

**The Characteristics and Economic Benefits
of the Business Employment Incentive Program**

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Executive Summary

This report is intended to serve as a comprehensive source of information about the awards that have been made since the inception of the Business Employment Incentive Program (BEIP) and to estimate the impact of the BEIP awards on New Jersey's economy. We find that the BEIP program is of significant benefit to the state in terms of employment, economic activity (gross state product) and fiscal flows (state tax revenues).

The report focuses primarily on 183 BEIP awards made between June 1997 and February 2005, which created 51,665 jobs. It also examines potential impacts of the 88 BEIP awards approved in fiscal year 2005, and the effects of the inclusion of smart growth criteria in the BEIP award formula.

The BEIP award characteristics and economic impacts addressed by the report include:

- **Distribution by Business Sector.** The BEIP awards and the jobs created by the 183 BEIP projects studied are distributed across a broad range of business sectors, but are most highly concentrated in the key manufacturing, financial activities, and professional and business services sectors. (See Chapter II, pp. 13-15.)
- **Distribution by Employment Size.** The majority of BEIP awards examined (55.7%) have been extended to small to mid-sized projects creating fewer than 200 jobs each, while 49.3% of the jobs directly generated by the BEIP projects have come from those that created 500 jobs or more. (See Chapter II, pp. 15-16.)
- **Distribution by Project Type.** Over 50% of the BEIP awards analyzed (100 out of 183) have been made to companies relocating their facilities from other

states, with 42% (77 awards) going to companies expanding their existing operations in New Jersey and very few (6 awards) going to new businesses. The majority of the relocations (69%) have come from New York. (See Chapter II, pp. 16-18.)

- **Distribution by County.** BEIP grants have been made to companies in almost every county in the state. The largest shares of the awards have gone to companies in Hudson (25.1%), Middlesex (12%) and Morris (9.8%) counties. The largest percentages of the total jobs created by BEIP projects have been in Hudson (34.7%), Somerset (11.6%) and Middlesex (7.6%) counties. (See Chapter II, pp. 20-27.)
- **Tax Expenditures.** The annual tax expenditures made on the BEIP program are approximately \$95.1 million, or about \$1,841 per job created by the BEIP projects. The financial activities sector had the highest tax expenditure per job created (\$3,119), followed by the professional and business services sector (\$1,661) and the manufacturing sector (\$1,422). (See Chapter II, pp. 29-31.)
- **Annual Economic Impact.** Each year, the operations of the BEIP projects add approximately \$8.4 billion to New Jersey's gross state product. This equates to an annual increase of approximately \$88 for each tax dollar spent to fund the program. (See Chapter III, pp. 39-41.)
- **Annual Fiscal Impact.** The 183 BEIP projects generate approximately \$349 million in additional state tax revenue each year. In other words, for each tax dollar spent on the BEIP program, the state receives approximately \$3.70 in revenues. (See Chapter III, pp. 49-50.)
- **Annual Employment Impact.** The 183 BEIP projects have created approximately 51,665 permanent jobs. In addition, the economic activity

generated by the BEIP projects leads indirectly to the creation of another 58,089 jobs, for a total of 109,754 jobs. (See Chapter III, pp. 41-42.)

- **One-Time Impacts.** In addition to the annual impacts generated by the ongoing operations of the BEIP projects, each project's capital expenditures on construction, equipment and other items leads to significant one-time impacts that accrue over the duration of the project. The total capital investment leads to the creation of an additional 111,041 job-years (one job lasting for one year), \$6.6 billion in gross state product, and \$233 million in state tax revenue. If these latter two figures are annualized and added to the annual impacts noted above, the annual ratio of gross state product to tax expenditures rises from 88-to-1 to almost 95-to-1, and the ratio of state tax revenues to tax expenditures rises from 3.7-to-1 to 3.9-to-1. (See Chapter III, pp. 47-48.)
- **Characteristics of Fiscal Year 2005 Awards.** The 88 BEIP projects approved in fiscal year 2005 are estimated to create approximately 12,318 jobs. Like the 183 approved and executed projects, the majority of the 88 projects are in the manufacturing (40.9%), professional and business services (20.5%), and financial activities (15.9%) sectors. The approved FY 2005 awards have gone primarily to projects creating fewer than 200 jobs (84%), while a large share of the estimated jobs to be created (42.7%) are expected to come from projects creating 500 jobs or more. Forty-eight of the FY 2005 projects are expansions and 40 are relocations, with both types estimated to create about the same number of jobs. The annual tax expenditures for the FY 2005 projects are estimated at \$18 million, or \$1,461 per job. (See Chapter IV, pp. 54-60.)
- **Annual Impacts of Fiscal Year 2005 Awards.** The BEIP projects approved in fiscal 2005 are estimated to generate an increase of \$1.7 billion in gross state product on an annual basis, or approximately \$96.80 for each tax dollar

spent on the awards. They are also expected to generate state tax revenues of \$84 million, or \$4.70 for each dollar in tax expenditures. In addition to the 12,318 estimated jobs to be created by the projects, the economic activity they generate is estimated to result in the creation of an additional 10,391 jobs, for a total of 22,709 jobs. (See Chapter IV, pp. 61-66.)

- **One-Time Impacts of Fiscal Year 2005 Awards.** Over the period of the awards, the capital investments of the projects approved in fiscal year 2005 are estimated to result in the creation of an additional 13,008 job-years, and add \$781.5 million in gross state product and \$27.1 million in state tax revenues. If these figures are annualized and added to the projects' estimated annual impacts, the ratio of gross state product to tax expenditures rises to 101.2 and the ratio of state tax revenue to tax expenditures rises to 4.8. (See Chapter IV, pp. 66-68.)
- **Smart Growth Protocols.** Analysis of the characteristics of BEIP awards before and after institution of the smart growth protocols demonstrates that the inclusion of these factors in the BEIP award formula has not influenced the spatial distribution of the awards or increased the average award level, but that it has had the effect of shifting the relative importance away from the economic development factors in determining the award level. Several recommendations are made to link the economic development criteria of the BEIP awards more directly with the smart growth function. (See Chapter V, pp. 72-81.)
- **Caveats.** It should be noted that the tax expenditures discussed above and in the report are based on estimates of the *average* salaries paid to the workers in the jobs created by each project. The use of *average* salary to estimate tax costs masks variation in the salaries, and hence variation in the tax liabilities of the jobs. Due to New Jersey's highly progressive income tax, this means that the tax expenditures calculated may be understated, particularly for

projects in which the distribution of salaries is skewed toward higher levels. At the same time, individuals at different salary levels have differential patterns of consumption and saving, and thus the estimates of gross state product and other positive economic impacts may also be understated.

Chapter I: Introduction

This report is a continuation of the analysis of the New Jersey Business Employment Incentive Program (BEIP) conducted in 2004. The work done then examined a number of economic and policy issues of the program in response to a study conducted by New Jersey Policy Perspective. Our report was submitted to the New Jersey State Treasurer and to the New Jersey Economic Development Authority (NJEDA) in July 2004.¹ It made several recommendations for changes in protocols in BEIP. A number of those changes were subsequently adopted. Specifically, a cap was placed on the dollar amount of the award for those projects that exceed the initial projection of the total number of jobs created. Also, a floor was placed on the total number of jobs a business must maintain, company-wide, in New Jersey over the term of the BEIP award. In addition, the NJEDA asked that a study be conducted of the economic impact of the BEIP awards to date. The current report responds to that request.

The use of economic incentives by state and local governments to support economic development has a long history. As discussed in our previous report, there is an extensive literature that has examined the effectiveness of such incentives, drawing on complex econometric evidence as well as information gathered from numerous surveys of businesses and developers. Criticisms of such incentives also abound and point to the significant tax expenditures of the programs and the uncertainty that exists about the role that such incentives play in affecting the location and expansion decisions of business.

Our conclusion from the previous report was that New Jersey must have and use business development incentives in order to effectively compete across states and throughout the world in an increasingly aggressive global economic environment. New Jersey has one of the most fiscally responsible business incentive programs. Awards are made only after jobs have been created and state tax revenues received. The performance-based nature of BEIP makes it an attractive program, and other states have

¹ See, "An Assessment of the New Jersey Business Employment Incentive Program," Joseph J. Seneca, James W. Hughes and George R. Nagle, Edward J. Bloustein School of Planning and Public Policy, New Brunswick, NJ, July 2005, pp. 1-41, (www.policy.rutgers.edu, click on EJB Economic News).

emulated its structure. A performance-based award also provides fiscal due diligence for state tax expenditures. At the same time, it is important for the program to be accountable and open to public scrutiny with respect to the awards made and the associated use of state resources.

Accordingly, the purpose of this report is to provide a comprehensive source of information about the awards that have been made since the inception of the program and to estimate the economic impact of BEIP on New Jersey's economy. The report is organized as follows. Chapter II provides an analysis of the characteristics of the 183 executed BEIP awards made between June 1997 and February 2005. It begins with a profile of employment in New Jersey by business sector and by county. The changes in employment by business sector and by year are also analyzed. Since many of the BEIP awards are for office projects, the chapter provides a current profile of available office space in New Jersey. The number of BEIP awards by year and the distribution of awards by business sector, size of firm, and project investment expenditures are presented. Awards are disaggregated and analyzed according to whether the project is a relocation, an expansion of an existing business, or a new business. The distribution of awards, jobs, and investment expenditures by county is also analyzed. The chapter concludes with an examination of the level of the rebate awarded and the estimated tax expenditures per job.

Chapter III estimates the economic impact on New Jersey of the 183 BEIP awards that have created a minimum of ten jobs. The issue of causality between the award and the jobs created is discussed. The analysis presents estimates of the effects of the awards on total employment (i.e., both the direct jobs supported by the BEIP award and the indirect jobs created by the new economic activity), gross state product, state tax revenues, and local tax revenues. It also examines the economic impact as measured by these same indicators according to the business sector of the awards. Comparisons are made between the economic benefits of the projects and tax expenditures of the associated rebates. The individual economic impact estimates for each of the 183 awards are given in an appendix.

Chapter IV provides an analysis of the characteristics and the potential economic impact of the BEIP awards made in the most recently completed fiscal year (July 2004 through June 2005). Since these are new projects and have not, in general, resulted in (many) jobs to date, the analysis is based on the expected number of jobs and the expected levels over the duration of the project.²

Chapter V provides an analysis of the smart growth protocols introduced into the BEIP award process in 2003. The protocols attempt to steer economic development to certain areas of the state designated for redevelopment and economic expansion. The protocols provide significant increases to the level of a BEIP award depending on the location of the project. The effect of these new procedures on the spatial distribution of awards, on the size of the award, and on tax expenditures is analyzed, and some recommendations for changes are made.

Finally, Chapter VI provides a summary and conclusions for the report and returns to the discussion of the effectiveness of business incentive programs as well as the relationship between tax expenditures and economic benefits to the state. While the issue of causality remains elusive (i.e., to what extent do state business incentives actually create net, new economic activity), the compelling reality of intense interstate and inter-nation competition in a global economy requires New Jersey to have and use a portfolio of effective and fiscally prudent policy tools to support economic development.

² We include in the 183 projects analyzed in Chapters II and III any award *executed* in FY 2005 that has created ten or more jobs. In the analysis of Chapter IV we use the projected total new jobs of the awards *approved* in FY 2005.

Chapter II: Characteristics of BEIP Awards

The purpose of this chapter is to provide a detailed and comprehensive analysis of the characteristics of the BEIP awards made since the inception of program. Such an assessment was called for by the NJEDA in 2004 and is appropriate and timely since it is part of the Authority's mandate to ensure public accountability for the program. NJEDA has made active use of BEIP awards to promote the economic development of the state. From the inception of the program in 1997 through February 2005 there have been 183 executed BEIP awards that each created ten or more jobs. An analysis of this large group of projects is the subject of this chapter.

Economic Profile of New Jersey

It is useful to have a sense of the current structure of the New Jersey economy in order to place the BEIP grants in the context of the dynamics of broader economic conditions. The economy of New Jersey consists of a diverse and balanced profile of industries. However, this employment base has changed significantly over time and continues to evolve as new and powerful economic forces, many global in nature, continue to affect the state.

Table II-1 lists the level and changes in employment by industry in New Jersey from 1990 to 2004 for the major industry classifications.¹ In 1990, total employment in New Jersey totaled 3.6 million jobs, and the largest private-sector components were trade, transportation and utilities (833,000 jobs), manufacturing (530,000 jobs), professional and business services (438,000 jobs), and education and health services (362,000 jobs). Within manufacturing, employment in the state's pharmaceutical industry was 41,900.²

¹ The business sectors listed in Table II-1 are from the North American Industry Classification System (NAICS). The data are for payroll employment in New Jersey (i.e., New Jersey residents working in other states are not included).

² The NAICS employment data for manufacturing are for jobs directly related to production activities. Thus, headquarters positions (management of companies and enterprises) and research jobs (scientific research and development) are both included in professional and business services. This system, therefore, understates total pharmaceutical employment in New Jersey by about 20 percent compared to the prior

Table II-1
Nonfarm Payroll Employment Profile of New Jersey, 1990-2004
(Annual averages in thousands)

Sector	1990		2004		1990-2004	
	Employment	Share	Employment	Share	Absolute Change	Share of Change
Natural Resources and Mining	3.0	0.1%	1.6	0.0%	-1.4	-0.4%
Construction	147.7	4.1	166.0	4.1	18.3	5.0
Manufacturing	529.5	14.6	338.9	8.5	-190.6	-51.9
<i>Pharmaceuticals</i>	41.9	1.2	40.2	1.0	-1.7	-0.5
Trade, Transportation and Utilities	833.2	22.9	875.5	21.9	42.3	11.5
Information	120.5	3.3	98.6	2.5	-21.9	-6.0
Financial Activities	234.2	6.4	277.8	6.9	43.6	11.9
Professional and Business Services	438.2	12.1	581.6	14.5	143.4	39.1
Education and Health Services	362.1	10.0	546.6	13.7	184.5	50.3
Leisure and Hospitality	269.9	7.4	327.0	8.2	57.1	15.6
Other Services	119.7	3.3	154.4	3.9	34.7	9.5
Government	576.7	15.9	634.1	15.8	57.4	15.6
Total Nonfarm	3,635.1	100.0%	4,002.0	100.0%	366.9	100.0%

Note: The business sectors listed are the 11 major "supersectors" of the North American Industry Classification System (NAICS).
Source: U.S. Bureau of Labor Statistics.

By 2004, 14 years later, total employment in New Jersey had reached just over 4 million jobs following the recession of 1991-92, the near-record-long expansion from 1992 to 2000, another recession in 2001-02, and a slow economic recovery thereafter. Total jobs increased by 367,000 (or by 10.1%), with the largest shares of this overall gain in total employment occurring in education and health services (50.3%) and professional and business services (39.1%).³ Employment in leisure and hospitality (which contributed 15.6% of the total change in jobs) and financial activities (which contributed

Standard Industrial Classification (SIC) categories. Nevertheless, the change in employment in Table II-1 is consistently measured over time.

³ Education and health services had the highest absolute increase in jobs over this period and the fastest rate of increase. Almost all of the education and health services employment is in health services (85%). Health services include a wide range of jobs in terms of skill, education, and salary levels. Overall, average annual salaries in New Jersey were at \$46,351, compared to \$39,745 in education and health services. Professional and business services also represent a diverse range of jobs including legal, accounting, computer systems, management, scientific research, and advertising services, and, in general, have above-average skill, education, and salary levels (\$55,263).

11.9%) also increased significantly.⁴ All of these industries increased their share of total employment in New Jersey between 1990 and 2004. Trade, transportation and utilities remained the largest employment sector although its share of total employment fell from 22.9% to 21.9%. Manufacturing experienced a severe employment loss of 190,600 jobs, and its share declined to 8.5%. Within manufacturing, however, pharmaceutical employment essentially held its own over the period with a loss of only 1,700 jobs. The information sector, and especially the wired telecommunications component, also lost employment (-21,900 jobs), and its share of total employment fell from 3.3% to 2.5%. This loss, which has continued, is attributable to deregulation, increased competition, and technology changes.

Table II-2 provides comparative employment share data for 2004 for New Jersey and the nation. New Jersey is overrepresented, relative to the nation, in trade, transportation and utilities, financial activities, information, professional and business services, and education and health services. It is underrepresented in manufacturing, leisure and hospitality, and other services.⁵ However, within manufacturing, New Jersey is overrepresented in pharmaceuticals (1% vs. 0.2%), and this is likely to be an underestimate since the pharmaceutical data do not include employment in headquarters or science and research functions, which, as noted previously, appear in professional and business services. It is noteworthy that the BEIP awards are concentrated in industries where New Jersey is overrepresented relative to the nation – pharmaceuticals, finance, and business and professional services.

⁴ Financial activities jobs have the highest average salary levels (\$70,539) of all the industry sectors. Leisure and hospitality has the lowest (\$19,737).

⁵ “Other Services” cover a wide range of business services not included elsewhere in the NAICS classifications such as equipment and machinery repair, dry cleaning and laundry services, personal care services, death care services, pet care services, and photo-finishing services, among others.

Table II-2
Nonfarm Payroll Employment Share by Business Sector
U.S. and New Jersey, 2004

Sector	Employment Share	
	U.S.	NJ
Natural Resources and Mining	0.4%	0.0%
Construction	5.3	4.1
Manufacturing	10.9	8.5
<i>Pharmaceuticals</i>	<i>0.2</i>	<i>1.0</i>
Trade, Transportation and Utilities	19.4	21.9
Information	2.4	2.5
Financial Activities	6.1	6.9
Professional and Business Services	12.5	14.5
Education and Health Services	12.9	13.7
Leisure and Hospitality	9.5	8.2
Other Services	4.1	3.9
Government	16.4	15.8
	100.0%	100.0%

Source: U.S. Bureau of Labor Statistics.

Table II-3 lists the annual change in total employment and in employment level by industry sector. The recession of the early 1990s (shaded in Table II-3) is noteworthy, and jobs were lost in virtually every major business sector over the two-year period. There was a modest employment recovery in the next four years, with job gains averaging just over 45,000 per year. Then the boom of the late 1990s occurred with a wild stock market, the dot.com craze, and large increases in technology spending. Employment growth in New Jersey accelerated, and job gains averaged nearly 89,000 per year for four consecutive years.⁶ The recession of 2001 ended the good times, and the state lost jobs for the next two years as a national job-loss economic recovery followed the relatively brief recession of 2001. Finally, by 2004, job growth, albeit modest, resumed in New Jersey.

⁶ Strong job gains during this time occurred in professional and business services, education and health services and then in financial activities and trade, transportation, and utilities in the later years of the expansion. Manufacturing lost jobs steadily even during this boom period although the absolute levels of annual loss declined somewhat.

Table II-3
New Jersey Annual Employment Change by Business Sector, 1991-2004
(Annual averages in thousands)

Sector	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Natural Resources and Mining	-0.5	-0.3	0.1	0.0	-0.1	-0.2	0.1	0.1	-0.1	-0.2	-0.2	-0.1	0.0	0.0
Construction	-25.1	-10.6	4.2	5.5	1.6	1.7	6.7	4.4	7.4	6.0	9.2	3.9	-2.1	5.5
Manufacturing	-31.2	-24.3	-11.1	-7.0	-7.3	-11.2	-2.0	-6.1	-6.9	-0.9	-20.3	-33.7	-17.1	-11.5
<i>Pharmaceuticals</i>	1.9	0.0	-1.1	-1.3	-2.7	-2.5	-1.0	0.6	0.6	2.1	0.1	0.9	0.7	0.0
Trade, Transportation and Utilities	-39.2	-13.7	1.6	20.9	13.8	6.8	11.2	12.9	26.1	25.4	-8.4	-9.2	-5.2	-0.7
Information	-5.2	-1.6	-1.8	3.1	4.6	-2.2	5.1	-3.6	4.1	3.9	-0.5	-13.2	-11.2	-3.4
Financial Activities	-9.7	-1.1	1.4	5.0	-0.7	2.1	6.9	10.5	12.1	6.1	3.0	6.9	-0.5	1.6
Professional and Business Services	-17.4	-2.6	23.0	9.0	14.4	24.7	33.1	31.6	25.1	19.4	-6.1	-11.3	-2.9	3.4
Education and Health Services	12.0	12.5	12.8	12.9	12.6	10.6	16.3	14.2	14.8	15.0	9.5	21.8	10.9	8.6
Leisure and Hospitality	-10.6	-0.3	3.9	5.5	6.9	4.3	6.5	8.1	5.8	3.2	0.9	6.9	10.4	5.6
Other Services	-4.2	0.4	2.6	2.0	2.1	4.5	2.0	3.3	5.4	4.3	1.8	4.4	4.3	1.8
Government	-5.2	0.3	-1.2	2.7	0.0	-2.7	-0.4	1.4	5.9	11.3	13.8	10.9	8.4	12.2
Total Nonfarm	-136.5	-40.8	35.2	59.7	47.8	38.4	85.6	76.7	99.9	93.4	2.6	-13.2	-5.1	23.2

Note: Shaded areas denote periods of recession.

Source: U.S. Bureau of Labor Statistics.

The spatial distribution of employment and population by county is given in Table II-4. Bergen County has the largest employment and population shares of all 21 counties, with its employment share exceeding its share of population. Middlesex, Essex, and Morris counties have the next largest employment levels. Their respective shares of employment also exceed their population shares. Monmouth County has a 6.8% share of the state's total employment and a larger 7.3% of the state's population. Union County has identical employment and population shares (6.1%), while Hudson County has a larger population share (7%) than employment share (6.1%). Camden County, with 5.4% of the state's employment and 5.9% of the state's population, and Mercer County, with a relatively large employment share (5.3%) compared to its population share (4.2%), complete the top ten counties (as measured by employment).⁷

⁷ The relatively large difference in employment and population share for Mercer County is attributable to the large state government workforce in the county and the pattern of commuting to those jobs from other locations (including Pennsylvania).

**Table II-4
Employment Distribution by County, 2003**

County	Employment	Share	Population	Share
Bergen	579,962	12.1%	898,631	10.4%
Middlesex	476,638	9.9	777,672	9.0
Essex	451,088	9.4	797,439	9.2
Morris	360,843	7.5	483,513	5.6
Monmouth	327,809	6.8	633,257	7.3
Union	293,934	6.1	530,599	6.1
Hudson	293,614	6.1	607,528	7.0
Camden	257,601	5.4	513,799	5.9
Mercer	253,242	5.3	361,191	4.2
Burlington	251,394	5.2	444,941	5.1
Passaic	221,257	4.6	499,037	5.8
Somerset	210,548	4.4	312,330	3.6
Ocean	199,217	4.2	546,638	6.3
Atlantic	175,006	3.6	263,853	3.1
Gloucester	117,665	2.5	267,322	3.1
Cumberland	70,100	1.5	149,500	1.7
Hunterdon	69,375	1.4	128,331	1.5
Cape May	58,725	1.2	101,827	1.2
Sussex	57,123	1.2	150,986	1.7
Warren	47,281	1.0	109,173	1.3
Salem	27,612	0.6	64,845	0.8
Total	4,800,034	100.0%	8,642,412	100.0%

Note: The New Jersey employment figures reported in this and subsequent tables are based on data from the Regional Economic Information System (REIS) of the U.S. Bureau of Economic Analysis. These figures differ from those of the U.S. Bureau of Labor Statistics, which are reported in Tables II-1 and II-2. The REIS figures include proprietors and the self-employed, while the figures in Tables II-1 and II-2 reflect only payroll employment and do not include these categories.

Source: U.S. Bureau of Economic Analysis.

The New Jersey Office Market

Employment growth in New Jersey in the financial activities and professional and business services sectors has been a highly important factor behind the expansion of the state's office market. New Jersey is now the fifth largest office market in the United States. The 11-county northern and central part of the state currently has close to 117 million square feet of Class A office space.⁸ The business and professional services sector, along with financial activities, are major tenants in this space. As detailed in Table II-3, these sectors experienced significant job growth between 1993 and 2000, but they have faltered in the post-2000 period. Since many of the BEIP awards have been for

⁸ Class A space is a premier facility with high-quality finishes, state-of-the-art systems (e.g., computer wiring and technology), and exceptional accessibility.

projects in these sectors, it is useful to assess current conditions in the office markets of New Jersey.

Table II-5 provides details on the Class A office market for the 11-county area for the first quarter of 2005. With over 19.5 million square feet, Hudson County has the largest amount of Class A space in New Jersey, having recently surpassed Morris County for this distinction. Of the total office space in the state, however, 87.1 million square feet were occupied, but close to 30 million square feet (or 25.6% of the total inventory) was vacant in the first quarter of 2005, reflecting the weakness in the office market caused by the cost discipline demonstrated by many business firms following the recession of 2001. Class A space vacancy rates exceeded 30% in Morris, Middlesex, Somerset, and Hunterdon counties, areas of the state where employment grew rapidly in the 1990s. Hudson County had a relatively low vacancy rate of 17.9%, as did Essex County (18.2%). However, even the latter rates are high since the overall national vacancy rate is below 15%.

Table II-5
Class A Office Space by County
First Quarter 2005

County	Total Inventory	Occupied Space	Available Space	Vacancy Rate
Hudson	19,556,553	16,062,355	3,494,198	17.9%
Morris	19,097,323	12,993,092	6,104,231	32.0
Middlesex	15,516,144	10,611,216	4,904,928	31.6
Somerset	15,373,440	9,582,915	5,790,525	37.7
Essex	14,744,202	12,055,903	2,688,299	18.2
Bergen	12,820,636	9,778,908	3,041,728	23.7
Mercer	7,592,793	6,359,919	1,232,874	16.2
Monmouth	5,744,984	4,966,118	778,866	13.6
Union	3,795,684	2,751,168	1,044,516	27.5
Passaic	2,041,375	1,529,436	511,939	25.1
Hunterdon	696,791	400,265	296,526	42.6
Total	116,979,925	87,091,295	29,888,630	25.6%

Source: Sitar-Rutgers Regional Report 8, 2 (May 2005).

While there are signs of a slight pickup in some office markets in New Jersey, Table II-5 indicates that there is a long road ahead to work off the significant overhang of available space before commercial office construction can accelerate. The substantial

available inventory of Class A office space provides a useful and timely complement to BEIP awards to promote economic development.

For a perspective of recent conditions in the office market in New Jersey, Table II-6 provides comparable data for the 11-county area for the fourth quarter of 2000, the peak of the last business cycle. At that time, employment in New Jersey was at a then record high: firms anticipated further expansion and were anxious not to be caught short of space. There were 106.9 million square feet of Class A office space in the 11-county area, and 98.7 million square feet were occupied. The vacancy rate was a low 7.7%. Hudson County's vacancy rate was a miniscule 1.3%, and there was no space available in Hunterdon County and virtually none in Monmouth County. Just four years later, total space had increased to 116.9 million square feet (or by 9.4%), as many projects that were begun in the boom of the late 1990s came to fruition. Occupied space, however, fell from 98.7 million square feet in the fourth quarter of 2000 to 87.1 million square feet (or by 11.8%) in the first quarter of 2005, and the vacancy rate soared from 7.7% to 25.6%.

Table II-6
Class A Office Space by County
Fourth Quarter 2000

County	Total Inventory	Occupied Space	Available Space	Vacancy Rate
Bergen	18,076,397	16,897,198	1,179,199	6.5%
Morris	17,454,671	15,463,593	1,991,078	11.4
Essex	15,051,467	13,345,826	1,705,641	11.3
Middlesex	14,475,748	13,584,604	891,144	6.2
Hudson	13,070,375	12,903,214	167,161	1.3
Somerset	9,720,034	9,129,054	590,980	6.1
Mercer	6,714,075	6,161,512	552,563	8.2
Monmouth	5,589,348	5,545,890	43,458	0.8
Passaic	3,153,698	2,317,725	835,973	26.5
Union	2,940,358	2,713,909	226,449	7.7
Hunterdon	658,791	658,791	0	0.0
Total	106,904,962	98,721,316	8,183,646	7.7%

Source: Sitar-Rutgers Regional Report 4, 1 (February 2001).

As a measure of the cost discipline that businesses adopted after the recession of 2001 and for a perspective on the excesses of the late 1990s boom, it is important to note that total employment in office-type jobs in New Jersey was approximately the same in the first quarter of 2005 as in the last quarter of 2000. Thus, there were the same number of jobs in the state, but businesses were using nearly 12% less office space!

General Characteristics of BEIP Awards

Table II-7 lists the number of executed BEIP awards since June 1997 by calendar year and the jobs created by absolute amount and percentage share of the total. Since the inception of the program there have been 183 executed awards, and 51,665 jobs have been created.⁹ The program's initial years corresponded to the boom of the late 1990s when, as noted in Table II-3, employment gains averaged close to 89,000 annually for four consecutive years. The large number of BEIP awards executed in 2000 (30 awards) reflected expectations of a continuation of the boom. It is noteworthy that BEIP awards remained strong during 2001 and 2002 when the state was in recession. Thus, the BEIP awards provided a timely and useful countercyclical economic stimulus for the state during this period. The highest number of annual BEIP awards (to date) occurred in 2002, with 35 awards executed, leading to the creation of 11,500 jobs.

Table II-7
Annual BEIP Awards

Calendar Year	Executed Projects	Percentage of Total	Jobs Created to Date	Percentage of Total
1997	26	14.2%	11,113	21.5%
1998	19	10.4	6,493	12.6
1999	19	10.4	6,237	12.1
2000	30	16.4	7,639	14.8
2001	25	13.7	5,837	11.3
2002	35	19.1	11,550	22.4
2003	10	5.5	1,006	1.9
2004	18	9.8	1,662	3.2
2005	1	0.5	128	0.2
Total	183	100.0%	51,665	100.0%

Note: Covers awards executed between June 1997 and February 2005 that have resulted in the creation of at least ten jobs.

⁹ For perspective, job growth in New Jersey since 1981, covering a period of three recessions and three expansions, has averaged 39,800 jobs per year. Thus, the BEIP program has been responsible for well over a full year's worth of job gains (130%) since its inception.

BEIP Awards by Sector

Table II-8 lists the distribution of awards and jobs created by business sector. The largest number of awards (59) occurred in the manufacturing sector, representing 32.2% of total awards. Within that sector, most of the awards were in nondurable manufacturing (45), and pharmaceuticals and medicines received 18 of those.¹⁰ The manufacturing projects have created 28.2% of the total jobs from all 183 awards. However, it is again important to note that many of the “manufacturing jobs” of the BEIP projects, particularly those in pharmaceuticals, are not direct production jobs. The finance sector has the second highest number of awards (43), or 23.5% of total awards, and has created the largest number of jobs (17,300, or over a third of the total jobs). Trade, transportation and utilities received the next highest number of awards (33), and this sector was responsible for 7,300 jobs, or 14.2% of the total employment created. Professional and business services with 24 awards, and information services with 17 awards, were also major beneficiaries of BEIP grants.

Table II-8
BEIP Projects by Business Sector and Selected Sectors

Sector	No. of Projects	Pct. of all Projects	Jobs Created to Date	Pct. of Total Jobs
Manufacturing	59	32.2%	14,566	28.2%
Durable Goods	14	7.7	2,038	3.9
Nondurable Goods	45	24.6	12,528	24.2
<i>Pharmaceuticals and Medicines</i>	18	9.8	9,147	17.7
Financial Activities	43	23.5	17,281	33.4
Trade, Transportation & Utilities	33	18.0	7,340	14.2
Wholesale Trade	15	8.2	2,642	5.1
Retail Trade ¹	11	6.0	3,961	7.7
Transportation & Warehousing	6	3.3	647	1.3
Utilities	1	0.5	90	0.2
Professional & Business Services	24	13.1	6,754	13.1
Information	17	9.3	4,980	9.6
Education and Health Services	5	2.7	421	0.8
Other Services	1	0.5	234	0.5
Construction	1	0.5	89	0.2
Leisure and Hospitality	0	0.0	0	0.0
Total	183	100.0%	51,665	100.0%

Note: Covers awards executed between June 1997 and February 2005 that have resulted in the creation of at least ten jobs.

1. Direct retail operations are not eligible for BEIP grants. Those included in this classification represent either back-office operations, warehousing, or corporate headquarters.

¹⁰ While these projects are classified as manufacturing on the BEIP application as these businesses describe themselves, many are headquarters and service functions and do not involve direct manufacturing production employment. This creates comparability problems with the NAICS data, which generally exclude these functions from the definition of “manufacturing.”

Table II-9 provides a comparison between BEIP-generated employment and the distribution of total employment in New Jersey by business sector. BEIP employment is overrepresented in manufacturing (28.2% vs. 8.5%), and this is especially so within pharmaceuticals and medicines (17.7% vs. 1%).¹¹ It is also overrepresented in financial activities (33.4% vs. 6.9%). These two areas are important components of the New Jersey economy, and BEIP has supported both extremely well. The BEIP awards have helped maintain the pharmaceutical industry in New Jersey at a time of significant change and competition within that industry. In its support of the finance sector, BEIP has assisted in the economic revitalization of Jersey City and the development of the Hudson River waterfront. Moreover, the pharmaceutical and finance sectors are two of the highest-paying business sectors, and the jobs supported by BEIP in these sectors have strong multiplier effects on the general state economy.

Table II-9
Total State Employment Distribution vs. BEIP Employment Distribution
(New Jersey figures based on 2003 data)

Sector	New Jersey	BEIP
Natural Resources and Mining	0.0%	-%
Construction	4.1	0.2
Manufacturing	8.5	28.2
<i>Pharmaceuticals and Medicines</i>	<i>1.0</i>	<i>17.7</i>
Trade, Transportation & Utilities	21.9	14.2
Information	2.5	9.6
Financial Activities	6.9	33.4
Professional & Business Services	14.5	13.1
Education and Health Services	13.7	0.8
Leisure & Hospitality	8.2	-
Other Services	3.9	0.5
Government	15.8	-
Total	100.0%	100.0%

Source: U.S. Bureau of Labor Statistics.

BEIP-supported employment is underrepresented relative to statewide total employment shares in trade, transportation and utilities (14.2% vs. 21.9%), professional and business services (13.1% vs. 14.5%), and Education and health services (0.8% vs.

¹¹ Here is where the comparability issue with respect to the NAICS sector definitions becomes an issue. Many of the manufacturing BEIP awards, particularly those to pharmaceuticals, are for aspects of pharmaceutical business that are classified as services by the NAICS codes (e.g., management, and research and development functions).

13.7%). These sectors are more diverse in terms of their components and have fewer large employers.

Employment Size and Investment

Table II-10 examines the distribution of BEIP awards according to size of the project in terms of both jobs created and investment. The 183 projects have supported 51,665 jobs and have generated \$7.7 billion in private investment expenditures associated with the projects. Over one-third of the awards (63), or 34.4% of all awards, have been made to relatively small projects and businesses (i.e., projects that created between 10 and 99 jobs). Over half of the awards (55.7%) have gone to projects with fewer than 200 jobs each. These 102 projects are responsible for 17.2% of all jobs created (8,900 jobs) and 18.3% of total private investment expenditures (\$1.4 billion). Thus, BEIP has been supportive of, and attentive to, small business and small projects.

Table II-10
Distribution of BEIP Projects by Employment Size and Investment

No. of Jobs	No. of Projects	Pct. of Projects	Total Jobs	Jobs per Project	Pct. of Total Jobs	Project Investment (\$)	Investment per Project (\$)	Pct. of Total Project Investments
10-99	63	34.4%	3,413	54	6.6%	721,399,261	11,450,782	9.4%
100-199	39	21.3	5,470	140	10.6	680,382,597	17,445,708	8.9
200-299	29	15.8	7,099	245	13.7	1,105,071,237	38,105,905	14.4
300-499	26	14.2	10,244	394	19.8	2,597,588,280	99,907,242	33.9
500-999	15	8.2	10,001	667	19.4	648,195,176	43,213,012	8.4
>1000	11	6.0	15,438	1,403	29.9	1,920,762,417	174,614,765	25.0
Total	183	100.0%	51,665	282	100.0%	7,673,398,968	41,931,142	100.0%

Note: Covers awards executed between June 1997 and February 2005 that have resulted in the creation of at least ten jobs.

At the other end of the size distribution of awards, 26 projects generating 500 or more jobs (or 14.2% of all projects) account for 25,400 jobs, or just under half (49.3%) of all the jobs supported by BEIP awards. These projects are also responsible for 33.4% of total private investment expenditures (\$2.6 billion). These large projects were concentrated in financial activities (12 projects) and manufacturing (six projects, with five of these in pharmaceuticals). These 26 large-scale projects, in terms of jobs created,

received an average award of 73.8% compared to an average award of 62.3% for the other 157 projects.¹²

Relocation, Expansion, or New Business

Table II-11 lists the projects according to whether they are a relocation (from outside of New Jersey), an expansion of an existing New Jersey business, or a new business. Over half of the projects (54.6%) are relocations, and these 100 projects were responsible for 60.5% (or 31,246 jobs) of the total employment supported by BEIP to date (51,665 jobs). Expansions of existing New Jersey businesses comprised most of the remaining awards (77 projects, or 42.1% of all projects). Expansions accounted for 18,762 jobs, or 36.3% of total BEIP related employment. Only six projects were new businesses (3.3% of all projects). The relocation projects had a slightly higher average award (65.2%) than the expansion projects (62.5%).

Table II-11
BEIP Projects by Relocation, Expansion, New Business

Project Type	No. of Projects	Pct. of Projects	Total Jobs	Pct. of Jobs
Relocations	100	54.6%	31,246	60.5%
Expansions	77	42.1	18,762	36.3
New Business	6	3.3	1,657	3.2
Total	183	100.0%	51,665	100.0%

Definitions

Relocation - Relocation from out of state.

Expansion - Expansion of an existing New Jersey business.

New Business - Establishment of a new business in New Jersey.

Table II-12 gives the distribution of projects and employment by business sector for relocations and expansions. Over one-third of the relocations (34) and nearly half of all the relocation jobs (47.6%) were in financial activities. Manufacturing businesses accounted for another 29 of the relocation awards and 22.2% of the jobs. Trade,

¹² These two award levels were statistically significantly different from each other at a standard .05 probability level for a one-tailed test.

transportation and utilities awards comprised 16 projects, with 8.1% of the relocation jobs.

**Table II-12
Relocation and Expansion Projects and Employment by Business Sector**

<u>RELOCATIONS</u>				
Sector	<u>Projects</u>		<u>Employment</u>	
	Number	Share	Number	Share
Financial Activities	34	34.0%	14,860	47.6%
Manufacturing	29	29.0	6,938	22.2
Trade, Transportation and Utilities	16	16.0	2,528	8.1
Professional and Business Services	11	11.0	3,869	12.4
Information	5	5.0	2,455	7.9
Education and Health Services	4	4.0	362	1.2
Other Services	1	1.0	234	0.7
Total	100	100.0%	31,246	100.0%

<u>EXPANSIONS</u>				
Sector	<u>Projects</u>		<u>Employment</u>	
	Number	Share	Number	Share
Manufacturing	28	36.4%	7,309	39.0%
Trade, Transportation and Utilities	16	20.8	4,533	24.2
Professional and Business Services	12	15.6	2,747	14.6
Information	11	14.3	2,285	12.2
Financial Activities	8	10.4	1,740	9.3
Education and Health Services	1	1.3	59	0.3
Construction	1	1.3	89	0.5
Total	77	100.0%	18,762	100.0%

The order of projects by business sector for the 77 expansions differed from the 100 relocations. Manufacturing businesses had the largest number of awards (28, or 36.4% of the total) and accounted for 39% of total expansion jobs. Trade, transportation and utilities businesses were second, with 16 awards and 24.2% of the jobs. Professional and business services had 12 projects and 14.6% of the jobs, and information had 11 awards and 12.2% of the employment.

Geographical Origins of Relocation

The 100 relocation projects came from 17 different states (Table II-13). Of the 100 relocations, 69 were businesses coming to New Jersey from New York, representing 22,300 jobs and \$2.4 billion in investment expenditures. Nine relocations were from

Pennsylvania, four were from Maryland, and two or one relocations came from 14 other states and from every region of the country. Of the 69 relocations from New York, 32 were financial activities businesses (46.4% of all the New York relocations) and these accounted for 14,400 jobs and \$1.9 billion in investment expenditures (Table II-14). Thus, financial businesses from New York accounted for 64.4% of all the relocation jobs and 27.9% of all BEIP supported jobs. These businesses also comprised 80% of the investment expenditures of all business relocations and 25% of overall investment expenditures of all BEIP projects. In general, relocations accounted for 43.3% of all BEIP jobs and 31.3% of all private investment expenditures. There were 16 manufacturing business relocations from New York as strong office and residential demand continues to pressure manufacturing firms in the city. There were nine relocations of trade, transportation, and utilities businesses and seven relocations of professional and business services firms.

Table II-13
Geographical Origin of Relocation Projects

Original Site	Number of Relocations	Total Jobs	Total Investment
New York	69	22,348	\$2,400,794,070
Penn.	9	2,183	518,589,071
Maryland	4	289	20,681,500
Michigan	2	2,520	107,100,000
Texas	2	489	48,100,000
Virginia	2	437	3,599,875
Illinois	2	180	9,751,000
Arizona	1	163	200,000
California	1	169	2,900,000
Florida	1	48	55,000,000
Georgia	1	169	11,000,000
Mass.	1	60	19,951,000
Minnesota	1	90	37,200,000
North Carolina	1	72	12,750,000
Ohio	1	93	825,000
Tennessee	1	156	7,345,000
Washington	1	1,780	197,200,000
Total	100	31,246	\$3,452,986,516

Note: Covers awards executed between June 1997 and February 2005 that have resulted in the creation of at least ten jobs.

Table II-14
Relocations from New York by Business Sector

Sector	Number of Relocations	Jobs Created to Date	Total Investment
Financial Activities	32	14,411	\$1,927,353,143
Manufacturing	16	1,747	87,848,000
Trade, Trans. and Utilities	9	1,165	34,474,261
Prof. & Business Services	7	2,941	216,785,000
Information	3	1,704	58,133,666
Education and Health Services	1	146	68,000,000
Other Services	1	234	8,200,000
Total	69	22,348	\$2,400,794,070

Average Salary and Average Tax Expenditures of BEIP Awards

Table II-15 provides an estimate of the average salary levels of the jobs created by the BEIP projects and an estimate of the average tax expenditures (i.e., the amount of the rebate awarded per job). The average salary for each of the projects is derived from the actual salaries paid by the BEIP project, or, where this is not available, the estimated salaries to be paid.¹³

Table II-15
Distribution of Executed BEIP Awards by Average Salary Level

Average Salary Level	Number of Projects	Pct. of Projects	Number of Jobs	Pct. of Jobs	Average Tax Expenditure per Job
\$250,000 and up	4	2.2	1,077	2.1	\$12,352
\$150,000-\$249,999	4	2.2	2,376	4.6	8,497
\$100,000-\$149,999	12	6.6	3,114	6.0	3,356
\$85,000-\$99,999	17	9.3	5,399	10.5	2,467
\$70,000-\$84,999	22	12.0	7,581	14.7	1,834
\$55,000-\$69,999	33	18.0	15,292	29.6	1,130
\$40,000-\$54,999	32	17.5	5,537	10.7	664
\$25,000-\$39,999	36	19.7	5,934	11.5	363
\$10,000-\$24,999	23	12.6	5,355	10.4	160
Total	183	100.0	51,665	100.0	\$1,841

It is noteworthy that 20 projects, representing 6,567 jobs, had average salaries over \$100,000.¹⁴ The next 72 projects, representing 28,272 jobs, had average salaries in the \$55,000 to \$99,000 range. These 72 projects contained nearly 55% of all the BEIP jobs. The final 91 projects had average salaries below \$55,000 and generated 16,826 jobs, or almost 32% of the total employment of 51,665 jobs.

The final column of Table II-15 provides estimates of the tax expenditures of the jobs in each salary range. These are derived from New Jersey Department of Treasury

¹³ Of the 183 BEIP awards, data on average salaries was available for 129 projects. Estimated salaries for the remaining 54 projects were used to complete the analysis.

¹⁴ The 6,567 jobs were 12.7% of total BEIP employment. It is important to note that these average salaries do not mean that all the jobs in these 20 projects had salaries over \$100,000. Similarly, not all the jobs in the lower average salary ranges pay those lower averages – some jobs in those lower average salary projects could pay well above the project’s average. If actual salaries are distributed normally around the average salary for each project, then estimates using the average salary of tax expenditures per job are still likely to underestimate tax costs due to the progressive nature of New Jersey’s income tax. This effect will be exacerbated if salaries are positively skewed around the average.

data on the distribution of filing status of New Jersey income tax payers, the average salary of each project, the prevailing New Jersey gross income tax withholding rates, and the rebate level awarded to each project.¹⁵ The range in estimated tax expenditures per job is large – from \$12,352 per job per year for the four projects with average salaries above \$250,000 to \$160 per job per year for the 23 projects with average salaries between \$10,000 and \$24,999. Higher tax expenditures are obviously associated with higher salaries and thus the cost to the state is higher on a per-job basis. However, those higher salaries generate significantly more overall economic impact per job. Also, the higher salaries tend to be in those business sectors – manufacturing, financial activities, business and professional services, and information – where the state’s economy needs support given the recent trends in employment. The average tax expenditure for all the projects is \$1,841 per job per year.

BEIP Awards by County

Table II-16 gives the share distribution of BEIP projects and jobs created by county in comparison to each county’s share of total state employment. Hudson County received, by far, the largest share of BEIP awards (25.1%), and these projects have generated over a third of all BEIP-supported jobs (34.7%). This share of BEIP jobs significantly exceeds Hudson County’s share of total state employment (6.1%) and reflects the county’s attractiveness as a relocation site, particularly for finance firms from New York. Middlesex County was the next highest site of BEIP awards with 12% of the projects and 7.6% of the jobs created, which is below the county’s share of total state employment (9.9%). Bergen County, with 12.1% of the state’s employment, was underrepresented in terms of BEIP projects (7.7%) and BEIP jobs (7.5% of the jobs created to date). Mercer County, with 5.3% of total state employment, received 7.7% of the BEIP projects and generated 7% of the BEIP employment. Burlington, Gloucester, and Somerset Counties were all overrepresented in terms of BEIP projects relative to

¹⁵ NJ Treasury data indicate that 43.7% of taxpayers use the single filing status and 56.3% use the married filing jointly, or similar, status. This distribution of taxpaying status and the associated tax withholding rates were applied to the number of jobs and average salary by project, along with the BEIP award level, to calculate tax expenditures per job.

their state employment shares. Somerset County was noteworthy, with 11.6% of total BEIP employment compared to a 4.4% share of total state employment.

Table II-16
Distribution of Employment, BEIP Projects and Jobs Created by County
(ranked by state employment share)

County	Share of State Employment	Share of BEIP Projects	Share of BEIP Jobs Created to Date
Bergen	12.1%	7.7%	7.5%
Middlesex	9.9	12.0	7.6
Essex	9.4	3.8	2.7
Morris	7.5	9.8	5.8
Monmouth	6.8	1.6	1.5
Union	6.1	3.3	3.9
Hudson	6.1	25.1	34.7
Camden	5.4	2.7	1.3
Mercer	5.3	7.7	7.0
Burlington	5.2	6.6	6.4
Passaic	4.6	0.5	0.4
Somerset	4.4	6.0	11.6
Ocean	4.2	1.1	0.6
Atlantic	3.6	0.5	0.5
Gloucester	2.5	6.0	4.8
Cumberland	1.5	2.7	0.8
Hunterdon	1.4	1.1	1.1
Cape May	1.2	0.0	0.0
Sussex	1.2	0.5	1.0
Warren	1.0	0.0	0.0
Salem	0.6	1.1	0.8
Total	100.0%	100.0%	100.0%

Note: Covers awards executed between June 1997 and February 2005 that have resulted in the creation of at least ten jobs.

The distribution of relocations, expansions, and new businesses by county is given in Table II-17. Again, Hudson County stands out with 46 BEIP projects, 39 of them (84.8%) relocations. Other counties with more than five projects and with relocations accounting for more than 50% of their projects were Bergen (57.1%), and Somerset (54.5%). Counties with more than five projects and with more than 50% of their projects being expansions were Gloucester (72.7%) and Burlington (58.3%). Table II-18 provides the county distribution of BEIP jobs created to date and project expenditures. Hudson County, with its attractive and accessible Class A office space, has 34.7% of the BEIP jobs (17,900 jobs) and 43.9% of the private investment expenditures

(\$3.4 billion). Mercer County, also with expensive and attractive office building space, was the next highest county in terms of private investment expenditures (\$809 million, or 10.6% of total BEIP-related private investment).

Table II-17
Project Type (Relocations, Expansions, New Business) by County
(ranked by number of projects)

County	Number of Projects	Number of Relocations	Pct. of Total Projects	Number of Expansions	Pct. of Total Projects	Number of New Businesses	Pct. of Total Projects
Hudson	46	39	84.8%	6	13.0%	1	2.2%
Middlesex	22	11	50.0	10	45.5	1	4.5
Morris	18	9	50.0	9	50.0	0	0.0
Bergen	14	8	57.1	5	35.7	1	7.1
Mercer	14	7	50.0	7	50.0	0	0.0
Burlington	12	5	41.7	7	58.3	0	0.0
Gloucester	11	2	18.2	8	72.7	1	9.1
Somerset	11	6	54.5	5	45.5	0	0.0
Essex	7	3	42.9	3	42.9	1	14.3
Union	6	1	16.7	4	66.7	1	16.7
Camden	5	2	40.0	3	60.0	0	0.0
Cumberland	5	2	40.0	3	60.0	0	0.0
Monmouth	3	2	66.7	1	33.3	0	0.0
Hunterdon	2	1	50.0	1	50.0	0	0.0
Ocean	2	0	0.0	2	100.0	0	0.0
Atlantic	1	0	0.0	1	100.0	0	0.0
Passaic	1	0	0.0	1	100.0	0	0.0
Salem	2	2	100.0	0	0.0	0	0.0
Sussex	1	0	0.0	1	100.0	0	0.0
Warren	0	0	0.0	0	0.0	0	0.0
Cape May	0	0	0.0	0	0.0	0	0.0
Total	183	100	54.6%	77	42.1%	6	3.3%

Note: Covers awards executed between June 1997 and February 2005 that have resulted in the creation of at least ten jobs.

Note: There are several multi-site projects for which it was not possible to allocate the jobs and project costs among the counties where the projects are being implemented. For these projects, all data has been attributed to a single county.

Table II-18
Distribution of Projects, Jobs, and Investment by County
(ranked by number of projects)

County	Number of Projects	Pct. of Total Projects	Jobs Created to Date	Pct. of Total Jobs Created	Total Project Investments (\$)	Pct. of Project Investments
Hudson	46	25.1%	17,943	34.7%	3,366,996,915	43.9%
Middlesex	22	12.0	3,950	7.6	341,361,666	4.4
Morris	18	9.8	2,982	5.8	165,763,968	2.2
Bergen	14	7.7	3,874	7.5	291,614,989	3.8
Mercer	14	7.7	3,636	7.0	809,730,000	10.6
Burlington	12	6.6	3,298	6.4	365,295,500	4.8
Gloucester	11	6.0	2,471	4.8	298,804,571	3.9
Somerset	11	6.0	6,002	11.6	280,368,659	3.7
Essex	7	3.8	1,395	2.7	418,780,500	5.5
Union	6	3.3	1,998	3.9	257,545,000	3.4
Camden	5	2.7	677	1.3	48,702,000	0.6
Cumberland	5	2.7	388	0.8	21,719,700	0.3
Monmouth	3	1.6	753	1.5	305,121,000	4.0
Hunterdon	2	1.1	582	1.1	405,437,000	5.3
Ocean	2	1.1	308	0.6	21,100,000	0.3
Atlantic	1	0.5	283	0.5	7,122,000	0.1
Passaic	1	0.5	232	0.4	8,484,500	0.1
Salem	2	1.1	395	0.8	49,451,000	0.6
Sussex	1	0.5	498	1.0	210,000,000	2.7
Warren	0	0.0	0	0.0	0	0.0
Cape May	0	0.0	0	0.0	0	0.0
Total	183	100.0%	51,665	100.0%	7,673,398,968	100.0%

Note: Covers awards executed between June 1997 and February 2005 that have resulted in the creation of at least ten jobs.

Note: There are several multi-site projects for which it was not possible to allocate the jobs and project costs among the counties where the projects are being implemented. For these projects, all data has been attributed to a single county.

Table II-19 gives the distribution of projects by business sector for the ten counties with the largest number of awards. Hudson County, as noted previously, had the most awards (46), with more than 60% of those in financial activities. Middlesex County, with 22 projects, was driven by manufacturing (eight awards), particularly pharmaceuticals, and trade, transportation, and utilities (seven awards, with five in transportation and warehousing). Morris County had 18 awards with manufacturing accounting for eight (pharmaceuticals were again the key component of the manufacturing awards). Bergen County (14 projects) had a fairly balanced distribution of awards over the various business sectors. Mercer County's 14 awards were concentrated

in professional and business services (six projects). Somerset County had 11 awards, with six of these in manufacturing (pharmaceuticals). The projects in Burlington County were focused in wholesale and retail trade (five of the 12), as were the projects in Gloucester County (five of 11).

Table II-20 provides the spatial distribution of jobs by business sector for the same ten counties. Hudson County, which had the most projects, also had the most BEIP-supported jobs (17,900), with the largest share of jobs (13,000) in financial activities. Somerset County, which had only 11 projects (tied for seventh among the top ten counties), was second in terms of jobs (6,000), reflecting large job projects in manufacturing (pharmaceuticals). Also noteworthy was Mercer County, with one manufacturing project (in pharmaceuticals) representing 1,700 jobs, or over half of the total BEIP employment for all of Mercer County's 14 projects. In general, the job distribution for the other counties followed their project distribution (Table II-19).

The share of BEIP employment by sector compared to total employment by sector for the ten counties is given in Table II-21. The specialization of BEIP for financial projects in Hudson County is evident. Financial activities account for 14.1% of total employment in Hudson County, but comprise 72.5% of the county's BEIP-supported jobs. BEIP employment in finance is also overrepresented in Bergen, Morris, and Union counties. Bergen, Morris, Somerset, and Union counties are overrepresented in manufacturing. Burlington, Gloucester, and Middlesex counties are over-represented in BEIP employment in their specialization of trade, transportation, and utilities. Somerset, Mercer, Middlesex, Essex, Bergen, and Union counties are all overrepresented in BEIP-supported manufacturing jobs, mostly attributable to pharmaceutical projects.

**Table II-19
Distribution of Projects by Business Sector for Top Ten Counties***

<u>Hudson County</u>			<u>Bergen County</u>			<u>Somerset County</u>		
Sector	# of Projects	% of Projects	Sector	# of Projects	% of Projects	Sector	# of Projects	% of Projects
Financial Activities	28	60.9%	Manufacturing	5	35.7%	Manufacturing	6	54.5%
Manufacturing	7	15.2	Financial Activities	3	21.4	Trade, Trans. & Utilities	2	18.2
Trade, Trans. & Utilities	6	13.0	Information	2	14.3	Financial Activities	1	9.1
Prof. & Business Services	3	6.5	Prof. & Business Services	2	14.3	Information	1	9.1
Information	2	4.3	Trade, Trans. & Utilities	1	7.1	Ed. & Health Services	1	9.1
Total	46	100.0%	Ed. & Health Services	1	7.1	Total	11	100.0%
			Total	14	100.0%			
<u>Middlesex County</u>			<u>Mercer County</u>			<u>Gloucester County</u>		
Sector	# of Projects	% of Projects	Sector	# of Projects	% of Projects	Sector	# of Projects	% of Projects
Manufacturing	8	36.4%	Prof. & Business Services	6	42.9%	Trade, Trans. & Utilities	5	45.5%
Trade, Trans. & Utilities	7	31.8	Financial Activities	2	14.3	Manufacturing	3	27.3
Information	3	13.6	Information	2	14.3	Information	2	18.2
Prof. & Business Services	2	9.1	Trade, Trans. & Utilities	2	14.3	Prof. & Business Services	1	9.1
Financial Activities	1	4.5	Manufacturing	1	7.1	Total	11	100.0%
Other Services	1	4.5	Ed. & Health Services	1	7.1			
Total	22	100.0%	Total	14	100.0%			
<u>Morris County</u>			<u>Burlington County</u>			<u>Essex County</u>		
Sector	# of Projects	% of Projects	Sector	# of Projects	% of Projects	Sector	# of Projects	% of Projects
Manufacturing	8	44.4%	Trade, Trans. & Utilities	6	50.0%	Manufacturing	2	28.6%
Financial Activities	4	22.2	Manufacturing	3	25.0	Prof. & Business Services	2	28.6
Prof. & Business Services	4	22.2	Information	1	8.3	Trade, Trans. & Utilities	2	28.6
Information	2	11.1	Financial Activities	1	8.3	Ed. & Health Services	1	14.3
Total	18	100.0%	Ed. & Health Services	1	8.3	Total	7	100.0%
			Total	12	100.0%			
<u>Union County</u>						<u>Union County</u>		
Sector	# of Projects	% of Projects				Sector	# of Projects	% of Projects
Manufacturing	2	33.3%				Manufacturing	2	33.3%
Prof. & Business Services	2	33.3				Prof. & Business Services	2	33.3
Financial Activities	2	33.3				Financial Activities	2	33.3
Total	6	100.0%				Total	6	100.0%

* These ten counties represent 161 of 183 awards - approximately 88%.

Table II-20
Distribution of Jobs Created by Business Sector for Top Ten Counties*

<u>Hudson County</u>			<u>Bergen County</u>			<u>Morris County</u>		
Sector	# of Jobs	% of Jobs	Sector	# of Jobs	% of Jobs	Sector	# of Jobs	% of Jobs
Financial Activities	13,001	72.5%	Manufacturing	1,571	40.6%	Financial Activities	1,147	38.5%
Prof. & Business Services	1,897	10.6	Financial Activities	1,055	27.2	Manufacturing	965	32.4
Information	1,503	8.4	Prof. & Business Services	577	14.9	Prof. & Business Services	540	18.1
Manufacturing	817	4.6	Information	353	9.1	Information	330	11.1
Trade, Trans. & Utilities	725	4.0	Trade, Trans. & Utilities	259	6.7	Total	2,982	100.0%
Total	17,943	100.0%	Ed. & Health Services	59	1.5			
			Total	3,874	100.0%			
<u>Somerset County</u>			<u>Mercer County</u>			<u>Gloucester County</u>		
Sector	# of Jobs	% of Jobs	Sector	# of Jobs	% of Jobs	Sector	# of Jobs	% of Jobs
Manufacturing	4,602	76.7%	Manufacturing	1,780	50.7%	Trade, Trans. & Utilities	1,456	58.9%
Information	558	9.3	Prof. & Business Services	1,178	30.0	Manufacturing	511	20.7
Trade, Trans. & Utilities	358	6.0	Financial Activities	341	9.7	Prof. & Business Services	453	18.3
Financial Activities	330	5.5	Information	204	5.8	Information	51	2.1
Ed. & Health Services	154	2.6	Trade, Trans. & Utilities	103	2.9	Total	2,471	100.0%
Total	6,002	100.0%	Ed. & Health Services	30	0.9			
			Total	3,636	100.0%			
<u>Middlesex County</u>			<u>Burlington County</u>			<u>Union County</u>		
Sector	# of Jobs	% of Jobs	Sector	# of Jobs	% of Jobs	Sector	# of Jobs	% of Jobs
Trade, Trans. & Utilities	1,536	38.9%	Trade, Trans. & Utilities	2,288	69.4%	Financial Activities	887	44.4%
Manufacturing	1,031	26.1	Information	581	17.6	Prof. & Business Services	569	28.5
Information	706	17.9	Manufacturing	359	10.9	Manufacturing	542	27.1
Prof. & Business Services	387	9.8	Financial Activities	38	1.2	Total	1,998	100.0%
Other Services	234	5.9	Ed. & Health Services	32	1.0			
Financial Activities	56	1.4	Total	3,298	100.0%			
Total	3,950	100.0%						
			<u>Essex County</u>					
			Sector	# of Jobs	% of Jobs	Sector	# of Jobs	% of Jobs
			Manufacturing	700	50.2%	Manufacturing	700	50.2%
			Prof. & Business Services	345	24.7	Prof. & Business Services	345	24.7
			Trade, Trans. & Utilities	204	14.6	Trade, Trans. & Utilities	204	14.6
			Ed. & Health Services	146	10.5	Ed. & Health Services	146	10.5
			Total	1,395	100.0%	Total	1,395	100.0%

* These ten counties account for 47,549 of 51,665 jobs created - approximately 92%.

Table II-21
Distribution of Jobs (total actual employment) vs. BEIP jobs by Business Sector for Top Ten Counties
(New Jersey County figures based on 2003 data)

Sector	HUDSON		MORRIS		BURLINGTON	
	County	BEIP	County	BEIP	County	BEIP
Natural Resources and Mining	0.0%	-%	0.1%	-%	-%	-%
Construction	2.8	-	4.9	-	4.4	-
Manufacturing	5.3	4.6	7.2	32.4	8.1	10.9
Trade, Transportation & Utilities	18.8	4.0	20.0	0.0	22.6	69.4
Information	3.1	8.4	3.3	11.1	1.5	17.6
Financial Activities	14.1	72.5	13.4	38.5	12.3	1.2
Professional & Business Services	13.5	10.6	21.4	18.1	13.7	-
Education and Health Services	10.5	-	10.6	-	11.3	1.0
Leisure & Hospitality	5.7	-	6.0	-	6.7	-
Other Services	4.7	-	4.8	-	4.8	-
Government	15.2	-	8.5	-	14.5	-
Total	93.9%	100.0%	100.0%	100.0%	99.8%	100.0%

Sector	MIDDLESEX		MERCER		GLOUCESTER		UNION	
	County	BEIP	County	BEIP	County	BEIP	County	BEIP
Natural Resources and Mining	0.0%	-%	-	-%	-	-%	0.1%	-%
Construction	3.8	-	3.2	-	6.7	-	4.8	-
Manufacturing	10.5	26.1	3.5	50.7	8.6	20.7	13.1	27.1
Trade, Transportation & Utilities	22.9	38.9	14.5	2.9	26.7	58.9	22.3	-
Information	3.0	17.9	2.9	5.8	1.1	2.1	1.6	-
Financial Activities	8.1	1.4	9.5	9.7	5.6	-	7.7	44.4
Professional & Business Services	20.3	9.8	16.0	30.0	11.7	18.3	16.4	28.5
Education and Health Services	9.0	-	18.6	0.9	10.8	-	11.4	-
Leisure & Hospitality	5.4	-	6.5	-	8.3	-	5.5	-
Other Services	4.5	5.9	4.4	-	5.1	-	5.4	-
Government	12.4	-	20.8	-	15.1	-	11.7	-
Total	100.0%	100.0%	99.9 %	100.0%	99.6 %	100.0%	100.0%	100.0%

Sector	BERGEN		SOMERSET		ESSEX	
	County	BEIP	County	BEIP	County	BEIP
Natural Resources and Mining	0.1%	-%	-	-%	0.0%	-%
Construction	4.1	-	4.2	-	3.3	-
Manufacturing	8.3	40.6	9.6	76.7	6.5	50.2
Trade, Transportation & Utilities	22.7	6.7	19.4	6.0	18.9	14.6
Information	2.5	9.1	5.0	9.3	2.4	-
Financial Activities	9.8	27.2	10.1	5.5	9.6	-
Professional & Business Services	18.2	14.9	21.9	-	15.3	24.7
Education and Health Services	13.3	1.5	10.6	2.6	15.2	10.5
Leisure & Hospitality	7.4	-	6.6	-	5.9	-
Other Services	5.6	-	4.2	-	5.5	-
Government	8.1	-	8.2	-	17.3	-
Total	100.0%	100.0%	99.7 %	100.0%	99.8%	100.0%

Note: Estimates of total county employment in the Natural Resources and Mining Sector are underestimated or missing for Hudson, Burlington, Mercer, Gloucester, Somerset, and Essex counties due to missing or unreported BEA data. Employment in the Trade, Transportation and Utilities sector is also underreported for Hudson and Essex counties.

Rebate Level

Table II-22 provides the distribution of annual calendar awards by the level of the rebate from 1997 to 2004.¹⁵ The annual average award levels were relatively stable over the life of the program through 2004. The highest average award level was 66.6% in 1999 (19 projects), and the lowest was 61.5% in 2003 (ten projects). There was some decline in the number of annual executed awards in 2003 (ten awards) and 2004 (18 awards) compared to the earlier period, when the annual average of executed awards was 26. This decline possibly reflected, with a lag, the slowdown in the state's economy from the 2001 recession and the slow-growth recovery that followed. Sixty percent of the awards made (110) were in the 50 percent to 70 percent range. However, 50 awards (27.5% of all awards) were at the top rate of 80 percent, with almost all of these highest awards made and executed between 1997 and 2002. No awards were executed at the 80 percent level in 2003, and only four received the highest allowed award level of 80 percent in 2004.¹⁶

Table II-22
Annual Size Distribution of Awards by Rebate Level

Calendar Year	Rebate Level of Award											Total Awards	% of Total	Average Award (%)
	15%	20%	40%	45%	50%	55%	60%	65%	70%	75%	80%			
1997			2		8		6		1		9	26	14.3%	62.7%
1998			3		4		2		2	1	7	19	10.4	63.9
1999	1				2	1	3	1	3		8	19	10.4	66.6
2000			1	1	3	2	5	3	6		9	30	16.5	66.0
2001			1	1	5	3	3	4	2	2	4	25	13.7	62.0
2002		1		1	3	5	3	4	7	2	9	35	19.2	65.4
2003						2	4	3	1			10	5.5	61.5
2004	1			2		4	2	2	1	2	4	18	9.9	61.9
Total	2	1	7	5	25	17	28	17	23	7	50	182	100.0%	64.1%
(% of Total)	(1.1)	(0.5)	(3.8)	(2.7)	(13.7)	(9.3)	(15.4)	(9.3)	(12.6)	(3.8)	(27.5)	(100.0)		

Table II-23 provides the distribution of award size by business sector. Financial activities received the highest average award (71.2%), and the average award level of the pharmaceutical projects within the manufacturing sector was a close second (69.4%).

¹⁵ There was only one executed award by February 2005, the end point of our data, and therefore we discuss the annual award distribution between 1997 and 2004 only.

¹⁶ Note, however, that only ten awards were executed in all of 2003, significantly below the annual average number of executed awards in the previous six years (25.6).

Within the 43 financial activity awards, over half (22) were at the 80 percent level, while six of the 18 pharmaceutical awards were also at the 80 percent cap. The manufacturing and financial sectors accounted for 35 of the 50 awards made at the 80 percent level.

Table II-23
Distribution of Award Rebate Level by Business Sector

Sector	Award Size											Total Awards	% of Total	Average Award (%)
	15%	20%	40%	45%	50%	55%	60%	65%	70%	75%	80%			
Construction					1							1	0.5%	50.0%
Manufacturing	1		3	3	8	11	9	3	7	1	13	59	32.2	61.3
<i>Pharmaceuticals and Medicines</i>						2	3	2	5		6	18	9.8	69.4
Trade, Transportation & Utilities			3	1	8	1	9	2	2	3	4	33	18.0	59.8
Information					2	1	3	5	1	2	3	17	9.3	65.9
Financial Activities		1		1	1	1	4	5	7	1	22	43	23.5	71.2
Professional & Business Services	1		2		3	1	2	2	6		7	24	13.1	63.8
Education and Health Services					1	2	1				1	5	2.7	60.0
Other Services					1							1	0.5	50.0
Total	2	1	8	5	25	17	28	17	23	7	50	183	100.0%	63.9%

Tax Expenditures

Table II-24 examines the tax expenditures of the BEIP program for the 183 approved and executed projects by business sector. The number of jobs created to date and the average salary of these jobs (weighted by the number of jobs) are listed in columns 3 and 4.¹⁷ The average rebate award percentage (weighted for each business sector by the number of jobs) is listed in column 5. As noted previously, New Jersey gross income tax withholding rates at different income levels and for different filing status were applied to the average salary of each business sector and multiplied by the average rebate award to estimate the annual tax expenditure per job (column 6). The final calculation multiplied the average tax expenditure per job by the number of jobs in order to estimate the annual tax expenditure by business sector (column 7).

¹⁷ The average salary is from actual salary data for 129 of the projects and from estimated salaries for 54 of the projects. Note also that Table II-24 provides information on the pharmaceutical sector within the broader manufacturing NAICS supersector.

Table II-24
Average Salary, Average Rebate Level, and Average BEIP Tax Expenditure
Weighted by Number of Jobs

1	2	3	4	5	6	7
Sector	Number of Projects	Jobs Created to Date	Average Salary (\$)	Average Award Percentage	Average Annual Tax Expenditure per Job (\$)	Annual Tax Expenditures (\$)
Natural Resources and Mining	-	-	-	-	-	-
Construction	1	89	33,385	50.0%	284	25,276
Manufacturing	59	14,566	64,481	68.0	1,422	20,712,852
<i>Pharmaceuticals and Medicines</i>	18	9,147	81,377	73.8	1,997	18,266,559
Trade, Transportation & Utilities	33	7,340	35,364	60.9	476	3,493,840
Information	17	4,980	58,791	68.4	1,097	5,463,060
Financial Activities	43	17,281	101,715	76.1	3,119	53,899,439
Professional & Business Services	24	6,754	73,467	68.3	1,661	11,218,394
Education and Health Services	5	421	47,154	63.3	666	280,386
Leisure & Hospitality	-	-	-	-	-	-
Other Services	1	234	17,562	50.0	132	30,888
Government	-	-	-	-	-	-
Total	183	51,665	\$73,017	69.6%	\$1,841	\$95,115,265

Note: 54 of the average wages in the distribution are estimates, rather than actual reported wages.

Note: The average wage, average tax expenditure per job, and average award percentage are weighted by the actual number of jobs created for each project. For this reason, the average award percentages may differ from those listed in other tables.

Note: Column and row totals may not sum due to rounding.

The overall average salary was \$73,017, and the overall average award level across all sectors was 69.6%.¹⁸ This resulted in an average annual tax expenditure per job of \$1,841. The total estimated annual tax expenditure of the 183 projects for the 51,665 jobs created is \$95.1 million. This estimate assumes that all the jobs exist at the salaries estimated over the time period of a full year. Chapter III analyzes the relation of this cost to the state compared with the economic benefits of the BEIP program.

The three highest salary sectors were financial activities (\$101,715), professional and business services (\$73,467), and manufacturing (\$64,481). Within the manufacturing sector, pharmaceuticals had an average salary of \$81,377 based on 9,147 jobs of the 14,566 total jobs supported by BEIP awards in manufacturing.

¹⁸ Note again that these averages are weighted by the number of jobs created in each project by business sector.

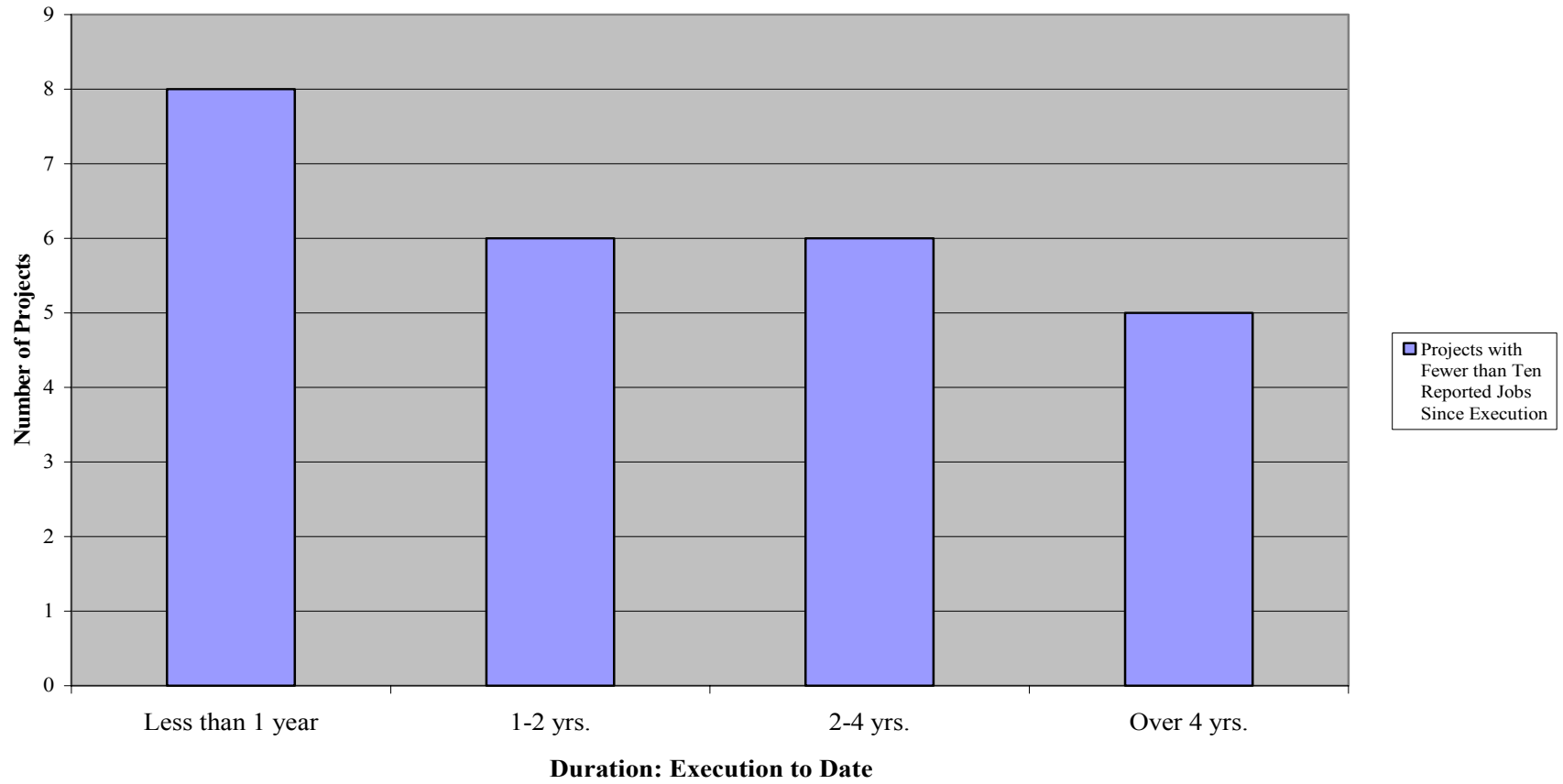
Since the finance sector had the highest average salary and the highest average award level (76.1%), the average annual tax expenditure per job was also the highest of all the sectors (\$3,119). The finance sector also created the largest number of jobs (17,281). As a result, it had the highest annual tax expenditure (\$53.9 million), or 56.7 % of the total annual tax expenditure of the BEIP grants.

The manufacturing sector had the second highest total tax expenditure costs (\$20.7 million, or 21.8% of the total tax costs of BEIP). This was driven, in large part, by the high average salary of the pharmaceutical projects (\$81,377), the high average award level (73.8%) of those projects, and the relatively large number of jobs supported (9,147). The average annual tax expenditure per job in the pharmaceutical projects was \$1,997. Professional and business services accounted for \$11.2 million in annual tax expenditures based on 24 projects with an estimated average salary per job of \$73,467 and an award level of 68.3% covering 6,754 jobs. These three sectors – finance, manufacturing, and professional and business services – accounted for \$85.8 million, or 90%, of total tax expenditures. Significantly lower annual salaries in trade, transportation, and utilities (\$35,364), in information (\$58,791), and in education and health services (\$47,154) resulted in lower tax expenditures per job and lower total annual tax expenditures in these sectors.

Non-Performing Projects

A final analysis examines non-performing projects. There were 29 executed projects that, as of February 2005, had not created ten or more jobs. These projects were not included in the 183 projects analyzed in this chapter. Since February 2005, four of the 29 non-performing projects have created more than ten jobs each, leaving 25 projects in the non-performing status. Thus, of a total of 212 executed BEIP projects between June 1997 and February 2005, only 25 (11.8%) did not generate ten or more jobs. This is a relatively low non-performance rate, and it is worth noting that none of these projects, because of the performance-based nature of the BEIP grants, resulted in any tax expenditures to the state. Figure 1 portrays these 25 non-performing projects according to the length of time since the award was executed. It is noteworthy that 14 of the 25

Figure 1
BEIP Projects with Fewer than Ten Reported Jobs Since Execution



Total Projects With Fewer than Ten Jobs to Date: 25
Total Projects With Fewer than Ten Jobs to Date, but Two Years or Less Since Execution: 14

projects were executed within two years and thus are relatively new awards. Given the considerable start-up time involved in many projects due to the inevitable complexities of business initiatives, a significant number of these 14 projects may ultimately create jobs. Thus, only 11 of the 212 projects (5.1%) are older than two or more years from the signing of their BEIP contract with the NJEDA.

Conclusion

This chapter has provided a systematic review of the characteristics of the 183 BEIP grants made since the inception of the program and February 2005. It is part of the public accountability commitment of the NJEDA with respect to the BEIP awards. The chapter has examined a number of key aspects of the BEIP awards – the award level, the size distribution of the award level, the business sector distribution of the award level, the distribution of BEIP projects by business sector, the spatial distribution of projects within New Jersey, the type of project (relocation, expansion, new business), and the estimated costs, as measured by tax expenditures of the projects by business sector.

The costs to New Jersey of the BEIP awards are sizeable, and a later chapter will attempt to compare these costs to the economic benefits to the state from the jobs that are created and from the private investment expenditures that are required for project approval. The costs of the BEIP awards are sensitive to three key variables – the level of the award, the salary of the jobs, and the number of jobs supported. Recent changes in BEIP protocols will constrain the costs of the program in the future since the number of jobs eligible for the award is capped for new projects at 120% of the original estimate. The level of the award is determined by a formula that can be, and has been, changed over time. The average salary is largely external to the BEIP process and dependent on market conditions in the specific business sectors. However, while higher average salaries raise tax expenditures, higher-paying jobs are also associated with higher economic multipliers in terms of their impact on the broader economy of the state.

Chapter III: Economic Impact Analysis of BEIP Awards

The purpose of this chapter is to provide a comprehensive analysis of the economic impact on New Jersey of the Business Employment Incentive Program. The chapter examines the impact of the 183 approved and executed BEIP awards that have supported at least ten jobs made from the inception of the program in 1997 to February 2005. A typical BEIP project creates new jobs and requires capital outlays for space, equipment, materials, and other supplies. As the project gets under way, new space is constructed or existing space is renovated, new employees receive their salaries, multiple suppliers are paid for equipment and materials, and myriad other outlays associated with a new business initiative occur. All these economic transactions have complex and interrelated effects on the rest of the state's economy, and ripple effects that extend beyond the state's borders.

This chapter estimates these effects in order to assess the importance of the BEIP awards to the state's economy as the program enters its eighth year. Another goal is to contribute rigorous analysis and objectivity into the debate between advocates of state and local business incentives and their critics who argue, at an extreme, that these programs have little influence on business decisions and constitute large and unnecessary expenditures of public resources.¹ The chapter also compares the economic impact of the BEIP awards (in terms of both gross state product and state tax revenues) to the tax expenditures of the program. The core issue of the causality between the incentives the program provides and the jobs it creates is discussed.

The conclusion of our analysis is that the BEIP projects have had a very significant impact on the state's economy. More than 109,000 jobs have been created, total personal income in New Jersey has increased by \$6.6 billion annually, gross state product has risen by \$8.4 billion annually, and state tax revenues have increased by \$349 million annually. In addition, there have been significant one-time economic impacts in

¹ For a recent example of this, at times, intense and contested debate see, "States Pay Steep Price to Attract Industry," Michael Schroeder, *Wall Street Journal*, 29 June 2005.

terms of jobs, income, and state tax revenues due to the substantial capital spending that accompanies BEIP projects.

Economic Input-Output Analysis

The tool of input-output analysis has long been used to estimate the economic effects of a single event (e.g., a new public investment project or a plant closing) on a regional or local economy. Input-output models embody detailed and comprehensive data on value of business transactions, earnings, and employment by individual industries at a national or regional level. From such data, estimates are made of each industry's outputs and the resulting input requirements, and each industry's share of national and regional output. The detailed interrelationships between all industries are also derived so that the effect of changes in one industry (e.g., an increase in production) can be traced in terms of the impact this has on all other industries (both input and output effects), on regional or state income, on taxes at all levels of government, and on regional and national output. The amount of "leakage" of economic activity out of the local or regional economy into the broader national and international economies is also embodied in the model.

Input-output analysis typically estimates two types of effects of any economic change. The *direct impact* is the immediate effect of the one-time expenditures made specifically for the project in question (e.g., in the case of a typical BEIP project, such expenditures would include those purchases needed to renovate space to accommodate new uses) and of the expenditures for the new jobs created directly by the project. *Induced impacts* are all the subsequent effects, via what the models term multiplier effects, on other industries that produce goods and services needed by the project. These induced impacts can be estimated for the one-time purchases associated with the project (e.g., the renovation expenses), and for the ongoing economic activity of the project (e.g., the salaries paid to the new employees of the project who subsequently spend these salaries, annually, on myriad items).

The Edward J. Bloustein School of Planning and Public Policy at Rutgers University has the scholarly capability to perform comprehensive input-output analyses at its Center for Urban Policy Research. The Center has developed one of the most advanced and sophisticated input-output models available, namely, the R/ECONTM Input-Output Model. The model contains 515 industry sectors, and the technology matrix (i.e., the relation between inputs and outputs by industry) is highly disaggregated with region-specific data.

Each BEIP project has its own specific characteristics – the type of industry, its location within New Jersey, the amount spent on capital investment, the type of capital expenditures, and the number of jobs directly supported. Therefore, each BEIP project has its own unique economic impact on the state. Accordingly, the analysis of this chapter uses the R/ECON model, with its detailed 515 industry sectors, to estimate the economic impact on New Jersey of each of the 183 BEIP projects in terms of employment, gross state product, and state and local tax revenues. These estimates, reported below, are the first comprehensive estimates of the collective economic impact on New Jersey of the BEIP grants.

Aggregate Economic Impact of BEIP Projects

The analysis in Chapter II reported that the 183 BEIP projects considered in this report resulted in the creation of 51,665 direct jobs and entailed the expenditure of \$7.7 billion in capital (for renovations, equipment, supplies, materials, and so on). The R/ECON Input-Output Model was used to estimate the economic impact of *each* of the 183 projects, and this section reports the *aggregate* economic impact of all 183 projects. Appendix A of this report provides an individual summary of the economic impact of each project. These individual economic impact analyses are the basis for the aggregated results reported here.

The total economic impact of each project consists of two effects. First, there are the ongoing *annual* economic effects associated with the creation and continuance of the direct jobs (and their salaries) and other annual business expenditures of the project. In

this case, the key issue is that the direct jobs and other economic activities associated with the project *continue* to exist year after year. Second, there are *one-time* economic effects of the capital expenditures associated with the project. The one-time economic effects occur over the time period of the capital expenditures. Thus, if a given BEIP project spends \$10 million for renovation, materials, equipment, and supplies over a three-year start-up period, then the one-time economic impact of these expenditures occurs over the three years. This effect ceases to exist in year four in this example since no further capital expenditures are made in that year.

Table III-1 summarizes these two effects for the 183 projects. The annual economic impact of the BEIP projects has been very substantial by every economic indicator. As a result of multiplier effects, the initial creation of 51,665 direct jobs results in the addition of another 58,089 jobs in the New Jersey economy. More than one additional job (1.12) has been created for each direct job supported by the BEIP awards. A total of 109,754 annual new jobs have been created by the 183 BEIP projects. This increase in jobs represents over two and three-quarters years of average annual employment growth in New Jersey.² It is again important to note that this estimated total increase in annual employment assumes that the 51,665 directly created jobs continue each year at the salary levels actually paid.³

Gross state product, or GSP (the current annual value of all newly produced goods and services in New Jersey), is estimated to have increased by \$8.4 billion annually as a result of the BEIP projects. This estimate is derived from the input-output analysis of all the direct and induced effects on the value-added of the affected industries due to the sustained annual presence of the additional 109,754 jobs and the annual economic activity of the projects. In 2004, gross state product in New Jersey was \$415 billion. Thus, the economic impact of the 183 BEIP projects accounts for over 2% of the entire

² Between 1981 and 2004, the annual average increase in employment in New Jersey was 39,800 jobs.

³ The salary levels for the jobs at the 183 projects are the average salaries paid for 129 of these projects and the estimated average salary (estimates as of the time of the executed award) for 54 projects.

value-added output of the state.⁴ Annual total personal income in New Jersey in 2004 was \$359.9 billion. BEIP projects created \$6.6 billion in new annual personal income, or again about 2% of the statewide total.

State and local tax revenues also increased significantly as a result of the BEIP projects. These effects occur via the additional salaries, consumer spending, and increased business expenditures attributable to the BEIP projects. State tax revenues are estimated to have increased \$349.3 million annually. Local tax revenues rose by \$382.1 million annually.⁵

Table III-1
Economic Impacts of Executed BEIP Projects

	Annual Impacts¹	One-Time Impacts²
Direct Employment	51,665	75,203
Induced Employment	58,089	35,840
Total Employment	109,754	111,043
Total Income (\$ millions)	6,554.5	5,120.8
Gross State Product (\$ millions)	8,365.6	6,639.7
State Tax Revenue (\$ millions)	349.3	233.2
Local Tax Revenue (\$ millions)	382.1	252.6

1. Figures reflect ongoing annual impacts assuming retention of all actual jobs created to date at estimated wage levels for each project. That is, each year that the 51,665 directly created jobs exist, interactions with other sectors of the economy will result in the continued existence of 58,089 additional jobs, and will generate \$8.4 billion in gross state product and \$731.4 million in state and local tax revenues.

2. Figures reflect one-time total impacts of estimated project investments based on the NAICS sector and county of each project. The employment for these impacts is measured in job-years. That is, each job created is presumed to exist for one year based on the magnitude of the project investment. These impacts are separate and in addition to the annual impacts, and occur over the period of time of the capital investment expenditures of each project.

⁴ Again, this assumes that all 51,655 jobs existed in 2004 and were paid at the reported actual or estimated salaries.

⁵ Local tax revenues exceed state income tax revenues largely due to the relatively high property taxes in New Jersey. For most taxpayers, their local property tax obligation exceeds their state income tax obligation.

The one-time economic impacts are also given in Table III-1 and indicate an additional 111,043 job-years were created by the BEIP projects.⁶ This total consisted of 75,203 direct job-years as a result of the expenditure of the \$7.7 billion for capital, plus an additional 35,840 job-years due to the multiplier effect of the direct jobs.⁷ In addition, gross state product increased by \$6.6 billion, state tax revenues rose by \$233.2 million, and local tax revenues grew by \$252.6 million.

In order to place these one-time economic impact estimates in the context of the annual impact estimates, assume that it takes ten years to spend the \$7.7 billion for the capital needs of the 183 projects. This implies that in any one year, one-tenth of the employment, the GSP, and the tax revenues of the total one-time economic impacts will be realized. These one-tenth shares can be added to the annual impacts to obtain an estimate of the combined total annual economic effects of the BEIP projects. For example, the ten-year capital expenditure of \$7.7 billion results in 11,104 job-years in any given year of the ten-year period. If we add this to the 109,754 annual impact job increase (assuming all 51,665 direct jobs continue to exist), then a total of 120,858 jobs in New Jersey in this one year can be attributed to the 183 BEIP projects. Similarly, by adding the one-tenth shares of the one-time economic impacts of the other indicators, the annual increase in GSP is \$9 billion, annual state tax revenues rise to \$372.6 million, and annual local tax revenues are \$407.4 million.

Economic Impact by Business Sector

Table III-2 disaggregates the economic impact of the BEIP projects by business sector. The largest impacts are attributable to the financial activities sector. As noted in Chapter II, this sector has the highest average salary (\$101,715) and was responsible for the largest number of direct jobs (17,281). It also accounts for 18,158 induced jobs associated with the 43 BEIP projects in this sector. As a result, the BEIP projects in the

⁶ Note that these are job-years and are the result of the one-time expenditure of \$7.7 billion for capital associated with the 183 projects. The 111,043 job-years occur over the time period needed to spend the \$7.7 billion. Thus, if it took ten years to spend the \$7.7 billion, then in any one-year 11,104 jobs would be created (for that year only), assuming the capital expenditures are spread evenly across the ten years.

⁷ The job multiplier effect of the one-time capital expenditures is only .47 and is considerably less than the 1.12 job multiplier of the annual impacts.

financial activities sector generate the largest annual increase in gross state product, \$3.1 billion, or 37% of the total annual increase in GSP. The financial activities sector is also responsible for the largest increase in annual state tax revenues (\$126.5 million) and annual local tax revenues (\$140.1 million).

Table III-2
Annual Economic Impacts of BEIP Projects by Business Sector

Sector	Gross State Product (\$ millions)	State Tax Revenue (\$ millions)	Local Tax Revenue (\$ millions)	Employment		Induced/Direct Employment Ratio
				Direct	Induced	
Financial Activities	3,127.0	126.5	140.1	17,281	18,158	1.05
Manufacturing	2,873.8	113.1	130.5	14,566	23,904	1.64
Professional and Business Services	938.9	32.2	34.3	6,754	5,584	0.83
Information	855.8	34.9	41.0	4,980	7,366	1.48
Trade, Transportation and Utilities	528.3	41.1	34.6	7,340	2,853	0.39
Education and Health Services	28.7	1.0	1.0	421	148	0.35
Other Services	7.9	0.3	0.3	234	54	0.23
Construction	5.2	0.2	0.2	89	22	0.25
Total	8,365.6	349.3	382.1	51,665	58,089	1.12

Note: Table III-2 allocates direct and induced employment, GSP and tax revenues based on the *originating* business sector of each project.

It is important to note, in general, that the induced jobs column in Table III-2 indicates the number of other jobs that result because of the BEIP projects in each sector. The induced jobs are *not* only the number of induced jobs in that sector. Rather, the induced jobs are the total number of other jobs in *all* sectors that result from the multiplier effects of the direct jobs. Thus, in the case of financial activities, a total of 18,158 other jobs are created because of the finance projects, but these jobs, attributable for their origin to the financial activities sector, are actually distributed over all the business sectors according to the specific multiplier effects of the direct finance jobs and associated economic activity of the finance projects. These induced jobs will persist each year as a result of the continued presence of the 51,655 direct jobs. The distribution of the induced jobs by the actual type of jobs created is analyzed subsequently in Table III-3.

In Table III-2, BEIP projects in the manufacturing sector, with its relatively high average salary in the pharmaceutical component (\$81,377), had the second highest impact on gross state product (\$2.9 billion annually). These projects were also responsible for the second highest increase in annual state taxes (\$113.1 million) and in annual local taxes (\$130.5 million). The sector also generated the highest number of induced jobs (23,904) due to the input requirements of manufacturing for other manufactured goods compared to the input requirements of service jobs such as financial activities.⁸

These two sectors, financial activities and manufacturing, which represented 56% of the 183 projects, are responsible for 67% of the total direct and induced jobs, 72% of the total annual increase in gross state product, and 69% of the increase in annual state tax revenues attributable to all the BEIP projects. The order of the economic impact in terms of gross state product and taxes of the remaining sectors generally follows the direct employment and salary levels of the sectors. In terms of induced jobs, the information sector had the highest effect of these remaining sectors (7,366 additional jobs) and was the only sector, other than financial activities and manufacturing, whose ratio of induced to direct jobs exceeded one (1.48).

The R/ECON Input-Output model is able to assign the induced jobs that result from the BEIP project in the originating business sector according to the sector of the job that is actually created by the multiplier effect.⁹ Table III-3 provides the distribution of the 58,089 induced jobs according to the type of job created (not according to the originating sector responsible for these jobs, as listed in Table III-2).¹⁰ Thus, column 2 of Table III-3 repeats the direct jobs created by sector that appeared in Table III-2. Column

⁸ Note that manufacturing has the highest ratio (1.64) of induced jobs to direct jobs as indicated in the last column of Table III-2.

⁹ The model allocates these jobs into Standard Industrial Classification codes. We have subsequently assigned them, as closely as possible, to the NAICS supersectors.

¹⁰ As noted in Table III-3, the R/ECON Input-Output model allocates induced jobs to somewhat broader business sectors compared to our analysis of direct jobs. Thus, the *services* sector in Table III-3 includes the NAICS sectors of business and professional services, information, education and health services, and other services.

3, however, provides the distribution of the 58,089 induced jobs by the business sector *in which the induced jobs are created*.

Table III-3
Annual Employment Impacts of BEIP Projects by Business Sector

1	2	3	4
Sector	Direct	Induced	Total
Trade, Transportation and Utilities	7,340	26,013	33,353
Financial Activities	17,281	8,239	25,520
Manufacturing	14,566	8,352	22,918
Services ¹	7,409	12,724	20,133
Information	4,980	-	4,980
Government	0	1,325	1,325
Natural Resources and Mining	0	766	766
Construction	89	671	760
Total	51,665	58,089	109,754

Note: While Table III-2 allocates all employment based on the NAICS supersector of each project, Table III-3 allocates the induced employment according to the SIC sectors in which it is generated. Because the NAICS and SIC sectors do not correspond symmetrically with one another, the SIC categories have been consolidated to approximate the NAICS categories as closely as possible. The Natural Resources and Mining sector in Table III-3 consists of the SIC categories Agriculture; Agricultural Services, Forestry and Fishing; and Mining. The Services category is comprised of the NAICS supersectors professional and business services, education and health services, and other services. In addition, because there is no information sector in the SIC breakdown, induced employment in the Information sector is distributed between the Trade, Transportation and Utilities sector and the Services sector.

Note: Sectors may not sum to totals due to rounding.

The largest component of induced jobs occurs in trade, transportation, and utilities (26,013 jobs, or nearly 45% of the 58,089 total induced jobs). This is due largely to the consumer spending effect of the multiplier process in all the BEIP projects manifesting itself in increased retail and wholesale trade activities. As a result, trade, transportation, and utilities jobs comprise 33,353, or 30%, of the overall total of 109,754 direct and induced jobs.

The broadly defined services category has the second highest number of induced jobs (12,724), or 22% of the total number of induced jobs. Financial activities with 8,239 induced jobs, and manufacturing with 8,352 induced jobs, are the next highest sectors.

These three sectors each account for over 20,000 jobs in the overall total of 109,754 direct and induced jobs.

Income Effects

The salary level of the jobs created is an important determinant of the overall economic impact of the BEIP projects. Table III-4 provides estimates of the annual average pay in New Jersey in 2004 by business sector. The overall statewide average across all business sectors is \$48,042. Significantly higher levels of pay occur in the manufacturing sector (\$59,134), information (\$72,468), financial activities (\$74,789), and professional and business services (\$58,018). These are the same sectors where the BEIP projects are concentrated.

The input-output analysis captures the effect of income as it is spent and re-spent through the various economic sectors in a complex interrelated manner. The higher the salaries of the jobs generated, the greater the economic impact. Table III-5 lists the average salary of the direct jobs created by the BEIP projects by business sector and also the average salary of the induced jobs created by the projects according to the business sector of those induced jobs.¹¹ For example, there are 26,013 induced jobs in the trade, transportation, and utilities business sector. As noted in the discussion of Table III-3, this is the sector with the highest number of induced jobs. These jobs are generated by the multiplier effect of all 51,665 direct jobs of the 183 BEIP projects and the associated economic activity of those projects. The induced jobs in trade, transportation, and utilities have an average annual salary of \$40,742, somewhat below the average salary level of all induced jobs (\$47,893) and significantly below the \$73,017 average salary of all the direct jobs created by the BEIP projects. Within this broad sector of trade, transportation, and utilities, retail trade is the largest subcomponent, with 14,167 induced jobs that result from the increases in consumer spending out of the relatively high annual salary levels of the 51,665 direct jobs. Transportation and utilities are responsible for an

¹¹ The income data for Table III-5 are from the actual salaries paid to the direct jobs by business sector as reported by the BEIP project review and monitoring process. The income data in Table III-5 for the induced employment by business sector are derived from the R/ECON Input-Output model. The income data in Table III-4 are from the U.S. Bureau of Labor Statistics, *Quarterly Census of Employment and Wages*.

additional 7,634 induced jobs at an average salary of \$58,813 within the broad trade sector.

Table III-4
Average Annual Pay by Selected NAICS Sector, 2004
New Jersey

	Average Annual Pay¹
Total Nonfarm	\$48,042
Total Private Sector	47,608
Goods Producing	55,959
Natural Resources and Mining	28,740
Construction	51,320
Manufacturing	59,134
Private Service-Providing	46,066
Trade, Transportation, & Utilities	41,446
Wholesale Trade	64,907
Retail Trade	28,410
Transportation, Warehousing, and Utilities	41,446
Utilities	80,045
Transportation and Warehousing	42,051
Information	72,468
Financial Activities	74,789
Finance and Insurance	82,604
Real Estate and Rental and Leasing	47,621
Professional and Business Services	58,018
Professional and Technical Services	72,643
Management of Companies and Enterprises	102,114
Administrative and Waste Services	32,236
Education and Health Services	41,065
Educational Services	37,449
Health Care and Social Assistance	41,567
Leisure and Hospitality	20,065
Arts, Entertainment, and Recreation	26,546
Accommodation and Food Services	18,912
Other Services	30,565
Government	50,412

¹Note: Average annual pay is representative of private employment pay in each respective industry; however, the three government sectors include no private employment pay and the "all industries" category includes both private and government average annual pay.

Source: *Quarterly Census of Employment and Wages*, U.S. Bureau of Labor Statistics.

The second largest category of induced jobs is services, with 12,724 new jobs at an average salary of \$30,763. This category includes the induced service job effects in a

broad range of areas – business and professional services, education and health services, leisure and hospitality, and other services. The induced job increases are mostly in the lower-paying service areas within these sectors as distinct from the relatively higher salary levels of the direct jobs in the services sector created by the BEIP projects (7,409 jobs at an average salary of \$70,206). There are 8,352 induced jobs in manufacturing with an average salary of \$69,397 and 8,239 induced jobs in finance at an average salary of \$72,216. The average salary in each of these two job categories significantly exceeds the overall average salary of all induced jobs of \$47,893.

**Table III-5
Average Salary by Industry for Direct, Induced, and Total Annual Employment**

Sector	Direct Employment		Induced Employment		Total Employment	
	Employment	Average Salary (\$)	Employment	Average Salary (\$)	Employment	Average Salary (\$)
Natural Resources and Mining	-	-	766	16,675	766	16,675
Construction	89	33,385	671	52,030	760	49,846
Manufacturing	14,566	64,481	8,352	69,397	22,918	66,272
Trade, Transportation and Utilities	7,340	35,364	26,013	40,742	33,353	39,559
<i>Transportation and Utilities</i>	737	53,778	7,634	58,813	8,371	58,369
<i>Wholesale</i>	2,642	38,168	4,211	68,593	6,853	56,864
<i>Retail Trade</i>	3,961	30,067	14,167	22,726	18,128	24,330
Information	4,980	58,791	-	-	4,980	58,791
Financial Activities	17,281	101,715	8,239	72,216	25,520	92,191
Services	7,409	70,206	12,724	30,763	20,133	45,278
Government	-	-	1,325	81,960	1,325	81,960
Totals	51,665	73,017	58,089	47,893	109,754	59,720

Note: Induced and total jobs and income are allocated according to the sector in which they are generated. Because the NAICS and SIC sectors do not correspond symmetrically with one another, the SIC categories have been consolidated to approximate the NAICS categories as closely as possible. The Natural Resources and Mining sector in Table III-5 consists of the SIC categories Agriculture; Agricultural Services, Forestry and Fishing; and Mining. The Services category is comprised of the NAICS supersectors Professional and Business Services, Education and Health Services, and Other Services. In addition, because there is no Information sector in the SIC breakdown, induced employment in the Information sector is distributed between the Trade, Transportation and Utilities sector and the Services sector.

Table III-6 provides estimates of the annual direct, induced, and total income effects of the BEIP projects by business sector. The increase in annual total personal income in New Jersey of all the BEIP projects is \$6.6 billion. The financial activities sector has the largest total annual income effect (\$2.4 billion), reflecting its dominance in direct jobs and the very high average salary of those jobs. Manufacturing is second with a total annual income effect of \$1.5 billion. This is attributable to the relatively large

number of direct jobs in manufacturing at a high average salary plus a significant number of induced jobs, also at a relatively high average salary.

Table III-6
Total Income Increases

Sector	Total Income		
	Direct (\$ millions)	Induced (\$ millions)	Total (\$ millions)
Natural Resources and Mining	-	12.8	12.8
Construction	3.0	34.9	37.9
Manufacturing	939.2	579.6	1,518.9
Trade, Transportation and Utilities	259.6	1,059.8	1,319.4
<i>Transportation and Utilities</i>	<i>39.6</i>	<i>449.0</i>	<i>488.6</i>
<i>Wholesale</i>	<i>100.8</i>	<i>288.9</i>	<i>389.7</i>
<i>Retail Trade</i>	<i>119.1</i>	<i>322.0</i>	<i>441.1</i>
Information	292.8	-	292.8
Financial Activities	1,757.7	595.0	2,352.7
Services	520.2	391.4	911.6
Government	-	108.6	108.6
Totals	3,772.4	2,782.1	6,554.5

Note: Induced and total income are allocated according to the sector in which they are generated. Because the NAICS and SIC sectors do not correspond symmetrically with one another, the SIC categories have been consolidated to approximate the NAICS categories as closely as possible. The Natural Resources and Mining sector in Table III-6 consists of the SIC categories Agriculture; Agricultural Services, Forestry and Fishing; and Mining. The Services category is comprised of the NAICS supersectors Professional and Business Services, Education and Health Services, and Other Services. In addition, because there is no Information sector in the SIC breakdown, induced employment in the Information sector is distributed between the Trade, Transportation and Utilities sector and the Services sector.

Trade, transportation, and utilities had a relatively small direct annual income effect (\$260 million), reflecting relatively few BEIP projects (33) and a relatively low average salary (\$35,364) for the direct jobs of these projects. However, its total annual induced income effect is \$1.1 billion and is the highest among all the sectors. This is due to the large induced employment impact in this sector (26,013 jobs) from the economic ramifications of the significant consumer spending that results from all the direct jobs of the 183 projects plus the consumer spending from all the other induced jobs. The total annual income effect of the BEIP projects is \$6.6 billion, with 42% of that total attributable to induced income.

One-Time Economic Impacts by Business Sector

Table III-7 disaggregates the aggregate economic impact of \$7.7 billion in capital expenditures of the BEIP projects. Capital expenditures are required by the BEIP protocols and are an inevitable part of new business initiatives. The expenditures are for new space, renovated space, equipment, supplies, and related start-up materials. The economic impact of these expenditures occurs during the time period when they are made and does not extend beyond that.

Table III-7
One-Time Economic Impacts of BEIP Projects by Business Sector

Sector	Total Investment (\$ millions)	Gross State Product (\$ millions)	State Tax Revenue (\$ millions)	Local Tax Revenue (\$ millions)
Construction	2.0	1.7	0.1	0.1
Manufacturing	1,268.0	1,141.7	39.2	42.3
Trade, Transportation and Utilities	624.6	545.2	19.1	20.6
Information	1,703.7	1,460.3	51.6	55.8
Financial Activities	2,946.3	2,521.1	89.0	96.7
Professional and Business Services	1,017.9	872.0	30.8	33.5
Education and Health Services	102.7	89.7	3.2	3.4
Other Services	8.2	7.5	0.3	0.3
Total	7,673.4	6,639.2	233.2	252.6

Note: Table III-7 allocates investment, GSP, and tax revenues based on the *originating* business sector of each project.

In general, the impacts follow the size of the capital expenditures by sector. Financial activities, with the largest amount of capital expenditures, generate a total increase of \$2.5 billion in gross state product, \$89 million in state tax revenues, and \$96.7 million in local tax revenues. The information sector has the second greatest impact and is responsible for a total increase of \$1.5 billion in gross state product, \$51.6 million in state tax revenue, and \$55.8 million in local tax revenue. Manufacturing has the third largest impact, leading to a total increase of \$1.1 billion in gross state product, \$39.2 million in state tax revenue, and \$42.3 million in local tax revenue. Together, these three sectors account for approximately 77% of the total economic impact as measured by the three indicators of Table III-7 – gross state product, state tax revenues, and local tax revenues.

The employment effects of the one-time capital expenditures are given by business sector in Table III-8. The employment effects are measured by the job-years generated in each specific business sector (not the originating sector of the capital expenditures).¹² For example, and as expected, the expenditure of \$7.7 billion (a large share of it for new and/or renovated space) generates the largest employment effect in the construction industry. A total of 49,677 construction job-years are created, or 45% of the total increase of 111,041 job years. The second largest one-time employment effect occurs in trade, transportation, and utilities with an increase of 20,850 job years. The manufacturing sector (as a result of the purchase of equipment, supplies, and materials from the \$7.7 billion in expenditures) adds 19,513 job years.

Table III-8
One-Time Employment Impacts of BEIP Project Investments by Business Sector

Sector	Total
Natural Resources and Mining	1,057
Construction	49,677
Manufacturing	19,513
Trade, Transportation and Utilities	20,850
Financial Activities	4,235
Services	15,500
Government	209
Total	111,041

Note: While Table III-7 allocates investment, GSP, and tax revenues based on the originating NAICS supersector of each project, Table III-8 allocates total one-time employment impacts (both direct and induced) according to the sectors into which the job-years generated by the investments fall. Because the NAICS and SIC sectors do not correspond symmetrically with one another, the SIC categories have been consolidated to approximate the NAICS categories as closely as possible. The Natural Resources and Mining sector in Table III-8 consists of the SIC categories Agriculture; Agricultural Services, Forestry and Fishing; and Mining. The Services category is comprised of the NAICS supersectors Professional and Business Services, Education and Health Services, and Other Services. In addition, because there is no Information sector in the SIC breakdown, induced employment in the Information sector is distributed between the Trade, Transportation and Utilities sector and the Services sector.

Note: These employment figures are measured in job-years. That is, each job created is presumed to exist for one year based on the magnitude of the project investment.

¹² Recall the earlier discussion concerning the temporal dependence of one-time expenditures. The economic impact of one-time expenditures occurs over the time period in which they are made. Thus, if all \$7.7 billion were spent in one year, then for that single year, 111,041 jobs would be created. Hence, the impact is expressed as 111,041 job-years. (Note: Due to rounding, when broken down by sector, this total differs by two job-years from the aggregate total reported in the analysis of Table III-1.) In actuality, this total of job-years would occur over the time period of actual expenditures. If, as we have used in a prior example, it took ten years to spend the \$7.7 billion (in equal amounts), then in any one of these ten years, 11,104 jobs (job-years) would be created.

Fiscal Balance Estimates

Table III-9 provides a comparison between the annual economic impact of the BEIP awards and the tax expenditure costs of the program. From the analysis in Chapter II, the estimated total annual tax expenditure of the BEIP grants for the 183 awards considered in this report is \$95.1 million.¹³ The annual increase in gross state product resulting from the BEIP projects, counting both direct and induced effects, is \$8.4 billion. Thus, the ratio of the increase in gross state product to the additional tax expenditures of the BEIP projects is approximately 88. In other words, for each tax dollar spent, New Jersey's gross state product increases by \$88.

Table III-9
Total Annual Fiscal Balance of BEIP Projects

Total Gross State Product Generated	\$8.4	billion
Total State Tax Revenue Generated	\$349.3	million
Total Tax Expenditures	\$95.1	million
GSP/Tax Expenditure Ratio	88.0	
Tax Revenue/Tax Expenditure Ratio	3.7	
Net Benefit (Tax Revenue less Tax Expenditure)	\$254.2	million

Annual state tax revenues are estimated to increase by \$349.3 million from the direct and induced economic impact of the 51,655 jobs created by the BEIP projects. The ratio of state tax revenues to state tax expenditures is 3.7, indicating for each state tax dollar spent on the 183 BEIP awards, state tax revenues increase by \$3.70. The annual net increase in state tax revenues (annual tax revenues minus annual tax expenditures) is \$254.2 million. Moreover, the benefit-cost ratios of Table III-9 are understated because they do not include the annualized benefits of the one-time capital expenditures. Assuming a ten-year expenditure period for the \$7.7 billion in capital investments results in an increase of one-tenth of the estimated total one-time benefits (see Table III-7) to the annual benefits listed in Table III-9. This causes the benefit-cost ratio for gross state product to increase to 94.9 and the ratio for state tax revenues to rise to 3.9.

¹³ This is the result of 51,655 direct jobs supported by the BEIP awards at an average salary of \$73,017 and an average award of 69.6%, resulting in an average tax expenditure per job of \$1,841 (see Table II-24 in Chapter II).

Table III-10 provides the fiscal balance data for the BEIP projects by business sector. Column 5 lists the annual net state tax benefits (state tax revenues minus state tax expenditures) by sector. The manufacturing sector has the highest annual net state tax benefit of \$92.4 million, and the financial activities sector is second, with \$72.6 million. These two sectors account for 65% of the total annual net state tax benefits. These are the same leading sectors that dominate the economic impacts due to the large number of projects and the relatively high average salaries. However, Table III-10 reveals that the trade, transportation, and utilities sector has the next highest annual net state tax benefits, \$37.6 million. This is the result of the significant increase in state tax revenues due to consumer spending and the resulting large number of induced jobs created in this sector. This condition, combined with low tax expenditures for the direct jobs supported in trade, transportation, and utilities due to the relatively low salaries of those jobs, results in a high net tax benefit to the state.

Table III-10
Annual Fiscal Balance of BEIP Projects by Business Sector

1	2	3	4	5	6	7
Sector	Gross State Product (\$ millions)	State Tax Revenue (\$ millions)	Tax Expenditures (\$ millions)	Net Benefit (\$ millions)	GSP/Tax Expenditure Ratio	Tax Revenue/ Tax Expenditure Ratio
Financial Activities	3,127.0	126.5	53.9	72.6	58.0	2.3
Manufacturing	2,873.8	113.1	20.7	92.4	138.7	5.5
Professional and Business Services	938.9	32.2	11.2	21.0	83.7	2.9
Information	855.8	34.9	5.5	29.4	155.6	6.3
Trade, Transportation and Utilities	528.3	41.1	3.5	37.6	150.9	11.7
Education and Health Services	28.7	1.0	0.3	0.7	95.7	3.3
Other Services ¹	7.9	0.3	0.0	0.3	256.3	9.7
Construction	5.2	0.2	0.0	0.1	205.8	7.9
Total	\$8,365.6	\$349.3	\$95.1	\$254.2	88.0	3.7

Note: The totals for the GSP/Tax Expenditure ratio and the Tax Revenue/Tax Expenditure ratio represent the weighted averages of all 183 executed projects, rather than the simple average of the individual sector ratios.

Note: Table III-10 allocates investment, GSP and tax revenues based on the originating business sector of each project.

1. The annual tax expenditure for the Other Services and Construction sectors appear as zero because they are less than \$100,000. The actual tax expenditure figures are \$30,821 for the Other Services sector and \$25,263 for the Construction sector.

The ratio of gross state product to tax expenditures is given in Column 6 of Table III-10. All the sectors indicate a very significant return to the state from the BEIP

projects in terms of gross state product. The financial activities sector, with the highest tax expenditures of all the sectors (\$53.9 million) due to the high average salary of the jobs supported by BEIP, the high average rebate level for financial activities projects, and the large number of direct jobs supported, nevertheless has a gross state product-to-tax expenditure ratio of 58. The ratios for all the other business sectors are even higher. The ratios for information (155.6), trade, transportation, and utilities (150.9), and manufacturing (138.8) are particularly noteworthy.

Column 7 of Table III-10 provides the ratio of state tax revenues to state tax expenditures by business sector. The trade, transportation, and utilities sector has the highest ratio (11.7), which again results from the relatively low tax expenditures and the especially high tax revenues generated in this sector due to the multiplier effects of the consumer spending caused by the general economic impact of all the BEIP projects. All of the major business sectors have state tax ratios exceeding a value of one. Information has a ratio of 6.3, indicating that \$6.30 in state tax revenue is generated for each tax dollar spent on BEIP awards in that sector. The manufacturing sector has a ratio of 5.5. The financial activities sector, with its relatively high tax expenditures, has the lowest ratio (2.3). Nevertheless, this still indicates a return to the state in tax revenues of \$2.30 for each dollar spent on BEIP rebates for this sector.

Causality and State Business Incentive Programs

The conclusion from the analysis of Table III-10 is a strong one. Namely, the BEIP program results in very significant economic benefits to the state, in terms of both the broader state economy (i.e., gross state product) and the narrow dimension of net state tax revenues. Both indicators – gross state product and state tax revenues – show impressively large benefits per state tax dollar spent.

This conclusion, however, leads us back to a fundamental issue with respect to state incentive programs: namely, do they really make a difference in business decisions? If all 51,655 direct jobs supported by the 183 BEIP awards are attributable to the awards (i.e., those jobs would *not* be in New Jersey in the absence of the BEIP awards), then

Table III-10 gives the best available state-of-the-art economic estimates of the returns to the state of the BEIP program per dollar spent. However, if some part of that total number of jobs would actually have located in New Jersey even without the associated BEIP awards, then the ratios in Table III-10 overestimate the returns to the state per tax dollar spent.

The answer to the basic question of how effective business incentives are in actually influencing business location and expansion decisions is likely to remain elusive despite the best efforts of cleverly designed surveys, extensive interviews, and sophisticated econometric techniques. However, given the magnitude of the benefit-to-cost ratios estimated here, there is a wide range of flexibility in terms of assessing the net effectiveness of the BEIP awards. One way to present this is to calculate the percentage of the total jobs supported by the BEIP awards that, if solely attributable to the BEIP awards, would still lead to, at the least, a neutral return per tax dollar spent (i.e., a benefit-to-cost ratio of one). Moreover, in order to take the most conservative approach, we estimate this percentage in terms of the BEIP effects on state tax revenues and not in terms of the program's broader impact on gross state product (where the average ratio of gross state product per tax dollar spent is 88).

Thus, if only 27.2% of the 51,665 direct jobs supported by BEIP were actually located in New Jersey because of the BEIP awards (i.e., the other 72.8% of the jobs would have located in New Jersey anyway with or without BEIP), the state tax revenue to state tax expenditure ratio would be one, indicating tax neutrality. That is, the state would receive back \$1 in tax revenue for each tax dollar of BEIP expenditure. More generally, if only one job out of approximately every 3.7 jobs supported by BEIP exists in New Jersey *because* of BEIP, then the program would still be state tax neutral.

Finally, the above analysis does not account for the reality of our federated system of 50 sovereign states, with each state competing with all others (as well as competing with foreign countries) for economic activity. It is simply unrealistic and politically naïve to expect any single state not to engage in competition using business incentives

when all the other states are doing so. While we conclude that New Jersey needs to compete with other states in terms of having and using business incentives, the net efficiency effect for the country as a whole (i.e., the national benefit-cost outcome) of having 50 states engaging in such tax-supported competition is problematic.

However, in the absence of a federal ban on such interstate competition using state business incentives, or the elimination of our federated system of government, New Jersey must have, and use, effective business incentive programs. The analysis of this chapter indicates that the BEIP projects, where the tax rebates are conditional upon the *actual* employment performance of the businesses receiving assistance and not on the promise of such performance, return significant net economic benefits to the New Jersey economy and its taxpayers.

Chapter IV: Analysis of Fiscal 2005 BEIP Awards

This chapter provides a profile of the 88 BEIP awards approved in fiscal year 2005 and estimates their potential economic impact on the New Jersey economy. The analysis of Chapter III estimated the economic impact of the 183 approved and executed awards that occurred between the inception of the program in 1997 and February 2005. This chapter focuses on only those awards approved (but not necessarily executed) in state fiscal year 2005.¹ Since these are relatively recently approved awards, their economic impact lies mainly in the future. Thus, the economic impact estimates here are based on *projected* job creation and *projected* investment expenditures rather than, as was the case in Chapter III, *actual* jobs created and investment expenditures.²

General Characteristics

Table IV-1 lists the 88 BEIP projects by business sector and by employment total. The 88 projects are estimated to create 12,318 jobs. If that total is actually reached, it would represent about 30% of a typical year's employment growth in New Jersey.

The manufacturing sector has the most projects (36), and these are expected to generate 4,289 jobs, or nearly 35% of the total employment. The professional and business services sector has 18 projects with 2,515 jobs, representing 20% of total employment. The financial activities sector, with 14 projects, represents 16% of all the projects but is expected to generate a disproportionate 32% of total employment (3,926). These three sectors received 77% of the awards and will generate nearly 87% of the jobs.

¹ There are three projects that overlap between the two groups (i.e., three projects in the 88 awards in FY 2005 were executed and had created at least ten jobs by February 2005, and hence were also included in the 183 projects analyzed in Chapter II).

² It is possible, of course, that some of the 88 approved projects will not reach their projected job totals (projected as of the time of application) and projected investment expenditures. However, it is worth noting that there were 44,259 total expected jobs for the 183 projects analyzed in Chapter II. The actual total of jobs created was 51,665, or 16.7% higher than projected. Some BEIP projects created more jobs than initially estimated and others less, but in the aggregate, the total of actual jobs created exceeded the projected jobs. A similar relation can reasonably be expected for the 88 BEIP projects awarded in FY 2005.

Table IV-1
FY 2005 BEIP Projects by Business Sector

Sector	No. of Projects	% of all Projects	Estimated Employment	% of Total Employment
Manufacturing	36	40.9	4,289	34.8
Durable Goods	11	12.5	2,684	21.8
Nondurable Goods	25	28.4	1,605	13.0
<i>Pharmaceuticals and Medicines</i>	6	6.8	558	4.5
Professional & Business Services	18	20.5	2,515	20.4
Financial Activities	14	15.9	3,926	31.9
Trade, Transportation & Utilities	12	13.6	849	6.9
Retail Trade	6	6.8	478	3.9
Wholesale Trade	5	5.7	328	2.7
Transportation & Warehousing	1	1.1	43	0.3
Information	6	6.8	620	5.0
Other Services	1	1.1	94	0.8
Education and Health Services	1	1.1	25	0.2
Total	88	100.0	12,318	100.0

Table IV-2 compares the distribution of the employment by business sector from the BEIP projects to the overall distribution of employment in New Jersey. The three sectors discussed above are all significantly overrepresented in the BEIP projects compared to their share in total New Jersey employment. Manufacturing jobs comprise only 8.5% of total employment in the state but are nearly 35% of the BEIP jobs. Professional and business services jobs are 14.5% of all New Jersey jobs but 20.4% of the BEIP jobs. Financial activities, with only 7% of total jobs in the state, have nearly 32% of the BEIP jobs. These three sectors are characterized by above average salaries and, as a result, these projects will generate significant economic benefits for the state.³

³ The average salary in New Jersey in 2004 was \$48,042. The average salary in manufacturing was \$51,320; professional and business services, \$58,018; and finance, \$74,789 (*Source: Quarterly Census of Employment and Wages*, U.S. Bureau of Labor Statistics).

Table IV-2
Total State Employment Distribution vs. FY 2005 BEIP Employment Distribution
(New Jersey figures based on 2003 data)

Sector	New Jersey	BEIP
Natural Resources and Mining	%	-%
Construction		-
Manufacturing	8.5	34.8
<i>Pharmaceuticals and Medicines</i>	1.0	4.3
Trade, Transportation & Utilities	21.9	6.9
Information	2.5	5.0
Financial Activities	6.9	31.9
Professional & Business Services	14.5	20.4
Education and Health Services	13.7	0.2
Leisure & Hospitality	8.2	-
Other Services	3.9	0.8
Government	15.8	-
Total	100.0%	100.0%

Source: U.S. Bureau of Labor Statistics.

BEIP awards are underrepresented with respect to the state's employment shares in trade, transportation, and utilities, education and health services, and other services. All these sectors have lower than average salaries. Thus, the focus of the BEIP awards in fiscal year 2005 was on business sectors with higher-than-average pay and therefore with disproportionately higher benefits to the New Jersey economy.

Employment Size and Investment

Table IV-3 provides the distribution of the 88 projects by the number of jobs created and the estimated investment expenditures. Nearly 70% of the projects involve small businesses (i.e., projects that create between 10 and 99 jobs). These 60 projects will create 2,839 jobs, or 23% of all jobs. They account for \$383.6 million of the investment expenditures, or 43.3% of total investment. Thus, the BEIP program has continued in fiscal year 2005 to be responsive to small projects and small businesses.

Table IV-3
Distribution of FY 2005 BEIP Projects by Employment Size and Investment

No. of Jobs	No. of Projects	Pct. of Projects	Total Jobs	Jobs per Project	Pct. of Total Jobs	Project Investment (\$)	Investment per Project (\$)	Pct. of Total Project Investments
10-99	60	68.2%	2,839	47	23.0%	383,573,604	6,392,893	43.3%
100-199	14	15.9	1,763	126	14.3	135,647,388	9,689,099	15.3
200-299	8	9.1	1,804	226	14.6	246,238,929	30,779,866	27.8
300-499	2	2.3	654	327	5.3	19,101,200	9,550,600	2.2
500-999	2	2.3	1,451	726	11.8	14,348,168	7,174,084	1.6
>1000	2	2.3	3,807	1,904	30.9	87,500,000	43,750,000	9.9
Total	88	100.0%	12,318	140	100.0%	886,409,289	10,072,833	100.0%

The remaining 28 projects, representing only 30% of total projects, generate the majority of jobs – 9,479, or 77% of all the jobs and 57% of the total investment expenditures (\$503 million). Four of these projects are expected to create more than 500 jobs each, and two of these are expected to generate over 1,000 jobs each.

Relocation or Expansion

Table IV-4 divides the 88 projects according to whether the project is a relocation of an out-of-state business to New Jersey or an expansion of an existing New Jersey business.⁴ The projects divide closely between these two categories with 48 expansions (54.5%) and 40 relocations (45.5%). The distribution of total direct jobs between the two classifications is even closer, with expansions and relocations each accounting for about half of the total expected increase in employment.

Table IV-4
Fiscal 2005 Projects by Relocation, Expansion

Project Type	No. of Projects	Pct. of Projects	Total Jobs	Pct. of Jobs
Expansions	48	54.5	6,143	49.9
Relocations	40	45.5	6,175	50.1
Total	88	100.0%	12,318	100.0%

Definitions

Relocation - Relocation from out of state.

Expansion - Expansion of an existing New Jersey business.

⁴ None of the 88 projects was a new business.

Table IV-5 gives the distribution of projects and employment by business sector for the 40 relocations and the 48 expansions. Forty percent of the relocations (16 projects) were in manufacturing; these accounted for 19% of the employment attributable to relocations. Financial activities projects, while accounting for only 20% of the 40 relocations, were responsible for about 51% of the total employment resulting from relocations. Trade, transportation, and utilities relocations represented 20% of all relocations but only 8% of the relocation jobs. Professional and business service relocations (6 projects) accounted for 20% of the relocation jobs.

Table IV-5
Relocation and Expansion Projects and Employment by Business Sector

<u>RELOCATIONS</u>				
Sector	Projects		Employment	
	Number	Share	Number	Share
Manufacturing	16	40.0%	1,186	19.2%
Financial Activities	8	20.0	3,164	51.2
Trade, Transportation and Utilities	8	20.0	501	8.1
Professional and Business Services	6	15.0	1,204	19.5
Information	2	5.0	120	1.9
Total	40	100.0%	6,175	100.0%

<u>EXPANSIONS</u>				
Sector	Projects		Employment	
	Number	Share	Number	Share
Manufacturing	20	41.7%	3,103	50.5%
Professional and Business Services	12	25.0	1,311	21.3
Financial Activities	6	12.5	762	12.4
Trade, Transportation and Utilities	5	10.4	408	6.6
Information	3	6.3	440	7.2
Education and Health Services	1	2.1	25	0.4
Other Services	1	2.1	94	1.5
Total	48	100.0%	6,143	100.0%

The pattern was somewhat different for the 48 expansions. Manufacturing projects comprised 42% of all expansion projects, but accounted for over 50% of the total expansions employment. Professional and business services expansions represented 25% of all expansion projects and were responsible for 21% of the estimated increase in employment.

The geographical origin of the 40 location projects is given in Table IV-6. New York was the origin for 25 (63%) of all the relocations. These 25 New York relocations comprised 72% of all relocation jobs and 55% of the total relocation investment expenditures. Pennsylvania was the origin of four relocations and 18% of the relocation jobs. The remaining 11 relocation projects came from ten states and one foreign country.

Table IV-6
Geographical Origin of Relocation Projects

Original Site	Number of Relocations	Total Jobs	Total Investment
New York	25	4,433	\$183,040,488
Penn.	4	1,119	14,903,168
Washington	1	150	22,000,000
Illinois	1	106	2,150,000
Texas	1	85	6,300,000
Georgia	1	65	11,005,000
California	1	60	1,500,000
Rhode Island	1	45	29,000,000
Connecticut	1	30	2,000,000
Maine	1	27	3,000,000
Ohio	1	25	53,000,000
Mass.	1	20	2,502,290
Germany	1	10	4,978,000
Total	40	6,175	\$335,378,946

Rebate Level and Tax Expenditures

Table IV-7 lists the average salary (column 4), the average BEIP rebate (column 5), and the average annual tax expenditure per job (column 6) for the 88 projects distributed by business sector. The average salary of all the 12,318 jobs is \$64,316 (considerably above the average salary of all employment in the state of \$48,042).⁵ The average BEIP award for the 88 projects was 72.3%. The three sectors with the largest number of awards had similar average awards. The average award for the 36 manufacturing projects was 70.9%. The average award for the 18 professional and

⁵ Average salaries for individual business sectors and the entire state are based on Bureau of Labor Statistics (BLS) estimates. Estimates of average salaries for the BEIP projects in Table IV-7 are derived from data reported as part of the BEIP application and differ from the statewide BLS estimates due to the specific mix and nature of the projects and the assignment of the projects to business sectors.

business service projects was 71.6%. The highest average award among all the sectors was for financial activities projects (76.5%).

Table IV-7
Average Salary, Rebate Level and Tax Expenditure of FY 2005 BEIP Projects, by Business Sector
Weighted by Number of Jobs

1	2	3	4	5	6	7
Sector	Number of Projects	Estimated Jobs	Average Salary (\$)	Average Award Percentage	Average Annual Tax Expenditure per Job (\$)	Annual Tax Expenditures (\$)
Natural Resources and Mining	-	-	-	-	-	-
Construction	-	-	-	-	-	-
Manufacturing	36	4,289	56,075	70.9	1,059	4,542,051
<i>Pharmaceuticals and Medicines</i>	6	558	101,274	73.4	2,776	1,549,008
Trade, Transportation & Utilities	13	909	61,320	66.4	1,255	1,140,795
Information	5	560	44,125	71.9	634	355,040
Financial Activities	14	3,926	90,590	76.5	2,556	10,034,856
Professional & Business Services	18	2,515	44,665	71.6	752	1,891,280
Education and Health Services	1	25	33,000	80.0	448	11,200
Other Services	1	94	26,370	40.0	171	16,074
Total	88	12,318	64,316	72.3 %	1,461	17,996,598

Note: The average wage, average tax expenditure per job, and average award percentage are weighted by the actual number of jobs created for each project. Column and row totals may not sum due to rounding.

Average annual tax expenditures were calculated using the same procedure as in Chapter II. The estimated average salary was used to estimate gross income tax liability based on the prevailing tax rates and the historic distribution of taxpayers by filing status. The average rebate award was then applied to the estimated average tax liability to yield an estimate of the tax expenditures per job. The average estimated tax expenditure for all 88 projects is \$1,461 per job, and the total annual tax expenditure for the 12,318 jobs is \$18 million. This is the estimate of the tax expenditures if all 12,318 jobs existed for a full year at the average estimated salaries.

The highest average annual tax expenditure per job (\$2,776) occurs in the six pharmaceutical projects within the manufacturing sector. This is the result of the high estimated annual salary (\$101,274) in those projects and the relatively high average rebate award (73.4%). Financial projects had the next highest estimated annual tax expenditures per job (\$2,556), also reflecting a relatively high estimated average salary

(\$90,590) and a high rebate award (76.5%). Trade, transportation, and utilities had the third highest estimated tax expenditures per job (\$1,255). These three sectors accounted for 87% of the total estimated annual tax expenditures of \$18 million for the 88 projects.

Aggregate Economic Impact

The R/ECON Input-Output model was used to estimate the annual and one-time economic impacts of the 88 BEIP projects approved in FY 2005.⁶ The aggregate economic impact expected from these projects is considerable (Table IV-8). On an *annual* basis, 22,709 jobs will be created, total personal income will increase by \$1.3 billion, gross state product will rise by \$1.7 billion, and state tax revenues will grow by \$84 million. There is also a significant increase in *annual* local tax revenues of \$103.8 million.

Table IV-8
Economic Impacts of BEIP Projects Approved in FY 2005

	Annual Impacts¹	One-Time Impacts²
Direct Employment	12,318	8,923
Induced Employment	10,391	4,085
Total Employment	22,709	13,008
Total Income (\$ millions)	1,262.0	600.0
Gross State Product (\$ millions)	1,742.8	781.5
State Tax Revenue (\$ millions)	84.0	27.1
Local Tax Revenue (\$ millions)	103.8	29.3

1. Figures reflect ongoing annual impacts assuming the creation and retention of all estimated jobs at the wage levels estimated for each project. That is, each year that the 12,318 direct jobs exist, interactions with other sectors of the economy will result in 10,391 additional jobs, and will generate \$1.7 billion annually in gross state product and \$187.8 million annually in state and local tax revenues.

2. Figures reflect one-time total impacts of estimated project investments based on the NAICS sector and county of each project. The employment impacts are measured in job-years. These impacts are separate from and in addition to the annual impacts and occur over only the period of time of the capital investment expenditures of each project.

⁶ Refer to the discussion in Chapter III of the methodology of how the R/ECON Input-Output model estimates economic impacts (see pp. 35-39).

The gain in employment of 22,709 jobs consists of the 12,318 direct jobs of the 88 projects plus 10,391 induced jobs that are created from the salary expenditures of the direct jobs and the associated business activity generated by the each project. Thus, each direct job created by BEIP results in an additional .85 of a job.⁷

In addition, there will be significant *one-time* increases in economic activity due to the \$886 million in capital spending on the 88 projects. These one-time gains will consist of 13,008 job-years, \$600 million in personal income, \$781.5 million in gross state product, \$27.1 million in state tax revenues, and \$29.3 million in local tax revenues.⁸

Economic Impact by Business Sector

Table IV-9 disaggregates the annual economic impact of the 88 projects by business sector. The financial activities sector has the largest effect of all the sectors in terms of annual gross state product (\$711.4 million) and annual state tax revenue (\$41 million) while manufacturing has the largest effect among the sectors in terms of total jobs, both direct and induced (9,410). The professional and business services sector has the third largest annual effect with an increase in gross state product of \$238.3 million, state taxes of \$8.7 million, and total jobs of 3,940. These three sectors represent 89% of the total jobs created and 91% of the increase in gross state product.

⁷ The job multiplier (.85) is specific to these 88 projects and depends on the type of project, the level of average salary, the location of the project, and the amount of out-of-state leakage of the associated economic activity. Note that the equivalent job multiplier for the 183 projects analyzed in Chapter III was 1.12.

⁸ If the \$886 million in capital expenditures are assumed to occur over a ten-year period, then one-tenth of the estimated one-time impacts cited above should be added to the annual impact estimates to derive an annual estimate of the combined (annual plus one-time) economic impact of the 88 projects. For example, one-tenth of the state tax revenues (\$2.7 million) should be added to annual state tax revenue estimate (\$56.8 million) to obtain an estimate of the total annual state tax revenues (\$59.5 million) that result from the 88 BEIP projects.

Table IV-9
Annual Economic Impacts of FY 2005 BEIP Projects by Business Sector

Sector	Gross State Product (\$ millions)	State Tax Revenue (\$ millions)	Local Tax Revenue (\$ millions)	Employment		
				Direct	Induced	Total
Financial Activities	711.4	41.0	54.3	3,926	2,902	6,828
Manufacturing	642.3	25.8	29.7	4,289	5,121	9,410
Professional and Business Services	238.3	8.7	9.3	2,515	1,425	3,940
Information	45.0	1.7	1.9	560	267	827
Trade, Transportation and Utilities	99.7	6.5	8.3	909	636	1,545
Education and Health Services ¹	1.2	0.0	0.0	25	6	31
Other Services	4.9	0.2	0.2	94	34	128
Total	1,742.8	84.0	103.8	12,318	10,391	22,709

Note: Table IV-9 allocates direct and induced employment, GSP, and tax revenues based on the *originating* business sector of each project.

1. The state and local tax revenues for the Education and Health Services sector appear as zero because they are less than \$100,000. The estimated state tax revenues are \$41,760, and estimated local tax revenues are \$41,718.

The induced jobs listed in Table IV-9 are the number of other jobs that result because of the BEIP projects in each sector. The induced jobs listed by each sector are not the number of induced jobs in that individual sector but rather the total number of induced jobs in *all* sectors as a result of the multiplier effects of the projects in the specific originating sector.⁹

The R/ECON Input-Output model is also able to assign the induced jobs that result from the BEIP projects of the originating business sector according to the business sector of the job that is actually created by the ensuing multiplier effects. Table IV-10, column 3, provides the distribution of the 10,391 induced jobs according to the type of job created (not according to the originating sector responsible for these jobs as reported in Table IV-9). The largest component of induced jobs is trade, transportation, and utilities (4,333 jobs, or 42% of the total number of induced jobs). This is due primarily to

⁹ For example, in the case of the manufacturing sector, a total of 1,488 induced jobs are created by the 4,289 direct manufacturing jobs. These 1,488 induced jobs are distributed over all the sectors according to the specific multiplier effects of the direct manufacturing jobs and the associated economic activity of the manufacturing projects. Table IV-9 assigns these induced jobs to the originating sector (manufacturing) although they are distributed over all sectors; that is, they are the induced jobs created by the originating manufacturing BEIP projects and owe their existence to the manufacturing sector even though only some of the induced jobs are in manufacturing. Table IV-10 allocates these induced jobs to their actual business sector of employment.

the consumer spending that results from all 88 BEIP projects and the associated 12,318 direct jobs. Of the 4,333 induced jobs in trade, transportation, and utilities, 2,782 of these, or 64%, are in retail trade.

Table IV-10
Annual Employment Impacts of FY 2005 BEIP Projects by Business Sector

1	2	3	4
Sector	Direct	Induced	Total
Manufacturing	4,289	1,488	5,777
Financial Activities	3,926	1,361	5,287
Services	2,634	2,864	5,498
Trade, Transportation and Utilities	909	4,333	5,242
Information	560	-	560
Government	0	73	73
Natural Resources and Mining	0	178	178
Construction	0	94	94
Total	12,318	10,391	22,709

Note: While Table IV-9 allocates all employment based on the NAICS supersector of each project, Table IV-10 allocates the induced employment according to the SIC sector in which it is *generated*. Because the NAICS and SIC sectors do not correspond symmetrically with one another, the SIC categories have been consolidated to approximate the NAICS categories as closely as possible. The Natural Resources and Mining sector in Table IV-10 consists of the SIC categories Agriculture; Agricultural Services, Forestry and Fishing; and Mining. The Services category is comprised of the NAICS supersectors professional and business services, education and health services, and other services. In addition, because there is no information sector in the SIC breakdown, induced employment in the Information sector is distributed between the Trade, Transportation and Utilities sector and the Services sector.

The broadly defined services sector has the second highest number of induced jobs (2,864), or 27.6% of the total number of induced jobs. The finance sector contains 1,361 induced jobs and the manufacturing sector has 1,488 induced jobs.

Income Effects

The salary level of the jobs created is an important determinant of the overall economic impact of the BEIP projects. The higher the salary level, the greater is the economic impact. As noted earlier in this chapter, the direct jobs created by the 88 projects are concentrated in relatively high-paying sectors – manufacturing, financial

activities, and professional and business services. A major multiplier effect occurs in the trade, transportation, and utilities sector as consumer expenditures from the salaries generate higher sales levels and therefore create job opportunities in this sector.

The R/ECON Input-Output model estimates the complex multiplier effects of the salaries paid in the BEIP jobs as they are spent and re-spent in the various economic sectors within New Jersey and outside the state.

Table IV-11 provides estimates of the annual direct, induced, and total income increases attributable to the BEIP projects by business sector. The total annual increase in income in New Jersey from all 88 projects is \$1.3 billion. This consists of \$792.2 million in income from the direct jobs created and \$469.8 million in induced income from the multiplier effects of the consumer spending by both the direct and induced jobs.

Table IV-11
Total Income Increases, FY 2005 Projects

Sector	Total Income		
	Direct (\$ millions)	Induced (\$ millions)	Total (\$ millions)
Natural Resources and Mining	-	2.3	2.3
Construction	-	5.1	5.1
Manufacturing	240.5	97.4	337.9
Trade, Transportation and Utilities	55.7	160.7	216.5
<i>Transportation and Utilities</i>	8.0	44.1	52.1
<i>Wholesale</i>	47.8	49.9	97.7
<i>Retail Trade</i>	-	66.7	66.7
Information	24.7	-	24.7
Financial Activities	355.7	85.4	441.1
Services	115.6	115.2	230.8
Government	-	3.7	3.7
Totals	792.2	469.8	1,262.0

Note: Induced and total jobs and income are allocated according to the sector in which they are *generated*. Because the NAICS and SIC sectors do not correspond symmetrically with one another, the SIC categories have been consolidated to approximate the NAICS categories as closely as possible. The Natural Resources and Mining sector in Table IV-11 consists of the SIC categories Agriculture; Agricultural Services, Forestry and Fishing; and Mining. The Services category is comprised of the NAICS supersectors Professional and Business Services, Education and Health Services, and Other Services. In addition, because there is no Information sector in the SIC breakdown, induced employment in the Information sector is distributed between the Trade, Transportation and Utilities sector and the Services sector.

The financial activities sector has the largest total income effect (\$441.1 million), largely attributable to the high aggregate income of the direct jobs (\$355.7 million). Manufacturing is second, with a total annual income effect of \$337.9 million. The trade, transportation, and utilities sector has a relatively small direct annual income effect (\$55.7 million) as a result of relatively few projects (12). However, its total annual induced income effect (\$160.7 million) is the highest among all the sectors. This is the result of the consumer spending from all the direct jobs created plus the additional consumer spending from the induced jobs. The total annual income increase attributable to the 88 BEIP projects is \$1.3 billion, with 37% of that total attributable to induced income.

One-Time Economic Impacts by Business Sector

Table IV-12 presents the economic impact of the \$886.4 million in total capital expenditures for the 88 BEIP projects. Capital expenditures are required by the BEIP protocols and are spent on such items as new or renovated space, equipment, supplies, and related start-up materials. The economic impact of these expenditures is confined to the time period when they occur. Thus, if the \$886.4 million is spent over ten years, then the one-time economic impacts estimated by the input-output model occur during the ten years.¹⁰ In general, the economic impact corresponds in magnitude to the size of the capital expenditure by sector.

Table IV-12
One-Time Economic Impacts of FY 2005 BEIP Projects by Business Sector

Sector	Total Investment (\$ millions)	Gross State Product (\$ millions)	State Tax Revenue (\$ millions)	Local Tax Revenue (\$ millions)
Manufacturing	508.3	457.3	15.7	16.9
Financial Activities	231.9	197.5	7.0	7.6
Professional and Business Services	77.8	66.2	2.3	2.6
Trade, Transportation and Utilities	55.7	49.6	1.7	1.8
Information	10.8	9.2	0.3	0.4
Other Services	1.5	1.4	0.0	0.1
Education and Health Services	0.3	0.3	0.0	0.0
Total	886.4	781.5	27.1	29.3

Note: Table IV-12 allocates investment, GSP and tax revenues based on the *originating* business sector of each project.

¹⁰ If, for example, and for simplicity, the capital expenditures are assumed to occur in equal amounts over ten years, then one-tenth of the estimated economic impacts occur in each of ten years.

The manufacturing sector, which has the largest total investment expenditure (\$508.3 million), generates the highest economic impacts – \$457.3 million in gross state product, \$15.7 million in state tax revenues, and \$16.9 million in local tax revenues. The financial activities sector has the second highest economic impact as a result of the expenditure of \$231.9 million. This expenditure increases gross state product by \$197.5 million, raises state tax revenue by \$7 million, and generates \$7.6 million in local tax revenue. These two sectors account for 84% of the economic impacts measured in Table IV-12.

The employment effects of the one-time capital expenditures are listed by business sector in Table IV-13. The employment effects are measured by the job-years generated in each business sector (i.e., *not* in the originating sector of the capital expenditures).

Table IV-13
One-Time Employment Impacts of FY 2005 BEIP Project Investments by Business Sector

Sector	Total
Natural Resources and Mining	97
Construction	6,063
Manufacturing	2,225
Trade, Transportation and Utilities	2,324
Finance, Ins., & Real Estate	499
Services	1,780
Government	21
Total	13,008

Note: While Table IV-12 allocates investment, GSP, and tax revenues based on the originating NAICS supersector of each project, Table IV-13 allocates total one-time employment impacts (both direct and induced) according to the sectors into which the job-years generated by the investments fall. Because the NAICS and SIC sectors do not correspond symmetrically with one another, the SIC categories have been consolidated to approximate the NAICS categories as closely as possible. The Natural Resources and Mining sector in Table IV-13 consists of the SIC categories Agriculture; Agricultural Services, Forestry and Fishing; and Mining. The Services category is comprised of the NAICS supersectors Professional and Business Services, Education and Health Services, and Other Services. In addition, because there is no Information sector in the SIC breakdown, induced employment in the Information sector is distributed between the Trade, Transportation and Utilities sector and the Services sector.

Note: Employment figures are measured in job-years. That is, each job created exists for one year based on the expenditure of the given amount of project investment over one year. If the same amount of investment is spent over two years (half in each year), then one half-year of a job is created for two years (i.e., the equivalent of one job-year).

As expected, the expenditure of \$886.4 million (a large share of it for new or renovated space) generates the largest employment effect in construction. A total of 6,063 job-years

are created, or 46% of the total 13,008 jobs years generated. The second largest one-time employment effect (2,324 job-years) occurs in the trade, transportation, and utilities sector. The manufacturing sector (as a result of the purchase of equipment, supplies, and materials from the \$886.4 million in capital expenditures) adds 2,225 job-years.

Fiscal Balance Estimates

Table IV-14 provides a comparison between the annual economic impact of the 88 BEIP awards and their projected tax expenditure costs.¹¹ From the analysis of Table IV-7, the total annual tax expenditure of the 88 BEIP awards made in FY 2005 is \$18 million.¹² The annual increase in gross state product due to the BEIP projects is \$1.7 billion from both the direct and induced effects. Thus, the ratio of the increase in gross state product to the tax expenditure costs of the BEIP projects is 96.8. That is, for each tax dollar spent, New Jersey's gross state product increases by \$96.80.

Table IV-14
Total Annual Fiscal Balance of FY 2005 BEIP Projects

Total Gross State Product Generated	\$1.7 billion
Total State Tax Revenue Generated	\$84.0 million
Total Tax Expenditures	\$18.0 million
GSP/Tax Expenditure Ratio	96.8
Tax Revenue/Tax Expenditure Ratio	4.7
Net Benefit (Tax Revenue less Tax Expenditure)	\$66.0 million

Annual state tax revenues are estimated to increase by \$84 million from the economic impact of the BEIP projects. The ratio of state tax revenues generated to state tax expenditures is 4.7, indicating that for each state tax dollar spent on the 88 BEIP awards, state tax revenues increase by \$4.70. The net gain in state tax revenues (annual tax revenues minus annual tax expenditures) is \$66 million. Moreover, the benefit-to-

¹¹ It is important to remember that this comparison is based on *projections* of both the benefits and the costs of the 88 BEIP grants awarded in FY 2005. It assumes all the estimated jobs are, in fact, created at the estimated salaries. Any difference between the projected job and salary data and the actual number of jobs created and the actual salaries paid will affect the estimates of Table IV-14.

¹² This is the outcome of 12,318 direct jobs at an average estimated salary of \$64,316 and an average award of 72.3%, which results in an average annual tax expenditure per job of \$1,461 per job (see Table IV-7).

cost ratios of Table IV-14 are understated because they do not include the annualized benefits of the one-time capital investment expenditures. Using the assumption that these expenditures occur in equal amounts over a ten-year period, and annualizing the resulting gross state product and state tax revenue benefits, the benefit-to-cost ratio for gross state product increases to 101.2, and the ratio for state tax expenditures rises to 4.8.

Table IV-15 lists the fiscal balance for the BEIP projects by business sector. Column 5 gives the annual net state tax benefits. The financial activities sector has the highest annual net state tax benefit of \$30.9 million, and the manufacturing sector is second at \$21.3 million. These two sectors account for 79% of the total annual net state tax benefits.

Table IV-15
Annual Fiscal Balance of FY 2005 BEIP Projects by Business Sector

1	2	3	4	5	6	7
Sector	Gross State Product (\$ millions)	State Tax Revenue (\$ millions)	Tax Expenditures (\$ millions)	Net Benefit (\$ millions)	GSP/Tax Expenditure Ratio	Tax Revenue/Tax Expenditure Ratio
Financial Activities	711.4	41.0	10.0	30.9	71.1	4.1
Manufacturing	642.3	25.8	4.5	21.3	142.7	5.7
Professional and Business Services	238.3	8.7	1.9	6.8	125.4	4.6
Information	45.0	1.7	0.4	1.4	112.5	4.3
Trade, Transportation and Utilities	99.7	6.5	1.1	5.3	90.6	5.9
Education and Health Services ¹	1.2	0.0	0.0	0.0	107.1	3.7
Other Services ²	4.9	0.2	0.0	0.2	304.9	12.4
Total	\$1,742.8	\$84.0	\$18.0	\$66.0	96.8	4.7

Note: The totals for the GSP/Tax Expenditure ratio and the Tax Revenue/Tax Expenditure ratio represent the weighted averages of all 88 executed projects, rather than the simple average of the individual sector ratios.

Note: Table IV-15 allocates investment, GSP, and tax revenues based on the originating business supersector of each project.

1. The state tax revenues, tax expenditures, and net benefit for the Education and Health Services sector appear as zero because they are less than \$100,000. The estimated state tax revenues for the sector are \$41,760, and the tax expenditures are \$11,200; the net benefit therefore is \$30,560.

2. The tax expenditure for the Other Services sector appears as zero because it is less than \$100,000. The estimated tax expenditure for the sector is \$16,070.

The ratio of the increase in gross state product to tax expenditures is given in column 6. All the business sectors have a very high rate of return. The ratios range from

a high of 304.9 in the other services sector to a low of 71.1 in the financial activities sector.¹³ The ratio for the manufacturing sector (which has the largest number of projects) is a noteworthy 142.7.

The ratio of tax revenues to tax expenditures (column 7) indicates that the BEIP projects in every business sector generate more in state taxes than they cost in terms of tax expenditures. All the ratios are significantly above a value of one and range from a high of 12.4 (Other Services) to a low of 3.7 (education and health services). The ratios in the manufacturing sector (5.9), professional and business services (4.6), and financial activities (4.1), which together represent over 77% of the BEIP projects, are again noteworthy. These ratios indicate that the BEIP program, focused on awards in fiscal year 2005 in these three key business sectors, returns tax benefits to the state that significantly exceed its costs.

The Issue of Causality Revisited

The analysis of this chapter is prospective; that is, it examines the (largely) future benefits and future costs of the 88 BEIP awards made in the most recent fiscal year. Almost of all of these projects will come to full fruition over the next several years. Thus, the analysis necessarily must use the *estimated* jobs and *estimated* salaries that these projects are expected to generate. Given these estimates, the results of the input-output analysis indicate that a strong and positive return to the BEIP projects can be expected in terms of the state's economy with respect to both overall economic activity (gross state product) and net state tax revenues.

However, it is again useful to recognize the critiques of business incentives that claim that the incentives do not influence relocation or expansion decisions and therefore represent windfall gains to the businesses involved at the expense of state taxpayers. As noted previously, in a deeply competitive national and international business environment it would be shortsighted and directly contrary to the state's self interest for New Jersey

¹³ The financial sector has the highest tax expenditures due to the high number of direct jobs (3,926), the high average salary paid (\$90,590), and the relatively high level of the BEIP award (76.5%). All these factors raise the tax expenditures for the finance projects.

not to have and use effective business incentives. In the analysis of the 88 BEIP awards made in FY 2005, the projects will be state tax neutral (i.e., they will generate tax revenues that cover their tax expenditures) *even if only 21.4%* of the 12,318 direct jobs (about 1 out of 5) were located in New Jersey because of the BEIP awards.

Chapter V: Analysis of Smart Growth Factors in BEIP Awards

Introduction

This chapter analyzes the role of smart growth factors in the determination of the award level for Business Employment Incentive Program grants. The analysis was conducted in response to a request by the New Jersey Economic Development Authority to examine this issue and is part of the contractual agreement to respond to inquiries about operational protocols for BEIP. This chapter was submitted as a research report to the NJEDA in July 2005 and was discussed with the Policy Committee in August 2005.

The formula for determining the level of the BEIP award was changed in 2003 to include a number of smart growth factors that enhanced the level of the rebate award if “the grant promotes smart growth and the goals, strategies, and policies of the State Development and Redevelopment Plan...as determined by and based upon criteria promulgated by the Authority following consultation with the Department of Community Affairs Office of Smart Growth.” The result was the addition of nine factors that, if present in a business’s application for BEIP, increased the award level.¹ Only two of the factors are mutually exclusive, and in the aggregate, the rebate level theoretically could be increased by as much as 130 percentage points, although all awards, in practice, are constrained by the 80% cap.

Analysis of Smart Growth Factors

We examined 35 executed BEIP awards made between September 2003 and February 4, 2005 under the new smart growth protocols.² As a first step, we compared

¹ These factors and the bonus additions to the BEIP award are: a location in Planning Area 1 or 2 (20%); a location in Planning Area 1 or 2 and creating 500 or more jobs (30%); a location in a former Urban Coordinating Council or other distressed municipality as defined by the Department of Community Affairs (20%); a location in a brownfield site (20%); a location in a center designated by the State Planning Commission or in a municipality with an endorsed plan (15%); a location within .5 of a mile of a rail station or bus hub, or subscription to an ongoing mass transportation program of NJ Transit (15%); a location in “an area in need of redevelopment” (10%); a location with housing production or housing renovation of 25% of the site’s buildable area (10%); and a location within 5 miles of and working with a public university on research and development (10%).

² The relatively small sample is due to the fact that the new smart growth protocols were only recently put in place. There are an additional 94 approved but not yet executed BEIP projects that have been made

the spatial distribution of these 35 awards with the spatial distribution of 167 executed BEIP awards made prior to the introduction of the smart growth protocols. Of the 35 awards using the new protocols, 32 were located in Planning Areas 1 or 2 (91%). Each of these 32 projects received a 20% addition to its BEIP award.³

In order to examine if the new criteria influenced the spatial distribution of projects we needed to compare the geographic distribution of awards before and after the introduction of the smart growth protocols. Using the GIS capabilities of the Bloustein School, we overlaid the State Plan GIS maps of Planning Areas 1 and 2 with a GIS map of New Jersey municipalities. We were then able to generate a list of municipalities that were fully or partially in Planning Areas 1 and 2. From this we compiled a list of BEIP awards by municipality and compared it to the list of municipalities in Planning Areas 1 and 2. Of the 167 awards made prior to the smart growth protocols, 164 were located in Planning Areas 1 and 2 (98%) and would have qualified for the 20% bonus award for locating in these areas had the smart growth protocols been in use at the time of those awards.⁴ Thus, we conclude that the institution of the smart growth protocols has not influenced the spatial distribution of awards. This is because the awards made prior to implementation of the smart growth protocols were overwhelmingly located in Planning Areas 1 and 2, and these areas cover most of the state's northern and urban areas.⁵ If anything, the percentage of awards in Planning Areas 1 and 2 is actually lower after the introduction of the smart growth protocols. A chi-squared test of the difference (91% vs. 98%) was statistically significant at the .03 probability level.⁶

using the new protocols. A statistical analysis of the 94 not-yet-executed projects compared with the 35 executed projects yielded no statistically significant differences with respect to average award level (58.9% vs. 60.6%). Thus, we confine the analysis to the 35 approved and executed projects.

³ None of the 32 projects generated more than 500 jobs and thus were not eligible for the 30% add-on to the award. Of the three projects not in Planning Areas 1 or 2, two received smart growth awards for other criteria (being near a rail station and being located in an Urban Coordinating Council or distressed municipality). Thus, only one of the 35 awards did not receive a smart growth bonus.

⁴ In fact, 26 of the 164 awards would have qualified for the 30% bonus since they created more than 500 jobs.

⁵ For example, 26 awards during the period before the introduction of the smart growth protocols were to financial projects in Hudson County.

⁶ The sample sizes of the pre- versus post-introduction of the smart growth protocols differ significantly due to the fact that the smart growth factors have only recently been implemented. Caution, therefore, is in order in interpreting this chi-square test result. This issue warrants further monitoring as the number of awards using the smart growth criteria increases.

A second analysis examined the average award level before and after the new protocols. The results given in Table V-1 indicate that the introduction of the smart growth factors has not increased the average award level. In the period preceding the smart growth incentives, the average BEIP award was 64.3% vs. an average award level of 60.6% for the smart growth awards. However, the impact was not uniform across business sectors: average award levels for the smart growth projects were lower for manufacturing, information, professional and business services, and education and health services. Average awards were higher for trade, transportation and utilities and for financial activities.

Table V-1
Comparison of Award Size and Project Distribution by Business Sector
Before and After Addition of Smart Growth Criteria

Sector	% of Projects		Average Award Size	
	w/ SG	w/o SG*	w/ SG	w/o SG*
Construction	0.0	0.6	-	50.0
Manufacturing	40.0	31.1	52.9	63.1
Trade, Transportation & Utilities	14.3	18.6	71.0	58.7
Information	8.6	9.6	56.7	66.3
Financial Activities	14.3	23.9	74.0	70.9
Professional & Business Services	17.1	13.8	61.7	63.5
Education and Health Services	5.7	1.8	57.5	61.7
Other Services	0.0	0.6	-	50.0
All Projects	100.0	100.0	60.6	64.3

* Note: There are 35 projects in the group that include smart growth criteria, and 167 projects in the group that preceded adoption of the smart growth criteria.

We conclude that the introduction of the smart growth protocols has not added to the tax expenditure costs of the state. A test for significant differences between the two average award levels for the smart growth projects compared to the pre-smart growth projects (64.3% vs. 60.6%) was insignificant at standard levels. The t test was 1.43 and insignificant at the .05 one-tailed level. That is, the average award for the projects executed before the introduction of the smart growth factors (N = 167) was not statistically significantly different from the average award of the projects executed with the smart growth factors (N = 35). We also tested for significant differences in the average award level among all smart growth projects (i.e., approved but not executed plus

approved and executed, N = 129) versus all pre-smart growth projects (i.e., approved but not executed, plus approved and executed, N = 188). The pre-smart growth projects' average award was, in fact, higher (64%) than the smart growth average award (59.3%), and the two averages were significantly different at a .004 level of probability. Thus, we conclude, based on these two tests, that the smart growth factors have not raised the average award level, and there is some evidence that award levels are lower. Finally, since we are using the awarded and executed projects with the smart growth protocols (N = 35) to compare with a significantly larger number of pre-smart growth awarded and executed projects (N = 167), we also tested to ensure that the awarded and executed projects with smart growth (N = 35) were similar in terms of their business sector distribution compared to the projects approved *but not yet executed* using the smart growth criteria (N = 94). Table V-2 provides those distributions. The rank order of awards and the share of awards in each business sector within the two groups of projects are similar.

Table V-2
Executed and Non-Executed Projects by Business Sector
Projects Approved September 2003 - April 2005

Sector	Not Executed (94)		Executed (35)	
	Number	Share	Number	Share
Manufacturing	34	36.2	14	40.0
Professional and Business Services	21	22.3	6	17.1
Financial Activities	18	19.1	5	14.3
Trade, Transportation and Utilities	11	11.7	5	14.3
Information	5	5.3	3	8.6
Other Services	3	3.2	-	-
Construction	1	1.1	-	-
Education and Health Services	1	1.1	2	5.7
Total	94	100.0	35	100.0

Given our conclusion that the average award has not changed, the effect of the smart growth factors has been to shift the relative importance away from the economic development factors in determining the level of the award in favor of the smart growth criteria. Of the 60.6 percentage points of the average smart growth award, nearly half (29.6 percentage points) were attributable to the smart growth factors (Table V-3). As

noted, 32 of the 35 awards received 20 percentage points for a location in Planning Area 1 or 2. Eleven projects received an additional 15 percentage points for being near a rail station or bus hub. Nine awards received an additional 20 percentage points for being in an Urban Coordinating Council municipality. Four projects received 15 additional percentage points because they had an endorsed plan or were located in a State Plan designated growth center. Two projects received 10 additional percentage points from being in an area in need of redevelopment, and three others received an additional 10 points because of their proximity to, and work with, university research and development sites.⁷ None of the 35 projects received bonuses for being located in a brownfield site or in a mixed-use site.

**Table V-3
Average Contribution of Smart Growth and Economic Development
Factors to BEIP Award Percentage**

Average Award since 9/03:	60.6
Average Smart Growth Contribution	29.6
Average Economic Development Contribution	31.0
Job Creation	6.0
Jobs at Risk	1.8
Designated Industry	3.4
Innovation Zone	0.0
Private Investment	6.0
Capital Investment	4.3
Average Wage	9.5

The standard economic development criteria contributed 31 percentage points to the average award.⁸ The largest contributing components to this were the average salary (9.5 percentage points), the level of job creation (6 percentage points), and the amount of investment in the project (6 percentage points). We were not able to analyze the

⁷ Some projects received total smart growth bonuses that together with the standard criteria would have put their award above the 80% constraint.

⁸ These components are the number of new jobs created, whether the business is in a targeted industry (high technology and biotechnology), whether there are jobs at risk and how many, whether the business locates in an innovation zone, the amount of private investment relative to the state expenditures, and the amount of capital investment in the project. Points are awarded for each of the above categories and the total points scored determine the level of the award up to a maximum 50%.

components of the economic development factors for the pre-smart growth awards. The award formula and the individual factors changed several times during that period.

A complete listing of the 35 individual projects using the smart growth protocols appears in Table V-4. The first and second columns provide the name of the business and its industry sector. The largest number of awards occurred in manufacturing (14) and professional and business services (6). The level of the grant award is given in column three; the awards ranged from 25% to 80% (the maximum allowable).⁹ There were seven awards at the 80% level, representing 20% of the 35 total awards. For the 167 awards in the pre-smart growth period, 46 projects (27.5%) received an 80% award level.

The next two columns in Table V-4 disaggregate the total award into the part attributable to the economic development factors and the part attributable to the smart growth components. The economic development component ranged from a low of 25% to a high of 45% (four awards). The smart growth contribution ranged from a low of zero (only one business did not receive a smart growth bonus) to a high of 55% (three awards).¹⁰ The smart growth award component represented half or more of the total award in 16 cases (column 6 in Table V-4 lists the ratio of the smart growth award to the total award).

In order to calculate the state tax expenditures per job for each project, we multiplied the estimated average salary for each project (as reported on the BEIP application) by the state gross income tax withholding rate for that salary¹¹ times the award level for the project. The result appears in column seven of Table V-4. State tax expenditures averaged \$1,130 per job annually for the 35 projects and ranged from a low of

⁹ Due to adjustments to project parameters and differing reporting times, some projects' award levels reported in Table V-4 may differ from those appearing in the Appendices.

¹⁰ Of the 34 projects receiving a smart growth bonus, seven projects had sufficient smart growth scores to reach the 80% award cap. In fact, six of these had smart growth scores that would have put them above the 80% award level in the absence of a cap.

¹¹ We used NJ Department of Treasury data for 2002 to estimate the gross income tax withholding rates by income level. See footnote 15 on page 20 of Chapter II for a detailed description of these estimates.

**Table V-4
Relative Contributions of Economic Development and Smart Growth Components to Award Level and Tax Expenditures**

1	2	3	4	5	6	7	8	9	10
Name	Sector*	Grant Award	Econ Dev. Award	Effective Smart Growth Award	Effective Smart Growth/Total Award Ratio	Total Tax Expenditure Per Job	Econ. Dev. Tax Expenditure per job	Smart Growth Tax Expenditure per Job	Average Salary
National Exchange Carrier Association	Prof. & Bus.	65	35	30	0.46	454	244	209	38,453
WorldxChange/dba Acceris	Info.	60	25	35	0.58	1,150	479	671	69,000
Brandywine Senior Care, Inc.	E&H	60	25	35	0.58	1,312	547	765	74,696
Trimline Medical Products, Inc.	Mfg.	40	20	20	0.50	137	69	69	22,172
Barclays Capital Services, LLC	FA	65	45	20	0.31	1,787	1,237	550	84,407
Taro Pharmaceuticals U.S.A., Inc.	TTU	65	45	20	0.31	785	543	242	52,078
Engineered Arresting Systems Corp	Mfg.	50	30	20	0.40	665	399	266	55,000
Refcon, Inc.	Mfg.	40	20	20	0.50	259	130	130	36,695
marketRX, Inc.	Prof. & Bus.	70	35	35	0.50	1,725	862	862	80,000
Mechoshade Systems, Inc.	Mfg.	25	25	0	0.00	95	95	0	24,000
Apex Xpress, Inc.	TTU	80	25	55	0.69	435	136	299	32,205
AAA Mid-Atlantic, Inc.	Prof. & Bus.	50	30	20	0.40	978	587	391	69,978
Woolco Foods, Inc.	TTU	75	20	55	0.73	315	84	231	26,000
Best Manufacturing Group LLC	Mfg.	80	25	55	0.69	1,374	429	945	64,258
Medical Diagnostics Laboratories, LLC	E&H	55	35	20	0.36	282	179	102	30,605
Skyframe & Art Inc.	Mfg.	60	20	40	0.67	276	92	184	28,000
Berg East Imports, Inc.	Mfg.	45	25	20	0.44	123	68	54	18,164
Fortis Financial Services LLC	FA	80	30	50	0.63	2,786	1,045	1,742	95,700
Moore Reservations Systems, Inc.	Prof. & Bus.	35	20	15	0.43	260	148	111	40,000
Aurobindo Pharma LTD, Inc.	Mfg.	60	40	20	0.33	360	240	120	35,000
NRG, Energy, Inc.	TTU	80	45	35	0.44	3,806	2,141	1,665	115,331
CareGain, Inc.	Info.	55	35	20	0.36	1,211	770	440	75,000
Antenna Software, Inc.	Prof. & Bus.	80	30	50	0.63	2,490	934	1,556	90,000
Tribeca Oven Inc.	Mfg.	45	25	20	0.44	207	115	92	27,961
Accurum, Inc.	Prof. & Bus.	70	35	35	0.50	1,541	770	770	75,000
Sun Chemical Corporation	Mfg.	55	35	20	0.36	1,676	1,067	610	89,000
Party City Corporation	TTU	55	35	20	0.36	1,184	753	430	74,000
Phillips Van Heusen Corporation	Mfg.	55	35	20	0.36	720	458	262	54,488
Home Care Industries, Inc.	Mfg.	60	25	35	0.58	240	100	140	24,960
Lazard Freres & Co., LLC	FA	80	35	45	0.56	3,010	1,317	1,693	100,000
Zimmer Trabecular Metal Technology	Mfg.	55	35	20	0.36	439	279	160	41,500
Medidata Solutions, Inc.	Info.	55	35	20	0.36	1,211	770	440	75,000
Corporate Synergies Group, Inc.	FA	65	45	20	0.31	1,431	990	440	75,000
Dava Pharmaceuticals, Inc.	Mfg.	70	25	45	0.64	2,634	941	1,693	100,000
SG Americas Operational Services Inc.	FA	80	35	45	0.56	2,179	953	1,226	84,000
Averages:		60.6	31.0	29.6	0.47	1,277	699	578	62,792

* "Prof. & Bus." - Professional and Business Services; "E&H" - Education and Health Services; "TTU" - Trade, Transportation and Utilities; "FA" - Financial Activities; "Info." - Information; "Mfg." - Manufacturing.

Note: The overall averages for salary, the economic development tax expenditures, smart growth tax expenditures, and total tax expenditures per job are weighted by the estimated number of jobs to be created by each project.

\$95 per job to a high of \$3,806 per job.¹² Seventeen projects had state tax expenditures per job that were over \$1,000.

The tax expenditures were disaggregated into the amount attributable to the economic development award and the part due to the smart growth factors. The results appear in columns eight and nine of Table V-4. These two columns reflect the percentage distribution of the total award into the two components as reported in columns four and five of the table.

As a final part of our analysis we tested to determine if the smart growth factors were associated with higher-quality jobs (as measured by the actual average salary of the jobs created or by the estimated salary on the BEIP application). A regression was estimated with the average salary as the dependent variable and the level of the smart growth award as the independent variable. The hypothesis tested is that as the smart growth award level increases, average salaries (i.e., the quality of the jobs created) also increase.¹³ The coefficient of the smart growth award level was positive but only marginally significant at a .10 level. We conclude that the smart growth score is positively but weakly associated with higher average salaries in this sample of 35 awards.

Conclusion

This analysis of the effect of the smart growth protocols on BEIP is constrained by the relatively small sample of observations (35) that we have for awards made since the protocols went into effect. Nevertheless, a number of informative observations are possible. However, we strongly recommend that an examination of the effects of the smart growth protocols be continuous as new awards are made and can be added to the sample we have analyzed.

¹² The NRG Energy project had the highest estimated salary (\$115,331) and received an 80% award. These two characteristics resulted in the project having the largest tax expenditures per job. The overall averages for salary, the economic development tax expenditures, smart growth tax expenditures, and total tax expenditures per job are weighted by the estimated number of jobs to be created by each project.

¹³ Recall that 34 of the 35 projects received a smart growth bonus. Thus, the test is essentially how average salaries vary across projects receiving a smart growth bonus rather than whether average salaries vary according to the presence or absence *per se* of a smart growth bonus.

The smart growth protocols have not altered the spatial distribution of awards. While the protocols are designed to provide incentives to locate in areas defined by smart growth characteristics, the geographical distribution of awards prior to and after the introduction of the smart growth criteria is essentially the same. Over 90% of the awards in each period are for projects located in State Planning Areas 1 and 2.

The smart growth protocols have not increased the average award level and hence have not increased the costs to the state of the program. The average award levels prior to and after the introduction of the smart growth criteria are not statistically significantly different. There is some variation in the award level across industry sectors before and after the introduction of the new protocols, but no definitive statistical conclusion can be reached due to the small number of awards to date in any given business sector. This issue warrants further attention as the number of awards using the smart growth protocols increases.

On average, the smart growth criteria contribute about half to the award level, although there is significant variation in their contribution across the 35 awards. In 16 of the awards, the smart growth contribution is 50% or greater. The estimated annual state tax expenditures per job are modest (\$1,130), although again there is significant variation across the awards. On average, the smart growth factors are responsible for about half of the annual tax expenditures per job. There is a positive, but weak, correlation between the smart growth bonuses and the quality of the jobs created as measured by the estimated average salary. However, once again we should note that this conclusion is based on a small sample and should be reexamined as new awards are made.

We were unable to examine whether the smart growth protocols affected the number and characteristics of applications for BEIP awards or if they influenced the decision as to whether to accept an award once made. Both issues are worthy of study and would require a survey of both BEIP prospects and awardees.

Finally, we offer two ideas for consideration by the NJEDA as it continues to examine the role of the smart growth protocols. First, as the award formula is structured, the two general criteria – economic development and smart growth considerations – are essentially separate. An economic development score is tallied that yields an award level, and a smart growth bonus of varying size is added on to the award. The principle of the smart growth protocols is to encourage the location of economic development in areas within the state with certain spatial characteristics (in areas designated for growth, distressed municipalities, mass transit access, and so on). The bonus received for these characteristics is largely independent of the economic characteristics of the project.

The two factors could be linked more explicitly. For example, instead of a 20% bonus for location within Planning Areas 1 or 2, the bonus could be tied to the number of jobs created or the level of private investment (both factors independently assessed by the economic development formula). The bonus could begin at a lower threshold (e.g., a 10% bonus) but then increase with the number of jobs created to a maximum of 30% (for 500 or more jobs as currently exists). Thus, the award level would embody an interactive component between economic development and smart growth. There are many possibilities for such interaction and the corresponding rate of increase in the award level. The suggestions here are meant to stimulate discussion.

Second, consideration could be given to providing a separate incentive for small businesses (as measured by sales or assets) located in Planning Areas 1 or 2. Currently, the larger the business (i.e., the more jobs created), the greater is the score on the economic development formula and the higher the award. However, in order to encourage small business development *per se*, a separate category could be added to the smart growth criteria to provide an increment to the award (e.g., 5 or 10 percentage points) if the project is a small business located in a smart growth area. Since the number of jobs involved will be relatively low, the tax expenditure costs of this addition would be small.

Chapter VI: Summary and Conclusions

The pervasive use of a variety of incentives by state governments to attract and retain economic development has generated significant support, debate, and criticism. From a national perspective, there is a legitimate concern that escalating interstate competition for new, or existing, business investment represents an increasingly costly and unnecessary public subsidy for activity that would occur even in the absence of such incentives.¹ However, from the perspective of an individual state, it is in the state's economic self-interest to participate in this interstate and inter-nation competition in order to protect itself from losses of its economic base. It is also, obviously, a political necessity, independent of party, to be able to demonstrate that the state has, and uses, cost-effective business development incentives. New Jersey has relied on business incentives in the intense competition for economic development as globalization, outsourcing, recession, terrorism, war, and relentless state fiscal problems have created deep economic uncertainties for the state in the first half of the first decade of the new century.

Now eight years old, BEIP has been used increasingly to attract business development. Significant public resources have been devoted to it, and it is important that the program be accountable for these tax expenditures. The New Jersey Economic Development Authority administers the BEIP grants, and 223 awards have been made from 1997 through August 2005. Unlike some programs in other states, this incentive is performance based, and no public payments are disbursed until jobs are actually created, wages paid, and state income taxes collected. The purpose of this report, requested by the New Jersey Economic Development Authority, has been to systematically analyze the BEIP awards and to provide an estimate of their economic impact on the state's economy.

¹ This assumes that this investment would remain within the United States. With ever increasing alternative business locations outside of the country, there has been a growing effort to use subsidies to retain and attract businesses to the United States. In such cases, the criticism of inefficient use of public resources is less tenable even from a national perspective, especially as other countries provide public subsidies for the same purpose. From a global perspective, such subsidies are economically inefficient, but the political competition among nations for economic development is a compelling and dominant factor.

Chapter II presents a thorough profile of 183 BEIP awards executed between June 1997 and February 2005. The awards are analyzed by business sector, by business type, by number of jobs created, by level of private investment, by tax rebate percentage, and by spatial distribution within New Jersey. The conclusion of the analysis is that the BEIP program has been responsive to the state's economic needs with awards focused on key business sectors (manufacturing, business and professional services, and finance) that offer significant benefits to the state's economy. These sectors are also subject to intense interstate and global competition. The BEIP program has also been balanced between awards for relocations and awards for existing businesses. Nearly every county in the state has BEIP projects, with some areas of the state receiving significant numbers of awards in a given business sector (e.g., finance projects in Hudson County). Chapter II concludes with an estimate of the average tax expenditure per job (\$1,841) of the awards.

Chapter III employs the state of the art R/ECON Input-Output model to estimate the economic benefits of the 183 BEIP projects to the economy of New Jersey. This is the first systematic analysis of the economic benefits of the program, and it is based on a careful, objective methodology that accounts for the type of business, the number of jobs, the average salary of those jobs, the amount of private investment, the location of the project within New Jersey, the interconnections of the economic activity of the project with the rest of the state's economy, and the economic linkages of the project outside of New Jersey. The analysis reveals that there are significant economic benefits to New Jersey from the BEIP projects. On an annual basis, gross state product has increased by \$8.4 billion, over 109,754 new jobs have been directly and indirectly created, and state tax revenues have risen by \$349 million.

The chapter also provides, for the first time, a systematic comparison of the benefits and costs of the BEIP projects. There is an economic return of \$88 to the state in terms of additional gross state product per tax dollar spent on BEIP. There is a fiscal return of \$3.70 to New Jersey in terms of state tax revenues per tax dollar spent on BEIP. Both of these ratios indicate that the state receives significant net economic and fiscal

benefits from the BEIP projects. Even if the BEIP award were the key determinant in the business decision to locate or expand in New Jersey for only 27.2% of the jobs at issue, the BEIP awards would still be state tax neutral (i.e., generate tax revenues equal to their tax expenditure costs).

Chapter IV repeats the economic impact analysis for 88 BEIP projects awarded in fiscal year 2005. The analysis of this chapter is prospective. That is, it estimates the economic impact that can be expected from these projects once they are fully implemented. The R/ECON Input-Output Model is again used, and the results indicate that these 88 projects will generate 22,709 direct and indirect jobs, increase annual gross state product by \$1.7 billion, and raise annual state tax revenues by \$84 million. The benefit-to-cost ratio for gross state product is 96.8, and the ratio is 4.7 for state tax revenues.

At the request of the New Jersey Economic Development Authority, Chapter V analyzes the tax rebate bonuses given to those BEIP projects with certain characteristics that are consistent with “smart growth.” The chapter makes recommendations to link the economic development objectives of the BEIP award more directly with smart growth. Finally, two appendices provide a summary economic impact profile for each of the projects analyzed in Chapters III and IV.

BEIP has served the state well since its inception. There have been significant net benefits to the state’s economy and its taxpayers. In the absence of a federal prohibition on interstate economic competition using state and local business incentives, New Jersey should continue to have and use this effective and prudent program. We recommend continual monitoring of the program with respect to the awards made, their net economic impact, and the protocols of the program. Such a continuing analysis should also provide recommendations as to how the program can be more effective as the state, national, and global economies continue to rapidly change in profound ways.