Report to the Pennsylvania General Assembly on the Research and Development (R&D) Tax Credit

The Pennsylvania Department of Revenue

Bureau of Research

March 13, 2009

The Pennsylvania R&D Tax Credit Statute

On May 7, 1997, Act 7 of 1997 created the Pennsylvania research and development (R&D) tax credit. The R&D tax credit provision became Article XVII-B of the Tax Reform Code of 1971 (TRC). The intent of the R&D tax credit was to encourage taxpayers to increase R&D expenditures within the Commonwealth in order to enhance economic growth. The terms and concepts used in the calculation of the Commonwealth's R&D tax credit are based on the federal government's R&D tax credit definitions for qualified research expense.[1]

The R&D tax credit program is an important component of the on-going economic stimulus program designed to assist Pennsylvania-based technology businesses to grow and create new jobs. On December 23, 2003, Governor Edward G. Rendell signed Act 46 of 2003 into law. Then, on July 12, 2006, Governor Rendell signed Act 116 of 2006 into law. Both laws made several significant revisions to the R&D tax credit provisions.

For R&D tax credits issued through December 2003, the Department of Revenue (Department) could not approve more than $15 million in total tax credits in any fiscal year. Additionally, $3 million of the $15 million was set aside for "small" businesses, where a "small business" is defined as a "for-profit corporation, limited liability company, partnership or proprietorship with net book value of assets totaling…less than five million dollars ($5,000,000)."

Act 46 of 2003 doubled the total amount of R&D tax credits the Department could issue to $30 million for tax credits awarded in December 2004 and December 2005. Act 46 of 2003 also doubled the "small" business set aside to $6 million for R&D tax credits awarded by the Department in December 2004 and December 2005.

Act 116 of 2006 raised the total amount of R&D tax credits the Department could issue to $40 million for tax credits awarded in December 2006 and forward. Act 116 of 2006 also raised the "small" business set aside amount to $8 million for R&D tax credits awarded by the Department in December 2006 and forward.

One of the more noteworthy features of the R&D tax credit program is the ability for R&D tax credit recipients to sell unused tax credits to other taxpayers. Act 46 of 2003 allowed R&D tax credit recipients to apply to the Department of Community and Economic Development (DCED) to sell or assign an R&D tax credit if there has been no claim for allowance filed within one year from the date that the Department approved the credit. The purchaser or assignee must use the newly obtained R&D tax credit in the taxable year in which the purchase or assignment of the credit is made. The purchased or assigned R&D credit cannot be used to offset more than seventy-five percent (75%) of a tax liability for a taxable year. The purchased or assigned credit cannot be

[1] Public Law 99-514, 26 U.S.C. § 41.

carried over, carried back, resold or refunded. The provision to sell or assign unused R&D tax credits applies to credits awarded in December 2003 and forward, but the initial sale or assignment could not take place until at least December 2004.

The R&D tax credit may be claimed against the following taxes: the capital stock and franchise tax (CSFT), the corporate net income tax (CNIT) or the personal income tax (PIT). Taxpayers claiming the credit against any of these taxes may not reduce their tax liability for taxable years 2004 and earlier by more than fifty percent (50%). Act 46 of 2003 eliminated this provision starting with tax year 2005; a taxpayer will be able to use the R&D tax credit to reduce a given tax liability by up to 100%. Taxpayers awarded R&D tax credits by the Department may carry over and apply any unused tax credit for up to fifteen (15) succeeding taxable years.

The Pennsylvania R&D tax credit, which is calculated using the increase over the taxpayer's base year research expenses for qualified R&D conducted within Pennsylvania, originally generated a tentative credit at the rate of 10 percent. However, Act 116 of 2006 increased the rate at which the tentative R&D tax credit is calculated to 20 percent for small businesses only beginning with the credit awarded in December 2006 and forward.

Taxpayers must submit an application to the Department by September 15th to apply for the R&D tax credit. The credit is for qualified Pennsylvania research expenditures made in the taxable year ending in the prior calendar year. The Department has until December 15th to notify taxpayers of their approved tax credit amount.

Under Act 7 of 1997, the R&D tax credit provisions were to sunset for taxable years ending after December 31, 2004. Act 89 of 2002 extended the sunset date for the program until December 31, 2006. Act 116 of 2006 further extended the sunset date for R&D tax credit program for taxable years ending before January 1, 2016. The Department cannot approve any R&D tax credits for any period beyond this date.

Major R&D Tax Credit Provisions in Act 46 of 2003

Act 46 of 2003 mandated that the Department report to the General Assembly the names of all taxpayers awarded R&D tax credits in each year starting in 2004 and for each year thereafter. Appendix A at the end of this report lists the name of each taxpayer receiving the R&D tax credit from the Department in December 2006, 2007 and 2008, along with the amount of credit received and utilized. In an effort to control the size of the document, this report will only list the names of taxpayers who have received the R&D tax credit in the current year and the two preceding years. Reports from earlier years will still be available that retain information on earlier years.

The other major change in the R&D tax credit program made by Act 46 of 2003 was the creation of the R&D Tax Credit Assignment Program. The program, which is primarily administered by DCED, permits taxpayers with unused R&D tax credits to sell them for cash to other taxpayers who can use them. The goal of the program is to "assist the growth and development of technology-oriented businesses, particularly small start-up technology businesses."[2] These small start-up firms, which often do not have significant tax liabilities in their early years,

[2] "Research and Development Tax Credit Assignment Program Guidelines," DCED, September 2004.

receive cash for their unused R&D tax credit.[3] The purchasers of the unused R&D tax credit are then able to partially offset their own tax liabilities with the credit.

The earliest that unused R&D tax credits could be sold was December 2004, for credits awarded by the Department in December 2003. Taxpayers can only sell unused amounts of tax credits that exceed any collectible tax liability against which the credit may be offset. S Corporations may not apply to sell or assign any credit that has been passed-through to its shareholders. In order to sell an unused credit, the taxpayer must file an application with DCED. The application identifies the seller and the R&D tax credit that it intends to sell, along with the buyer and the amount for which the credit is being sold or assigned.[4]

The buyer of the unused R&D tax credit can use it to offset up to 75% of a qualified tax liability in a tax year. The buyer cannot carry forward, carry back, get a refund for or reassign the purchased credit. Further, the buyer must use the purchased tax credit against a qualified tax liability in the taxable year in which it was transferred. Lastly, the buyer must identify to the Department the taxpayer from which they bought the unused R&D tax credit.

An R&D tax credit will be considered to be unused and, therefore, available for sale as long as it is not applied against a specific tax year liability and the taxpayer does not have a collectible tax liability. As of February 2009, about $13.1 million of the $155 million awarded in December 2003 through 2007 has not been utilized and is, therefore, available for sale.

Of the $15 million awarded in December 2003, 14 different taxpayers sold or assigned $1.2 million in unused credits. The unused credits were sold for $1.1 million, or 91.6% of their value.

Of the $30 million awarded in December 2004, 34 different taxpayers sold or assigned $3.5 million in unused credits. The unused credits were sold for $3.2 million, or 89.8% of their value.

Of the $30 million awarded in December 2005, 40 different taxpayers sold or assigned $8.5 million in unused credits. The unused credits were sold for $7.9 million, or 93.4% of their value.

Of the $40 million awarded in December 2006, 47 different taxpayers sold or assigned $6.4 million in unused credits. The unused credits were sold for $5.9 million, or 92.8% of their value.

Of the $40 million awarded in December 2007, 41 different taxpayers sold or assigned $2.2 million in unused credits. The unused credits were sold for $2.0 million, or 92.5 of their value.

In total, for 2003 through 2007, $21.8 million in unused credits have been sold for about $20.1 million, or about 92.5% of their value.

R&D Tax Credit Claimed and Awarded in Pennsylvania for December 2008

Table 1 shows the amount of R&D tax credit approved by the Department in 2008 for qualified research expenditures made by taxpayers in Pennsylvania in taxable year 2007. Without the $40 million cap, almost $91 million in credit would have been awarded to 466 taxpayers. Just over 74% of approved taxpayers received an R&D tax credit of less than $50,000, receiving 11.8% of the total amount of approved credit. Taxpayers with an approved R&D tax credit of $50,000 or

[3] "Unused R&D tax credits" means that the taxpayer has not applied the tax credits against a specific tax year liability. Further, the taxpayer cannot sell the tax credit if it has any unpaid liabilities against which the tax credit could be used.
[4] For more information on the application process, see "Research and Development Tax Credit Assignment Program Guidelines," DCED, September 2004, or contact DCED, Technology Investment Office, (717) 787-4147.

more claimed 88.2 % of the approved credit amount. The 120 applicants receiving $50,000 or more in credit represented just about 26% of the total number of applicants.

Table 1. Pennsylvania Research and Development Tax Credit Program
Tentative and Approved Credit Awarded in 2008[5]

Credit Range	Number of Applicants	Percent of Applicants	Tentative Credit Amount[6]	Approved Credit Amount[7]	Percent of Approved Credit
$0 - $4,999	95	20.4%	$ 415,603	$ 204,900	0.5%
$5,000 - $19,999	164	35.2%	$ 3,212,126	$ 1,805,037	4.5%
$20,000 - $49,999	87	18.7%	$ 4,500,731	$ 2,719,423	6.8%
$50,000 - $99,000	53	11.4%	$ 7,440,879	$ 3,704,885	9.3%
$100,000 - $499,999	53	11.4%	$22,951,133	$10,743,158	26.9%
$500,000 - $999,999	5	1.1%	$ 8,229,484	$ 3,185,868	8.0%
$1,000,000 & greater	9	1.9%	$43,962,909	$17,636,729	44.1%
TOTAL	**466**	**100%**	**$90,712,865**	**$40,000,000**	**100%**

Table 2 details the tentative amount of R&D tax credit approved by the Department in the preceding 11 years, beginning with the inception of the program in December 1997.

Table 2. Pennsylvania Research and Development Tax Credit Program
Tentative Credit Awarded for 1997-2007

Credit Awarded In	Number of Applicants	Tentative Credit Amount
December 1997	292	$66,371,038
December 1998	270	$56,572,339
December 1999	275	$53,456,489
December 2000	284	$59,207,493
December 2001	293	$71,407,604
December 2002	254	$74,255,800
December 2003	242	$70,191,922
December 2004	274	$70,932,913
December 2005	291	$65,806,128
December 2006	379	$78,640,025
December 2007	439	$94,732,918

[5] Detail may not add due to rounding; 88 other applicants were rejected and did not receive any credit.
[6] “Tentative” refers to the amount approved by the Department prior to pro-ration to maintain the $40 million cap.
[7] “Approved” refers to the pro-rated or final amount.

Table 3 presents the R&D tax credit approved in December 2008 by business type.

Table 3. Pennsylvania Research and Development Tax Credit Program
Actual Credits by Business Type in 2008

Business Type	Number of Taxpayers	Percent of Taxpayers	Amount of Actual Credit	Percent of Actual Credit
Manufacturing	218	46.8%	$27,173,052	67.9%
Services	175	37.6%	$ 7,898,055	19.7%
Misc.[8]	73	15.6%	$ 4,928,893	12.4%
TOTAL	**466**	**100%**	**$40,000,000**	**100%**

A little less than half of the taxpayers receiving the tax credit were manufacturers, claiming over two-thirds of the total amount of approved credit. Pharmaceutical manufacturers claimed the largest single share; the 16 pharmaceutical manufacturers requesting credit were awarded $14.1 million. Another large group of credit recipients included 40 computer-related companies in the service sector. They claimed just over $1.2 million in credit in 2008.

Table 4 provides a breakdown of the R&D tax credit claimed by "small" and "not small" businesses in December 2008. As noted earlier, "small" businesses are those with net book assets of less than $5 million.

Table 4. Pennsylvania Research and Development Tax Credit Program
Small and Not Small Businesses in 2008

Business Size	Number of Applicants	Percent of Applicants	Tentative Credit Amount	Approved Credit Amount	Percent of Approved Credit
Small	205	44.0%	$ 8,052,975	$ 8,000,000	20.0%
Not Small	261	56.0%	$82,659,890	$32,000,000	80.0%
TOTAL	**466**	**100%**	**$90,712,865**	**$40,000,000**	**100%**

In December 2008, "small" businesses claimed the highest amount of credit they ever have in any year in the history of the program, and only the second year in the history of the program that the "small" business set aside was awarded in full. "Small" businesses in 2008 claimed the entire $8 million in R&D tax credit set aside for them; "small" businesses received 99.3% of the credit for which they applied. Last year, "small" businesses received 100% of the credit for which they applied because they applied for less than the capped amount set aside for them. The $40 million program cap reduced the amount of credit approved for the "not small" businesses to 38.7% of the requested amount. Last year, "not small" businesses received 37.7% of the amount of credit they requested.

[8] Misc. business type includes business activities associated with individuals or corporations with standard industrial classification (SIC) codes for the agriculture, construction, utilities, wholesale, retail or financial, insurance and real estate sectors.

Table 5 shows the history of the R&D tax credit for the “small” business set aside for 1997 through 2007. The first year in which “small” businesses claimed the total amount of credit set aside for them was 1999 when the limit was $3 million. Act 46 of 2003 increased the “small” business set aside to $6 million for R&D tax credits awarded beginning in December 2004. Act 116 of 2006 raised the “small” business set aside to $8 million for R&D tax credits awarded beginning in December 2006. When “small” businesses claim less than the R&D credit set aside for them, the “not small” businesses receive a pro-rated amount of the excess R&D tax credit not claimed by the “small” businesses.

Table 5. Pennsylvania Research and Development Tax Credit Program History of the Small Business Set Aside, 1997-2007

Credit Awarded In	Number of Applicants	Tentative Credit Amount	Approved Credit Amount
December 1997	67	$ 889,054	$ 889,054
December 1998	85	$1,821,354	$1,821,354
December 1999	82	$3,001,986	$3,000,000
December 2000	83	$1,545,359	$1,545,359
December 2001	75	$1,373,382	$1,373,382
December 2002	79	$1,615,602	$1,615,602
December 2003	81	$1,082,263	$1,082,263
December 2004	94	$1,419,845	$1,419,845
December 2005	108	$2,268,046	$2,268,046
December 2006	173	$7,081,079	$7,081,079
December 2007	193	$6,845,879	$6,845,879

Table 6 shows the amount of R&D tax credit that has been applied to CNIT, CSFT and PIT for taxable years 1997 through 2006. The data in table 6 are only for taxpayers that have directly received the tax credit from the Department. Taxpayers that have purchased an unused tax credit are not included in this table.

The first taxable year against which the credit could be used was 1997. For PIT, individuals who received the credit directly are included, as are any individual owners of S corporations or limited liability companies (LLCs) who received the pass-through benefit. All credit amounts are as of February 2009.

Table 6 shows the distribution of the R&D tax credits that have been applied to specific tax years. As of February 2009, just over 84% of the $205 million in R&D tax credit that has been awarded for 1997 though 2006 has been applied to specific tax periods. About 56% of the credit awarded that has been applied has been applied to the CSFT; 40.2% has been applied to the CNIT. Approximately 3.5% of the credit awarded that has been applied has been applied to the PIT. Also, it is important to note that the amount of tax credit applied to a particular taxable year can vary over time as a taxpayer’s taxable year liability may change due to settlement, resettlement or the application of other credits.

Table 6. Pennsylvania Research and Development Tax Credit Program Application by Tax Type and Taxable Year, 1997-2006

Taxable Year	Corporate Net Income Tax	Number of Taxpayers	Capital Stock & Franchise Tax	Number of Taxpayers	Personal Income Tax	Number of Taxpayers
1997	$ 4,808,403	93	$ 3,572,614	182	$ 187,863	91
1998	$ 2,589,218	76	$ 5,192,445	189	$ 781,167	182
1999	$ 3,066,611	83	$ 6,245,436	225	$ 438,329	160
2000	$ 4,495,931	77	$ 6,419,535	190	$ 515,788	187
2001	$ 6,364,344	82	$ 7,021,924	202	$ 528,124	162
2002	$ 7,948,593	50	$ 5,201,957	208	$ 468,922	155
2003	$ 8,682,303	59	$ 9,487,415	207	$ 320,144	140
2004	$ 14,536,579	63	$ 9,042,636	270	$ 683,237	153
2005	$ 10,004,422	59	$18,593,907	288	$ 990,734	155
2006	$ 7,008,663	66	$26,697,381	312	$ 1,218,521	172
TOTAL	**$69,505,066**		**$97,475,247**		**$6,132,829**	

It should be noted that it is possible that some portion of the R&D tax credit awarded by the Department might never be used against a tax year liability, particularly those credits not affected by the provisions of Act 46 of 2003. One possible reason for non-use is a reorganization in which a taxpayer claiming the credit goes out of existence or merges with another business before applying the credit against a tax liability. Another observation about usage of the tax credit is that, for taxable years prior to 2005, the amount of credit a taxpayer could claim against a tax type in one tax year was limited to 50% of the tax liability. This provision had ensured that a taxpayer could not totally eliminate a tax liability using only the R&D tax credit. However, Act 46 of 2003 eliminated the 50% limit. This fact, combined with the 15-year carryover, should allow taxpayers to receive most, if not all, of the tax benefit of the credit. Further, the provision in Act 46 of 2003 allowing the sale or assignment of any unused R&D tax credit awarded in December 2003 and after should minimize how much R&D tax credit is not utilized.

Current law reduces the CSFT rate each year until the tax is completely eliminated for taxable years beginning on or after January 1, 2011. Once the CSFT is eliminated, the R&D tax credit can no longer be claimed against it. This is important for S corporations and LLCs that are primarily subject to the CSFT, not the CNIT. S corporations and LLCs may pass the tax credit through to shareholders who can claim it against their PIT. The final year that the R&D tax credit will be awarded is 2015. Therefore, S corporations and LLCs, in order to use the R&D tax credit after 2011, will have to either apply it against PIT or sell their unused tax credits. They will be able to carry it forward for up to 15 taxable years.

Taxes Paid by R&D Tax Credit Recipients

The descriptive information provided in Table 7 shows the CNIT and CSFT liabilities for taxable year 2006 (the latest year for which reports are available for all taxpayers) for taxpayers receiving the R&D tax credit in 2008. Table 7 and Table 3 have a similar structure in order to provide comparability. Please note that taxpayers claiming the credit against the personal income tax are not included in these data. Also, taxpayers who purchased unused R&D tax credit are not included in these data.

Table 7. Pennsylvania Research and Development Tax Credit Program Taxable Year 2006 Tax Liabilities by Business Type

Business Type	2006 CSFT Liability	2006 CNIT Liability
Manufacturing	$10,264,029	$104,276,242
Services	$ 3,528,054	$ 17,477,051
Misc.	$ 8,493,356	$ 19,273,406
TOTAL	**$22,285,439**	**$141,026,699**

In order to provide an idea of the relative value of the R&D tax credit to recipients, an analysis was conducted comparing the R&D tax credit awarded in 2008 to the total tax year 2006 self-assessed[9] CNIT and CSFT liabilities. Of the 461 taxpayers receiving the R&D tax credit in 2008 that are subject to the CNIT or CSFT, their total self-assessed 2006 tax year CNIT and CSFT liabilities totaled $163.3 million. Though there are obviously varied ratios per individual taxpayer, overall the amount of tax credit awarded represents 24.5% of the self-assessed tax amount and 55.5% of the amount of the R&D tax credit requested. In comparison, the overall amount of tax credit awarded in 2006 ($40.0 million) represented 23.3% of the total self-assessed tax amount for tax year 2004 and 55.4% of the amount of R&D tax credit requested.

The total 2006 CSFT liability for S corporations and LLCs receiving the R&D tax credit in 2008 was $0.7 million. Out of the 118 Pennsylvania S corporations or LLCs, 23 had a CSFT liability of zero for 2006. The total 2006 CSFT liability for C corporations receiving the R&D tax credit in 2008 was $21.6 million. Out of the 343 C corporations, 98 had a CSFT liability of zero for 2006.

The 343 C corporations receiving the tax credit in 2007 had a total taxable year 2005 CNIT liability of $141.0 million. Of these companies, 208 were C corporations with a taxable year 2006 CNIT liability equal to zero, due to either zero or negative net income in taxable year 2006. In most cases, the income of Pennsylvania S corporations and LLCs is passed through to the individual owners and subject to the personal income tax. However the CNIT paid reported here does include some tax revenue paid by 5 LLCs or S corporations for tax year 2006.

Federal R&D Tax Credit Program

The federal government first adopted the R&D tax credit in 1981. The federal government does not cap the total credit amount that can be claimed in a taxable year. Despite the effort of some members of Congress, the R&D tax credit has never been a permanent part of the Internal Revenue Code (IRC). It has been extended eleven times (most recently in October 2008) and lapsed on eight occasions (1986, 1992, 1995, 1997, 1999, 2004, 2005 and 2007). Under current federal law, the R&D tax credit has been renewed through December 31, 2009.

The public policy goal of the R&D tax credit is to encourage the private sector to increase R&D spending, which in turn serves as a catalyst to economic growth by increasing productivity

[9] In some cases, the tax liability may have been self-assessed and settled.

through the utilization of new technology. The credit is justified in economic theory on the basis of market failure, which occurs because firms may under-invest in R&D when they tend to not recoup all associated costs of investing in R&D. Hence, less R&D occurs than would be economically optimal for the economy as a whole. The R&D tax credit is a method for lowering the cost of R&D to private firms and increasing the return on investment. By increasing the rate of return on investment, the R&D tax credit encourages more R&D than would occur if the credit did not exist.

R&D Expenditures in Pennsylvania and the United States

In 1995, according to the National Science Foundation, private industry in Pennsylvania spent $4,955 million on R&D expenditures. This was about 4.6% of the total R&D expenditures by private industry in 1995 in the United States ($108,652 million).

By 2005, the total amount of R&D expenditures in Pennsylvania by private industry had risen to $8,640 million. This was an increase over the 10 year period of 74.4%. Over the same period, total R&D expenditures by private industry in the United States had risen by 88.0% to a level of $204,250 million. For 2005, R&D expenditures in Pennsylvania by private industry were about 4.2% of total R&D expenditures by private industry in the United States.

For comparison sake, the 379 R&D tax credit applicants in 2006 had total R&D expenditures in 2005 of $3,168.8 million. Not all R&D done by industry in Pennsylvania is performed by R&D tax credit applicants.

A study released in April 2008[10] by the R&D Credit Coalition, an organization of trade associations and companies dedicated to the permanent establishment of the federal R&D tax credit, examined the broad impact of the R&D tax credit in 2005. The study found that R&D spending by the private sector in 2005 in Pennsylvania amounted to 1.97% of the private sector Gross State Product (GSP). For comparison sake, the study also found that R&D spending by the private sector in 2005 in the United States amounted to 1.88% of the private sector GSP.

R&D Tax Credit Programs in Other States

A majority of states that have a corporate net income tax have sought to capture the potential benefits of encouraging R&D within their state by enacting an R&D tax credit. There are 39 other states besides Pennsylvania that provide for R&D tax credits. Most incorporate provisions of current or former R&D credits under the Internal Revenue Code.[11]

New Jersey's R&D tax credit is like Pennsylvania's in that it mirrors the federal R&D tax credit. However, New Jersey's R&D tax credit statute does not cap the total amount of credit that can be awarded in a year. Like the Pennsylvania R&D tax credit prior to Act 46 of 2003, there is a 50% cap on the amount of credit that a taxpayer can apply against its tax year liability. For tax year 2006, 254 returns were filed claiming $42.7 million in credit. Additionally, the New Jersey R&D tax credit statute allows certain biotech and emerging technology companies to sell unused R&D tax credits to any company paying the corporate net income tax.[12] After Act 46 of 2003, all companies receiving the Pennsylvania R&D tax credit, regardless of their business sector, can sell or assign any unused R&D tax credits awarded beginning in December 2003.

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[10] "Supporting innovation and economic growth: The broad impact of the R&D credit in 2005," Prepared by Ernst and Young LLP for the R&D Credit Coalition, April 2008.
[11] CCH Incorporated, Multistate Charts, ¶680-200 Credits for Investment/Research Activities.
[12] Companies with 225 employees or less may sell unused R&D tax credits in New Jersey.

Effectiveness of State R&D Tax Credit Programs

There has been relatively little research into the effectiveness of state R&D tax credits. Dr. Lolita A. Paff, an associate professor of business and economics at Penn State University, Berks-Lehigh Valley College, has done research in this area. While she has not formally examined the Pennsylvania R&D tax credit, she has analyzed and written about the effectiveness of the R&D credits in other states. In a paper examining the effectiveness of the R&D tax credits in Massachusetts and California, she found that state-level research and development tax credits may encourage certain types of R&D investment within a state.[13]

Overall, while there are indications that state R&D tax credits may be effective in some instances in increasing R&D activities within a state, it is clear that more research into the effectiveness of the state R&D tax credits is needed in order to better understand the direction and magnitude of the impact as well as the impact across different business sectors.

Effectiveness of the Pennsylvania R&D Tax Credit Program

The time frame for R&D projects in the private sector can be lengthy. It is not uncommon for businesses to have R&D projects extend for 10 to 15 years or more. The Pennsylvania R&D tax credit has thus far only had a potential impact on increasing research expenses in eleven years, 1997 through 2007. Although 1996 Pennsylvania research expenses were used to calculate the credit in 1997, the taxpayer's R&D decisions could not have been affected by the credit prior to enactment of Act 7 in May 1997. Plus, the changes made by Act 46 of 2003 altered several parameters of the program that could impact the effectiveness of the R&D tax credit. Some observations can be made about the effectiveness of the Pennsylvania R&D tax credit in its relatively short existence.

Over the lifetime of the R&D tax credit program, 1,337 different taxpayers have been awarded some amount of credit. The number of taxpayers qualifying for the tax credit due to increased Pennsylvania research expenditures is still expanding, though there is some volatility from taxable year to taxable year regarding Pennsylvania research expenditure amounts.

Of the 466 taxpayers receiving the R&D tax credit in 2008, 123 were either Pennsylvania S corporations, LLCs or individuals and 343 were C corporations. The S corporations, LLCs and individuals received $2.4 million in R&D tax credit, while the C corporations received $37.6 million.

The 466 taxpayers claiming the R&D tax credit in 2008 had total Pennsylvania research expenditures in taxable year 2007 of $3,568.9 million. This was a 8.2% increase compared to their total Pennsylvania research expenditures in taxable year 2006 of $3,298.8 million.

Impact on Not Small Businesses

Out of the 466 taxpayers receiving the tax credit in 2008, 261 did not qualify as "small" businesses. Their total Pennsylvania research expenditures in taxable year 2007 were $3,460.0 million, a 7.2% increase over their taxable year 2006 Pennsylvania research expenditures of $3,227.7 million.

Of the 261 "not small" businesses, 194 increased their Pennsylvania research expenditures in taxable year 2007 over taxable year 2006 by 16.3% in the aggregate. Their Pennsylvania research

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[13] Lolita A. Paff (2005) "State-Level R&D Tax Credits: A Firm-Level Analysis ", *Topics in Economic Analysis & Policy*: Vol. 5: No. 1, Article 17.

expenditures in taxable year 2007 rose to $2,674.1 million from $2,299.2 million in taxable year 2006. Only 67 of these businesses reduced their Pennsylvania research expenditures over the same period. Their Pennsylvania research expenditures in taxable year 2007 declined by 15.4% to $785.6 million from $928.5 million in taxable year 2006.

Impact on Small Businesses

Out of the 466 taxpayers receiving the tax credit in 2008, 205 were "small" businesses. Their total Pennsylvania research expenditures in taxable year 2007 were $109.2 million, a 53.6% increase over their taxable year 2006 Pennsylvania research expenditures of $71.1 million.

The 205 "small" businesses received the total $8.0 million in credit set aside for them in 2008, the most ever in the history of the program. This is only the second time in the history of the program that the "small" businesses have claimed the total amount of R&D tax credit set aside for them.

Of the 205 "small" businesses, 165 increased their Pennsylvania research expenditures in taxable year 2007 over taxable year 2006 by 70.1% in the aggregate. Their Pennsylvania research expenditures in taxable year 2007 rose to $95.5 million from $56.2 million in taxable year 2006. Only 40 "small" businesses reduced their Pennsylvania research expenditures over the same period. Their Pennsylvania research expenditures in taxable year 2007 declined by 8.3% to $13.7 million from $14.9 million in taxable year 2006.

Impact on First Time Claimants and New Companies

In 2008, 132 taxpayers were awarded the tax credit for the first time, claiming $6.8 million in credit. Their Pennsylvania research expenditures totaled $444.8 million for taxable year 2007. Conversely, 168 taxpayers that claimed the tax credit in 2007 did not receive any credit in 2008. These 168 taxpayers had Pennsylvania research expenditures in taxable year 2006 of about $1,315.9 million and claimed about $9.5 million in tax credit in 2007.

Of all the taxpayers claiming the R&D tax credit in 2008, 206 were companies incorporated in Pennsylvania after the passage of Act 7 of 1997. It is possible that not all of these newly incorporated companies are start-ups, but may be newly formed subsidiaries of a parent corporation. These companies claimed about $21.2 million in tax credit in 2008 and had total Pennsylvania research expenditures in taxable year 2007 of about $1,285.1 million, a 2.5% increase from their Pennsylvania research expenditures in taxable year 2006 of about $1,254.3 million.

The 206 recently incorporated companies had a total taxable year 2006 CSFT liability of $3.4 million; 91 taxpayers had zero tax liability. The 206 new companies had a total taxable year 2006 CNIT liability of $27.7 million; 168 taxpayers had zero tax liability.

Impact on Established Companies

In order to provide more insight into the companies that regularly claim the R&D tax credit, this report will examine 36 taxpayers for which the Department has tracked Pennsylvania research expenditures for the last ten taxable years, from 1998 through 2007. This group of credit recipients has received $63.3 million in total tax credit from 1997 through 2008, or about 22.2% of the total $285 million awarded over the twelve years. These 36 companies represent 12.3% of the number of companies that received the R&D tax credit in its first year, 1997. As a group, these taxpayers are a representative cross-section of the type of companies that have come to consistently claim the R&D tax credit.

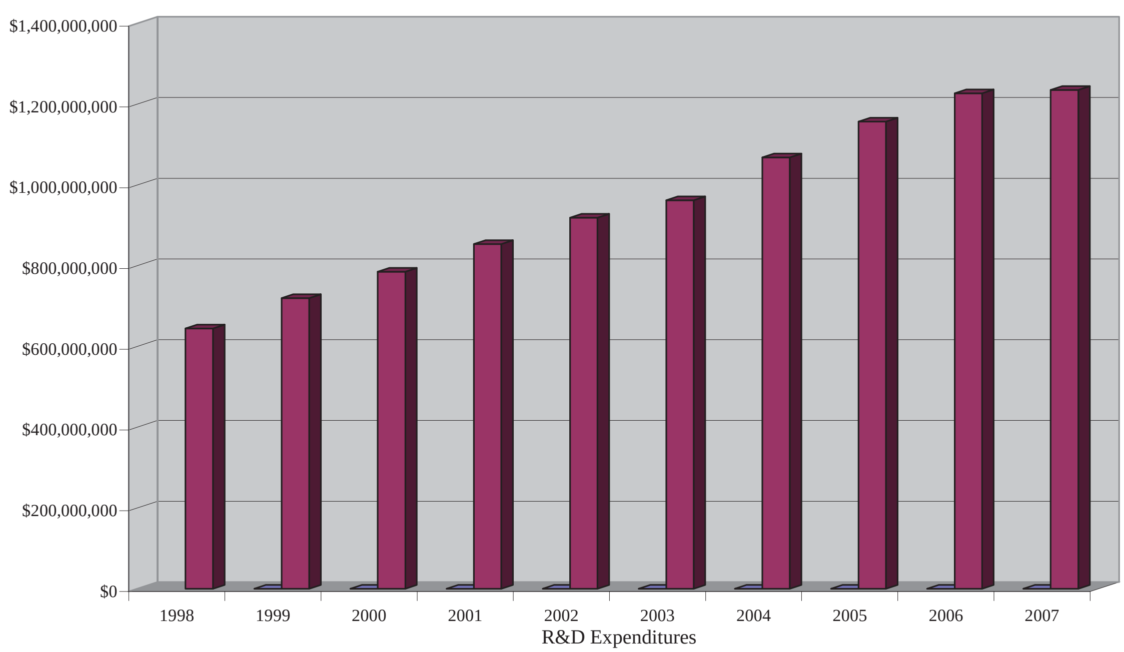
For these 36 taxpayers, their 2007 Pennsylvania R&D expenditures totaled about $1.2 billion. This is an aggregate growth rate of 91.7% over their 1998 Pennsylvania R&D expenditures of about $0.6 billion; between 1998 and 2007, the Pennsylvania R&D expenditures for these 36 taxpayers grew at an compound annual growth rate of 7.5%

These 36 taxpayers were awarded about $5.9 million in R&D tax credit in 2008. This credit amount was about 0.5% of their total amount of Pennsylvania research expenditures for the taxpayers in taxable year 2007. Overall, it is important to note that the R&D tax credit awarded was relatively small when compared to the amount of money spent by the taxpayers to conduct their research activities in the Commonwealth.

The 36 established taxpayers had a total CSFT liability for taxable year 2006 of $5.0 million and a total CNIT liability for taxable year 2006 of $37.6 million.

Chart 1 graphically shows the Pennsylvania R&D expenditures for the 36 established taxpayers for the last ten taxable years, 1998 through 2007.

Chart 1. Pennsylvania R&D Expenditures by Year for 36 Established Companies With PA Expenditure Data Between 1998 and 2007



Small versus Not "Small"

Of the 36 taxpayers, 27 did not qualify as "small" businesses. They received about $62.3 million in tax credit over the twelve years of the program. Their 2007 Pennsylvania R&D expenditures totaled about $1.2 billion. This is an aggregate growth rate of 91.5% over their 1998 Pennsylvania R&D expenditures of about $0.6 billion; between 1998 and 2007, the Pennsylvania R&D expenditures for these 27 taxpayers grew an compound annual growth rate of 7.5%

Of the 36 taxpayers, there were 9 “small” businesses that received about $1.0 million in tax credit over the twelve years of the program. Their 2007 Pennsylvania R&D expenditures totaled about $5 million. This is an aggregate growth rate of 151.2% over their 1998 Pennsylvania R&D expenditures of about $1.9 million; between 1998 and 2007, the Pennsylvania R&D expenditures for these 9 taxpayers grew an compound annual growth rate of 10.8%.

By Industry Type

Of the 36 taxpayers, 27 were classified as manufacturers. They received about $60.4 million in tax credit over the twelve years of the program. Their 2007 Pennsylvania R&D expenditures totaled about $1.2 billion. This is an aggregate growth rate of 91.9% over their 1998 Pennsylvania R&D expenditures of $0.6 billion; between 1998 and 2007, the Pennsylvania R&D expenditures for these 27 taxpayers grew an compound annual growth rate of 7.5%

Of the 36 taxpayers, there were 9 “small” businesses that received about $2.9 million in tax credit over the twelve years of the program. Their 2007 Pennsylvania R&D expenditures totaled about $48.2 million. This is an aggregate growth rate of 87.1% over their 1998 Pennsylvania R&D expenditures of about $25.8 million; between 1998 and 2007, the Pennsylvania R&D expenditures for these 9 taxpayers grew an compound annual growth rate of 7.2%

Conclusions on the Impact of the R&D Tax Credit in Pennsylvania

When all 466 taxpayers receiving the R&D tax credit in 2008 were examined, “small” businesses increased their Pennsylvania research expenditures in taxable year 2007 more than “not small” businesses. However, the Pennsylvania research expenditures for “small” businesses were only 3.1% of the total Pennsylvania research expenditures in taxable year 2007. The overwhelming majority of Pennsylvania research expenditures continue to be made by taxpayers not classified as “small” businesses.

Of the 36 taxpayers examined for whom the Department has tracked Pennsylvania research expenditures for the last ten taxable years, for 1998 through 2007, manufacturers were the primary beneficiaries. Across all of the business types, the R&D tax credit remains a small percentage of Pennsylvania research expenditures. Hence, many other factors are likely to affect a company’s R&D spending decisions.

Conclusion

The R&D tax credit has existed in Pennsylvania for twelve years. Literature evaluating the effectiveness of the federal R&D tax credit asserts that the federal R&D tax credit provides economic benefits and is, generally, an effective tool. Many factors other than the R&D tax credit influence a company’s R&D investment decisions. This report’s other observations can be summarized as:

- In 2008, 466 companies were awarded credits, receiving the capped amount of $40 million, or just over 44% of the amount requested. This was the largest number of companies ever awarded the credit in one year.
- In the absence of a cap, $90.7 million in tax credits would have been awarded. This was the second highest amount of tentative credit ever issued in one year.

- In tax year 2007, the 466 companies awarded the R&D tax credit in 2008 had total Pennsylvania research expenditures of $3,568.9 million, an 8.2% increase over their tax year 2006 Pennsylvania research expenditures.
- Manufacturing firms, particularly pharmaceutical manufacturers, continue to be the primary beneficiaries of the R&D tax credit.
- “Small” businesses claimed all of the $8.0 million in tax credit set aside for them in 2008. This was the largest amount of credit ever claimed by “small” businesses in one calendar year, and only the second time that “small” businesses claimed all of the tax credit set aside for them.,
- As of February 2009, a total of $21.8 million in unused R&D tax credit have been sold from 2003 through 2007; approximately $20.1 million was paid for the unused credit, or about 92.5% of their value.

APPENDIX A

Table 1. Pennsylvania Research & Development Tax Credit Program
Taxpayers Receiving Credit in December 2006, 2007 and 2008 in Dollars
Sorted by 2008 Credit Awarded (Largest to Smallest)

Taxpayer Name	*2008 Credit Awarded*	*2008 Credit Utilized*[1]	*2006 & 2007 Credit Awarded*	*2006 & 2007 Credit Utilized*[1]
Centocor Research & Development Inc.	$4,806,417	$0	$6,270,357	$5,990,609
SmithKline Beecham Corporation DBA GlaxoSmithKline	$2,990,917	$0	$9,665,184	$9,665,184
Sanofi Aventis US Inc.	$1,925,940	$0	$0	$0
Lockheed Martin Corporation	$1,537,653	$0	$876,254	$876,254
General Electric Company	$1,451,925	$0	$0	$0
Comcast Corporation	$1,385,350	$0	$2,030,322	$115,324
Rohm and Haas Chemicals LLC	$1,269,306	$0	$1,650,568	$222,363
Pfizer Inc.	$1,257,546	$0	$2,655,910	$2,655,910
Ception Therapeutics, Inc.	$1,011,676	$0	$0	$0
Wyeth	$802,021	$0	$1,126,294	$1,126,294
J&J Pharmaceutical Research and Development LLC	$629,531	$0	$3,217,929	$2,041,081
Amgen Inc.	$619,437	$0	$555,435	$9,484
Mutual Pharmaceutical Company, Inc.	$570,051	$0	$572,539	$572,539
Carpenter Technology Corporation	$564,828	$0	$328,523	$0
Sioptical, Inc.	$443,165	$0	$377,842	$377,842
Siemens Medical Solutions USA, Inc.	$441,484	$0	$0	$0
Heinz Management LLC	$433,931	$0	$161,094	$0
Shire Pharmaceuticals Inc.	$402,051	$0	$434,290	$434,290
Nupathe, Inc.	$369,626	$0	$173,741	$173,741
Sanofi Pasteur Inc. (fka Aventis Pasteur Inc.)	$363,760	$0	$942,608	$942,608
Knopp Neurosciences Inc.	$362,564	$0	$0	$0
SEI Global Services Inc.	$346,425	$0	$1,001,806	$0
Synthes Spine, Inc.	$344,128	$0	$871,354	$871,354
Respironics, Inc.	$330,527	$0	$1,024,711	$414,116
Mack Trucks, Inc.	$302,585	$0	$81,719	$81,719
Eaton Electrical Inc.	$292,429	$0	$91,078	$91,078
Medrad Inc.	$283,695	$0	$728,421	$728,421
Vocollect Healthcare Systems	$256,809	$0	$0	$0
Lutron Electrics Co., Inc.	$253,397	$0	$673,799	$639,307
JLG Industries, Inc.	$252,468	$0	$0	$0
CNH America LLC	$227,419	$0	$969,976	$514,431
Neotropix, Inc.	$223,640	$0	$358,119	$358,119
The Proctor & Gamble Paper Prod Company	$196,534	$0	$141,465	$103,687
CA Research Inc.	$188,367	$0	$6,510	$6,510
Vocollect Inc.	$174,581	$0	$542,625	$542,625
Agentase, LLC	$171,838	$0	$0	$0
Novartis Pharmaceuticals Corporation	$169,868	$0	$0	$0
Datacap Systems, Inc.	$168,770	$0	$226,446	$50,510
Immune Control Inc.	$165,927	$0	$195,794	$3,835
Arkema Inc.	$163,241	$0	$0	$0
Fedex Ground Package System, Inc.	$163,127	$0	$60,584	$0
Allegheny Ludlum Corporation	$151,622	$0	$88,268	$0
Tyco Electronics Corporation	$149,337	$0	$773,769	$82,437
Prism Pharmaceuticals, Inc.	$148,459	$0	$89,647	$15,720
Edcomm, Inc.	$148,225	$0	$75,343	$75,343
Innovative Solutions & Support, Inc.	$137,659	$0	$77,533	$0
Syth, Inc.	$136,330	$0	$505,007	$505,007
Portico Systems, Inc.	$135,527	$0	$52,479	$188
Silverstorm Technologies Inc.	$133,586	$0	$0	$0
Extol International, Inc.	$133,294	$0	$166,197	$89
Ciber, Inc	$132,028	$0	$200,419	$130,782

Taxpayer Name	*2008 Credit Awarded*	*2008 Credit Utilized*[1]	*2006 & 2007 Credit Awarded*	*2006 & 2007 Credit Utilized*[1]
Arrow International, Inc.	$129,944	$0	$257,445	$122,490
Auxilium Pharmaceuticals Inc.	$129,688	$0	$83,783	$0
Melior Discovery, Inc.	$125,681	$0	$0	$0
Mine Safety Appliances Company	$123,518	$0	$230,788	$230,788
Nextgen Healthcare Information Systems Inc.	$122,220	$0	$64,157	$64,157
Flexuspine, Inc.	$119,575	$0	$0	$0
II-VI Incorporated	$118,139	$0	$50,064	$50,064
Alita Pharmaceuticals, Inc.	$115,532	$0	$0	$0
International Business Machines Corporation	$110,279	$0	$118,169	$118,169
Tengion, Inc.	$110,185	$0	$80,698	$80,698
E I Du Pont De Nemours and Company	$109,519	$0	$187,940	$187,940
Lord Corporation	$108,981	$0	$115,066	$62,420
Plextronics, Inc.	$108,744	$0	$474,068	$474,068
Prescient Medical, Inc.	$106,714	$0	$61,787	$4,519
Seegrid Corporation	$104,386	$0	$61,838	$61,838
Avid Radiopharmaceuticals, Inc.	$101,627	$0	$0	$0
McKesson Automation Inc.	$99,717	$0	$175,550	$53,589
Accenture LLP	$92,450	$0	$0	$0
Ansys Inc.	$91,070	$0	$458,353	$458,353
Synthes North America, Inc.	$90,887	$0	$336,672	$336,672
Gentis, Inc.	$90,212	$0	$113,547	$61,809
Nucleonics, Inc.	$86,292	$0	$855,752	$425,950
Polymedix Pharmaceuticals, Inc.	$84,768	$0	$67,626	$56,687
Animas Corporation	$84,072	$0	$86,066	$50
Chant Engineering Company, Inc.	$83,757	$0	$0	$0
Onconova Therapeutics Inc.	$83,345	$0	$0	$0
Dentsply Prosthetics LLC	$81,228	$0	$63,997	$54,387
Applied Systems Associates, Inc.	$79,909	$0	$174,447	$28,888
Othera Pharmaceuticals, Inc.	$78,615	$0	$104,653	$332
Cohera Medical Inc.	$77,004	$0	$0	$0
Agrofresh Inc.	$76,276	$0	$148,012	$72,035
Colorcon, Inc. & Division	$76,080	$0	$97,888	$85,274
The Hershey Company	$75,128	$0	$0	$0
Teletracking Technologies, Inc.	$75,090	$0	$123,109	$85,353
Allomet Corporation	$74,252	$0	$67,944	$0
Optium Corporation	$73,652	$0	$14,924	$1,511
Specialty Tires of America - PA	$73,298	$0	$139,507	$0
Grant Street Group, Inc.	$71,976	$0	$69,293	$13,566
Graco Children's Products Inc.	$71,725	$0	$0	$0
Ascenta Therapeutics, Inc.	$70,869	$0	$0	$0
Ciclon Semiconductor Device Corporation	$70,645	$0	$45,856	$0
Bitarmor Systems Inc.	$67,811	$0	$55,060	$8,789
Freedom Sciences LLC	$67,782	$0	$0	$0
Aprecia Pharmaceuticals Company, Inc.	$67,386	$0	$72,700	$0
Power Medical Interventions, Inc.	$67,335	$0	$0	$0
Protez Pharmaceuticals, Inc.	$66,195	$0	$186,868	$3,767
Teleflex Incorporated	$65,787	$0	$156,569	$156,569
Tetralogic Pharmaceuticals Corporation	$65,392	$0	$47,612	$22,975
Jade Equipment Corp	$64,956	$0	$56,549	$55,390
National Magnetics Group, Inc.	$64,941	$0	$21,457	$0
Avery Dennison Corporation	$64,283	$0	$0	$0
Justsystems Evans Research Inc.	$62,907	$0	$0	$0
Process Combustion Corporation	$62,758	$0	$0	$0
Immunotope Inc.	$62,663	$0	$51,992	$51,992
IOFY Corporation	$60,335	$0	$32,558	$32,558
Promedior, Inc.	$59,969	$0	$0	$0
Nutec Tooling Systems, Inc.	$59,181	$0	$70,109	$46,719
Dynamis Therapeutics, Inc.	$57,978	$0	$58,024	$57,191
Protalex, Inc.	$57,918	$0	$30,793	$0
LCR Electronics, Inc.	$56,555	$0	$85,351	$85,351

Taxpayer Name	*2008 Credit Awarded*	*2008 Credit Utilized[1]*	*2006 & 2007 Credit Awarded*	*2006 & 2007 Credit Utilized[1]*
S&W Race Cars & Components, Inc.	$56,147	$0	$40,819	$36,116
Tacoda, Inc.	$55,993	$0	$0	$0
Cyoptics, Inc.	$55,110	$0	$67,048	$67,048
P. H. Glatfelter Company	$54,910	$0	$0	$0
Ansoft Corporation	$54,595	$0	$370,090	$370,090
Fleetwood Industries	$54,385	$0	$41,380	$1,209
Clearcount Medical Solutions, Inc.	$53,790	$0	$52,412	$0
Kennametal Inc.	$53,215	$0	$145,038	$0
MapQuest, Inc.	$52,293	$0	$0	$0
Pennsylvania General Energy Company LLC	$49,863	$0	$151,468	$45,730
Bridge Semiconductor Corporation	$49,527	$0	$200,159	$200,159
Apogee Biotechnology Corporation	$48,158	$0	$65,291	$65,291
Gemini Plastics Inc.	$47,653	$0	$0	$0
Resco Products, Inc.	$46,874	$0	$143,628	$16,962
Landslide Technologies, Inc.	$46,778	$0	$0	$0
Frontline Placement Technologies, Inc.	$46,359	$0	$121,311	$72,325
Bioconnect Systems Inc.	$43,293	$0	$0	$0
Biomarine Ntron Inc.	$43,226	$0	$0	$0
New Way Machine Components, Inc.	$43,069	$0	$53,736	$0
Orasure Technologies, Inc.	$42,869	$0	$0	$0
Matrix Operations Company, LLC	$42,784	$0	$0	$0
Corry Rubber Corporation	$42,774	$0	$55,795	$42,027
Amuneal Manufacturing Corp.	$41,900	$0	$36,228	$0
Robert Bosch North America Corporation	$40,635	$0	$20,845	$9,563
Kalas Mfg Inc.	$40,508	$0	$17,565	$0
Worldgate Service, Inc.	$40,414	$0	$23,397	$0
Aquatech International Corporation	$40,370	$0	$41,692	$22,382
Lucas Systems, Inc.	$39,029	$0	$151,346	$28,217
Electronics for Imaging, Inc.	$38,397	$0	$7,502	$7,502
Aerotech, Inc.	$37,977	$0	$87,173	$87,173
Science Applications International Corp	$37,648	$0	$68,708	$68,708
Unicast Company	$36,558	$0	$0	$0
Illinois Tool Works Inc.	$36,287	$0	$0	$0
Jamestown Paint Company	$36,116	$0	$3,863	$16
Cutting Edge Solutions, Inc.	$35,611	$0	$25,263	$25,263
ProSanos Corporation	$35,278	$0	$119,220	$119,220
Compunetix, Inc.	$34,893	$0	$0	$0
Accipiter Systems Inc.	$34,314	$0	$0	$0
Gamry Instruments, Inc.	$33,225	$0	$70,276	$11,790
Kensey Nash Corporation	$33,090	$0	$35,403	$0
Control Concepts Corporation	$33,065	$0	$57,888	$28,018
Interstate Management Resources, Inc.	$33,026	$0	$39,828	$39,828
Dontech, Inc.	$32,691	$0	$31,190	$21,367
Boehringer Laboratories, Inc.	$32,435	$0	$168,950	$32,016
Orthovita, Inc.	$31,906	$0	$118,169	$30,883
Isosciences, LLC	$31,730	$0	$23,304	$15,147
RCD Technology Inc.	$31,613	$0	$18,515	$18,515
Caterpillar Inc.	$31,362	$0	$0	$0
Precision Therapeutics, Inc.	$31,327	$0	$501,208	$198,158
Strategic Polymer Sciences Inc.	$31,255	$0	$0	$0
Infrascan, Inc.	$30,886	$0	$45,554	$45,554
Aethon, Inc.	$30,682	$0	$30,302	$1,068
Drug Plastics & Glass Co. Inc.	$30,338	$0	$0	$0
Energy Technology Partners, LLC	$30,215	$0	$30,547	$30,547
Biocoat, Inc.	$29,772	$0	$24,287	$24,287
Vivisimo, Inc.	$29,587	$0	$80,186	$7,977
Micromechatronics, Inc.	$28,873	$0	$23,684	$23,684
Greene, Tweed & Co, Inc.	$28,588	$0	$6,790	$6,790
Biosafe, Inc.	$28,434	$0	$28,113	$0
Eclipsys Solutions Corporation	$27,691	$0	$0	$0

Taxpayer Name	*2008 Credit Awarded*	*2008 Credit Utilized[1]*	*2006 & 2007 Credit Awarded*	*2006 & 2007 Credit Utilized[1]*
York Container Company	$27,679	$0	$0	$0
HydroPac, Inc.	$27,633	$0	$93,030	$25,847
Solid Cactus Inc.	$27,189	$0	$11,803	$11,803
East Penn Manufacturing Company	$26,104	$0	$10,273	$10,273
Videomining Corporation	$25,671	$0	$100,702	$0
Neuro Kinetics, Inc.	$25,316	$0	$55,877	$0
ProSoft Technologies, Inc.	$25,196	$0	$50,543	$50,543
Red Valve Company Inc.	$24,834	$0	$0	$0
KD Industries Inc.	$24,740	$0	$0	$0
Lightfoot Inc.	$24,668	$0	$0	$0
NMS Labs, Inc. (fka National Medical Services, Inc.)	$24,435	$0	$0	$0
Medicigroup Inc.	$24,419	$0	$0	$0
Sealstrip Corporation	$24,165	$0	$47,752	$25,416
Datagrove, Inc.	$23,842	$0	$19,344	$12,084
Syandus Inc.	$23,625	$0	$10,276	$0
Controlled Chemicals, Inc.	$23,363	$0	$0	$0
Channellock, Inc.	$23,355	$0	$4,586	$0
SPX Corporation	$23,302	$0	$0	$0
Blade Diagnostics Corporation	$23,301	$0	$0	$0
Investedge, Inc.	$23,296	$0	$50,000	$0
The Valspar Corporation	$22,781	$0	$5,881	$5,881
FS Elliott Co. LLC	$22,718	$0	$0	$0
Gentex Corporation	$22,551	$0	$29,401	$29,401
CoExprise, Inc.	$22,447	$0	$29,376	$0
Beaumont Technologies, Inc.	$22,266	$0	$24,987	$17,399
Sim Ops Studios Inc.	$21,812	$0	$0	$0
Gelest, Inc.	$21,769	$0	$52,192	$52,192
Schell Games LLC	$21,161	$0	$0	$0
Reflex Software Corporation	$21,016	$0	$85,457	$6,694
Duratite Systems LLC	$21,008	$0	$0	$0
The Drucker Co. Inc.	$20,926	$0	$15,563	$0
Interstate Chemical Company, Inc.	$20,608	$0	$0	$0
Elan Drug Delivery Inc.	$20,371	$0	$22,437	$22,437
Poolpak Technologies Corporation	$20,334	$0	$0	$0
Solo Laboratories, Inc.	$20,289	$0	$21,690	$8,234
Phoenix Trim Works, Inc.	$20,284	$0	$16,970	$0
National Bearings Company	$19,613	$0	$12,191	$3,702
Lepton Technologies Inc.	$19,489	$0	$0	$0
Bentley Systems Incorporated	$18,941	$0	$211,353	$211,353
Cellatope Corporation	$18,919	$0	$10,218	$0
Lyco I LLC	$18,830	$0	$0	$0
Strohl Systems Group, Inc.	$18,748	$0	$56,604	$41,456
Fidelity Investment Services Inc.	$18,612	$0	$0	$0
NVIDIA Corporation	$18,425	$0	$4,497	$4,497
Robinson Industries Inc.	$17,970	$0	$0	$0
Finish Thompson Inc.	$17,951	$0	$42,175	$25,535
JTM Foods, Inc.	$17,875	$0	$60,235	$58,416
Library Video Company	$17,820	$0	$20,380	$0
Parker White Metal Company	$17,594	$0	$79,216	$0
Videon Central Inc.	$17,518	$0	$71,424	$70,122
Accu Measurement & Testing Inc.	$17,301	$0	$0	$0
Pelletron Corporation	$17,208	$0	$14,821	$9,986
Officediggs Inc.	$17,116	$0	$0	$0
Soft Genetics LLC	$16,874	$0	$16,113	$0
Bel Connector Inc T/A Stewart Connector	$16,749	$0	$17,857	$17,857
Xylos Corporation	$16,623	$0	$0	$0
Becton Dickinson and Company	$16,620	$0	$12,996	$5,441
Gyrotron Technology, Inc	$16,577	$0	$25,532	$25,532
R E Whittaker Co.	$16,541	$0	$0	$0

Taxpayer Name	*2008 Credit Awarded*	*2008 Credit Utilized*[1]	*2006 & 2007 Credit Awarded*	*2006 & 2007 Credit Utilized*[1]
Reynolds & Reynolds Electronics, Inc.	$16,512	$0	$35,307	$9,807
Secowarwick Corporation	$16,463	$0	$0	$0
Adhesives Research, Inc.	$16,383	$0	$25,017	$0
Cook Myosite Inc.	$16,335	$0	$15,664	$4,881
Burnham LLC	$15,885	$0	$14,479	$14,479
Streamlight, Inc.	$15,594	$0	$24,248	$24,248
Schneider, LLC	$15,578	$0	$0	$0
Solarity Inc.	$15,560	$0	$0	$0
Saladax Biomedical, Inc.	$15,434	$0	$26,423	$4,425
General Dynamics C4 Systems Inc.	$15,357	$0	$0	$0
Electron Energy Corporation	$15,299	$0	$0	$0
The Clemens Family Corporation	$15,207	$0	$0	$0
Ionzoft, Inc.	$15,070	$0	$0	$0
Tactical Technologies, Inc.	$14,982	$0	$0	$0
Equitable Production Company	$14,947	$0	$13,406	$13,406
Gateway Ticketing Systems, Inc.	$14,804	$0	$47,907	$995
Z-Band, Inc.	$14,804	$0	$0	$0
E.A. Fischione Instruments, Inc.	$14,760	$0	$55,392	$35,963
Qmac Quality Machining Inc.	$14,659	$0	$0	$0
Discovery Laboratories, Inc.	$14,638	$0	$349,264	$334,444
Gai-Tronics Corporation	$14,189	$0	$10,194	$10,194
Kovatch Mobile Equip	$14,186	$0	$13,193	$191
Yuasa Battery, Inc.	$14,161	$0	$13,737	$13,737
Washington Penn Plastic Co Inc.	$14,106	$0	$15,554	$15,554
Oberg Industries, Inc.	$14,103	$0	$23,631	$15,630
Redzone Robotics, Inc.	$13,869	$0	$53,708	$53,708
Straight Arrow Products Inc.	$13,823	$0	$0	$0
21st Century Software, Inc.	$13,741	$0	$33,032	$18,257
USSC, LLC	$13,676	$0	$2,464	$2,464
Global, Inc.	$13,515	$0	$18,106	$0
SR Holdings LLC (dba SDR Holdings LLC)	$13,056	$0	$10,528	$10,528
Port Erie Plastics, Inc.	$12,750	$0	$28,009	$12,385
World Wide Plastics, Inc.	$12,723	$0	$6,614	$5,016
Amplifier Research Corp.	$12,683	$0	$0	$0
Verefi Technologies, Inc.	$12,654	$0	$28,658	$0
Crystalplex Corporation	$12,601	$0	$16,969	$16,969
R.M. Palmer Company	$12,502	$0	$10,837	$4,892
Pharmabridge Inc.	$12,303	$0	$0	$0
Sweet Street Desserts, Inc.	$12,251	$0	$44,428	$41,289
Signal Technologies, Inc.	$12,146	$0	$0	$0
Crayloa LLC	$12,109	$0	$0	$0
Griffith Inc. TA Alpha Systems	$11,939	$0	$0	$0
WER Corporation	$11,895	$0	$11,061	$11,061
Koryak Consulting Inc.	$11,843	$0	$0	$0
Dentsply LLC	$11,799	$0	$0	$0
Ismael J. Hidalgo	$11,790	$0	$0	$0
Patrick M. Dentinger	$11,788	$0	$0	$0
Carnegie Learning, Inc.	$11,786	$0	$12,624	$0
Clinical Financial Services, LLC	$11,775	$0	$18,811	$0
Verizon Data Services Inc.	$11,693	$0	$5,124	$3,078
West Pharmaceutical Services	$11,346	$0	$0	$0
Express Dynamics LLC	$11,245	$0	$23,626	$23,626
The Fredericks Company	$11,230	$0	$12,193	$1,375
Moon Tool & Die Inc.	$11,201	$0	$19,246	$8
Combined Systems, Inc.	$11,005	$0	$8,373	$0
PSG Controls Inc.	$10,949	$0	$29,456	$15,294
J Baur Machining Inc.	$10,906	$0	$0	$0
Touchtown Inc.	$10,902	$0	$8,334	$0
Ingmar Medical, Ltd.	$10,648	$0	$0	$0
Belco Tool And Manufacturing Inc	$10,639	$0	$7,811	$8

Taxpayer Name	*2008 Credit Awarded*	*2008 Credit Utilized*[1]	*2006 & 2007 Credit Awarded*	*2006 & 2007 Credit Utilized*[1]
Dynamet Incorporated	$10,378	$0	$9,945	$0
MetPro Corporation	$10,367	$0	$10,842	$10,842
Radius Corporation	$10,184	$0	$0	$0
Coldlight Solutions, Inc.	$10,168	$0	$0	$0
Fabri Kal Corporation	$10,121	$0	$1,461	$1,175
O.F. Zurn Company	$9,903	$0	$13,886	$902
Cook Vascular Corporation	$9,902	$0	$7,419	$7,419
Giorgi Mushroom Co.	$9,728	$0	$0	$0
Packworld USA, Ltd.	$9,661	$0	$5,633	$1,602
EcoTech Marine, LLC	$9,484	$0	$1,189	$0
P-Wave, Inc.	$9,467	$0	$22,622	$22,622
Juniata Fabrics, Inc.	$9,369	$0	$6,487	$6,487
Cybergenetics Corp	$9,257	$0	$23,878	$7,098
Calendonian Dye Works, Inc.	$9,255	$0	$12,358	$3,321
Kroff Chemical Company	$9,240	$0	$2,832	$2,832
Ace Animals, Inc.	$9,224	$0	$14,367	$12,166
Sartomer Company, Inc.	$9,104	$0	$33,882	$33,882
CP Converters, Inc.	$9,000	$0	$11,859	$2,101
Pyrotek Incorporated	$8,813	$0	$11,613	$0
S R F America LLC	$8,692	$0	$0	$0
Lazarus Therapeutics, Inc.	$8,646	$0	$0	$0
Aberdeen Road Company	$8,487	$0	$0	$0
VPI Acquisition Corp.	$8,470	$0	$0	$0
Reading Pretzel Machinery Corp.	$8,406	$0	$3,170	$3,170
Philadelphia Tramrail Enterprises, Inc.	$8,396	$0	$680	$0
Tool-All, Inc.	$8,153	$0	$10,298	$10,298
SS Processing, Inc.	$7,965	$0	$0	$0
Techtrol Cyclonetics Inc.	$7,850	$0	$19,062	$19,062
Henson Company, Inc.	$7,782	$0	$6,005	$6,005
Advanced Carbon Technology Inc.	$7,635	$0	$0	$0
Misco Products Corporation	$7,609	$0	$10,278	$5,535
AK Steel Corporation	$7,540	$0	$0	$0
Hermance & Strouse Inc.	$7,394	$0	$0	$0
Majr Products Corporation	$7,353	$0	$0	$0
Weiler Corporation, Inc.	$7,241	$0	$25,311	$9,564
Newage Industries Inc.	$7,091	$0	$0	$0
VT Graphics Inc.	$7,022	$0	$0	$0
LWB Refractories Company	$7,020	$0	$38,312	$38,312
Orion Security LSP LLC	$7,009	$0	$0	$0
Cordis Corporation	$6,961	$0	$7,348	$7,348
Giorgio Foods, Inc.	$6,949	$0	$16,862	$0
Smart Structures Inc.	$6,902	$0	$0	$0
Flair Corporation	$6,843	$0	$0	$0
Foodswing Inc.	$6,829	$0	$23,452	$0
Koehler-Bright Star Inc.	$6,717	$0	$8,634	$8,634
Frewmill Die Crafts Inc.	$6,706	$0	$0	$0
Altoona Beasley Manufacturing, Inc.	$6,659	$0	$8,742	$239
KW, Inc.	$6,467	$0	$1,175	$0
Griffith Brothers Whitetail Ridge Inc.	$6,432	$0	$3,475	$3,475
DOPACO Inc.	$6,385	$0	$0	$0
Milnes Engineering Inc.	$6,378	$0	$0	$0
Target Precision LLP	$6,362	$0	$0	$0
Multimodal Technologies Inc.	$6,273	$0	$15,375	$10,191
Spang & Company	$6,256	$0	$0	$0
Invivodata, Inc.	$6,251	$0	$23,499	$0
Kenco Corporation	$6,231	$0	$0	$0
D E Machining Inc.	$6,212	$0	$12,226	$8,189
Jordan Acquisition Group LLC DBA American Auto Matrix	$6,177	$0	$79,962	$17,202
PHB, Inc.	$6,138	$0	$160,523	$29,504

Taxpayer Name	*2008 Credit Awarded*	*2008 Credit Utilized[1]*	*2006 & 2007 Credit Awarded*	*2006 & 2007 Credit Utilized[1]*
Reading Alloys, Inc	$6,095	$0	$7,424	$249
McDaniel Advanced Ceramic	$6,074	$0	$0	$0
Inmedius, Inc.	$6,058	$0	$62,318	$62,318
End User Services Inc.	$6,040	$0	$0	$0
Sechan Electronics, Inc.	$6,035	$0	$58,030	$58,030
LCM Technologies Inc.	$5,942	$0	$0	$0
Salvage Direct, Inc.	$5,897	$0	$7,858	$7,858
LL Kurtz, Inc.	$5,879	$0	$0	$0
Competition Tire East, Inc.	$5,784	$0	$11,704	$11,704
Psychology Software Tools, Inc.	$5,781	$0	$4,564	$2,738
Monsanto Company	$5,774	$0	$0	$0
Erie Plastics Corporation	$5,768	$0	$12,474	$0
The Creative Touch, Inc.	$5,669	$0	$12,007	$4,119
Everite Machine Products Co., Inc.	$5,614	$0	$3,929	$3,929
Berks Engineering Company	$5,539	$0	$0	$0
Cardone Industries, Inc.	$5,449	$0	$0	$0
Bulk Chemicals Inc.	$5,406	$0	$5,810	$5,810
Betts Industries Inc.	$5,366	$0	$8,982	$8,982
Puricore Inc.	$5,305	$0	$0	$0
Power Conversion Technologies Inc.	$5,138	$0	$0	$0
Richter Precision Inc.	$5,128	$0	$86,094	$23,501
Bayone Urethane Systems LLC	$5,072	$0	$0	$0
Renaissance Nutrition Inc.	$4,856	$0	$4,478	$739
Harbor Steel Inc.	$4,658	$0	$0	$0
MESH, Inc.	$4,621	$0	$9,856	$4,439
PSB Industries, Inc.	$4,603	$0	$2,890	$0
Globalpops Media Services LLC	$4,597	$0	$0	$0
Blair Sign Company Inc.	$4,427	$0	$2,898	$1,906
C F Martin Co. Inc.	$4,400	$0	$0	$0
Mallet and Company Inc.	$4,375	$0	$7,938	$7,938
Quintech Electronics & Commun, Inc.	$4,359	$0	$51,838	$51,838
Ernst Conservation Seeds LLP	$4,219	$0	$0	$0
JW Kitko & Sons Wood Products Inc.	$4,102	$0	$0	$0
SKC, Inc.	$4,047	$0	$4,675	$3,860
Fairmount Foundry Inc.	$3,993	$0	$15,558	$7,787
Boose Aluminum Foundry Co. Inc.	$3,989	$0	$3,480	$0
Levan Machine Co., Inc.	$3,959	$0	$6,789	$478
TrayPak Corporation	$3,819	$0	$63,263	$3,477
MDL Corporation	$3,771	$0	$2,868	$2,868
Algor Inc.	$3,635	$0	$12,672	$0
Kuhn Tool & Die Co.	$3,576	$0	$37,880	$1,058
Solar Innovations, Inc.	$3,544	$0	$43,390	$41,528
Teikoku USA Inc.	$3,530	$0	$3,292	$3,292
SAS Institute Inc.	$3,471	$0	$0	$0
CTR Holdings Inc.	$3,454	$0	$0	$0
Ashland Inc.	$3,336	$0	$0	$0
Graphite Machining Inc.	$3,329	$0	$0	$0
NH Laboratories, Inc.	$3,213	$0	$2,864	$2,864
Eriez Manufacturing	$2,937	$0	$1,544	$1,544
Dynamic Materials Corporation	$2,912	$0	$28,639	$28,639
Smoothon Inc.	$2,779	$0	$0	$0
Softerware Inc.	$2,765	$0	$0	$0
Penn Weld Inc.	$2,698	$0	$0	$0
Progress For Industry Inc.	$2,675	$0	$1,929	$0
David Michael & Co., Inc.	$2,650	$0	$0	$0
Weaver Industries, Inc.	$2,648	$0	$2,580	$2,580
Hazelton Casting Company	$2,639	$0	$0	$0
SMGT, Inc. (fka Synthes Management, Inc.)	$2,632	$0	$8,526	$8,525
Quantum Software Solutions, Inc.	$2,614	$0	$4,824	$208
Bradley C. Rinehart	$2,605	$0	$0	$0

Taxpayer Name	*2008 Credit Awarded*	*2008 Credit Utilized*[1]	*2006 & 2007 Credit Awarded*	*2006 & 2007 Credit Utilized*[1]
Specialty Tires of America, Inc.	$2,574	$0	$11,330	$11,330
IntelliStem Orthopaedic Innovations, Inc.	$2,435	$0	$1,962	$1,962
Tyrone Milling	$2,424	$0	$0	$0
GVM, Inc.	$2,411	$0	$3,190	$0
C&J Industries, Inc.	$2,349	$0	$5,394	$5,394
Magnatech International Inc.	$2,315	$0	$0	$0
Vigon International, Inc.	$2,275	$0	$5,360	$5,360
TIW Technology, Inc.	$2,273	$0	$5,555	$0
Thomas Erie Inc.	$2,072	$0	$0	$0
Portec Rail Products, Inc.	$2,012	$0	$198	$198
Michael Associates Inc.	$1,954	$0	$0	$0
Eagle Brass Company	$1,888	$0	$5,719	$0
Reading Consumer Products, Inc.	$1,869	$0	$2,020	$339
Comprehensive Safety Compliance, Inc.	$1,774	$0	$2,488	$1,342
Eagle Far East Inc.	$1,752	$0	$0	$0
SAC Computer Solutions Inc.	$1,729	$0	$0	$0
Hamill Manufacturing Company	$1,724	$0	$6,550	$0
James L. Rutkowski, DMD & Associates	$1,595	$0	$1,127	$0
Loridian LLC	$1,592	$0	$0	$0
Protective Coating Co.	$1,525	$0	$0	$0
Trinity Manufacturing Company	$1,432	$0	$0	$0
Kovatch Corp.	$1,409	$0	$1,612	$1,612
Goulds Pumps PA Inc.	$1,405	$0	$68	$68
Hofman Industries, Inc.	$1,257	$0	$0	$0
FiberLine, Inc.	$1,242	$0	$3,663	$0
RedPath Integrated Pathology Inc.	$1,214	$0	$0	$0
Excalibur Machine, Inc.	$1,211	$0	$75,783	$56
ElectroScience Laboratories Inc.	$1,192	$0	$22,872	$6,092
Graymont (PA) Inc.	$1,164	$0	$54,177	$7,098
Rubbercraft Corporation of California	$1,119	$0	$0	$0
Brotech Corporation	$1,100	$0	$1,877	$0
Lozier Corporation	$959	$0	$1,963	$1,963
TDY Industries Inc.	$949	$0	$0	$0
Polytek Development Corp.	$940	$0	$13,960	$10,609
Can Corporation of America, Inc.	$930	$0	$20,997	$0
Dental Designs Inc.	$911	$0	$0	$0
Team Ten LLC	$823	$0	$134	$0
Sweet Ovations Holding Co.	$823	$0	$0	$0
World Electronics Sales and Service, Inc.	$779	$0	$16,998	$8,915
Bostik, Inc.	$758	$0	$0	$0
Computer Support Services, Inc.	$717	$0	$507	$507
Strobic Air Corporation	$701	$0	$849	$849
Arvite Technologies, Inc.	$558	$0	$14,517	$6,561
Specialty Chemical Systems, Inc.	$554	$0	$2,416	$1,609
Elsner Engineering Works, Inc.	$541	$0	$0	$0
NTA Enterprises Inc.	$515	$0	$0	$0
Tekresults, Ltd.	$440	$0	$0	$0
Kopp Glass, Inc.	$418	$0	$549	$549
Jennison Precision Machine, Inc.	$416	$0	$6,729	$6,173
Rossman Audio LLC	$413	$0	$829	$0
Cue Inc.	$361	$0	$0	$0
Neutronics Inc.	$313	$0	$0	$0
Pittsburgh Materials Technology Inc.	$161	$0	$0	$0
Workhorse Rail LLC	$72	$0	$3,004	$0
Control Chief Corporation	$52	$0	$10,640	$10,640
Reading Technologies, Inc.	$49	$0	$5,800	$32
Maya Design Inc.	$21	$0	$26,954	$0
Abbott Furnace Company, Inc.	$0	$0	$57,061	$2,668
Accentra, Inc.	$0	$0	$76,232	$5,847
Accudyn Products Inc.	$0	$0	$15,285	$9,836

Taxpayer Name	*2008 Credit Awarded*	*2008 Credit Utilized[1]*	*2006 & 2007 Credit Awarded*	*2006 & 2007 Credit Utilized[1]*
Acutec Precision Machining, Inc.	$0	$0	$19,929	$4,067
Ad-Base Systems, Inc.	$0	$0	$57,069	$57,069
Adelphi Kitchens, Inc.	$0	$0	$23,873	$18,530
Adolor Corporation	$0	$0	$159,831	$107,280
Adonix Transcomm, Inc.	$0	$0	$143,933	$0
Advanced Rail Technology, Inc.	$0	$0	$107,421	$47,064
Akustica, Inc.	$0	$0	$577,864	$577,864
Alcoa Inc.	$0	$0	$1,105,562	$896,671
Alcoa Kama Inc (fka Kama of Illinois Corp)	$0	$0	$5,126	$5,126
Alumax Mill Products Inc.	$0	$0	$887	$887
Alung Technologies, Inc.	$0	$0	$170,796	$170,796
American Beverage Corporation	$0	$0	$6,311	$4,502
American Consolidated Mfg. Co., Inc.	$0	$0	$6,704	$8
American Textile Company, Inc.	$0	$0	$11,717	$11,717
Appleton Papers Inc.	$0	$0	$15,932	$9,373
Applied Clinical Intelligence, LLC	$0	$0	$2,162	$1,257
APT Advanced Polymer Technology Corp	$0	$0	$1,985	$1,985
Aptagen, LLC	$0	$0	$2,112	$0
Area Tool & Manufacturing, Inc.	$0	$0	$18,398	$0
ASI Technologies, Inc.	$0	$0	$15,287	$0
ATI Research Inc.	$0	$0	$294,181	$294,181
Avail Technologies, Inc.	$0	$0	$20,899	$20,899
Azevan Pharmaceuticals Inc.	$0	$0	$77,564	$76,797
B.S.C. Technologies, Inc.	$0	$0	$574	$0
Bachem Bioscience, Inc.	$0	$0	$963	$963
Baracca Inc.	$0	$0	$9,550	$9,550
Benco Dental Supply Co.	$0	$0	$1,660	$1,160
Better Baked Foods, Inc.	$0	$0	$3,602	$98
Binney & Smith, Inc.	$0	$0	$44,851	$23,218
Bio Med Sciences, Inc.	$0	$0	$19,575	$19,575
Biometric Imaging, Inc.	$0	$0	$14,458	$369
Bio-Rad Laboratories Inc.	$0	$0	$16,699	$16,699
Biorexis Pharmaceutical Corporation	$0	$0	$186,510	$356
Biosense Corporation	$0	$0	$51,212	$0
Biospectra, Inc.	$0	$0	$13,475	$13,475
Blair Strip Steel Co.	$0	$0	$8,474	$894
Bodymedia, Inc.	$0	$0	$222,796	$6,603
Boston Scientific Corporation	$0	$0	$157,624	$157,624
Boyesen, Inc.	$0	$0	$9,826	$7,519
Bra-Vor Tool & Die Company, Inc.	$0	$0	$13,437	$12,099
Brightline, Inc.	$0	$0	$4,630	$0
Builders Support & Supply, Inc.	$0	$0	$19,373	$4,219
Burstnet Technologies Inc.	$0	$0	$2,604	$0
C W E, Inc.	$0	$0	$4,037	$0
Campbell Manufacturing, Inc.	$0	$0	$289	$289
Cardiac Telecom Corporation	$0	$0	$16,166	$0
CardiacAssist, Inc.	$0	$0	$8,376	$277
Cardiokine, Inc.	$0	$0	$218,317	$38,273
Cephalon, Inc.	$0	$0	$3,702,965	$86,441
Chemimage Corporation	$0	$0	$237,405	$0
Cinergen, LLC	$0	$0	$4,681	$4,681
Cira Discovery Sciences Inc.	$0	$0	$19,342	$18,930
Classic Industries, Inc.	$0	$0	$15,843	$15,843
Clean Burn, Inc.	$0	$0	$9,622	$0
Coates Analytics	$0	$0	$30,826	$0
Collaborative Fusion, Inc.	$0	$0	$97,083	$0
Columbia Research Laboratories, Inc.	$0	$0	$6,681	$152
Communications Test Design, Inc.	$0	$0	$10,166	$0
Comor Inc.	$0	$0	$3,193	$3,193
Componentone LLC	$0	$0	$5,594	$50

Taxpayer Name	*2008 Credit Awarded*	*2008 Credit Utilized*[1]	*2006 & 2007 Credit Awarded*	*2006 & 2007 Credit Utilized*[1]
Compoze Software, Inc.	$0	$0	$29,155	$0
Computer Aid, Inc.	$0	$0	$15,570	$7,865
Conductive Technologies Inc.	$0	$0	$3,298	$984
Corry Micronics, Inc.	$0	$0	$12,159	$0
Creative Pultrusions, Inc.	$0	$0	$2,918	$0
Custom Milling & Consulting, Inc.	$0	$0	$19,393	$19,393
Dads Product Company	$0	$0	$31,367	$31,367
Del Monte Corporation	$0	$0	$71,714	$71,714
Dentsply International Inc.	$0	$0	$15,145	$15,145
Dielectric Solutions LLC	$0	$0	$103,205	$52,502
Diversified Coatings, Inc.	$0	$0	$9,120	$9,120
Document Solutions Group, Inc.	$0	$0	$68,845	$3,236
Dodge-Regupol, Inc.	$0	$0	$22,881	$22,881
Dosebusters USA Inc.	$0	$0	$2,921	$2,921
Douglas K. Hanaway	$0	$0	$772	$772
DST Health Solutions Services, LLC (fka Synertech Health System Solutions LLC)	$0	$0	$32,310	$0
Duct Tite LLC	$0	$0	$42,900	$42,900
Duramed Research, Inc.	$0	$0	$442,696	$332,283
Dutchland, Inc.	$0	$0	$18,196	$14,053
Dyco, Inc.	$0	$0	$8,632	$4,552
Dynavox Systems Inc.	$0	$0	$26,120	$0
East Coast Erosion Blankets LLC	$0	$0	$11,789	$9,431
Eaton Hydraulics Inc.	$0	$0	$3,862	$3,862
Edgemate Inc.	$0	$0	$1,058	$0
Eli Lilly and Company	$0	$0	$893,054	$893,054
EMD Serono, Inc.	$0	$0	$169,238	$169,238
Emerson Process Management Power & Water Solutions, Inc.	$0	$0	$73,542	$21,879
Environmental Coordination Services	$0	$0	$8,838	$5,683
Envirotrol Inc.	$0	$0	$3,197	$3,197
Equitable Resources. Inc.	$0	$0	$36,460	$36,460
Eric W. Kinter	$0	$0	$22,663	$15,442
Essent Corporation	$0	$0	$30,902	$3,022
Eva M. Hanaway	$0	$0	$2,058	$2,058
Evaheart Medical USA, Inc.	$0	$0	$7,982	$0
Everight Precision Technologies Corp	$0	$0	$8,410	$0
Everson Tesla, Inc	$0	$0	$34,434	$34,434
Fairmount Automation, Inc.	$0	$0	$79,625	$34,345
Fidelity Flight Simulation	$0	$0	$119,167	$119,167
Fleetwood Industries Business Trust	$0	$0	$42,104	$42,104
Flexcut Tool Co. Inc.	$0	$0	$1,432	$1,432
Fluorous Technologies, Inc.	$0	$0	$36,017	$36,017
Follett Corporation	$0	$0	$36,794	$36,794
Frank L. Perryman	$0	$0	$1,744	$1,744
Fujirebio Diagnostics Inc.	$0	$0	$26,125	$26,125
Fusion Coatings, Inc.	$0	$0	$210	$0
G.O. Carlson, Inc.	$0	$0	$2,559	$2,559
Gamajet Cleaning Systems, Inc.	$0	$0	$15,015	$1,177
Gary D. Bell	$0	$0	$22,663	$15,442
Gecco Inc.	$0	$0	$887	$755
Gemin X, Inc.	$0	$0	$395,216	$39,043
Genaera Corporation	$0	$0	$445,596	$445,596
Genesis Partners, LP	$0	$0	$34,761	$0
Golden Brothers, Inc.	$0	$0	$6,535	$1,536
Gorell Enterprises, Inc	$0	$0	$8,827	$8,439
Grace Industries, Inc.	$0	$0	$4,442	$924
Greenleaf Corporation	$0	$0	$93,168	$39,905
Halide Group, Inc.	$0	$0	$50,948	$29,298
Hanley & Bird, Inc.	$0	$0	$11,065	$3,429

Taxpayer Name	*2008 Credit Awarded*	*2008 Credit Utilized[1]*	*2006 & 2007 Credit Awarded*	*2006 & 2007 Credit Utilized[1]*
Harsco Corporation	$0	$0	$1,160	$1,160
Heatrex, Inc.	$0	$0	$1,091	$1,091
Hodge Foundry, Inc.	$0	$0	$4,721	$4,721
I3 Archive, Inc.	$0	$0	$49,860	$9,336
Illuminex Corporation	$0	$0	$2,949	$2,949
Immunetrics, Inc	$0	$0	$39,027	$0
Imperial Carbide, Inc.	$0	$0	$49,285	$10,155
Imperial Newbould, Inc.	$0	$0	$8,994	$0
Implementation & Consulting Service	$0	$0	$6,447	$0
Innovative Control Systems Inc.	$0	$0	$4,672	$4,672
Integrated Management Solutions Inc.	$0	$0	$5,099	$1,356
Interdigital Communications Corporation	$0	$0	$319,745	$16,595
Interface Solutions, Inc.	$0	$0	$27,426	$599
IPC Inc.	$0	$0	$3,121	$0
James & Rose Mary Perryman 1991 Trust	$0	$0	$3,143	$3,143
James Austin Company	$0	$0	$437	$437
James T. Perryman, Jr.	$0	$0	$1,744	$0
Janet L. Hauge	$0	$0	$1,744	$1,744
Jennison Corporation	$0	$0	$19,787	$19,787
JerrDan Corporation	$0	$0	$16,449	$16,449
Kathy S. Moore	$0	$0	$1,744	$1,744
Keystone Findings, Inc.	$0	$0	$2,419	$1,632
Kit Solutions, Inc.	$0	$0	$13,253	$13,253
Kollabnet, Inc.	$0	$0	$48,680	$35,241
Kop-Coat Inc.	$0	$0	$1,705	$1,705
Koppers Inc	$0	$0	$1,490	$1,490
L T L Wholesale, Inc.	$0	$0	$2,553	$975
L.F. Lambert Spawn Company, Inc.	$0	$0	$5,053	$0
Layke Tool And Mfg. Company	$0	$0	$26,610	$94
Leech Industries, Inc.	$0	$0	$3,731	$246
Lifesensors Inc.	$0	$0	$41,119	$41,119
Linear Acoustic, Inc.	$0	$0	$16,546	$0
Locus Pharmaceuticals, Inc.	$0	$0	$816	$816
Long USA LLC	$0	$0	$403	$403
Maloney Plastics, Inc.	$0	$0	$696	$696
Management Science Associates, Inc.	$0	$0	$101,199	$61,598
Mark A. Hanaway	$0	$0	$772	$772
Mars Incorporated	$0	$0	$45,778	$45,778
Marvin N. Hamilton	$0	$0	$65,412	$0
Mary A. Julius	$0	$0	$1,744	$0
Matric Limited	$0	$0	$4,294	$1,086
Maxim Integrated Products, Inc.	$0	$0	$9,946	$9,946
McLanahan Corporation	$0	$0	$55	$55
McNeil PPC Inc.	$0	$0	$266,440	$266,440
MEI, Inc.	$0	$0	$142,922	$52,444
Merck & Co Inc	$0	$0	$3,691,359	$3,691,359
Mesh Semiconductor, Inc. (fka Gatechange Technologies, Inc.)	$0	$0	$17,442	$0
Metal Systems Development, Inc.	$0	$0	$343	$343
Metco Manufacturing Co, Inc.	$0	$0	$6,522	$0
Metplas, Inc.	$0	$0	$6,940	$0
Microsemi Corp. - Montgomeryville (fka Advanced Power Technology RF Pennsylvania Inc.)	$0	$0	$2,415	$2,415
Mid-Market America, Inc.	$0	$0	$29,999	$0
Milton Roy Company	$0	$0	$9,204	$9,204
Minrad, Inc.	$0	$0	$14,439	$11,358
Mitos Technologies Inc.	$0	$0	$65,248	$50,782
Modern Industries, Inc.	$0	$0	$10,819	$8,814
Morphotek, Inc.	$0	$0	$537,117	$245,959

Taxpayer Name	2008 Credit Awarded	2008 Credit Utilized[1]	2006 & 2007 Credit Awarded	2006 & 2007 Credit Utilized[1]
Mosebach Manufacturing Company	$0	$0	$11,772	$0
NAC Carbon Products, Inc.	$0	$0	$1,600	$1,600
Nancy L. Dennison	$0	$0	$1,744	$0
Nanohorizons, Inc.	$0	$0	$16,534	$16,534
Neose Technologies, Inc.	$0	$0	$357,734	$357,734
Neuronetics, Inc.	$0	$0	$621,017	$621,017
Neuronyx, Inc.	$0	$0	$12,012	$720
Neville Chemical Company	$0	$0	$1,744	$845
New Standard Corporation	$0	$0	$13,113	$563
Next Level Systems, Inc.	$0	$0	$1,805,519	$469,581
Novocell Semiconductor, Inc.	$0	$0	$4,178	$0
Numonics Corporation	$0	$0	$2,105	$0
Oberon, Inc.	$0	$0	$1,206	$22
Octagen Corporation	$0	$0	$4,131	$0
Omega Flex, Inc.	$0	$0	$3,591	$0
P.D.K. - Hardy, Inc.	$0	$0	$3,552	$0
PA-Max, Inc.	$0	$0	$558	$0
PDQ Industries, Inc.	$0	$0	$4,929	$0
Penn Color, Inc.	$0	$0	$26,942	$26,942
Pennco Tool & Die, Inc.	$0	$0	$17,620	$4,405
Pennlake Corporation	$0	$0	$3,406	$0
Performance Castings, Inc.	$0	$0	$2,358	$1,988
Perryman Enterprises, Inc.	$0	$0	$362	$362
Phenotech, Inc.	$0	$0	$16,543	$16,000
Philadelphia Stock Exchange, Inc.	$0	$0	$39,335	$39,335
Phonetics, Inc. (DBA Sensaphone)	$0	$0	$32,399	$23,527
Pine Instrument Company	$0	$0	$3,896	$3,896
Pioneer Hi Bred International Inc.	$0	$0	$32,530	$32,530
Powercast, LLC	$0	$0	$84,951	$0
Pride Mobility Products Corporation	$0	$0	$41,488	$11,393
Probaris Technologies, Inc.	$0	$0	$43,696	$34,262
Prodesco, Inc.	$0	$0	$9,664	$9,664
Proteopure, Inc	$0	$0	$26,313	$20,202
QBC Diagnostics, Inc.	$0	$0	$5,457	$2,262
Quiq LLC (dba Quiqmeds)	$0	$0	$32,908	$32,908
RAM Industries LLC	$0	$0	$9,231	$0
RE 2, Inc.	$0	$0	$4,009	$1,676
Reading Precast, Inc.	$0	$0	$35,891	$35,891
Recigno Laboratories, Inc.	$0	$0	$230	$230
Remcomm, Inc.	$0	$0	$4,574	$0
Renaissance Technologies, Inc.	$0	$0	$683	$0
Renal Solutions, Inc.	$0	$0	$98,728	$8,534
Restek Corporation	$0	$0	$4,365	$0
Rhodia Inc.	$0	$0	$59,276	$59,276
Richardsapex, Inc.	$0	$0	$2,415	$2,195
Robert Mazza Inc.	$0	$0	$2,777	$0
Rockland Immunochemicals Inc.	$0	$0	$28,347	$0
Rockland, Inc.	$0	$0	$6,413	$6,413
Ronald P. Sousae	$0	$0	$22,663	$15,442
Russell T. Hanaway	$0	$0	$772	$0
Schoolwires, Inc.	$0	$0	$20,949	$20,949
Scott M. Hanaway	$0	$0	$772	$0
Scott Technologies Inc.	$0	$0	$47,958	$9,522
Seagate Technology LLC	$0	$0	$50,395	$0
SEI Investments Management Corporation	$0	$0	$1,281,822	$83,462
Sentient Investment Corporation	$0	$0	$9,488	$343
Shirley Kemper	$0	$0	$1,744	$1,744
Siemens Medical Solutions Health Services Corp.	$0	$0	$2,172,199	$1,660,274
Silberline Manufacturing Co., Inc.	$0	$0	$5,523	$0
Sipco Inc.	$0	$0	$30,983	$0

Taxpayer Name	*2008 Credit Awarded*	*2008 Credit Utilized*[1]	*2006 & 2007 Credit Awarded*	*2006 & 2007 Credit Utilized*[1]
Sipco Molding Technologies, Inc.	$0	$0	$14,171	$4,778
Smart Parts, Inc.	$0	$0	$16,545	$7,516
Sonomedix, Inc.	$0	$0	$10,984	$0
Southco Inc.	$0	$0	$36,162	$1,180
Spartech Polycom, Inc.	$0	$0	$17,424	$17,424
Spinworks LLC	$0	$0	$24,183	$24,183
Starlite Diversified, Inc.	$0	$0	$62,245	$62,245
Starr Life Sciences Corp.	$0	$0	$331	$0
Suburban Tool & Die Co., Inc.	$0	$0	$40,766	$9,925
Summers Laboratories, Inc.	$0	$0	$119,664	$119,664
Sunoco, Inc. (R&M)	$0	$0	$6,387	$6,387
Sunrise Medical HHG Inc.	$0	$0	$64,797	$747
Supelco, Inc.	$0	$0	$72,407	$26
Surveillance Data, Inc.	$0	$0	$60,911	$17,120
Sylvin Technologies, Inc.	$0	$0	$36	$36
Synchronoss Technologies, Inc.	$0	$0	$72,940	$72,940
T. C. Millwork Inc.	$0	$0	$1,168	$0
Tech Tool & Mold, Inc.	$0	$0	$14,557	$0
Technical Precision, Inc.	$0	$0	$13,396	$9,559
Teva Pharmaceuticals USA, Inc.	$0	$0	$38,605	$38,605
Thar Technologies, Inc.	$0	$0	$25,701	$223
The Thermoclad Company	$0	$0	$20,316	$16,389
Theraquest Biosciences, LLC	$0	$0	$31,506	$31,506
Thermodepolymerization Process LLC	$0	$0	$57,740	$57,740
TimeSys Corporation	$0	$0	$55,530	$104
TSK Partners, Inc.	$0	$0	$5,391	$0
TW AOL Holdings Inc. (fka America Online, Inc.)	$0	$0	$4,358	$2,781
UCI Pennsylvania, Inc. (fka Neapco, Inc.)	$0	$0	$7,887	$0
Universal Electric Corporation	$0	$0	$4,250	$4,250
USSC Group, Inc.	$0	$0	$6,556	$6,556
Valley Instrument Co., Inc.	$0	$0	$7,108	$0
Victaulic Company	$0	$0	$26,285	$26,285
Viking Tool & Gage Inc.	$0	$0	$36,718	$19,711
Vitae Pharmaceuticals, Inc.	$0	$0	$291,821	$203,760
W. W. Patterson Company	$0	$0	$9,771	$9,771
Watson Standard Coatings Company	$0	$0	$16,695	$9,686
Watson Standard Limited, Inc.	$0	$0	$16,695	$9,686
Wavefront Research, Inc.	$0	$0	$208,547	$192,396
WebClients, Inc.	$0	$0	$4,135	$4,135
Woodcraft Industries, Inc.	$0	$0	$2,103	$1,186
Worldwide Refractories, Inc.	$0	$0	$82	$82
Zaxel Systems, Inc.	$0	$0	$34,540	$34,540
Zippo Manufacturing Company	$0	$0	$119,766	$119,766
TOTAL	**$40,000,000**	**$0**	**$80,000,000**	**$53,076,938**

Footnote:

[1] "Utilized" means that the tax credit has been applied in full or partial payment of a tax liability according to the records of the Department. If no tax liability exists for the tax and period where the credit has been applied or if previous tax credi