

RESEARCH REPORT

A Descriptive Analysis of Employment Growth in Indiana, 1988-1994

By
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Industrial recruitment is the primary development strategy of most states in the United States (Smith and Fox). This strategy focuses state and local government attention on identifying footloose manufacturing firms (firms not restricted to a specific region or site by cost, input supply or market factors) that can be attracted to respective states. Once interested firms are identified, state and local officials negotiate an incentive package offered to the firm contingent on its location in the state. Smith and Fox found that many states tie economic growth, the process of increasing the productive capacity of an economy, to attracting new manufacturing facilities. New manufacturing investment is often viewed as the primary source for generating new jobs. However, most new jobs are created by existing firms (Kraybill). State and local economic development efforts, therefore, might benefit from focusing attention of existing business and industry. Programs that support existing local business and industry in an effort to strengthen the local economy, might provide a base for local economic expansion. These programs also can complement efforts to compete new manufacturing investment by increasing resources that would be locally available to new firms.

Understanding how local jobs are created is the first step in understanding how to stimulate economic growth. Indiana development policies encompass three areas: industrial recruitment, industrial extension programs, and new business development. This report examines each industrial sector's employment and employment growth as a source of employment and employment growth in the state's economy. The Indiana economy was divided in to 10 sectors using the 10 industry divisions of the Standard Industrial Classification (SIC) (*Standard Industrial Classification Manual*). The report also analyzes the relative importance of new and existing manufacturing establishments as sources of manufacturing employment growth. Employment growth by new and existing manufacturing firms are looked at separately to assess how each contributes to employment growth. Attracting new manufacturing

¹ This study was conducted with the cooperation and support of the Indiana Department of Commerce and the U.S. Department of Agriculture Economic Research Service. The comments and suggestions of Mr. Bob Lain and Ms. Laura Larimer of the Indiana Department of Commerce and Dr. Andrew Bernat of the Bureau of Economic Analysis, U.S. Department of Commerce for conducting this research are recognized and appreciated.

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establishments is the primary economic development strategy for most U.S. states (Smith and Fox). Comparing employment growth from new manufacturing establishments with employment growth from existing manufacturing establishments will provide some insight into the share of manufacturing employment growth that comes from new establishments. An understanding of these manufacturing employment growth shares provides information about how the economy grows (adds employment) and may be useful in evaluating economic policy options.

Employment Data

The employment data for the study were obtained from the Indiana Department of Commerce. The data come from ES202 data, collected by the Indiana Department of Workforce Development. Indiana firms are required to provide wage and employee information for the unemployment insurance program³.

The data are collected quarterly based on a calendar year, i.e. quarters end in March, June, September, and December. Employment numbers represent the number of employees (FTE basis) during the second week of the last month of the quarter.

The data are collected for each covered establishment in a county and are reported by four-digit standard industrial classification (SIC) codes (Standard Industrial Classification Manual. Employment data for this study cover the second quarter 1988 through the second quarter of 1994. The data include over 125,000 establishments and over 2 million employees (Rainey).

Identifying New Manufacturing Establishments

In order to analyze the relative importance of new and existing manufacturing establishments as sources of employment growth, the manufacturing establishments in the data had to be classified as either new or existing. New manufacturing establishments were identified by the appearance of new identification (ID) numbers, a unique identifier assigned to the firm by Indiana Department of Workforce Development. Generally, a new ID number indicates that the firm is a new firm and such firms were classified as new firms.

A new ID number does not always indicate a new establishment. Existing establishments pay unemployment insurance premiums based on the establishment's insurance claims history. New establishments' unemployment insurance premiums are based on their industry's average insurance claims history. When ownership of an existing establishment changes, the new owners may have an incentive to have their establishment classified as a new

³ Some establishments, primarily single proprietorships, are exempt from the unemployment premium and thus do not have to report their establishment information.

establishment. This occurs when an establishment has a history of higher than industry average insurance claims. If the firm is classified as new, its insurance premiums are the industry average rather than the higher rate of the prior establishment. When this occurs, an existing establishment would appear to be a new establishment.

To avoid classification of existing firms as new firms, firm data were examined to identify cases when ownership of an existing establishment was transferred and the new owner obtained a new ID number. Firm data were analyzed at the county level by four-digit SIC code. If an establishment closed while another establishment in the same SIC opened the same quarter, the opening establishment was assumed to be a continuation of the closing establishment and classified as an existing firm.

Switching New Establishments to Existing Establishments

Analysis of the data indicated most new firms did not achieve full startup employment during their first quarter of record. Employment growth rates for existing establishments were analyzed to determine when employment in new establishments should be switched to existing establishment employment.

For each of the 23 quarters from the third quarter of 1988 to the first quarter of 1994, employment in all new establishments was aggregated. The change in aggregate new employment for the remaining quarters was examined from quarter to quarter to determine when the new establishments for each quarter exhibited a growth pattern similar to the existing establishments' growth pattern.

The time frame for new establishments to exhibit a growth pattern similar to existing establishments varied from one to eight quarters. There were three quarters for which employment in new establishments took more than four quarters to settle into a pattern similar to the existing establishments. New establishments in eight quarters took three to four quarters before their employment growth rates resembled the growth rates of existing establishments. There were eight quarters for which it took two quarters, and four quarters for which it took only one quarter for new establishments to obtain employment growth rates similar to existing establishments.

Most of the cases which required only one quarter for new establishment employment to stabilize were in the end of the study period, and their behavior could not be analyzed for more than a few quarters. In addition, there were more establishments entering at the beginning of the study period when it took longer to stabilize. Considering nearly half of the quarters required three or more quarters to stabilize, it was determined a time frame of four quarters would be used for considering an establishment new. Any establishment that existed for more than four quarters was considered an existing establishment after the fourth quarter.

Sources of Employment Growth

The service sector accounted for the largest share of state employment from 1988 to 1994 (Table 1). In 1988, the service sector employed 623,387 individuals⁴ or 27.48 percent of the state total. The percentage of state employment in the service sector had grown to 29.87 percent in 1994, representing 774,087 employees.

The manufacturing and retail sectors were the next leading employers in the state in 1988 with 621,702 and 433,341 employees, respectively. As a percent of total state employment, manufacturing accounted for 27.41 percent and retail trade 19.10 percent.

No other sector accounted for more than 5.43 percent of the state's employment in 1988 (Table 1). The mining and agriculture sectors accounted for the smallest shares. For the mining and agriculture sectors, the respective shares of 1988 state employment were 0.31 and 0.72 percent or 7,081 and 16,431 employees.

The Indiana economy added 323,181 jobs between 1988 and 1994 (Table 2). The service sector accounted for just under half (46.63 %) of the total with 150,699 additional jobs. The job growth represents an increase of 24.17 percent over the 1988 employment level in the service sector.

The retail sector added 67,545 jobs or 20.90 percent of the state's employment growth. The growth rate for retail trade was 15.59 percent. The retail sector's share of the state's total employment increased just slightly from 19.10 to 19.33 percent (Table 1).

The manufacturing sector added 32,232 jobs between 1988 and 1994 for an increase of 5.18 percent (Table 2). Manufacturing accounted for 9.97 percent of the state's employment growth over this period. Though manufacturing had a net increase in employees, its share of the state's employment fell from 27.41 to 25.23 percent (Table 1).

Mining was the only sector with a decline in employment between 1988 and 1994. The other six sectors had employment increases ranging between 9,317 and 21,551 jobs or 2.88 and 6.67 percent of the state's total employment growth.

The analysis indicates that three industries (service, manufacturing, and retail) accounted for 74.4 percent of state employment. Though manufacturing increased its employment level by 5.2 percent from 1988 to 1994, its share of state employment declined because growth in other sectors was much higher.

⁴ All statements about employment, employees, and jobs represent full time equivalent employment.

Employment Contributions of New vs. Existing Manufacturing Establishments

Empirical results of export base models indicate the manufacturing sector is one of the primary sectors for stimulating regional growth (Kraybill and Dorfman; Shahidsaless et al; Shaffer). However, little research on the relative importance of employment growth from new and existing manufacturing establishments has been conducted. Therefore, this section presents an examination of the relative importance of new and existing establishments as sources of manufacturing employment growth.

Manufacturing as a whole expanded by 5.2 percent from 1988 to 1994 (Table 2). However, the growth varied significantly for new and existing establishments. Any establishments that has appeared in the data set for four quarters or less was considered new. The justification for this classification was given in the previous chapter.

The number of new establishments declined every year in the study period. There were 669 new establishments in 1989 but only 440 in 1994. The number of existing establishments increased steadily from 8,435 in 1989 to 8,992 in 1994. The share of new manufacturing establishments declined from 7.3 percent in 1989 to 4.8 percent in 1994.

New manufacturing establishments added an average of 11,536 jobs per year from 1988 to 1994 (Table 3). On the other hand, existing manufacturing establishments lost an average of -6,582 jobs per year (Table 3).

All employment growth between 1989 and 1993 was obtained through the growth of new manufacturing establishments. Existing manufacturing establishments did not have net positive employment growth until 1993.

Existing manufacturing establishments suffered significant net employment losses during the recession of 1990 and 1991. Existing manufacturing establishments lost 18,974 and 25,473 jobs in 1990 and 1991 respectively. In 1990 and 1991 existing establishments lost more jobs than new establishments added. In 1993, existing establishments recovered from the recession and began to add jobs to the economy, and in 1994 existing establishment added more net jobs than new establishments.

County Classification and Employment Characteristics

Manufacturing is currently restructuring geographically, i.e. shifting from metro communities to less urban and rural communities (Bernat). This section examines to what extent, if any, restructuring occurs in Indiana. Analysis examines whether restructuring affects new and existing manufacturing establishments differently.

The metro classifications are based on the counties classification as a metropolitan statistical area (MSA) by the Census Bureau. Each county is placed in one of three county classifications: metro, adjacent, and

nonadjacent. Counties classified as part of an MSA are considered metro counties. Counties that are adjacent to metro counties are defined as adjacent. Nonadjacent counties include counties that are neither metro nor adjacent to metro counties. Indiana has 37 metro counties, 42 adjacent counties, and 13 nonadjacent counties (Table 4).

We hypothesize employment characteristics will differ across the county types due to the size and access to markets available to establishments located in the various counties. Metro counties are believed to have the best market access while nonadjacent counties have the least access. Thus, metro counties are more likely to receive new manufacturing investment, and nonadjacent counties least likely.

Sources of Employment by County Classification

The majority of state employment is located in metro counties. Seventy-six and a half percent of the state's employment in 1988 was in metro counties (Table 5). Adjacent counties had 17.25 percent of the state's 1988 employment and nonadjacent counties 6.28 percent. The shares remained basically unchanged in 1994 with metro counties having 76.05, adjacent counties 17.54, and nonadjacent 6.42 percent of state employment.

The leading source of employment in metro counties mirrors that of the state. The service sector accounted for 28.60 percent of metro employment in 1988 and 31.22 percent in 1994 (Table 5). The next largest sources of metro employment are manufacturing (24.97 percent) and retail (19.49 percent). The ordering of the three major metro employers is also the same as the state.

As in the state totals, the share of metro employment in manufacturing declined between 1988 and 1994 from 24.97 to 22.41 percent. The retail sector increased its share of state employment from 19.49 to 19.67 percent.

Service sector employment in metro counties increased by 23.98 percent between 1988 and 1994 (Table 6). The increase in service sector employment accounted for 50.40 percent of the employment growth in metro counties. Employment in the retail sector expanded by 14.63 percent, which accounted for 20.95 percent of the growth in metro employment.

Manufacturing, the second leading employer in metro counties, only expanded by 1.97 percent. The 8,513 additional jobs accounted for 3.62 percent of metro employment growth.

The three leading employment sectors for adjacent and nonadjacent counties were the same (Tables 7 and 9). Manufacturing establishments had the largest share of employment in adjacent and nonadjacent counties. For 1994, manufacturing's share of employment was 35.24 and 31.35 percent in adjacent and nonadjacent counties, respectively (Tables 7 and 9). The manufacturing sector was followed by the service sector with 25.23 percent in adjacent counties and 26.55 percent in nonadjacent counties. The third leading

employer for both adjacent and nonadjacent counties was the retail sector, with 18.16 and 18.45 percent of employment, respectively.

The importance of each industry for creating jobs varied between adjacent and nonadjacent counties. The service sector had the largest increase in employment for both adjacent and nonadjacent counties. Adjacent county service establishments added 22,067 jobs for an increase of 23.84 percent (Table 8). The new jobs accounted for 34.97 percent of the jobs created in adjacent counties. The manufacturing sector in adjacent counties added 19,004 jobs or 13.47 percent of its 1989 level of employment. Those jobs represented 30.12 percent of adjacent employment growth. Retail trade expanded by 18.18 percent accounting for 20.12 percent of adjacent growth.

The service sector in nonadjacent counties grew by 27.88 percent between 1989 and 1994 (Table 10). The 9,636 jobs created equaled 40.20 percent of the employment in nonadjacent counties. Retail trade added 5,386 jobs, representing 22.47 percent of nonadjacent growth. The manufacturing sector accounted for 19.67 percent of nonadjacent employment growth by adding 4,715 jobs. The manufacturing sector expanded by 9.93 percent.

The above data show that, while the primary sources of employment are the same industries, the economies of the three county classifications behave differently. The service sector is the leading employer in metro counties while manufacturing leads adjacent and nonadjacent counties. The retail sector is the third leading employer in all three county classifications.

Variation also exists in the industries that account for the majority of each county type's employment growth. The service sector accounted for most of the growth in all three county classifications. However, the service sector was followed by retail trade in metro and nonadjacent counties and by manufacturing in adjacent counties. The third leading source of employment growth was transportation and utilities for metro counties, retail for adjacent counties, and manufacturing for nonadjacent counties.

New and Existing Manufacturing Establishments

Manufacturing, the second leading source of employment in metro counties, was fourth in terms of generating additional metro jobs. This section examines to what extent the manufacturing's performance in metro counties is a function of the restructuring taking place in the manufacturing sector.

Analysis of new manufacturing establishments by metro classification shows more new employment was added in metro counties than in adjacent and nonadjacent counties. Metro counties also receive more new establishments. There was an average of 358 establishments per year locating in metro counties between 1988 and 1994. This is an average of 9.66 new establishments per year for each of the 37 metro counties (Table 11). These new establishments added

an average of 8,194 jobs per year or an average of 22.81 jobs per establishment.

The average number of new establishments locating in adjacent and nonadjacent counties between 1988 and 1994 were 143 and 48, respectively. Adjacent counties had an average of 3.41 new establishments per county, while nonadjacent counties had an average of 3.70 new establishments. Employment created by new establishments in adjacent and nonadjacent counties was 2,474 and 869 per year, respectively. Average employment per establishment was 16.81 and 17.09 in adjacent and nonadjacent counties, respectively.

Metro counties lost employment in existing establishments every year except 1994 (Table 12). Establishments in metro counties were particularly affected by the recession of the early 1990s. Existing manufacturing establishments in metro areas lost 15,479 and 16,312 jobs in 1990 and 1991, respectively. On average, establishments in metro counties lost 6,971 jobs per year.

Adjacent and nonadjacent existing establishments did not lose employment until the recession of 1990. Existing establishments in adjacent and nonadjacent counties gained 1,789 and 1,239 jobs in 1989, respectively. They lost an average of 4,648 and 1,681 jobs in 1990 and 1991, respectively.

Establishments in both adjacent and nonadjacent counties recovered from the recession more quickly than firms in metro counties. Existing establishments in adjacent counties began adding jobs in 1992, while nonadjacent existing establishments added jobs in 1993. From 1989 to 1994, the average annual employment created in existing establishments was 435 for adjacent and 46 for nonadjacent counties.

The analysis implies the restructuring taking place in the manufacturing sector affects existing establishments more than new establishments. Metro counties are losing more jobs from existing manufacturing establishments than establishments in adjacent and nonadjacent counties which is consistent with the restructuring findings. However, metro counties gained more jobs from new establishments which is not consistent with the general findings concerning restructuring.

Manufacturing Growth by Firm Size

Table 13 presents data examining manufacturing firms by the number of jobs added by firm. Data presented in Table 13 reflect the number of manufacturing firms in four employment level groupings that lost jobs, maintained the same employment level, and added jobs from the second quarter of 1993 through the second quarter of 1997.

Twenty-six percent of manufacturing firms, 2,467 firms, lost jobs. Forty-nine percent of the firms that lost jobs had 1994 base employment of 20 or fewer employees. As firms with 20 or fewer employees represents 59% of all

manufacturing firms, disproportionately fewer firms in this group lost employment than groups of firms with a larger employment base. Thirty-one to thirty-four percent of the firms in the three larger employment groups lost jobs.

Thirty percent of all manufacturing firms had no change in employment for the 1993-1994 period (Table 13). Forty-four percent of firms with 1-20 employees had no employment change. The larger the employment base, the lower the number of firms in it that had no employment change. Only 6% to 15% of firms in the other size groups experienced no employment change.

Forty percent, or 3,739 manufacturing firms added between 1 and 20 employees during the 1993-1994 period. Forty-one to fifty-two percent of the firms with more than 20 employees added up to 20 employees. Thirty-four percent of firms with a 1993 employment base of 1-20 added 1-20 new jobs.

Of the 299 firms that added 21-100 jobs over the 1993-1994 period, 208, or 70%, had a 1993 employment base of more than 100 employees. Only 7 firms that added 21-100 jobs had a 1993 base in the 1-20 employee range.

Few firms added more than 100 employees over their 1993 base employment. All of the 30 firms that added over 100 employees had an employment base larger than 100 employees in 1993.

In general, smaller firms (those with a base employment of 1-20 employees) tended to be more stable. A smaller share of these firms than larger firms lost jobs and a larger share had no job change. About one third of larger firms, those in the three groups with a 1993 employment base greater than 20 employees, lost jobs in the 1993-1994 period. More than 52% of the firms in each of the larger employment groups experienced employment growth over the 1993-1994 period.

Existing Manufacturing Firm Growth

Annualized analysis of manufacturing employment growth provides insight into the relative importance of new versus existing firms in employment growth. Tables 14 and 15 summarize manufacturing employment growth recorded in the second quarters of 1989 and 1994, respectively. These two years were during a period of strong growth in Indiana manufacturing. First-to-second quarter growth is the period that had the strongest employment growth throughout the 1988-1994 time period. Data in Tables 14 and 15 shows the dominance of existing firms in employment growth in years when the manufacturing sector is growing.

In 1989, the year Indiana manufacturing moved into a slow down, the share of manufacturing firms in metro, adjacent and nonadjacent counties that are new (four quarters or fewer in operation) was similar, about 8 percent of the total (Table 14). Employment growth for new and existing firms, however,

was not similar. New firms in metro counties added 6,106 new employees, an average of 12.9 jobs per firm. New firms in adjacent counties added 1,137 new employees for an average of 5.9 jobs per firm. New firms in nonadjacent counties lost 130 jobs, or an average of -2.3 jobs per firm.

New manufacturing firms in Indiana added 7,113 jobs, 53 percent of new manufacturing, to the economy in the second quarter of 1989 while existing manufacturers added 6,334 jobs, 47 percent of new manufacturing jobs. In 1989 the manufacturing economy, nationally, was slowing down. During this period new firms accounted for a little more than half of new manufacturing jobs.

Data from the second quarter of 1994 reflect different economic conditions, a period of strong manufacturing growth. Ninety-five percent of the state's manufacturing firms has been in existence four quarters or more (Table 15). And 13,041 manufacturing jobs, 95 percent of those added in the quarter, were added by existing firms. Jobs from new establishments accounted for just 2 percent of new manufacturing jobs in metro counties and just 5 percent in nonadjacent counties. New establishments accounted for 17 percent of new manufacturing jobs in adjacent counties.

Analysis of manufacturing employment data over the 1989-1994 period shows the importance of the existing manufacturing base as a source of new employment, especially for rural counties. Both new and existing manufacturing firms were an important source of growth for metro, adjacent and nonadjacent counties. In quarters during the economic slow down of 1989-1991, new firms accounted for a larger share of new manufacturing employment than existing firms, largely due to down sizing and restructuring of existing manufacturing establishments. This was the existing firms' response to slowing economic conditions, a general slow down in demand for manufacturing output. As economic activity increases, demand for manufactured products increases, resulting in employment growth in existing firms. Data from the second quarter of 1989 and 1994 (Tables 14 and 15) illustrate this. In the second quarter of 1989 new firms accounted for 935 percent of new jobs in Indiana. Both new and existing manufacturing firms in nonadjacent counties reduced total employment. In the second quarter of 1994, in a period of growth in the Great Lakes economy, employment growth by existing firms accounted for 95 percent of manufacturing employment growth.

Manufacturing Firm Growth By Community Type and Firm Job Growth

Sixty-eight percent of Indiana manufacturing firms is located in metropolitan counties (Table 16). Job loss, stability and growth for manufacturing firms are consistent across metro, adjacent and non-adjacent counties. About 26% of firms in each of the three community types lost jobs, about 30% had no job change, and about 45% had job growth. While counties that are more urban have a greater number of manufacturing firms that less urban

counties, firm performance as measured by employment growth is consistent across county types.

Summary

The service sector is the leading source of employment for the state economy and metro counties. The manufacturing sector is the leading employer in adjacent and nonadjacent counties.

Aggregated across each of the three county classifications, the three leading employment sectors (service, manufacturing, and retail) account for roughly 75 percent of employment. These sectors accounted for 77.5 percent of metro employment, 73.3 percent of adjacent employment, and 78.6 percent of nonadjacent employment.

The service sector added the most jobs to the economy over 1988-1994. The service sector's share of employment growth was 50.4 percent in metro counties, 35.0 percent in adjacent counties, and 40.2 percent in nonadjacent counties.

This study supports the hypothesis that new establishments are a greater source of new manufacturing employment in metro counties. New establishments added more jobs in metro counties than did existing establishments in every year. In adjacent counties, however, new establishments added more jobs from 1989 to 1991, but existing establishments added more jobs from 1992 to 1994. Existing establishments created fewer jobs relative to new establishments in nonadjacent counties from 1989 to 1992. But in 1993 and 1994, existing establishments added more jobs. The average jobs created for new and existing establishments in nonadjacent counties was 869 and 46, respectively.

Manufacturing restructuring in the late 1980s and early 1990s affected existing establishments more than new establishments. Employment in existing manufacturing establishments was particularly affected by the recession of 1990 and 1991 and did not recover until 1994. Existing establishments in both adjacent and nonadjacent counties recovered from the recession in 1992 and 1993, respectively.

Though existing manufacturing establishments struggled more in metro counties, more new manufacturing establishments are locating in metro counties than in adjacent and nonadjacent counties. Indiana's manufacturing growth in metro counties is contrary to trends in other Great Lakes states which experiences a shift in manufacturing from metro counties to nonmetro counties (Bernat).

While adjacent and nonadjacent counties experienced manufacturing employment growth, the gain is a result of them losing fewer jobs in their existing manufacturing establishments.

List of References

- Bernat, G.A., Jr. "The Rural Economy in the 1990s: The Role of Manufacturing." Paper Presented at the Agricultural Outlook Conference, Washington D.C., December 3, 1992.
- Kraybill, D.S. "Existing Businesses Create Most New Manufacturing Jobs in Ohio." *Ohio's Challenge*, Volume 8, Issue 2, 1995.
- Kraybill, D.S. and J.H. Dorfman. "A Dynamic Intersectoral Model of Regional Economic Growth." *Journal of Regional Science*, 1992, pp. 1-17.
- Shaffer, R. *Community Economics: Economic Structure and Change in Smaller Communities*. Ames, IA, Iowa State University Press, 1989.
- Shahidsaless, S.W. Gillis, and R. Shaffer. "Community Characteristics and Employment Multipliers in Nonmetropolitan Counties, 1950-1970." *Land Economics*, 1983, pp. 84-93.
- Smith, T. and W. Fox. "Economic Development Programs for States in the 1990's." *Economic Review*. Federal Reserve Bank of Kansas City, July/August 1990, pp. 25-35.
- Standard Industrial Classification Manual*, Prentice Hall Information Service, 1988.
- U.S. Bureau of the Census. *Statistical Abstract of the United States: 1996* (116th Edition), Washington, D.C., 1996.
- Rainey, D.V. "Growth Impacts of New Firm Investment Versus Existing Firms' Expansion." Unpublished Ph.D. dissertation, Department of Agricultural Economics, Purdue University, West Lafayette, Indiana, May 1997.

TABLE 1. Employment by Major SIC Code - State Totals

Industry	Year	88	89	90	91	92	93	94
Agriculture		16,431 0.72	17,624 0.75	19,024 0.79	19,442 0.80	20,131 0.81	20,643 0.81	20,724 0.80
Mining		7,081 0.31	7,424 0.31	8,037 0.33	7,584 0.31	7,051 0.29	6,610 0.26	6,743 0.26
Construction		107,097 4.72	107,435 4.54	112,157 4.63	110,019 4.55	110,442 4.47	113,368 4.46	117,827 4.55
Manufacturing		621,702 27.41	637,165 26.94	632,780 26.14	614,491 25.39	628,456 25.44	640,172 25.20	653,934 25.23
Transportation and Utilities		123,107 5.43	138,548 5.86	141,605 5.85	138,855 5.74	141,768 5.74	143,366 5.64	144,658 5.58
Wholesale		110,146 4.86	115,235 4.87	118,787 4.91	118,127 4.88	118,414 4.79	121,810 4.80	122,201 4.72
Retail		433,341 19.10	458,653 19.39	470,463 19.43	470,599 19.44	475,350 19.24	489,453 19.27	500,886 19.33
F.I.R.E.		113,046 4.98	116,892 4.94	120,687 4.98	123,133 5.09	123,969 5.02	126,619 4.98	128,145 4.94
Services		623,387 27.48	652,057 27.57	681,131 28.13	699,299 28.89	723,639 29.29	756,385 29.78	774,087 29.87

TABLE 1. continued

Industry	Year	88	89	90	91	92	93	94
Government		113,064	113,754	116,368	118,765	120,880	121,558	122,381
		4.98	4.81	4.81	4.91	4.89	4.79	4.72
Total		2,268,497	2,364,882	2,421,132	2,420,407	2,470,193	2,540,077	2,591,678

Note: Employment for each sector is listed first and the percent of the state's employment is listed underneath the employment numbers.

Source: Calculated by author from ES202 Data file.

TABLE 2. Employment Change by Major SIC Code - State Totals

Industry	Year	89	90	91	92	93	94	Average 88-94
Agriculture								
	Employment Change	1,193	1,400	418	690	512	81	4,293
	Percent Change	7.26	7.94	2.20	3.55	2.54	0.39	26.13
	Percent of Total	1.24	2.49	-57.73	1.38	0.73	0.16	1.33
Mining								
	Employment Change	343	613	(453)	(533)	(440)	132	(338)
	Percent Change	4.85	8.25	-5.64	-7.03	-6.24	2.00	-4.78
	Percent of Total	0.36	1.09	62.53	-1.07	-0.63	0.26	-0.10
Construction								
	Employment Change	338	4,721	(2,138)	423	2,926	4,459	10,729
	Percent Change	0.32	4.39	-1.91	0.38	2.65	3.93	10.02
	Percent of Total	0.35	8.39	295.10	0.85	4.19	8.64	3.32
Manufacturing								
	Employment Change	15,463	(4,385)	(18,289)	13,965	11,717	13,761	32,232
	Percent Change	2.49	-0.69	-2.89	2.27	1.86	2.15	5.18
	Percent of Total	16.04	-7.80	2524.36	28.05	16.77	26.67	9.97
Transportation and Utilities								
	Employment Change	15,441	3,057	(2,750)	2,913	1,598	1,293	21,551
	Percent Change	12.54	2.21	-1.94	2.10	1.13	0.90	17.51
	Percent of Total	16.02	5.43	379.61	5.85	2.29	2.50	6.67

TABLE 2. continued

Industry	Year	89	90	91	92	93	94	Average 88-94
Wholesale								
	Employment Change	5,089	3,552	(660)	287	3,395	392	12,055
	Percent Change	4.62	3.08	-0.56	0.24	2.87	0.32	10.94
	Percent of Total	5.28	6.31	91.03	0.58	4.86	0.76	3.73
Retail								
	Employment Change	25,312	11,811	136	4,751	14,103	11,433	67,545
	Percent Change	5.84	2.58	0.03	1.01	2.97	2.34	15.59
	Percent of Total	26.26	21.00	-18.74	9.54	20.18	22.16	20.90
F.I.R.E.								
	Employment Change	3,846	3,795	2,447	836	2,650	1,526	15,098
	Percent Change	3.40	3.25	2.03	0.68	2.14	1.20	13.36
	Percent of Total	3.99	6.75	-337.68	1.68	3.79	2.96	4.67
Services								
	Employment Change	28,670	29,074	18,168	24,340	32,746	17,702	150,699
	Percent Change	4.60	4.46	2.67	3.48	4.53	2.34	24.17
	Percent of Total	29.75	51.69	-2507.66	48.89	46.86	34.31	46.63
Government								
	Employment Change	690	2,614	2,397	2,115	678	823	9,317
	Percent Change	0.61	2.30	2.06	1.78	0.56	0.68	8.24
	Percent of Total	0.72	4.65	-330.81	4.25	0.97	1.59	2.88
Total		96,385	56,250	(725)	49,786	69,885	51,600	323,181

Note: Numbers in parenthesis indicate negative growth.

Source: Calculated by author from ES202 Data file.

TABLE 4. Indiana County Classifications

Metro Counties	Adjacent Counties	Nonadjacent Counties
Adams	Bartholomew	Daviess
Allen	Benton	Dubois
Boone	Blackford	Fayette
Clark	Brown	Fulton
Clay	Carroll	Jackson
Clinton	Cass	Jennings
Dearborn	Crawford	Knox
Dekalb	Decatur	Martin
Delaware	Fountain	Orange
Elkhart	Franklin	Perry
Floyd	Gibson	Pulaski
Hamilton	Grant	Wabash
Hancock	Greene	Wayne
Harrison	Henry	
Hendricks	Jasper	
Howard	Jay	
Huntington	Jefferson	
Johnson	Kosciusko	
Lake	Lagrange	
Madison	Laporte	
Marion	Lawrence	
Monroe	Marshall	
Morgan	Miami	
Ohio	Montgomery	
Porter	Newton	
Posey	Noble	
Scott	Owen	
Shelby	Parke	
St. Joseph	Pike	
Tippecanoe	Putnam	
Tipton	Randolph	
Vanderburgh	Ripley	
Vermillion	Rush	
Vigo	Spencer	
Warrick	Starke	
Wells	Steuben	
Whitley	Sullivan	
	Switzerland	
	Union	
	Warren	
	Washington	
	White	

Source: Calculated by author using Bureau of Census' Metropolitan Statistical Areas (MSA) classifications.

TABLE 3. Profile of Manufacturing Employment - All Indiana Counties

Year	89	90	91	92	93	94	Average 89-94
Industry							
All Establishments							
Total Establishments	9104	9332	9343	9393	9391	9432	9,333
Establishments per County	98.95	101.44	101.56	102.10	102.07	102.53	101.44
Employment Created	12894	-4322	-18289	13965	11717	13761	4,954
Employment Created per Firm	1.42	-0.46	-1.96	1.49	1.25	1.46	0.53
New Establishments							
Total Establishments	669	668	564	504	446	440	549
Establishments per County	7.27	7.26	6.14	5.48	4.85	4.78	5.96
Employment Created	17288	14652	7184	14140	10353	5601	11,536
Employment Created per Firm	25.84	21.93	12.73	28.03	23.23	12.73	20.75
Existing Establishments							
Total Establishments	8435	8664	8779	8889	8945	8992	8,784
Establishments per County	91.68	94.17	95.42	96.62	97.23	97.74	95.48
Employment Created	-4395	-18974	-25473	-175	1364	8160	-6,582
Employment Created per Firm	-0.52	-2.19	-2.90	-0.02	0.15	0.91	-0.76

Source: Calculated by author from ES202 Data file.

TABLE 5. Employment by Major SIC Code - Metro Counties

Year	88	89	90	91	92	93	94
Industry							
Agriculture	10,061 0.58	10,683 0.59	11,464 0.62	11,716 0.63	12,401 0.66	12,752 0.66	13,319 0.68
Mining	3,821 0.22	3,877 0.21	3,989 0.22	3,729 0.20	3,354 0.18	3,150 0.16	3,065 0.16
Construction	88,397 5.10	88,810 4.92	92,608 5.01	90,861 4.91	90,660 4.81	93,343 4.82	96,950 4.92
Manufacturing	433,107 24.97	438,187 24.26	432,968 23.41	420,703 22.74	430,777 22.86	435,889 22.53	441,620 22.41
Transportation and Utilities	97,727 5.63	111,769 6.19	114,643 6.20	112,918 6.10	115,563 6.13	116,434 6.02	117,853 5.98
Wholesale	91,677 5.28	95,089 5.27	97,909 5.29	97,263 5.26	97,553 5.18	100,611 5.20	100,856 5.12
Retail	338,161 19.49	357,783 19.81	366,711 19.83	366,189 19.79	367,964 19.53	378,508 19.56	387,622 19.67
F.I.R.E.	94,720 5.46	98,240 5.44	101,599 5.49	103,935 5.62	104,624 5.55	107,078 5.53	108,213 5.49
Services	496,246 28.60	520,134 28.80	544,608 29.44	558,138 30.17	575,760 30.55	601,124 31.07	615,242 31.22

TABLE 5. continued

Year	88	89	90	91	92	93	94
Industry							
Government	80,819 4.66	81,208 4.50	83,053 4.49	84,599 4.57	85,659 4.55	85,746 4.43	86,104 4.37
Metro Total	1,734,831	1,805,873	1,849,646	1,850,144	1,884,409	1,934,729	1,970,938
Percent of State	76.47	76.36	76.40	76.44	76.29	76.17	76.05

Note: Employment for each sector is listed first and the percent of metro employment is listed underneath the employment numbers.

Source: Calculated by author from ES202 Data file.

TABLE 6. Employment Change by Major SIC Code - Metro Counties

Year	89	90	91	92	93	94	88-94
Industry							
<hr/>							
Agriculture							
Employment Change	621	781	253	684	351	567	3,258
Percent Change	6.17	7.31	2.20	5.84	2.83	4.45	32.38
Percent of Total	0.87	1.78	50.68	2.00	0.70	1.57	1.38
Mining							
Employment Change	56	113	(260)	(375)	(205)	(85)	(756)
Percent Change	1.47	2.90	-6.52	-10.05	-6.10	-2.70	-19.79
Percent of Total	0.08	0.26	-52.23	-1.09	-0.41	-0.23	-0.32
Construction							
Employment Change	413	3,799	(1,748)	(201)	2,684	3,607	8,553
Percent Change	0.47	4.28	-1.89	-0.22	2.96	3.86	9.68
Percent of Total	0.58	8.68	-350.78	-0.59	5.33	9.96	3.62
Manufacturing							
Employment Change	5,079	(5,219)	(12,265)	10,074	5,112	5,731	8,513
Percent Change	1.17	-1.19	-2.83	2.39	1.19	1.31	1.97
Percent of Total	7.15	-11.92	-2461.57	29.40	10.16	15.83	3.61
Transportation and Utilities							
Employment Change	14,042	2,873	(1,725)	2,645	872	1,419	20,126
Percent Change	14.37	2.57	-1.50	2.34	0.75	1.22	20.59
Percent of Total	19.77	6.56	-346.16	7.72	1.73	3.92	8.52

TABLE 6. continued

Year	89	90	91	92	93	94	Average 88-94
Industry							
Wholesale							
Employment Change	3,411	2,820	(646)	290	3,058	245	9,178
Percent Change	3.72	2.97	-0.66	0.30	3.13	0.24	10.01
Percent of Total	4.80	6.44	-129.70	0.85	6.08	0.68	3.89
Retail							
Employment Change	19,623	8,928	(522)	1,775	10,545	9,113	49,461
Percent Change	5.80	2.50	-0.14	0.48	2.87	2.41	14.63
Percent of Total	27.62	20.40	-104.82	5.18	20.96	25.17	20.95
F.I.R.E.							
Employment Change	3,520	3,359	2,336	690	2,454	1,135	13,493
Percent Change	3.72	3.42	2.30	0.66	2.35	1.06	14.25
Percent of Total	4.95	7.67	468.79	2.01	4.88	3.14	5.71
Services							
Employment Change	23,888	24,475	13,530	17,622	25,364	14,118	118,996
Percent Change	4.81	4.71	2.48	3.16	4.41	2.35	23.98
Percent of Total	33.62	55.91	2715.50	51.43	50.40	38.99	50.40
Government							
Employment Change	389	1,845	1,546	1,061	86	358	5,285
Percent Change	0.48	2.27	1.86	1.25	0.10	0.42	6.54
Percent of Total	0.55	4.21	310.29	3.10	0.17	0.99	2.24
Total	71,042	43,772	498	34,265	50,320	36,209	236,106

Note: Numbers in parenthesis indicate negative growth.

Source: Calculated by author from ES202 Data file.

TABLE 7. Employment by Major SIC Code - Adjacent Counties

Year Industry	88	89	90	91	92	93	94
Agriculture	4,669 1.19	5,062 1.24	5,384 1.29	5,389 1.30	5,440 1.27	5,603 1.27	5,197 1.14
Mining	2,169 0.55	2,487 0.61	2,974 0.71	2,786 0.67	2,811 0.66	2,539 0.57	2,679 0.59
Construction	13,383 3.42	13,244 3.24	13,819 3.32	13,260 3.19	13,804 3.22	14,109 3.19	14,724 3.24
Manufacturing	141,132 36.06	148,397 36.29	148,587 35.67	144,880 34.86	148,831 34.76	153,718 34.77	160,137 35.24
Transportation and Utilities	19,807 5.06	20,804 5.09	20,786 4.99	19,732 4.75	19,783 4.62	20,243 4.58	20,659 4.55
Wholesale	13,053 3.34	13,922 3.40	14,315 3.44	14,287 3.44	14,168 3.31	14,402 3.26	14,710 3.24
Retail	69,851 17.85	74,334 18.18	75,978 18.24	76,223 18.34	78,167 18.26	80,738 18.26	82,549 18.16
F.I.R.E.	13,220 3.38	13,435 3.29	13,718 3.29	13,850 3.33	13,843 3.23	14,027 3.17	14,298 3.15
Services	92,576 23.65	95,695 23.40	98,958 23.75	102,561 24.68	107,765 25.17	112,468 25.44	114,643 25.23

TABLE 7. continued

Year	88	89	90	91	92	93	94
Industry							
Government	21,413 5.47	21,493 5.26	21,987 5.28	22,527 5.42	23,468 5.48	24,148 5.46	24,784 5.45
Adjacent Total	391,369	408,968	416,598	415,587	428,172	442,089	454,472
Percent of State	17.25	17.29	17.21	17.17	17.33	17.40	17.54

Note: Employment for each sector is listed first and the percent of nonadjacent employment is listed underneath the employment numbers.

Source: Calculated by author from quarterly ES202 Data file 1988 to 1994.

TABLE 8. Employment Change by Major SIC Code - Adjacent Counties

Year	89	90	91	92	93	94	Average 88-94
Industry							
Agriculture							
Employment Change	393	322	5	51	164	(407)	528
Percent Change	8.42	6.36	0.09	0.95	3.01	-7.26	11.30
Percent of Total	2.23	4.22	-0.47	0.41	1.17	-3.28	0.84
Mining							
Employment Change	317	487	(188)	25	(272)	140	510
Percent Change	14.63	19.58	-6.31	0.90	-9.68	5.50	23.49
Percent of Total	1.80	6.38	18.54	0.20	-1.95	1.13	0.81
Construction							
Employment Change	(139)	575	(559)	544	305	615	1,341
Percent Change	-1.04	4.34	-4.04	4.10	2.21	4.36	10.02
Percent of Total	-0.79	7.53	55.23	4.32	2.19	4.97	2.12
Manufacturing							
Employment Change	7,265	190	(3,708)	3,952	4,887	6,419	19,004
Percent Change	5.15	0.13	-2.50	2.73	3.28	4.18	13.47
Percent of Total	41.28	2.49	366.63	31.40	35.11	51.84	30.12
Transportation and Utilities							
Employment Change	997	(18)	(1,055)	51	460	416	852
Percent Change	5.03	-0.09	-5.07	0.26	2.33	2.05	4.30
Percent of Total	5.67	-0.24	104.28	0.41	3.31	3.36	1.35

TABLE 8. continued

Year Industry	89	90	91	92	93	94	Average 88-94
Wholesale							
Employment Change	869	392	(28)	(119)	234	309	1,657
Percent Change	6.66	2.82	-0.20	-0.83	1.65	2.14	12.69
Percent of Total	4.94	5.14	2.77	-0.95	1.68	2.49	2.63
Retail							
Employment Change	4,483	1,645	245	1,944	2,572	1,810	12,698
Percent Change	6.42	2.21	0.32	2.55	3.29	2.24	18.18
Percent of Total	25.47	21.55	-24.18	15.45	18.48	14.62	20.12
F.I.R.E.							
Employment Change	216	283	132	(7)	185	270	1,078
Percent Change	1.63	2.10	0.96	-0.05	1.33	1.93	8.15
Percent of Total	1.22	3.70	-13.05	-0.06	1.33	2.18	1.71
Services							
Employment Change	3,119	3,263	3,604	5,204	4,703	2,175	22,067
Percent Change	3.37	3.41	3.64	5.07	4.36	1.93	23.84
Percent of Total	17.72	42.76	-356.34	41.35	33.80	17.57	34.97
Government							
Employment Change	80	494	540	942	680	636	3,371
Percent Change	0.37	2.30	2.46	4.18	2.90	2.63	15.74
Percent of Total	0.45	6.47	-53.40	7.48	4.88	5.14	5.34
Total	17,599	7,631	(1,011)	12,586	13,917	12,383	63,103

Note: Numbers in parenthesis indicate negative growth.

Source: Calculated by author from ES202 Data file.

TABLE 9. Employment by Major SIC Code - Nonadjacent Counties

Year	88	89	90	91	92	93	94
Industry							
Agriculture	1,701 1.19	1,879 1.25	2,176 1.40	2,337 1.51	2,291 1.45	2,288 1.40	2,209 1.33
Mining	1,091 0.77	1,061 0.71	1,074 0.69	1,068 0.69	885 0.56	922 0.56	999 0.60
Construction	5,317 3.73	5,382 3.58	5,730 3.69	5,898 3.81	5,978 3.79	5,915 3.62	6,153 3.70
Manufacturing	47,462 33.31	50,581 33.67	51,226 33.03	48,909 31.58	48,848 30.96	50,566 30.94	52,177 31.35
Transportation and Utilities	5,573 3.91	5,975 3.98	6,176 3.98	6,205 4.01	6,422 4.07	6,689 4.09	6,147 3.69
Wholesale	5,415 3.80	6,224 4.14	6,564 4.23	6,578 4.25	6,694 4.24	6,798 4.16	6,636 3.99
Retail	25,329 17.78	26,536 17.66	27,774 17.91	28,188 18.20	29,220 18.52	30,206 18.48	30,716 18.45
F.I.R.E.	5,107 3.58	5,217 3.47	5,370 3.46	5,349 3.45	5,502 3.49	5,514 3.37	5,634 3.38
Services	34,565 24.26	36,229 24.12	37,566 24.22	38,600 24.93	40,114 25.42	42,793 26.18	44,202 26.55

TABLE 9. continued

Year	88	89	90	91	92	93	94
Industry							
Government	10,832 7.60	11,053 7.36	11,329 7.31	11,640 7.52	11,753 7.45	11,665 7.14	11,493 6.90
Nonadjacent Total	142,484	150,228	155,075	154,864	157,799	163,447	166,456
Percent of State	6.28	6.35	6.41	6.40	6.39	6.43	6.42

Note: Employment for each sector is listed first and the percent of nonadjacent employment is listed underneath the employment numbers.

Source: Calculated by author from quarterly ES202 Data file 1988 to 1994.

TABLE 10. Employment Change by Major SIC Code - Nonadjacent Counties

Year	89	90	91	92	93	94	Average 88-94
Industry							
Agriculture							
Employment Change	179	297	161	(46)	(3)	(79)	508
Percent Change	10.50	15.79	7.40	-1.97	-0.14	-3.46	29.86
Percent of Total	2.31	6.12	-76.12	-1.57	-0.06	-2.63	2.12
Mining							
Employment Change	(30)	13	(5)	(183)	37	78	(92)
Percent Change	-2.77	1.23	-0.49	-17.15	4.12	8.41	-8.40
Percent of Total	-0.39	0.27	2.48	-6.24	0.65	2.58	-0.38
Construction							
Employment Change	64	348	168	81	(63)	237	835
Percent Change	1.21	6.47	2.94	1.36	-1.05	4.01	15.71
Percent of Total	0.83	7.18	-79.55	2.74	-1.12	7.89	3.48
Manufacturing							
Employment Change	3,119	645	(2,317)	(61)	1,718	1,611	4,715
Percent Change	6.57	1.27	-4.52	-0.12	3.52	3.19	9.93
Percent of Total	40.28	13.30	1095.39	-2.08	30.42	53.56	19.67
Transportation and Utilities							
Employment Change	401	202	29	217	266	(542)	573
Percent Change	7.20	3.37	0.47	3.50	4.15	-8.10	10.28
Percent of Total	5.18	4.16	-13.71	7.39	4.71	-18.02	2.39

TABLE 10. continued

Year	89	90	91	92	93	94	Average 88-94
Industry							
Wholesale							
Employment Change	809	340	15	116	103	(162)	1,221
Percent Change	14.94	5.45	0.22	1.76	1.54	-2.38	22.54
Percent of Total	10.45	7.00	-6.97	3.95	1.83	-5.38	5.09
Retail							
Employment Change	1,206	1,238	414	1,032	987	509	5,386
Percent Change	4.76	4.67	1.49	3.66	3.38	1.69	21.26
Percent of Total	15.58	25.55	-195.51	35.16	17.47	16.93	22.47
F.I.R.E.							
Employment Change	110	153	(21)	153	12	120	527
Percent Change	2.16	2.94	-0.40	2.87	0.21	2.18	10.33
Percent of Total	1.42	3.16	10.05	5.22	0.21	3.99	2.20
Services							
Employment Change	1,663	1,337	1,035	1,514	2,680	1,408	9,636
Percent Change	4.81	3.69	2.75	3.92	6.68	3.29	27.88
Percent of Total	21.48	27.58	-489.13	51.57	47.44	46.81	40.20
Government							
Employment Change	221	276	311	113	(88)	(172)	661
Percent Change	2.04	2.49	2.74	0.97	-0.75	-1.47	6.11
Percent of Total	2.86	5.69	-146.93	3.85	-1.55	-5.71	2.76
Total	7,743	4,847	(212)	2,935	5,648	3,009	23,971

Note: Numbers in parenthesis indicate negative growth.

Source: Calculated by author from quarterly ES202 Data file 1988 to 1994.

TABLE 11. Profile of Manufacturing Employment 1989 to 1994 - New Establishments

Year	89	90	91	92	93	94	Average 89-94
Industry							
All Counties							
Total Establishments	669	668	564	504	446	440	549
Establishments per County	7.27	7.26	6.14	5.48	4.85	4.78	5.96
Employment Created	17288	14652	7184	14140	10353	5601	11,536
Employment Created per Firm	25.84	21.93	12.73	28.03	23.23	12.73	20.75
Metro Counties							
Total Establishments	436	427	368	325	302	287	358
Establishments per County	11.77	11.53	9.96	8.79	8.15	7.74	9.66
Employment Created	11262	10323	4047	11691	8253	3586	8,194
Employment Created per Firm	25.85	24.19	10.98	35.94	27.37	12.52	22.81
Adjacent Counties							
Total Establishments	177	174	147	137	108	116	143
Establishments per County	4.22	4.14	3.51	3.26	2.58	2.76	3.41
Employment Created	3921	3222	2556	1905	1635	1604	2,474
Employment Created per Firm	22.11	18.54	17.36	13.93	15.10	13.83	16.81
Nonadjacent Counties							
Total Establishments	56	68	49	42	36	37	48
Establishments per County	4.31	5.21	3.75	3.27	2.77	2.88	3.70
Employment Created	2105	1107	581	544	465	411	869
Employment Created per Firm	37.59	16.34	11.92	12.80	12.92	10.96	17.09

Source: Calculated by author from quarterly ES202 Data file 1988 to 1994.

TABLE 12. Profile of Manufacturing Employment 1989 to 1994 - Existing Establishments

Year	89	90	91	92	93	94	Average 89-94
<hr/>							
Industry							
<hr/>							
All Counties							
Total Establishments	8435	8664	8779	8889	8945	8992	8,784
Establishments per County	91.68	94.17	95.42	96.62	97.23	97.74	95.48
Employment Created	-4395	-18974	-25473	-175	1364	8160	-6,582
Employment Created per Firm	-0.52	-2.19	-2.90	-0.02	0.15	0.91	-0.76
Metro counties							
Total Establishments	5850	6006	6058	6115	6144	6178	6059
Establishments per County	158.12	162.34	163.72	165.28	166.05	166.97	163.75
Employment Created	-7423	-15479	-16312	-1617	-3141	2145	-6,971
Employment Created per Firm	-1.27	-2.58	-2.69	-0.26	-0.51	0.35	-1.16
Adjacent Counties							
Total Establishments	1936	1991	2031	2070	2079	2093	2,033
Establishments per County	46.10	47.40	48.36	49.29	49.49	49.83	48.41
Employment Created	1789	-3032	-6264	2047	3252	4815	435
Employment Created per Firm	0.92	-1.52	-3.08	0.99	1.56	2.30	0.19
Nonadjacent Counties							
Total Establishments	648	667	691	703	722	721	692
Establishments per County	49.85	51.29	53.12	54.10	55.54	55.50	53.23
Employment Created	1239	-463	-2898	-605	1253	1200	46
Employment Created per Firm	1.91	-0.69	-4.20	-0.86	1.74	1.66	0.07

Source: Calculated by author from quarterly ES202 Data file 1988 to 1994.

TABLE 13. Indiana Manufacturing Firm Growth by Firm Size, by Firm Job Growth, 1994

Firm Size	Lost Jobs	No Change	1-20	21-100	101-250	251 +	Total
1-20 Employees	1205	2405	1867	7	0	0	5484
% of all firms	13	26	20	*			59 ¹
% of firms with 1-20 employees	22	44	34	*			
% of firms in column	49 ²	86 ³	50	2			
21-50 Employees	513	248	859	28	0	0	1648
% of all firms	5	3	9	*			18 ¹
% of firms with 21-50 employees	31	15	52	2			
% of firms in column	21	9	23	9			
51-100 Employees	315	73	500	56	0	0	944
% of all firms	3	1	5	1			10 ¹
% of firms with 51-100 employees	33	8	53	6			
% of firms in column	13	3	13	19			
101 and Up	434	75	513	208	26	4	1260
% of all firms	5	1	5	2	*	*	14 ¹
% of firms with 101 and more employees	34	6	41	17	2	*	
% of firms in column	18	3	14	70	100	100	
Total	2467	2801	3739	299	26	4	9336
% of all firms	26	30	40	3	*	*	100

* Less than one percent

¹ Percent of total

² 1205 firms with 1-20 employees represent 49% of firms that lost jobs.

³ 2405 firms with 1-20 employees represent 86% of firms that had no employment change.

Source: Calculated from ES202 data.

TABLE 14. Indiana Manufacturing Employment Growth By Source and Location, Second Quarter, 1989 (Change from First Quarter)

NEW ESTABLISHMENTS							
County Classification	Number of Counties	Average Number of Firms Per County	Total Firms	Share of Group s Firms	Average New Employees Per Firm	Total New Employees	Share of Group s New Jobs
Metro	37	12.8	472	8%	12.9	6,106	56%
Adjacent	42	4.6	194	9%	5.9	1,137	39%
Nonadjacent	13	4.4	57	8%	- 2.3	- 130 ¹	-26%
Sub Total	92		723			7,113	
EXISTING ESTABLISHMENTS							
Metro	37	155.4	5748	92%	0.9	4,895	44%
Adjacent	42	45.1	1893	91%	1	1,805	61%
Nonadjacent	13	48.5	631	92%	-0.6	- 366*	-74%
Sub Total	92		8272			6,334	
Totals			8995			13,447	

¹ Jobs lost

Source: Calculated from ES202 data.

TABLE 15. Indiana Manufacturing Employment Growth By Source and Location, Second Quarter, 1994 (Change from First Quarter)

NEW ESTABLISHMENTS							
County Classification	Number of Counties	Average Number of Firms Per County	Total Firms	Share of Group s Firms	Average New Employees Per Firm	Total New Employees	Share of Group s New Jobs
Metro	37	7.5	279	4%	0.8	214	2%
Adjacent	42	2.8	117	5%	3.4	402	17%
Nonadjacent	13	2.8	36	5%	2.7	96	5%
Sub Total			432			712	
EXISTING ESTABLISHMENTS							
Metro	37	165.2	6113	96%	1.5	9306	98%
Adjacent	42	49.5	2079	95%	0.9	1927	83%
Nonadjacent	13	54.8	712	95%	2.5	1808	95%
Sub Total			8904			13,041	
Totals			9336			13,753	

Source: Calculated from ES202 data.

TABLE 16. Indiana Manufacturing Firm Growth by Community Type, by Firm Job Growth, 1994

	Lost Jobs	No Change	1-20	21-100	101-250	251 +	Total
Metro Counties Number of Firms	1701	1970	2526	175	16	4	6392
% of all firms	18	21	27	2	*	*	68
% of metro firms	27	31	40	3	*	*	
% of firms in column	69	70	68	59	62	100	
Adjacent Counties	574	611	910	95	6	0	2196
% of all firms	6	7	10	1	*		24
% of adjacent firms	26	28	41	4	*		
% of firms in column	23	22	24	32	23		
Non-adjacent Counties	191	220	303	29	4	0	748
% of all firms	2	2	3	*	*		8
% of non-adjacent firms	26	29	41	4	1		
% of firms in column	8	8	8	10	15		
Total	2467	2801	3739	299	26	4	9336
Percent of all firms	26	30	40	3	*	*	100

* Less than one percent

Source: Calculated from ES202 data.