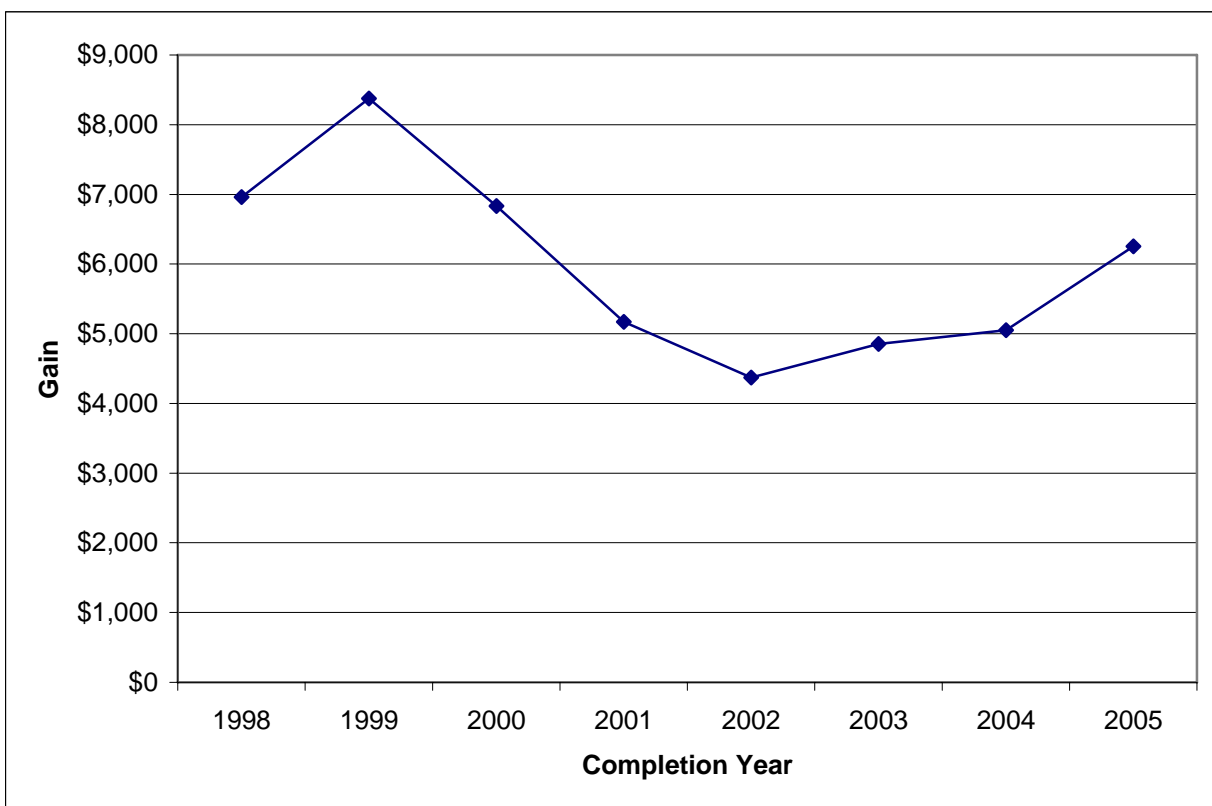
**Figure 3**  
**Average Annual Earnings of 1995 Program Completer**



One of the major advantages of using longitudinal UI wage data is the possibility of examining pre-enrollment and post-completion wages. For this analysis, the enrollment date was set as the first day of the semester in which credit hours were earned for each completer.<sup>6</sup> UI earnings for the four full pre-enrollment quarters were used to compute the annual pre-enrollment earnings. Similarly, UI earnings for the four full post-completion quarters were used to determine the annual post-completion earnings. The results obtained for all Joliet Junior College program completers from 1998 to 2004 are displayed in Figure 4.

The average pre-enrollment to post-completion earnings gain over the eight-year period from 1998 to 2005 was \$8,924<sup>7</sup>. This translates to a \$4.90 per hour increase in earnings assuming full-time, full-year employment ( $\$8,924 / \{52 \text{ weeks} \times 35 \text{ hours}\}$ ). The trend indicates a decline in earnings gains from 1999 to 2002 with a resurgence in earnings gains beginning in 2003.

**Figure 4**  
**Pre-Enrollment to Post-Completion Earnings Gains**  
**Program Completers 1998-2005**

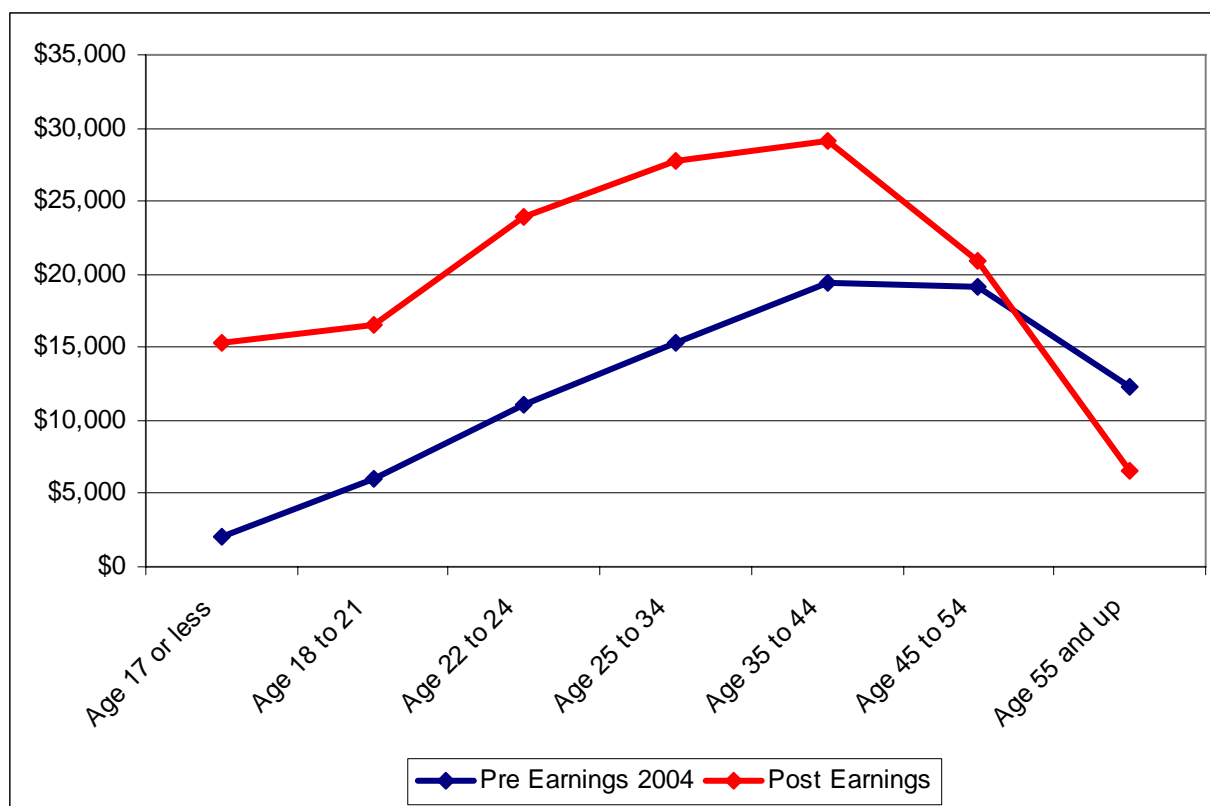


<sup>6</sup> For example, if a student completed a program in 2004, the procedure was to look at the credit hours earned in 2003, 2002, etc. If no credit hours were earned in 2002, then the start date of the earliest semester in which credits were earned was defined as the enrollment date.

<sup>7</sup> The data series ends in 2005 due to the lack of a full year of post completion data and begins in 1998 due to the lack of hours earned by semester for the earlier completion cohorts.

Earning gains vary by age. As Figure 5 illustrates, for 2005 program completers both pre-enrollment and post-completion earnings increase/decrease up to the 35 - 44 age group. At that point, pre-enrollment earnings continue to increase for one more age group and then decline for the 55 and older group. On the other hand, the post-completion earnings begin to decline with the 45 - 54 group and then drop more sharply for the 55 and older group. This pattern may reflect a larger number of part-time or retired individuals in the older age groupings, or reflect the difficulty that older workers have in recouping previous wages even when additional education is obtained. Among displaced workers it is common to see a wage recovery of 85% of pre-layoff earnings following job loss and retraining.

**Figure 5**  
**Pre-Enrollment and Post-Completion Earnings**  
**Program Completers 2005**



Changes in pre-employment to post-completion earnings are also affected by the instructional program a student completes. Table 6 displays the earning changes by the Classification of Instructional Program (CIP) for Joliet Junior College students who completed a program in 2005. A substantial range in earnings gains is apparent across CIPs. Students who completed a program in health professions and related sciences experienced the largest gains. By contrast, students in agriculture business and production and basic skills had the lowest.

**Table 6**  
**Pre-Enrollment and Post-Completion Earnings Gains**  
**Program Completers by Classification of Instructional Program - 2005**

Classification of Instructional Program	Students	Pre-Enrollment Earnings	Post-Completion Earnings	Earnings Gains
Health Professions And Related Sciences	236	\$11,757	\$30,032	\$18,275
Protective Services	40	\$10,786	\$28,877	\$18,091
Agricultural Business And Production	38	\$6,571	\$16,645	\$10,074
Business Management And Administrative Services	85	\$13,549	\$22,903	\$9,354
Personal And Miscellaneous Services	36	\$7,713	\$15,814	\$8,101
Multi/Interdisciplinary Studies	35	\$7,543	\$13,095	\$5,552
Liberal Arts And Sciences, General Studies and Humanities	336	\$6,901	\$12,290	\$5,389
Mechanics And Repairers	50	\$23,352	\$28,693	\$5,341
<b>Total</b>	<b>952</b>	<b>\$10,244</b>	<b>\$20,604</b>	<b>\$10,360</b>

Because a degree or certificate is not the goal for all community college students, a second approach to examining student outcomes focused on the gains per credit hours earned for Joliet Junior College students who exited in program year 2005.<sup>8</sup> Table 7 displays the results for 2005 exiters and completers. The average gain for all exiters/completers is \$5,734, which translates to \$260 per credit hour.

<sup>8</sup> After excluding students who completed a program from the database, the two consecutive years of program enrollments beginning with the 1994 were examined. If there were no credit hours earned in 1994 but there were in 1995, the enrollment date was established as 1995. Once this entrance cohort was defined, the enrollment records were tracked in subsequent year. If a student was found to have no earned hours on year t+1 but did earn credit hours in year t, their exit date was defined as the last day of the semester in which they earned credit hours in year t.

**Table 7**  
**Earnings Gain and Average Gain per Credit Hour**  
**2005 Exiters (Completers and Non-Completers)**

Completer Type 2005	Average Earnings Gain	Average Gain Per Credit Hour
Completer	\$10,521	175
Non Completer Exiter	\$5,063	303
<b>Total</b>	<b>\$5,734</b>	<b>260</b>

Average gains per credit hour vary by program classification. For programs with at least 30 completers, occupational/technical programs displayed the largest earnings gains at \$239 per credit hour. Baccalaureate/transfer programs have the smallest average gain at \$74, an expected outcome given that these students are likely to continue their education. Table 8 shows these earnings gains for 2005 Joliet Junior College program completers.

**Table 8**  
**Pre-Enrollment & Post-Completion Earnings Gains by**  
**Program Classification for Program Completers 2005**

Program Classification	Students	Total Credit Hours	Total Pre to Post Earnings Gains	Average Earnings Gain Per Credit Hour
Occupational/Technical	593	34,143	\$8,163,647	\$239
General Associate	47	2,158	\$348,661	\$162
Baccalaureate/Transfer	322	21,662	\$1,609,301	\$74
<b>Total</b>	<b>962</b>	<b>57,964</b>	<b>\$10,121,609</b>	<b>\$175</b>

When average gains by credit hour are examined by completion degree, associate in applied science degrees show the highest gains and associate in art degrees the lowest. Data on earnings gains by degree are presented in Table 9.

**Table 9**  
**Pre-Enrollment and Post-Completion Earnings Gains by Completion Degree**  
**Program Completers 2005**

Degree Type	Students	Total Credit Hours	Total Pre to Post Earnings Gains	Average Earnings Gain Per Credit Hour
Associate in Applied Science (AAS)	359	23258	\$5,759,921	\$248
Occ. Cert. of Less Than 30 Hours	73	2593	\$615,838	\$237
Occ. Cert. of 30 Hours or More	159	8101	\$1,764,035	\$218
General Associate Degrees (AGS, ALS, AGE)	47	2219	\$361,139	\$163
Associate in Science (AS)	35	2588	\$202,923	\$78
Associate in Arts (AA)	289	19206	\$1,417,753	\$74
<b>Total</b>	<b>962</b>	<b>57,964</b>	<b>\$10,121,609</b>	<b>\$175</b>

Two approaches were used to estimate total lifetime earnings gains resulting from completing a Joliet Junior College program. Both used the pre-enrollment and post-completion average annual earnings of 22- to 25-year-old completers as a base. The first approach takes the difference of the pre-enrollment and post-completion earnings to produce an average pre/post earnings gain and multiplies that gain by the expected working life of the 25 year-old (40 years). This approach yielded a total lifetime earnings gain of \$460,074.

The second approach was similar except that both the pre-enrollment and post-completion earnings were assumed to increase at an annual percentage gain of 3 percent. This approach yielded a total expected lifetime earnings gain for a 25 year-old program completer of \$904,774.

#### D. Student-Generated Tax Revenues

In this section, the amount of tax dollars contributed by Joliet Junior College students to the federal and state tax base over a period of 10 years is estimated. Separate estimates are produced for students who were enrolled during 1995 and for those who completed a program in that year.

For this analysis, the annual total Unemployment Insurance earnings were obtained for each student enrolled in Joliet Junior College in 1995 for each year from 1996 to 2005. Federal taxes were estimated by applying the average marginal tax rate for a given year to the earnings for that year. State taxes were estimated by first subtracting the standard deduction for an individual from the annual earnings (\$1,000), and then applying the 3% Illinois state tax rate to the result. Although this is a simplistic approach for estimating tax revenues in both cases, given the limitations of available data, it may be used to reasonably approximate the magnitude of taxes paid by this cohort of Joliet Junior College students. The results are presented in Table 10.

**Table 10**  
Estimated Federal and State Tax Revenue Paid 1996-2005  
1995 Enrollees and Completers

1995 Cohort	Federal Taxes	State Taxes
Enrollees	\$379,342,740	\$99,489,453
Completers	\$18,958,555	\$5,023,015

Source: Illinois Department of Employment Security UI wage data, ICCB student data, National Bureau of Economic Research, "U.S. Federal and State Marginal Income Tax Rates," <http://www.nber.org/~taxsim/marginal-tax-rates/plusstate.html>

It is estimated that \$379,342,740 in federal taxes was generated between 1996 and 2005 by students who attended Joliet Junior College in 1995. Of that total, about 5.0% was contributed by students who completed in 1995. Similarly, of the estimated 9948945324.0% in state tax

dollars generated by 1995 enrollees, a similar percentage or 5.0% would have been generated by 1995 completers.

### **E. Market Penetration and Student Retention**

An important measure of the market penetration of Joliet Junior College is the number of employers in the district who have hired a former Joliet Junior College student. To obtain this number, the unduplicated database of students who earned credit hours at Joliet Junior College from 1994 to 2004 was merged with a database of all Unemployment Insurance wage records reported in 2005 by employers in the counties served by the Joliet Junior College district.<sup>9</sup> The results indicate that one out of every 10 employers (44.0%) in the eight-county area served by the district had employed a Joliet Junior College student in 2005. When all Illinois Community College students hired over the past 10 years by Joliet Junior College area employers are counted, this percentage increases to more than seven out of 10 area employers (96.1%).

A related aspect of market penetration is the number of Joliet Junior College students who stay and work in the district. In 2005, more than eight out of 10 (86.4%) working students who had attended Joliet Junior College over the past 10 years were employed within the area served by the district. This figure was obtained by using the same unduplicated database of students who earned credit hours at Joliet Junior College from 1994 to 2004, and matching it with wage records for employers with an Illinois address reporting from counties served by the Joliet Junior College district.

### **F. Joliet Junior College Economic Impacts**

Joliet Junior College is an important source of expenditures and employment for the communities and area it serves. As part of its day-to-day operations, the college purchases goods and services, many of them from local businesses. It also pays its employees, who in turn spend their wages and salaries in the local economy. Additionally, the community college invests in site improvements, remodeling, and new construction that generate additional expenditures and jobs.

Any change in economic activity, such as the purchase of a commodity or a service, has direct, indirect, and induced effects. For example, when a community college hires a local printer to produce its class schedules, these orders contribute directly to the income of the local printing industry. The printers' employees spend at least some of their income locally, and these purchases, induced by the college's initial purchase, contribute to the employment and the income of other local industries and services. The printers spend part of their income from the community college's orders on the supplies that they need to run their businesses. To the extent

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<sup>9</sup> This excludes employers whose addresses were unknown or out-of-state.

that these purchases are local, they contribute to the incomes of employees in other industries, who in turn spend their incomes on still other goods and services.

IMPLAN Pro economic modeling software was used to produce estimates of the direct, indirect, and induced economic impacts of Joliet Junior College. **Direct impacts** are simply the set of expenditures or employment applied to the predictive model for impact analysis. **Indirect impacts** are then derived as additional effects caused by industries purchasing from other industries. **Induced impacts** take into account the spending in the local economy of the new income generated by the new employment produced from the impact.

Taken together, direct, indirect, and induced expenditures directly attributable to Joliet Junior College activities in fiscal year 2005 exceeded \$46 million in output and an estimated 1,643 jobs. Summary data are provided in Tables 11 and 12.

**Table 11**  
**Summary of Joliet Junior College's Economic Impact Expenditures - FY2005**

	Operational Expenditures	Employee Expenditures	Total
<b>Direct Effects</b>	\$9,605,668	\$21,398,693	\$31,004,361
<b>Indirect Effects</b>	\$2,506,538	\$4,939,553	\$7,446,091
<b>Induced Effects</b>	\$2,546,269	\$5,455,767	\$8,002,036
<b>Total</b>	<b>\$14,658,475</b>	<b>\$31,794,013</b>	<b>\$46,452,488</b>

*Note: Numbers may not add because of rounding.  
Source: Joliet Junior College data, ICCB, IMPLAN Pro*

**Table 12**  
**Summary of the Joliet Junior College's Economic Impact Employment - FY2005**

	Operational Expenditures	Employee Expenditures	Total
<b>Direct Effects</b>	1,211*	143	1,354
<b>Indirect Effects</b>	211	32	243
<b>Induced Effects</b>	n/a**	46	46
<b>Total</b>	<b>1,422</b>	<b>221</b>	<b>1,643</b>

*\*Actual full- and part-time employees.  
\*\*Induced impacts are captured in employee expenditures described in the next section.  
Note: Numbers may not add because of rounding.  
Source: Joliet Junior College data, ICCB, IMPLAN Pro.*

**Operational Expenditures.** Joliet Junior College reported \$9,605,668 in operating expenditures (excluding wages, salaries, and employee benefits) to the Illinois Community College Board during fiscal year 2005. These are the outside services and supplies required in the daily operations of the college. As these expenditures churn through the local economy, they generate another \$5,052,807 in indirect and induced expenditures and approximately 211 additional local jobs. These impacts are summarized below in Table 13.

**Table 13**  
**Joliet Junior College Operational Expenditures**  
**Output and Employment Impacts – FY2005**

	Direct	Indirect	Induced	Total
<b>Output</b>	\$9,605,668	\$2,506,538	\$2,546,269	\$14,658,475
<b>Employment</b>	1,211*	211	n/a**	1,422

\*Actual full- and part-time employees.

\*\*Induced impacts are captured in employee expenditures described in the next section.

Note: Numbers may not add because of rounding.

Source: Joliet Junior College data, ICCB, IMPLAN Pro.

**Employee Expenditures.** Joliet Junior College directly employs 382 full-time employees and 829 part-time employees. Average salaries for each of four employee classifications (administration, non-teaching professionals, faculty, and classified staff) were used to estimate total earnings for both full-time and part-time employees. Following the U.S. Bureau of Labor Statistics guidelines for Illinois, it was assumed that an average of 80.3% of gross pay was available for consumption. This figure was used to calculate total employee expenditures (direct effects) and resulted in \$10,086,090 for full-time employees and \$11,312,602 for part-time employees, or a total of \$21,398,693 for FY05.<sup>10</sup> The direct employment impact of these expenditures was an additional 143 jobs in industries that meet basic consumer demand for goods and services in such areas as food service, general retail, health care, and wholesale trade.

In addition to these direct economic impacts, the salaries of full- and part-time Joliet Junior College employees will generate an additional \$4,939,553 and 32 jobs in indirect impacts. Induced impacts of \$5,455,767 and 45 jobs are estimated to result from additional local spending of new employment income. A summary of the direct, indirect, and induced output and employment impacts for Joliet Junior College employees is presented in Table 14.

<sup>10</sup> Community college employees residing outside Illinois were excluded from the total employee expenditures.

**Table 14**  
**Joliet Junior College Employee Expenditures**  
**Output and Employment Impacts – FY2005**

	Direct	Indirect	Induced	Total
Full-Time Employees				
• Output	\$10,086,090	\$2,330,544	\$2,538,077	\$14,954,711
• Employment	67	14	19	99
Part-Time Employees				
• Output	\$11,312,602	\$2,609,009	\$2,917,690	\$16,839,301
• Employment	76	19	27	122
All Employees				
• Output	\$21,398,693	\$4,939,553	\$5,455,767	\$31,794,013
• Employment	143	32	46	221

Note: Numbers may not add because of rounding.

Source: Joliet Junior College survey data, ICCB college audit data, IMPLAN Pro.

**Capital Expenditures.** In addition to the economic activity generated by Joliet Junior College operating and employee expenditures, the colleges' capital development projects also contribute significantly to the local economy. Between FY2000 and FY2005, Joliet Junior College has invested \$12,506,093 in site improvements, new construction, and remodeling. These expenditures have generated an estimated \$11,243,536 in indirect and induced output for a total impact of \$23,749,629. These expenditures also generated an estimated 288 jobs as a result of these projects. In FY05 alone, the total direct, indirect, and induced impact of Joliet Junior College site improvements, new construction, and remodeling projects was \$7,248,861 and an estimated 88 new jobs. A summary of the direct, indirect, and induced output and employment impacts for Joliet Junior College capital projects is presented in Table 15.

**Table 15**  
**Joliet Junior College Capital Expenditures**  
**Output and Employment Impacts**

	Direct	Indirect	Induced	Total
Site Improvements, New Construction, and Remodeling (FY 2000 – FY 2005)				
• Output	\$12,506,093	\$4,201,248	\$7,042,288	\$23,749,629
• Employment	192	32	64	288
Site Improvements, New Construction, and Remodeling (FY 2005)				
• Output	\$3,817,109	\$1,282,305	\$2,149,447	\$7,248,861
• Employment	59	10	20	88

Note: Numbers may not add because of rounding.

Source: Joliet Junior College survey data, ICCB college audit data, IMPLAN Pro.

**Visitor Expenditures.** Joliet Junior College attracts visitors every year through activities sponsored by the college and its departments, including academic conferences, seminars and workshops, college-related business meetings, and sports events. Although local community members attend these events, so do visitors from outside the area. These visitors contribute to the local economy by spending money on food, lodging, and other items. It is estimated that approximately \$2,814,069 in local expenditures are generated by these visitors annually. Table 16 displays the breakdown of these expenditures by type of visitor.

**Table 16**  
**Joliet Junior College Visitors Expenditure Impacts**

	<b>Total Visitor Expenditures (Direct Effects)</b>	<b>Indirect Effects</b>	<b>Induced Effects</b>	<b>Total Effects</b>
<b>Day Visitors</b>	<b>\$565,985</b>	<b>\$133,257</b>	<b>\$146,072</b>	<b>\$845,314</b>
• Academic/Business Events	\$367,298	\$86,478	\$94,794	\$548,570
• Sports Events	\$55,250	\$13,008	\$14,259	\$82,517
• Other Non-academic Events	\$143,438	\$33,771	\$37,019	\$214,228
<b>Overnight Visitors</b>	<b>\$1,318,190</b>	<b>\$310,357</b>	<b>\$340,207</b>	<b>\$1,968,754</b>
• Academic/Business Events	\$934,940	\$220,124	\$241,295	\$1,396,359
• Sports Events	\$147,000	\$34,610	\$37,939	\$219,549
• Other Non-academic Events	\$236,250	\$55,623	\$60,973	\$352,846
<b>Total Visitors</b>	<b>\$1,884,176</b>	<b>\$443,614</b>	<b>\$486,279</b>	<b>\$2,814,069</b>

*Note: Numbers may not add because of rounding.*

*Source: Joliet Junior College survey data, ICCB college audit data, IMPLAN Pro.*

## Appendix A

### Joliet Junior College Student Enrollment and Completion Data

**Table A-1**

Percent Employed During the 1<sup>st</sup> or 2<sup>nd</sup> Post-Completion Quarter  
Program Completers 1995 – 2005

	Year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Empl. Rate</b>	83.5	82.5	84.7	84.6	84.2	84.7	83.1	83.3	81.2	80.4	81.2

**Table A-2**

Average Annual Earnings of Program Completers: 1995 – 2005

Type of Employment	Year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>All Employment</b>	\$15,305	\$14,420	\$15,617	\$16,838	\$17,931	\$18,274	\$18,788	\$18,666	\$18,584	\$18,968	\$20,604
<b>Full Year</b>	\$21,585	\$20,329	\$21,821	\$23,505	\$25,331	\$25,010	\$26,099	\$26,233	\$26,826	\$27,868	\$29,084
<b>Full Time / Full Year</b>	\$28,551	\$28,014	\$29,272	\$30,977	\$33,007	\$32,357	\$32,911	\$32,357	\$33,564	\$35,462	\$36,160

**Table A-3**

Average Annual Earnings for Program Completers 1995

	Post-Program Year									
	1	2	3	4	5	6	7	8	9	10
<b>Aver. Annual Earnings</b>	\$15,305	\$17,651	\$21,167	\$24,385	\$26,481	\$27,925	\$27,955	\$29,571	\$29,914	\$31,549

**Table A-4**

Pre-Enrollment to Post-Completion Earnings Gains  
Program Completers 1998 – 2005

	1998	1999	2000	2001	2002	2003	2004	2005
<b>Pre to Post Earnings Gain</b>	\$8,313	\$9,452	\$9,519	\$9,296	\$8,737	\$7,352	\$8,364	\$10,360

**Table A-5**

**Pre-Enrollment and Post-Completion Annual Earnings for Program Completers 2005\***

<b>Age Category</b>	<b>Pre-Enrollment Earnings</b>	<b>Post Completion Earnings</b>
<b>Age 17 or less</b>	\$2,058	\$15,289
<b>Age 18 to 21</b>	\$5,959	\$16,557
<b>Age 22 to 24</b>	\$11,109	\$23,907
<b>Age 25 to 34</b>	\$15,325	\$27,694
<b>Age 35 to 44</b>	\$19,409	\$29,133
<b>Age 45 to 54</b>	\$19,090	\$20,882
<b>Age 55 &amp; up</b>	\$12,333	\$6,529

*\*\* The enrollment date was set as the first day of the semester in which credit hours were earned. UI earnings for the four full pre-enrollment and post-completion quarters were used to compute the annual earnings.*

## Analysis of Where Joliet Junior College Students Work - 2005

As part of the economic impact analysis conducted for Joliet Junior College by Northern Illinois University's Center for Governmental Studies, the location of students employed in 2005 was determined by county in Illinois. The analysis focused on students enrolled in Joliet Junior College credit hour programs from 1994 to 2004. This cohort was matched against a database of all people working in Illinois in calendar year 2005 who reported wages, and the postal code of their employer was used to identify county of employment. Counties were then aggregated into community college districts based on the information each college provided NIU at the outset of this project. Employers whose postal codes were unknown or out-of-state were excluded from the analysis.

A total of 98,982 Joliet Junior College students who had enrolled in credit courses between 1994 and 2004 were determined to be working in 2005. Of these, 26,057 or 26.3% held jobs with employers with postal codes that were unknown or out-of-state, and they were excluded from further analysis. Of the remaining 72,925 Joliet Junior College students, 8 out of 10, or 86.4%, worked within the community college district in 2005. These results are summarized in Table 1 below.

**Table 1**  
**Joliet Junior College**  
**Key Statistics for Students Enrolled in Credit Courses between 1994 and 2004**

No. of Students Enrolled in Credit Courses between 1994 and 2004 Who Were Working in 2005	98,982
Students with Unknown/Out-of-State Employers	26,057 or 26.3%
Students Working in Illinois in 2005 with In-State Employer	72,925
Students Working in 2005 in the Joliet Junior College District	63,020 or 86.4%

The distribution of all 72,925 Joliet Junior College students employed in Illinois in 2005 is presented by county in Table 2.

**Table 2**  
**2005 Work Location by County of Joliet Junior College**  
**Credit Course Enrollees (1994 - 2004)**

<b>County</b>	<b>No. of Students</b>	<b>County</b>	<b>No. of Students</b>	<b>County</b>	<b>No. of Students</b>
Adams	29	Henderson	*	Moultrie	*
Alexander	*	Henry	15	Ogle	11
Bond	*	Iroquois	75	Peoria	962
Boone	51	Jackson	90	Perry	*
Brown	*	Jasper	*	Piatt	*
Bureau	21	Jefferson	9	Pike	*
Calhoun	*	Jersey	*	Pope	*
Carroll	*	Jo Daviess	17	Pulaski	*
Cass	*	Johnson	*	Putnam	7
Champaign	348	Kane	1,704	Randolph	*
Christian	9	Kankakee	531	Richland	6
Clark	*	Kendall	453	Rock Island	107
Clay	7	Knox	18	St. Clair	54
Clinton	*	Lake	1,254	Saline	*
Coles	93	LaSalle	528	Sangamon	1,902
Cook	19,805	Lawrence	*	Schuyler	*
Crawford	*	Lee	20	Scott	*
Cumberland	*	Livingston	466	Shelby	*
DeKalb	234	Logan	9	Stark	*
DeWitt	11	McDonough	53	Stephenson	39
Douglas	14	HcHenry	229	Tazewell	93
DuPage	8,167	McLean	566	Union	10
Edgar	1,020	Macon	92	Vermillion	14
Edwards	*	Macoupin	21	Wabash	*
Effingham	9	Madison	137	Warren	*
Fayette	*	Marion	15	Washington	*
Ford	30	Marshall	13	Wayne	*
Franklin	9	Mason	*	White	*
Fulton	*	Massac	*	Whiteside	26
Gallatin	*	Menard	*	Will	29,152
Greene	*	Mercer	*	Williamson	32
Grundy	3,918	Monroe	9	Winnebago	264
Hamilton	*	Montgomery	7	Woodford	17
Hancock	6	Morgan	13		
Hardin	*			<b>In-State Subtotal</b>	<b>72,925</b>
				<b>Unknown</b>	<b>26,057</b>
				<b>Total</b>	<b>98,982</b>

\*Denotes 5 or fewer students