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

The Pennsylvania Department of Revenue

Bureau of Research

March 15, 2010

The Pennsylvania R&D Tax Credit Statute

As part of the Fiscal Year 2009-10 budget, Act 48 of 2009 reduced the amount of tax credits available under several tax credit programs that can be awarded during the following two years. Act 48 reduced the total amount of R&D tax credit available in FY 2009-10 from $40 million to $20 million and in FY 2010-11 from $40 million to $18 million. Starting in FY 2011-12, the total amount of R&D tax credit the Department can award returns to $40 million per year.

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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]

Over the years, several changes have been made to the R&D tax credit statute. 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. Lastly, Governor Rendell signed Act 48 of 2009 into law on October 9, 2009. All three 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.[2] 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.

[1] Public Law 99-514, 26 U.S.C. § 41.
[2] Subject to the provisions of Act 48 of 2009.

Act 48 of 2009 reduced the total amount of the R&D tax credits the Department could issue by 50 percent to $20 million in December 2009 and by 55 percent to $18 million in December 2010. The "small" business set aside is similarly reduced for both years. Act 48 of 2009 also removed the one year holding period before an R&D tax credit can be assigned or sold. Beginning again in December 2011, the Department will issue a total of $40 million in tax credits and the "small" business set aside will be $8 million per year.

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. According to Act 48 of 2009, for R&D tax credits awarded in December 2009 and forward, the one year holding period is no longer in effect; credits awarded in 2009 and forward can be sold immediately. The purchaser or assignee must still 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 75 percent of a tax liability for a taxable year. The purchased or assigned credit cannot be 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 50 percent. 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 percent. 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 2007, 2008 and 2009, 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."[3] These small start-up firms, which often do not have significant tax liabilities in their early years, receive cash for their unused R&D tax credit.[4] 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.[5]

The buyer of the unused R&D tax credit can use it to offset up to 75 percent 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 2010, about $19.4 million of the $195 million awarded in December 2003 through 2008 has not been utilized and is, therefore, available for sale.

Tax credit sales are often arranged by a broker, who provides a service by bringing together sellers and buyers of credits, and in return takes a portion of the tax credit as their fee. The Department does not have complete data about these arrangements. DCED staff have stated that the level of broker fees can vary widely, but the average broker fee is in the range of 5% to 6% of the value of the credit.

Of the $15 million awarded in December 2003, 17 different taxpayers sold or assigned $1.2 million in unused credits. The unused credits were sold for $1.1 million, or 91.7 percent of their value.

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[3] "Research and Development Tax Credit Assignment Program Guidelines," DCED, September 2004.
[4] "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.
[5] 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.

Of the $30 million awarded in December 2004, 41 different taxpayers sold or assigned $3.6 million in unused credits. The unused credits were sold for $3.2 million, or 89.8 percent of their value.

Of the $30 million awarded in December 2005, 48 different taxpayers sold or assigned $9.0 million in unused credits. The unused credits were sold for $8.4 million, or 93.3 percent of their value.

Of the $40 million awarded in December 2006, 62 different taxpayers sold or assigned $7.0 million in unused credits. The unused credits were sold for $6.5 million, or 92.6 percent of their value.

Of the $40 million awarded in December 2007, 68 different taxpayers sold or assigned $6.0 million in unused credits. The unused credits were sold for $5.6 million, or 93.1 percent of their value.

Of the $40 million awarded in December 2008, 68 different taxpayers sold or assigned $3.8 million in unused credits. The unused credits were sold for $3.5 million, or 92.8 percent of their value.

In total, for 2003 through 2008, $30.6 million in unused credits have been sold for about $28.3 million, or about 92.6 percent of their value.

R&D Tax Credit Claimed and Awarded in Pennsylvania for December 2009

Table 1 shows the amount of R&D tax credit approved by the Department in 2009 for qualified research expenditures made by taxpayers in Pennsylvania in taxable year 2008. Without the $20 million cap, just over $80 million in credit would have been awarded to 507 taxpayers. Almost 86 percent of approved taxpayers received an R&D tax credit of less than $50,000, receiving 22 percent of the total amount of approved credit. Taxpayers with an approved R&D tax credit of $50,000 or more claimed 78 percent of the approved credit amount. The 72 applicants receiving $50,000 or more in credit represented about 14 percent of the total number of applicants.

Table 1. Pennsylvania Research & Development Tax Credit Program
Tentative and Actual Credit for Tax Year 2009[6]

Tentative Credit Range	Number of Applicants	Percent of Applicants	Tentative Credit Amount	Actual Credit Amount	Percent of Actual Credit
$0 - $4,999	191	37.7%	$1,448,033	$413,730	2.1%
$5,000 - $19,999	184	36.3%	$6,424,134	$2,000,619	10.0%
$20,000 - $49,999	60	11.8%	$7,493,431	$1,978,169	9.9%
$50,000 - $99,999	37	7.3%	$9,632,298	$2,472,032	12.4%
$100,000 - $499,999	30	5.9%	$21,761,736	$5,652,554	28.3%
$500,000 - $999,999	1	0.2%	$2,618,171	$585,724	2.9%
$1,000,000 & greater	4	0.8%	$30,830,197	$6,897,173	34.5%
TOTAL	**507**	**100%**	**$80,208,000**	**$20,000,000**	**100%**

[6] Detail may not add up due to rounding; 93 other applicants were rejected and did not receive any credit.

Table 2 details the tentative amount of R&D tax credit approved by the Department in the preceding 12 years, beginning with the inception of the program in December 1997.

Table 2. Pennsylvania Research and Development Tax Credit Program
Tentative Credit Awarded for 1997-2008

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
December 2008	466	$90,712,865

Table 3 presents the R&D tax credit approved in December 2009 by business type.

Table 3. Pennsylvania Research and Development Tax Credit Program
Actual Credits by Business Type in 2009

Business Type	Number of Taxpayers	Percent of Taxpayers	Amount of Actual Credit	Percent of Actual Credit
Manufacturing	225	44.4%	$11,157,445	55.8%
Services	192	37.9%	$ 5,393,484	27.0%
Misc.[7]	90	17.8%	$ 3,449,071	17.2%
TOTAL	**507**	**100%**	**$20,000,000**	**100%**

Almost 45 percent of the taxpayers receiving the tax credit were manufacturers, claiming over 55 percent of the total amount of approved credit. Pharmaceutical manufacturers claimed the largest single share; the 19 pharmaceutical manufacturers requesting credit were awarded $5.5 million in credit. Another large group of credit recipients included 43 computer-related companies in the service sector. They claimed just over $0.6 million in credit in 2009.

[7] 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 4 provides a breakdown of the R&D tax credit claimed by “small” and “not small” businesses in December 2009. 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 2009**

Business Size	Number of Applicants	Percent of Applicants	Tentative Credit Amount	Approved Credit Amount	Percent of Approved Credit
Small	211	41.6%	$ 8,688,383	$ 4,000,000	20.0%
Not Small	296	58.4%	$71,519,617	$16,000,000	80.0%
TOTAL	**507**	**100%**	**$80,208,000**	**$20,000,000**	**100%**

In December 2009, “small” businesses claimed the entire $4 million in R&D tax credit set aside for them; “small” businesses received 46 percent of the credit for which they applied. This is only the third year in the history of the program that the whole “small” business set aside has been claimed. Last year, “small” businesses received the entire $8 million in R&D tax credit set aside for them; they received 99.3 percent of the credit amount for which they applied. The $20 million program cap reduced the amount of credit approved for the “not small” businesses to 22.4 percent of the requested amount. Last year, “not small” businesses received 38.7 percent of the amount of credit they requested. The decrease in the cap from $40 million to $20 million is mainly responsible for lowering these percentages for December 2009 versus December 2008 awards.

Table 5 shows the history of the R&D tax credit for the “small” business set aside for 1997 through 2008. 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. The second year in which “small” businesses claimed the total amount of credit set aside for them was 2008 when the limit was $8 million. 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, 1997-2008

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
December 2008	205	$8,052,975	$8,000,000

Table 6 shows the amount of R&D tax credit that has been applied to CNIT, CSFT and PIT for taxable years 1997 through 2007. 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 2010.

Table 6 shows the distribution of the R&D tax credits that have been applied to specific tax years. As of February 2010, 81 percent of the $245 million in R&D tax credit that has been awarded for 1997 though 2007 has been applied to specific tax periods. About 50 percent of the credit awarded that has been applied has been applied to the CSFT; 45.8 percent has been applied to the CNIT. Approximately 3.9 percent 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, 1997-2007

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	$ 791,636	195
1999	$ 3,066,611	83	$ 6,245,436	225	$ 439,671	162
2000	$ 4,495,931	77	$ 6,419,535	190	$ 523,087	201
2001	$ 6,364,344	82	$ 7,021,941	202	$ 533,621	171
2002	$ 7,948,153	50	$ 5,201,957	208	$ 487,586	169
2003	$ 8,682,877	61	$ 8,898,634	207	$ 337,985	154
2004	$ 14,764,203	63	$ 7,703,817	259	$ 707,634	163
2005	$ 12,039,815	60	$ 15,153,293	283	$ 1,003,141	161
2006	$ 13,449,238	82	$ 19,427,797	323	$ 1,268,225	197
2007	$ 12,691,413	92	$ 15,087,935	357	$ 1,459,447	185
TOTAL	**$ 90,900,205**		**$ 99,925,402**		**$ 7,739,896**	

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 percent 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 percent 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, 2014. 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 2014, 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 2007 (the latest year for which reports are available for all taxpayers) for taxpayers receiving the R&D tax credit in 2009. 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 2007 Tax Liabilities by Business Type

Business Type	2007 CSFT Liability	2007 CNIT Liability
Manufacturing	$10,252,396	$49,679,682
Services	$ 3,526,658	$ 23,233,185
Misc.	$ 7,439,812	$ 14,677,148
TOTAL	**$21,218,866**	**$87,690,015**

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 2009 to the total tax year 2007 self-assessed CNIT and CSFT liabilities[8]. Of the 506 taxpayers receiving the R&D tax credit in 2009 that are subject to the CNIT or CSFT, their total self-assessed 2007 tax year CNIT and CSFT liabilities totaled $108.9 million. Though there are obviously varied ratios per individual taxpayer, overall the amount of tax credit awarded represents 18.4 percent of the self-assessed tax amount and 73.6 percent of the amount of the R&D tax credit requested.

The total 2007 CSFT liability for S corporations and LLCs receiving the R&D tax credit in 2009 was $0.7 million. Out of the 103 Pennsylvania S corporations or LLCs, 15 had a CSFT liability of zero for 2007. The total 2007 CSFT liability for C corporations receiving the R&D tax credit in 2009 was $20.5 million. Out of the 403 C corporations, 112 had a CSFT liability of zero for 2007.

The 403 C corporations receiving the tax credit in 2009 had a total taxable year 200 CNIT liability of $87.7 million. Of these companies, 272 were C corporations with a taxable year 2007 CNIT liability equal to zero, due to either zero or negative net income in taxable year 2007. 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 two LLCs for tax year 2007.

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 nine occasions (1986, 1992, 1995, 1997, 1999, 2004, 2005, 2007 and 2009). Under current federal law, the R&D tax credit has expired on December 31, 2009.

As long as the federal R&D tax credit is not repealed and removed from the IRC, the definition and terms remain in effect for state level calculations. However, if the federal R&D tax credit is not eventually extended, then it is possible that the Commonwealth could lose applicants

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

that, since they would not file out the federal forms, would not go through the trouble of filing the state forms. This would be especially true for companies that qualify for relatively small amounts of state R&D tax credits or for companies that face sizable fees from tax preparers for filing the state R&D tax forms.

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 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 percent of the total R&D expenditures by private industry in 1995 in the United States ($108,652 million).

By 2006, the total amount of R&D expenditures in Pennsylvania by private industry had risen to $9,819 million. This was an increase over the 11 year period of 98.2 percent. Over the same period, total R&D expenditures by private industry in the United States had risen by 124.4 percent to a level of $243,853 million. For 2006, R&D expenditures in Pennsylvania by private industry were about 4.0 percent of total R&D expenditures by private industry in the United States. Pennsylvania ranked 8th in the entire US in R&D spending by private industry in 2006.

For comparison sake, the 507 R&D tax credit applicants in 2009 had total R&D expenditures in 2008 of $3,379.8 million. Not all R&D done by industry in Pennsylvania is performed by R&D tax credit applicants.

A paper was presented at November 2007 meeting of the National Tax Association (NTA) examined the impact of state R&D tax credits in stimulating industrial R&D activity. The paper concluded that "overall, the R&D credit does not seem to play an important role in stimulating R&D activity across all states." However, the paper pointed out that the results are preliminary and that more work needed to be done to better estimate the value of the credit.[9]

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 percent 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 percent of the private sector GSP.

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[9] "Effect of State R&D Tax Credits in Stimulating State Industrial R&D Activity," Prepared by Laura Wheeler and Sally Wallace, Presented at the National Tax Association (NTA) Proceedings from the 100th Annual Conference in columbus, OH, November 2007.

[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.

According to a November 2009 study released by the Government Accountability Office (GAO), large corporations in 2005 dominated the use of the federal R&D tax credit, similarly mirroring usage of the R&D tax credit here in Pennsylvania. Further, the GAO found that the federal R&D tax credit in 2005 provided an average marginal incentive of between 6.4 to 7.3 percent. In other words, the federal R&D tax credit stimulated an additional amount of research spending in the United States of between 6.4 percent to 7.3 percent at the business level.[11]

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.[12]

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 percent 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.[13] 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.

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 twelve years, 1997 through 2008. 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. Also, 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. Lastly, it remains to be seen what the effect of the dramatic economic downturn has had on R&D spending by private industry. However, 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, 1,488 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 507 taxpayers receiving the R&D tax credit in 2009, 104 were either Pennsylvania S corporations, LLCs or individuals and 403 were C corporations. The S corporations, LLCs and

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[11] "The Research Tax Credit's Design and Administration Can Be Improved", Prepared by the Government Accountability Office (GAO), GAO-10-136, November 2009.

[12] CCH Incorporated, Multistate Charts, ¶680-200 Credits for Investment/Research Activities.

[13] Companies with 225 employees or less may sell unused R&D tax credits in New Jersey.

individuals received $1.4 million in R&D tax credit, while the C corporations received $18.6 million.

The 507 taxpayers claiming the R&D tax credit in 2009 had total Pennsylvania research expenditures in taxable year 2008 of $3,379.8 million. This was a 18.3 percent increase compared to their total Pennsylvania research expenditures in taxable year 2007 of $2,856.3 million.

Impact on Not Small Businesses

Out of the 507 taxpayers receiving the tax credit in 2009, 296 did not qualify as “small” businesses. Their total Pennsylvania research expenditures in taxable year 2008 were $3,259.8 million, an 17.8 percent increase over their taxable year 2007 Pennsylvania research expenditures of $2,766.8 million.

Of the 296 “not small” businesses, 230 increased their Pennsylvania research expenditures in taxable year 2008 over taxable year 2007 by 31.5 percent in the aggregate. Their Pennsylvania research expenditures in taxable year 2008 rose to $2,557.4 million from $1,944.8 million in taxable year 2007. Only 66 of these businesses reduced their Pennsylvania research expenditures over the same period. Their Pennsylvania research expenditures in taxable year 2008 declined by 14.5 percent to $702.4 million from $821.9 million in taxable year 2007.

Impact on Small Businesses

Out of the 507 taxpayers receiving the tax credit in 2009, 211 were “small” businesses. Their total Pennsylvania research expenditures in taxable year 2008 were $120.0 million, a 34 percent increase over their taxable year 2007 Pennsylvania research expenditures of $89.5 million.

The 211 “small” businesses received the total $4.0 million in credit set aside for them in 2009. This is only the third 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 211 “small” businesses, 173 increased their Pennsylvania research expenditures in taxable year 2008 over taxable year 2007 by 54.7 percent in the aggregate. Their Pennsylvania research expenditures in taxable year 2008 rose to $94.9 million from $61.3 million in taxable year 2007. Only 38 “small” businesses reduced their Pennsylvania research expenditures over the same period. Their Pennsylvania research expenditures in taxable year 2008 declined by 11.0 percent to $25.1 million from $28.2 million in taxable year 2007.

Impact on First Time Claimants and New Companies

In 2009, 151 taxpayers were awarded the tax credit for the first time, claiming $1.9 million in credit. Their Pennsylvania research expenditures totaled $206.6 million for taxable year 2008. Conversely, 166 taxpayers that claimed the tax credit in 2008 did not receive any credit in 2009. These 166 taxpayers had Pennsylvania research expenditures in taxable year 2007 of about $1,386.6 million and claimed about $9.8 million in tax credit in 2008.

Of all the taxpayers claiming the R&D tax credit in 2009, 245 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 $8.9 million in tax credit in 2009 and had total Pennsylvania research expenditures in taxable year 2008 of about $1,217.4 million, a 11.3 percent increase from their Pennsylvania research expenditures in taxable year 2007 of about $1,093.6 million.

The 245 recently incorporated companies had a total taxable year 2007 CSFT liability of $3.5 million; 102 taxpayers had zero tax liability. The 245 new companies had a total taxable year 2007 CNIT liability of $28.2 million; 204 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 91 taxpayers for which the Department has tracked Pennsylvania research expenditures for the last ten taxable years, from 1999 through 2008. This group of credit recipients has received $71.3 million in total tax credit from 1997 through 2009, or about 23.4 percent of the total $305 million awarded over the thirteen years. These 91 companies represent 31.2 percent 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.

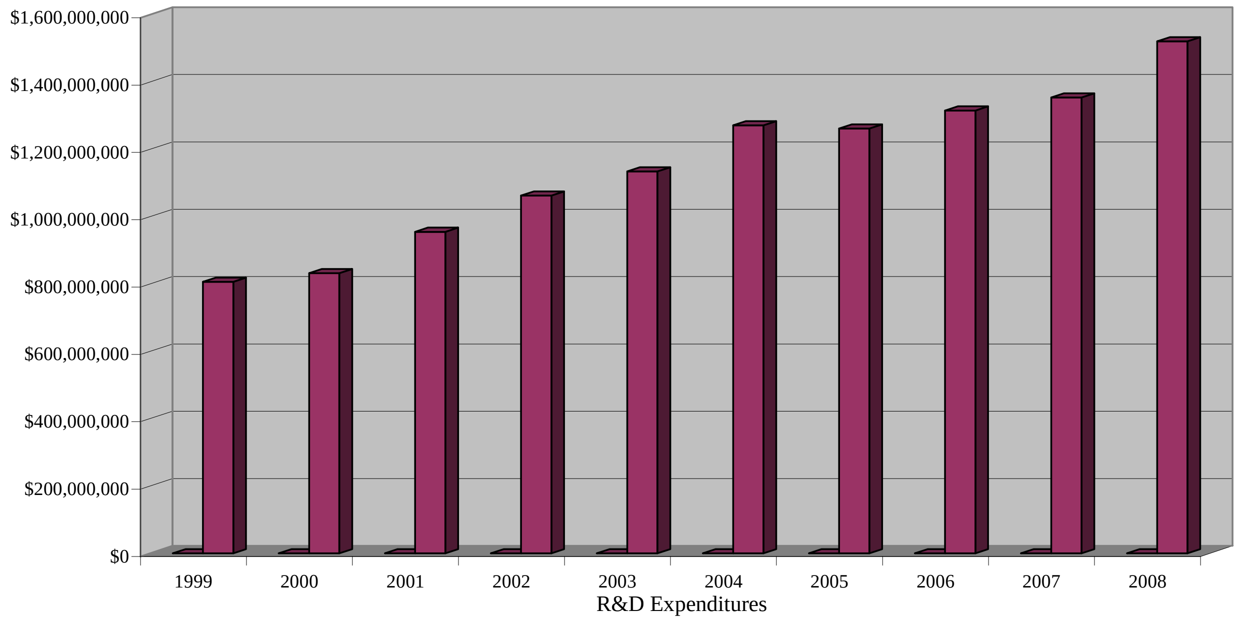
For these 91 taxpayers, their 2008 Pennsylvania R&D expenditures totaled just over $1.5 billion. This is an aggregate growth rate of 88.6 percent over their 1999 Pennsylvania R&D expenditures of about $0.8 billion; between 1999 and 2008, the Pennsylvania R&D expenditures for these 91 taxpayers grew at an compound annual growth rate of 7.3 percent

These 91 taxpayers were awarded about $5.1 million in R&D tax credit in 2009. This credit amount was about 0.2 percent of their total amount of Pennsylvania research expenditures for the taxpayers in taxable year 2008. 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 91 established taxpayers had a total CSFT liability for taxable year 2007 of $8.5 million and a total CNIT liability for taxable year 2007 of $47.4 million.

Chart 1 graphically shows the Pennsylvania R&D expenditures for the 91 established taxpayers for the last ten taxable years, 1999 through 2008.

Chart 1. Pennsylvania R&D Expenditures by Year for 91 Established Companies With PA Expenditure Data Between 1999 and 2008



Small versus Not "Small"

Of the 91 taxpayers, 63 did not qualify as "small" businesses. They received about $66.5 million in tax credit over the thirteen years of the program. Their 2008 Pennsylvania R&D expenditures totaled about $1.5 billion. This is an aggregate growth rate of 87.3 percent over their 1999 Pennsylvania R&D expenditures of about $0.8 billion; between 1999 and 2008, the Pennsylvania R&D expenditures for these 63 taxpayers grew an compound annual growth rate of 7.2 percent.

Of the 91 taxpayers, there were 28 "small" businesses that received about $4.8 million in tax credit over the thirteen years of the program. Their 2008 Pennsylvania R&D expenditures totaled about $15.6 million. This is an aggregate growth rate of 520.7 percent over their 1999 Pennsylvania R&D expenditures of about $2.5 million; between 1999 and 2008, the Pennsylvania R&D expenditures for these 28 taxpayers grew an compound annual growth rate of 22.5 percent.

By Industry Type

Of the 91 taxpayers, 51 were classified as manufacturers. They received about $57.3 million in tax credit over the thirteen years of the program. Their 2008 Pennsylvania R&D expenditures totaled about $1.3 billion. This is an aggregate growth rate of 71.6 percent over their 1999 Pennsylvania R&D expenditures of $0.7 billion; between 1999 and 2008, the Pennsylvania R&D expenditures for these 51 taxpayers grew an compound annual growth rate of 6.2 percent.

Of the 91 taxpayers, there were 40 non-manufacturing businesses that received about $14.0 million in tax credit over the thirteen years of the program. Their 2008 Pennsylvania R&D expenditures totaled about $265.8 million. This is an aggregate growth rate of 255.8 percent over their 1999 Pennsylvania R&D expenditures of about $74.7 million; between 1999 and 2008, the Pennsylvania R&D expenditures for these 40 taxpayers grew an compound annual growth rate of 15.1 percent.

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

When all 507 taxpayers receiving the R&D tax credit in 2009 were examined, “small” businesses increased their Pennsylvania research expenditures in taxable year 2008 more than “not small” businesses. However, the Pennsylvania research expenditures for “small” businesses were only 3.6 percent of the total Pennsylvania research expenditures in taxable year 2008. The overwhelming majority of Pennsylvania research expenditures continue to be made by taxpayers not classified as “small” businesses.

Of the 91 taxpayers examined for whom the Department has tracked Pennsylvania research expenditures for the last ten taxable years, for 1999 through 2008, 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. It remains to be seen what impact the most recent recession and the legislated reduction in available tax credits will have on future R&D expenditures by private industry.

Conclusion

The R&D tax credit has existed in Pennsylvania for thirteen years. Literature evaluating the effectiveness of the federal R&D tax credit and state R&D tax credits has shown mixed results regarding the effectiveness of the programs. 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:

- Due to the changes made by Act 48 of 2009, only $20.0 million in R&D tax credit were awarded by the Department in December 2009. The “small” business set aside was similarly reduced to $4.0 million for December 2009.
- In 2008, 507 companies were awarded credits, receiving the capped amount of $20 million, or just under 25 percent of the amount requested. This was the largest number of companies ever awarded the credit in one year.
- In the absence of a cap, $80.2 million in tax credits would have been awarded. This was the third highest amount of tentative credit ever issued in one year.
- In tax year 2008, the 507 companies awarded the R&D tax credit in 2009 had total Pennsylvania research expenditures of $3,379.8 million, an 18.3 percent increase over their tax year 2007 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 $4.0 million in tax credit set aside for them in 2009. This only the third time that “small” businesses claimed all of the tax credit set aside for them.
- As of February 2009, a total of $30.6 million in unused R&D tax credit have been sold from 2003 through 2008; approximately $28.4 million was paid for the unused credit, or about 92.6 percent of their value.

APPENDIX A

Table 1. Pennsylvania Research & Development Tax Credit Program
Taxpayers Receiving Credit in December 2007, 2008 and 2009 in Dollars
Sorted by 2009 Credit Awarded (Largest to Smallest)

Taxpayer Name	*2009 Credit Awarded*	*2009 Credit Utilized* [1]	*2007 & 2008 Credit Awarded*	*2007 & 2008 Credit Utilized* [1]
Pfizer, Inc.	$2,715,300	$0	$1,257,546	$35,383
Merck & Co., Inc.	$1,677,793	$0	$878,244	$878,244
General Electric Company	$1,363,045	$0	$1,451,925	$60,166
Comcast Corporation	$1,141,034	$0	$2,351,325	$47,761
Rohm and Haas Chemicals LLC	$585,724	$0	$2,919,874	$1,518,277
Sanofi Aventis US, Inc.	$416,252	$0	$1,925,940	$196,939
Centocor Research & Development, Inc.	$402,833	$0	$10,595,065	$9,973,891
Carpenter Technology Corporation	$368,852	$0	$893,351	$328,523
Amgen, Inc.	$336,279	$0	$970,162	$24,224
Lockheed Martin Corporation	$320,840	$0	$1,559,841	$1,559,841
Shire Pharmaceuticals, Inc.	$246,912	$0	$402,051	$402,051
Prescient Medical, Inc.	$227,016	$0	$168,501	$168,501
Morphotek, Inc.	$221,088	$0	$293,088	$293,088
Agentase	$211,438	$0	$171,838	$0
Nupathe, Inc.	$206,194	$0	$543,367	$543,367
SEI Global Service, Inc.	$201,787	$0	$1,348,232	$0
Promedior, Inc.	$177,894	$0	$59,969	$59,969
Heinz Management LLC	$159,224	$0	$595,025	$81,236
Wyeth	$154,958	$0	$1,928,315	$1,928,315
Sanofi Pasteur, Inc.	$154,593	$0	$883,992	$883,992
Novartis Pharmaceuticals Corporation	$146,044	$0	$169,868	$169,868
Teva Pharmaceuticals USA, Inc.	$145,313	$0	$38,605	$38,605
Immune Control, Inc.	$144,421	$0	$289,952	$289,952
Pennsylvania General Energy Company LLC	$144,224	$0	$201,331	$137,321
Boehringer Ingleheim Pharmaceuticals, Inc.	$138,096	$0	$0	$0
Medrad, Inc.	$130,633	$0	$642,086	$642,086
Knopp Neurosciences, Inc.	$128,313	$0	$362,564	$0
Avid Radiopharmaceuticals, Inc.	$123,461	$0	$101,627	$101,627
Syth, Inc.	$114,808	$0	$458,114	$458,114
Portico Systems, Inc.	$112,831	$0	$188,006	$319
Edcomm, Inc.	$111,227	$0	$223,568	$223,568
Nitric Biotherapeutics, Inc.	$104,953	$0	$0	$0
Powercast Corporation	$101,051	$0	$84,951	$81,409
Innovative Solutions & Support, Inc.	$100,541	$0	$215,192	$0
Honeywell International, Inc.	$100,476	$0	$0	$0
Plextronics, Inc.	$99,077	$0	$422,026	$422,026
Eaton Electrical, Inc.	$98,147	$0	$383,506	$252,519
Mutual Pharmaceutical Company, Inc.	$97,635	$0	$834,386	$834,386
Accenture LLP	$95,815	$0	$92,450	$0
Allegheny Ludlum Corporation	$83,133	$0	$239,889	$88,268
Verizon Data Services LLC	$82,468	$0	$0	$0
Tengion, Inc.	$76,855	$0	$160,255	$80,484
Protez Pharmaceuticals, Inc.	$76,744	$0	$253,063	$187,986
Synthes North America, Inc.	$76,539	$0	$305,410	$305,410
Cohera Medical, Inc.	$73,172	$0	$77,004	$77,004
Prism Pharmaceuticals, Inc.	$72,619	$0	$238,105	$163,469
Globus Medical, Inc.	$69,094	$0	$0	$0
Melior Discovery, Inc.	$68,274	$0	$125,681	$125,681
Gateway Ticketing Systems, Inc.	$67,644	$0	$14,804	$14,804
Orasure Technologies, Inc.	$66,820	$0	$42,869	$35,668
Kennametal Inc.	$65,254	$0	$198,254	$59,190

Taxpayer Name	*2009 Credit Awarded*	*2009 Credit Utilized* [1]	*2007 & 2008 Credit Awarded*	*2007 & 2008 Credit Utilized* [1]
Cook Myosite, Inc.	$63,870	$0	$25,192	$4,527
II-VI Incorporated	$63,849	$0	$118,139	$118,139
Mine Safety Appliances Company	$62,222	$0	$192,235	$192,235
Cisco Systems, Inc.	$61,615	$0	$0	$0
Aprecia Pharmaceutical Company, Inc.	$61,315	$0	$107,589	$0
N.A. Water Systems LLC	$60,690	$0	$0	$0
Matrix Operations Company, LLC	$59,885	$0	$42,784	$11,380
Bitarmor Systems, Inc.	$57,820	$0	$106,657	$106,657
Axion Power Battery Mfg., Inc.	$57,539	$0	$0	$0
Cyoptics, Inc.	$57,484	$0	$122,158	$122,158
Lightwire, Inc.	$57,038	$0	$561,909	$561,909
Lord Corporation	$56,901	$0	$205,294	$43,668
Locus Pharmaceuticals, Inc.	$56,349	$0	$0	$0
ABB, Inc.	$55,693	$0	$0	$0
Hindlepower, Inc.	$53,878	$0	$0	$0
Synthes USA HQ, Inc.	$53,661	$0	$753,329	$753,329
Flexuspine, Inc.	$53,529	$0	$119,575	$1,640
Protalex, Inc.	$53,141	$0	$88,711	$88,711
Colorcon Inc. and Division	$52,494	$0	$119,152	$66,658
Sungard Higher Education, Inc.	$52,489	$0	$0	$0
Nextgen Healthcare Information Systems, Inc.	$51,280	$0	$186,378	$186,378
Novo Nordisk, Inc.	$48,215	$0	$0	$0
PH Glatfelter Company	$47,787	$0	$54,910	$28,076
McKesson Automation, Inc.	$47,635	$0	$221,678	$83,837
Compunetix, Inc.	$47,570	$0	$34,893	$0
RSI Silicon Products LLC	$47,372	$0	$0	$0
Bridge Semiconductor Corporation	$47,120	$0	$117,009	$67,482
Agrofresh, inc.	$46,961	$0	$224,288	$72,035
Polymedix Pharmaceuticals, Inc.	$46,404	$0	$120,532	$120,529
Plantronics, Inc.	$46,395	$0	$0	$0
The Hershey Company	$44,090	$0	$75,128	$75,128
Nvidia Corporation	$43,493	$0	$18,425	$1,775
Silverstorm Technologies, Inc.	$43,394	$0	$133,586	$0
Gamry Instruments, Inc.	$41,398	$0	$74,708	$15,160
Videon Central, Inc.	$40,631	$0	$72,542	$72,542
Immunotope, Inc.	$40,631	$0	$114,655	$114,655
Nutec Tooling Systems, Inc.	$39,341	$0	$126,281	$96,515
Bentley Systems Incorporated	$38,755	$0	$161,842	$161,842
Avery Dennison Corporation	$37,256	$0	$64,283	$7,964
Greenleaf Corporation	$37,207	$0	$53,263	$9,751
Corry Rubber Corporation	$37,026	$0	$80,252	$29,560
Ception Therapeutics, Inc.	$36,770	$0	$1,011,676	$5,344
Interstate Management Resources, Inc.	$36,504	$0	$61,748	$61,748
Air Products and Chemicals, Inc.	$35,953	$0	$0	$0
Gentex Corporation	$34,325	$0	$32,041	$9,490
The Clemens Family Corporation	$34,067	$0	$15,207	$15,207
Global Seating Systems LLC	$32,645	$0	$0	$0
Landslide Technologies, Inc.	$32,445	$0	$46,778	$0
National Medical Services Biopharma LLC	$32,185	$0	$0	$0
Galleon Pharmaceuticals, Inc.	$31,749	$0	$0	$0
Teletracking Technologies Inc.	$31,313	$0	$148,474	$148,474
Aquatech International Corporation	$30,785	$0	$64,945	$28,626
International Business Machines Corporation	$30,131	$0	$228,448	$228,448
Equipois, Inc.	$30,117	$0	$0	$0
Amuneal Manufacturing Corp	$30,085	$0	$78,128	$0
Sweet Street Desserts, Inc.	$30,066	$0	$31,868	$19,617
Caterpillar, Inc.	$29,368	$0	$31,362	$31,362
Sealstrip Corporation	$28,984	$0	$44,687	$78

Taxpayer Name	*2009 Credit Awarded*	*2009 Credit Utilized*[1]	*2007 & 2008 Credit Awarded*	*2007 & 2008 Credit Utilized*[1]
Specialty Tires of America PA	$28,912	$0	$149,511	$0
Animas Corporation	$28,118	$0	$137,012	$0
Frewmill Die Crafts, Inc.	$27,335	$0	$6,706	$6,706
Neuro Kinetics, Inc.	$27,249	$0	$51,691	$51,691
Redzone Robotics, Inc.	$27,214	$0	$13,869	$2,125
Flsmidth, Inc.	$27,100	$0	$0	$0
New Pig Corporation	$26,408	$0	$0	$0
Fidelity Information Services, Inc.	$26,008	$0	$18,612	$18,612
CA Research, Inc.	$25,826	$0	$188,367	$79,805
Mapquest PA, Inc.	$25,815	$0	$0	$0
Draeger Medical Systems, Inc.	$25,280	$0	$0	$0
Manley Holdings, Inc.	$24,528	$0	$99,110	$99,110
Precision Therapeutics, Inc.	$24,500	$0	$339,430	$309,202
Pennoni Associates, Inc.	$24,147	$0	$0	$0
Cordis Corporation	$23,727	$0	$6,961	$6,961
Teletronics Technology Corporation	$22,319	$0	$0	$0
Accipiter Systems, Inc.	$21,768	$0	$34,314	$9,472
American Manufacturing & Engineering	$21,645	$0	$0	$0
Cardiokine Biopharma LLC	$21,419	$0	$0	$0
Oven Industries, Inc.	$21,116	$0	$0	$0
Relex Software Corporation	$20,901	$0	$60,589	$60,589
Theraquest Biosciences, Inc.	$20,558	$0	$0	$0
Tetralogic Pharmaceuticals Corporation	$20,105	$0	$80,619	$67,211
The Valspar Corporation	$19,866	$0	$22,781	$0
Net Health Systems, Inc.	$19,823	$0	$0	$0
Solid Cactus Inc.	$19,776	$0	$38,992	$38,992
Dynavox Systems LLC	$19,607	$0	$0	$0
Collagesnet, Inc.	$19,352	$0	$0	$0
Eriez Manufacturing	$19,341	$0	$4,480	$4,480
Fidelity Flight Simulation	$19,258	$0	$69,711	$69,711
Inmedius, Inc.	$19,029	$0	$68,376	$68,376
Towercare Technologies, Inc.	$18,937	$0	$0	$0
Cognition Therapeutics, Inc.	$18,805	$0	$0	$0
Syandus, Inc.	$18,587	$0	$23,625	$23,328
Omniwind Energy Systems LLC	$18,522	$0	$0	$0
Timbar Corporation	$18,260	$0	$0	$0
Graco Children's Products, Inc.	$18,164	$0	$71,725	$4,336
Neotropix, Inc.	$18,164	$0	$449,346	$225,706
Accu Measurement Testing, Inc.	$18,001	$0	$17,301	$17,301
Isosciences, LLC	$17,775	$0	$49,307	$49,307
Xylos Corporation	$17,668	$0	$16,623	$893
S Vitale Pyrotechnic Industries, Inc.	$17,477	$0	$0	$0
Innovative Pressure Technologies LLC	$17,444	$0	$0	$0
Aerotech Inc.	$17,206	$0	$87,074	$87,074
Prosanos Corporation	$17,021	$0	$83,042	$48,697
Elan Drug Delivery, Inc.	$17,011	$0	$42,808	$42,808
Certainteed Corporation	$16,970	$0	$0	$0
RCD Technology, Inc.	$16,887	$0	$50,128	$50,128
Mars Incorporated	$16,778	$0	$45,778	$45,778
NAC Carbon Products, Inc.	$16,685	$0	$1,600	$1,600
East Penn Manufacturing Company	$16,488	$0	$26,104	$0
Graymont (PA), Inc.	$16,443	$0	$18,068	$7,500
Process Combustion Corporation	$16,439	$0	$62,758	$37,303
Control Concepts Corporation	$16,358	$0	$56,179	$56,179
Giorgi Foods, Inc.	$16,336	$0	$23,812	$15,105
Document Solutions Group, Inc.	$16,013	$0	$68,845	$68,845
Adhesives Research, Inc.	$15,902	$0	$41,400	$0
FS Elliott Co. LLC	$15,818	$0	$22,718	$436

Taxpayer Name	*2009 Credit Awarded*	*2009 Credit Utilized*[1]	*2007 & 2008 Credit Awarded*	*2007 & 2008 Credit Utilized*[1]
Discovery Laboratories, Inc.	$15,709	$0	$103,321	$103,321
Diversified Machine, Inc.	$15,554	$0	$0	$0
Industrial Scientific Corporation	$15,541	$0	$0	$0
Orthovita, Inc.	$15,524	$0	$109,704	$37,180
Blade Diagnostics Corporation	$15,419	$0	$23,301	$23,301
Jeannette Shade and Novelty Company	$15,249	$0	$0	$0
SPX Corporation	$15,244	$0	$23,302	$23,302
Infomc, Inc.	$15,004	$0	$0	$0
Piezo Resonance Innovations, Inc.	$14,883	$0	$0	$0
Keystone Nano, Inc.	$14,702	$0	$0	$0
Gemini Plastics, Inc.	$14,547	$0	$47,653	$35,520
JLG Industries, Inc.	$14,323	$0	$252,468	$0
OfficeDiggs, Inc.	$13,918	$0	$17,116	$17,116
Gelest, Inc.	$13,805	$0	$45,396	$45,396
Gentis, Inc.	$13,788	$0	$141,966	$141,966
Onconova Therapeutics, Inc.	$13,710	$0	$83,345	$10,289
Pride Mobility Products Corporation	$13,636	$0	$1,754	$1,754
Kaolin Mushroom Farms, Inc.	$13,579	$0	$0	$0
Schneider, Inc.	$13,099	$0	$15,578	$15,578
LCR Electronics, Inc.	$13,088	$0	$94,518	$93,390
Hydro-Pac, Inc.	$12,906	$0	$71,769	$71,616
Gyroton Technology, Inc.	$12,885	$0	$36,679	$36,481
LPS Mortgage Processing Solutions, Inc.	$12,877	$0	$0	$0
Graybill Machines, Inc.	$12,813	$0	$0	$0
Coldlight Solutions LLC	$12,800	$0	$0	$0
S W Race Cars Components, Inc.	$12,741	$0	$56,147	$0
Osram Sylvania Products, Inc.	$12,543	$0	$0	$0
Express Dynamics LLC	$12,534	$0	$34,871	$34,871
Omega Design Corporation	$12,414	$0	$0	$0
York Container Company	$12,361	$0	$27,679	$199
National Magnetics Group, Inc.	$12,319	$0	$86,398	$24,643
Multimodal Technologies, Inc.	$12,207	$0	$21,648	$16,494
Pharmabridge, Inc.	$12,141	$0	$12,303	$12,303
Puricore, Inc.	$11,967	$0	$5,305	$0
Electron Energy Corporation	$11,904	$0	$15,299	$0
Strategic Polymer Sciences, Inc.	$11,868	$0	$31,255	$0
Beaumont Technologies, inc.	$11,857	$0	$31,457	$31,457
WER Corporation	$11,843	$0	$22,957	$13,609
Aethon, Inc.	$11,779	$0	$43,673	$43,485
Electronics for Imaging, Inc.	$11,720	$0	$38,397	$38,397
Bionanomatrix, Inc.	$11,583	$0	$0	$0
Remark Internet, Inc.	$11,147	$0	$0	$0
Reynolds & Reynolds Electronics, Inc.	$11,043	$0	$29,994	$17,188
Medical Products Laboratories, Inc.	$10,895	$0	$0	$0
Industrial Learning Systems	$10,789	$0	$0	$0
Verizon Corporate Services Group, Inc.	$10,746	$0	$0	$0
Synchronoss Technologies, Inc.	$10,617	$0	$72,940	$72,940
Thermal Therapeutic Systems, Inc.	$10,600	$0	$0	$0
Nanohorizons, Inc.	$10,518	$0	$0	$0
Contec Systems Industrial Corp.	$10,452	$0	$0	$0
Jordan Acquisition Group LLC	$10,445	$0	$54,603	$54,603
Solo Laboratories, Inc.	$10,412	$0	$34,454	$34,454
Graphite Machining, Inc.	$10,345	$0	$3,329	$38
Fairmount Foundry, Inc.	$10,341	$0	$11,734	$11,734
Dontech, Inc.	$10,211	$0	$47,904	$17,660
Kroff Chemical Company	$10,039	$0	$12,072	$11,987
Valtech Corporation	$10,037	$0	$0	$0
Kalas Mfg., Inc.	$10,011	$0	$58,074	$58,074

Taxpayer Name	*2009 Credit Awarded*	*2009 Credit Utilized* [1]	*2007 & 2008 Credit Awarded*	*2007 & 2008 Credit Utilized* [1]
Video Display Corporation	$10,006	$0	$0	$0
Touchtown, Inc.	$9,993	$0	$16,079	$10,899
Woodings Industrial	$9,982	$0	$0	$0
Bel Connector, Inc. (ta Stewart Connector)	$9,830	$0	$16,749	$16,749
Psychology Software Tools, Inc.	$9,704	$0	$10,345	$10,345
Pharmaceutical Manufacturing Research	$9,610	$0	$0	$0
Micromechatronics, Inc.	$9,607	$0	$52,557	$52,557
Coexprise, Inc.	$9,589	$0	$51,823	$0
Penn Engineering and Manufacturing Corp.	$9,422	$0	$0	$0
Zband, Inc.	$9,404	$0	$14,804	$0
Ross Technology Corporation	$9,238	$0	$0	$0
Red Valve Company, Inc.	$9,181	$0	$24,834	$24,256
Ecotech Marine LLC	$9,176	$0	$10,673	$0
Bloom Engineering Company, Inc.	$9,106	$0	$0	$0
KDIndustires, Inc.	$9,065	$0	$24,740	$0
C W E, Inc.	$8,995	$0	$4,037	$4,037
VT Graphics, Inc.	$8,641	$0	$7,022	$7,022
Henson Company, Inc.	$8,483	$0	$12,128	$5,834
Ira G. Steffy Son, Inc.	$8,460	$0	$0	$0
Softerware, Inc.	$8,397	$0	$2,765	$0
Betts Industries, Inc.	$8,392	$0	$14,348	$14,348
New Standard Corporation	$8,389	$0	$13,113	$11,985
Combined Systems, Inc.	$8,380	$0	$19,379	$17,961
Ontelaunee Farms, Inc.	$8,310	$0	$0	$0
Gai-Tronics Corporation	$8,265	$0	$24,384	$24,384
Pioneer Hi Bred International, Inc.	$8,156	$0	$12,388	$12,388
CP Converters, Inc.	$8,129	$0	$20,859	$20,859
Milnes Engineering, Inc.	$8,025	$0	$6,378	$6,378
EA Fischione Instruments, Inc.	$7,945	$0	$34,211	$34,211
West Pharmaceutical Services	$7,890	$0	$11,346	$0
Ecore International Inc.	$7,825	$0	$11,439	$11,439
Hermance & Strouse Inc.	$7,712	$0	$7,394	$67
Richter Precision, Inc.	$7,686	$0	$40,802	$40,802
Grant Street Group, Inc.	$7,646	$0	$128,760	$1,117
Yaupon Therapeutics, Inc.	$7,550	$0	$0	$0
Reading Pretzel Machinery Corp.	$7,502	$0	$11,576	$7,275
Prosoft Technologies, Inc.	$7,464	$0	$45,643	$43,592
Bioconnect Systems, Inc.	$7,459	$0	$43,293	$38,091
Applied Systems Associates, Inc.	$7,362	$0	$153,055	$116,558
Controlled Chemicals, Inc.	$7,292	$0	$23,363	$0
Robert Bosch , LLC	$7,216	$0	$40,635	$0
Cook Vascular Corporation	$7,121	$0	$15,369	$15,369
Amphenol Intercon Systems, Inc.	$7,120	$0	$0	$0
Kuhn Tool Die Co.	$7,061	$0	$3,886	$310
Urban Engineers, Inc.	$6,971	$0	$0	$0
Videomining Corporation	$6,967	$0	$70,974	$0
InvestEdge, Inc.	$6,955	$0	$47,546	$0
Thermomegatech, Inc.	$6,955	$0	$0	$0
Lehigh Valley Technologies, Inc.	$6,930	$0	$0	$0
Aberdeen Road Company	$6,872	$0	$8,487	$8,487
Appcove, Inc.	$6,808	$0	$15,070	$15,070
Follett Corporation	$6,706	$0	$36,794	$30,088
Cutting Edge Solutions, Inc.	$6,654	$0	$60,874	$60,874
Clinical Financial Services, LLC	$6,649	$0	$30,586	$30,586
Trevena, Inc.	$6,556	$0	$0	$0
Science Applications International Corporation	$6,556	$0	$73,100	$73,100
Walsh Construction Company	$6,530	$0	$0	$0
Supelco, Inc.	$6,462	$0	$31,667	$31,667

Taxpayer Name	*2009 Credit Awarded*	*2009 Credit Utilized* [1]	*2007 & 2008 Credit Awarded*	*2007 & 2008 Credit Utilized* [1]
Pyrotek Incorporated	$6,418	$0	$20,426	$11,614
Cardone Industries, Inc.	$6,398	$0	$5,449	$0
Basic Carbide Corporation	$6,314	$0	$0	$0
Phonetics, Inc. (dba Sensaphone)	$6,228	$0	$5,211	$5,211
PB Heat LLC	$6,118	$0	$0	$0
QMAC Quality Machining, Inc.	$6,114	$0	$14,659	$14,659
Power & Industrial Services Corp.	$6,017	$0	$0	$0
McDanel Advanced Ceramic	$6,015	$0	$6,074	$6,074
FMC Technologies Measurement Solutions, Inc.	$5,996	$0	$0	$0
Crystalplex Corporation	$5,864	$0	$29,570	$29,570
Surelogic, Inc.	$5,822	$0	$0	$0
Computer Consulting Team LLC	$5,809	$0	$0	$0
Stein Seal Company	$5,795	$0	$0	$0
OF Zurn Company	$5,722	$0	$18,449	$6,697
Poolpak Technologies Corporation	$5,683	$0	$20,334	$20,334
Power Conversion Technologies, Inc.	$5,660	$0	$5,138	$0
Quintech Electronics & Communications, Inc.	$5,626	$0	$33,766	$33,766
Secowarwick Corporation	$5,553	$0	$16,463	$658
Pittsburgh Materials Technology, Inc.	$5,456	$0	$161	$161
Weiler Corporation	$5,369	$0	$22,023	$3,645
TCI Ceramics, Inc.	$5,361	$0	$0	$0
Vivisimo, Inc.	$5,318	$0	$48,365	$0
East Coast Erosion Blankets LLC	$5,269	$0	$11,789	$11,789
Soft Genetics LLC	$5,261	$0	$32,987	$32,987
BioSpectra, Inc.	$5,219	$0	$0	$0
Emotion Kayaks, Inc.	$5,209	$0	$0	$0
Sim Ops Studios, Inc.	$5,170	$0	$21,812	$21,812
Solar Innovations, Inc.	$5,069	$0	$5,531	$2,027
NCA Technologies, Inc.	$5,065	$0	$0	$0
Datagrove, Inc.	$5,064	$0	$41,442	$18,099
Pelletron Corporation	$5,020	$0	$32,029	$32,029
C&J Industries, Inc.	$5,015	$0	$2,349	$2,349
Saladax Biomedical, Inc.	$5,005	$0	$26,077	$5,303
Chemcut Holdings LLC	$4,973	$0	$0	$0
Streamlight, Inc.	$4,973	$0	$27,303	$27,303
Wolf Technologies LLC	$4,952	$0	$0	$0
Radius Corporation	$4,830	$0	$10,184	$2,780
Richardson Cooling Packages LLC	$4,716	$0	$8,692	$648
Jamestown Paint Company	$4,709	$0	$39,979	$0
Synopsys, Inc.	$4,663	$0	$0	$0
Bolttech, Inc.	$4,653	$0	$0	$0
Oberg Industries, Inc.	$4,624	$0	$30,924	$16,821
David Michael & Co., Inc.	$4,594	$0	$2,650	$2,650
Huston, Inc.	$4,568	$0	$0	$0
A Cubed Corporation	$4,509	$0	$0	$0
Juniata Fabrics Inc.	$4,490	$0	$15,856	$15,856
R M Palmer Company	$4,323	$0	$20,421	$8,241
NE Foods, Inc.	$4,270	$0	$0	$0
World Wide Plastics, Inc.	$4,242	$0	$19,337	$18,461
Mainstream Swimsuits, Inc.	$4,212	$0	$0	$0
RV Industries, Inc.	$4,212	$0	$0	$0
Gardengenetics LLC	$4,191	$0	$0	$0
Yuasa Battery, Inc.	$4,191	$0	$17,296	$17,296
Bulk Chemicals, Inc.	$4,157	$0	$9,511	$9,511
Neutronics, Inc.	$4,019	$0	$313	$313
Flair Corporation	$3,978	$0	$6,843	$6,843
Equitable Gathering, Inc.	$3,967	$0	$0	$0
ETA Industries, Inc.	$3,893	$0	$0	$0

Taxpayer Name	*2009 Credit Awarded*	*2009 Credit Utilized* [1]	*2007 & 2008 Credit Awarded*	*2007 & 2008 Credit Utilized* [1]
Just Between Friends, Inc.	$3,847	$0	$0	$0
Finish Thompson, Inc.	$3,837	$0	$30,491	$30,491
Fiberline, Inc.	$3,813	$0	$4,904	$0
Interstate Chemical Company, Inc.	$3,808	$0	$20,608	$0
Viriome, Inc.	$3,787	$0	$0	$0
WW Patterson Company	$3,750	$0	$4,818	$4,818
Philadelphia Tramail Enterprises, Inc.	$3,739	$0	$8,396	$0
Hydac Technology, Corp.	$3,683	$0	$0	$0
The Magnus Group, Inc.	$3,677	$0	$0	$0
Ernst Conservation Seeds, Inc.	$3,671	$0	$0	$0
Jarex Enterprises LLC	$3,670	$0	$0	$0
Topflight Corporation	$3,627	$0	$0	$0
CF Martin Co. Inc.	$3,575	$0	$4,400	$4,400
Carnegie Learning, Inc.	$3,545	$0	$24,410	$0
Precision Medical Products, Inc.	$3,485	$0	$0	$0
Kenco Corporation	$3,457	$0	$6,231	$260
Herley Industries, Inc.	$3,455	$0	$0	$0
Scientific Systems, Inc.	$3,455	$0	$0	$0
Robinson Fans, Inc.	$3,453	$0	$0	$0
Dynamet Incorporated	$3,423	$0	$20,323	$9,945
Hamill Manufacturing Company	$3,258	$0	$8,274	$6,550
L T H, Inc,	$3,246	$0	$0	$0
Boose Aluminum Foundry Co., Inc.	$3,171	$0	$7,469	$3,480
Ratex Business Solutions, Inc.	$3,105	$0	$0	$0
Chicco USA, Inc.	$3,088	$0	$0	$0
LCM Technologies, Inc.	$3,082	$0	$5,942	$4,103
Altoona Beasley Manufacturing, Inc.	$3,007	$0	$15,401	$8,742
Sealed Air Corporation (US)	$2,970	$0	$0	$0
The Fredericks Company	$2,904	$0	$23,423	$12,605
Seegrid Corporation	$2,869	$0	$104,386	$104,386
Tactical Technologies, Inc.	$2,867	$0	$14,982	$0
Biocoat, Inc.	$2,850	$0	$54,059	$54,059
KCF Technologies	$2,850	$0	$0	$0
Cummins-Allison Corp.	$2,843	$0	$0	$0
Clearcount Medical Solutions, Inc.	$2,816	$0	$106,202	$106,202
Try Tek Machine Works Incorporated	$2,814	$0	$0	$0
KW Inc.	$2,783	$0	$7,642	$7,642
RE 2, Inc.	$2,781	$0	$2,333	$0
Mesh, Inc.	$2,714	$0	$10,541	$2,051
Third Eye Diagnostics, Inc.	$2,707	$0	$0	$0
Advanced Cooling Technologies, Inc.	$2,703	$0	$0	$0
VPI Acquisition Corp.	$2,616	$0	$8,470	$4
Mallet and Company, Inc.	$2,607	$0	$6,185	$4,972
LWB Refractories Company	$2,594	$0	$45,331	$45,331
Teikoku USA, Inc.	$2,567	$0	$3,530	$3,530
Benton Foundry, Inc.	$2,562	$0	$0	$0
Monsanto Company	$2,555	$0	$5,774	$0
Schell Games LLC	$2,551	$0	$21,161	$7,119
The WW Henry Company LP	$2,489	$0	$0	$0
York Laboratories LLC	$2,474	$0	$0	$0
Lunchtime Software LLC	$2,424	$0	$0	$0
Orion Security LSP LLC	$2,411	$0	$7,009	$7,009
J Baur Machining, Inc.	$2,400	$0	$10,906	$10,906
Medicigroup, inc.	$2,396	$0	$24,419	$3,423
Sonitu Pharmaceuticals LLC	$2,382	$0	$0	$0
Metpro Corporation	$2,335	$0	$13,806	$11,471
General Dynamics Satcom Technologies, Inc.	$2,335	$0	$0	$0
Spring City Electrical Mfg. Co.	$2,294	$0	$0	$0

Taxpayer Name	2009 Credit Awarded	2009 Credit Utilized[1]	2007 & 2008 Credit Awarded	2007 & 2008 Credit Utilized[1]
Civil Environmental Consultants	$2,292	$0	$0	$0
Renaissance Nutrition, Inc.	$2,276	$0	$9,334	$9,334
Weaver Industries, Inc.	$2,198	$0	$5,227	$3,218
Qadalyst LLC	$2,163	$0	$0	$0
Infrascan, Inc.	$2,117	$0	$63,139	$63,139
Snaptite, Inc.	$2,116	$0	$0	$0
Enantigen Therapeutics, Inc.	$2,057	$0	$0	$0
Supreme Mid-Atlantic Corporation	$2,052	$0	$0	$0
Proxicast, LLC	$2,024	$0	$0	$0
Invivodata, Inc.	$1,985	$0	$6,251	$0
Electroscience Laboratory, Inc.	$1,974	$0	$17,189	$10,485
TVM Building Products, Inc.	$1,962	$0	$0	$0
K H Technologies	$1,936	$0	$0	$0
Protective Industries, Inc.	$1,933	$0	$0	$0
Big B Manufacturing, Inc.	$1,920	$0	$0	$0
Ciclon Semiconductor Device Corporation	$1,856	$0	$116,501	$245
Herr Foods, Inc.	$1,842	$0	$0	$0
Smoothon, Inc.	$1,835	$0	$2,779	$2,779
Oberon, Inc.	$1,827	$0	$1,206	$1,206
Quantum Software Solution, Inc.	$1,800	$0	$7,438	$7,438
General Machine Products Co. Inc.	$1,772	$0	$0	$0
Michael & Associates, Inc.	$1,740	$0	$1,954	$1,954
McCormick Taylor Inc.	$1,719	$0	$0	$0
RF Central	$1,713	$0	$0	$0
D&E Machining, Inc.	$1,706	$0	$18,438	$12,418
Implementation & Consulting Service	$1,701	$0	$6,447	$6,447
CTR Holdings, Inc.	$1,699	$0	$3,454	$3,454
Robert Bosch Tool Corporation	$1,679	$0	$0	$0
JB Kintner & Sons	$1,661	$0	$0	$0
Elsner Engineering Works, Inc.	$1,607	$0	$541	$0
Jennison Precision Machine, Inc.	$1,598	$0	$1,584	$409
Target Precision LLC	$1,585	$0	$0	$0
Newage Industries, Inc.	$1,553	$0	$7,091	$7,091
SS Xray Products, Inc.	$1,530	$0	$0	$0
Amplifier Research Corp.	$1,505	$0	$12,683	$0
Kopcoat, Inc.	$1,487	$0	$0	$0
Hazleton Casting Company	$1,434	$0	$2,639	$0
Vigon International, Inc.	$1,400	$0	$6,743	$6,743
PSG Controls, Inc.	$1,386	$0	$25,600	$25,600
First Insight, Inc.	$1,372	$0	$0	$0
TM Industrial Supply, Inc.	$1,371	$0	$0	$0
Levan Machine Co., Inc.	$1,270	$0	$10,748	$10,748
Pennlake Corporation	$1,265	$0	$0	$0
Tyrone Milling	$1,264	$0	$2,424	$2,424
Straight Arrow Products, Inc.	$1,261	$0	$13,823	$13,823
NH Laboratories, Inc.	$1,243	$0	$4,060	$4,060
Flexible Compensators, Inc.	$1,238	$0	$0	$0
Vascularstrategies, LLC	$1,231	$0	$0	$0
Griffith, Inc. (ta Alpha Systems)	$1,189	$0	$11,939	$11,939
Bayone Urethane Systems LLC	$1,174	$0	$5,072	$890
Data View, Inc.	$1,166	$0	$0	$0
Fry Communications, Inc.	$1,163	$0	$0	$0
Magnatech International, Inc.	$1,162	$0	$2,315	$2,315
The Drucker Company, Inc.	$1,136	$0	$36,489	$25,769
RJ Lee Group, Inc.	$1,108	$0	$0	$0
Extol International, Inc.	$1,092	$0	$207,859	$50
TDY Industries, Inc.	$1,088	$0	$949	$949
Loridian LLC	$1,086	$0	$1,592	$0

Taxpayer Name	*2009 Credit Awarded*	*2009 Credit Utilized [1]*	*2007 & 2008 Credit Awarded*	*2007 & 2008 Credit Utilized [1]*
Evaheart Medical USA, Inc.	$1,086	$0	$6,947	$2,726
Fusion Coatings, Inc.	$1,079	$0	$210	$0
Essent Corporation	$1,065	$0	$17,708	$0
WSG Solutions, Inc.	$1,065	$0	$0	$0
Cancer Innovations, Inc.	$1,058	$0	$0	$0
Rockland Immunochemicals, Inc.	$1,050	$0	$18,090	$0
Deborah A. Rinehart	$1,011	$0	$0	$0
Caledonian Dye Works, Inc.	$991	$0	$19,513	$1,299
B&G Manufacturing Co., Inc.	$983	$0	$0	$0
MH Eby, Inc.	$976	$0	$0	$0
Traypak Corporation	$960	$0	$33,466	$31,165
Blair Companies	$952	$0	$7,324	$7,324
RJM Manufacturing, Inc.	$904	$0	$0	$0
Bostik, Inc.	$899	$0	$758	$758
Dart Container Corporation of PA	$853	$0	$0	$0
Misco Products Corporation	$843	$0	$11,611	$4,002
RVL Packaging, Inc.	$834	$0	$0	$0
Powell Steel Corporation	$810	$0	$0	$0
Inspirafs, Inc.	$809	$0	$0	$0
SFS Intec Incorporated	$806	$0	$0	$0
Emerson Process Management Power & Water Solutions, Inc.	$771	$0	$51,663	$51,663
Thomas Erie, Inc.	$767	$0	$2,072	$2,072
Giorgi Mushroom Co.	$738	$0	$9,728	$0
Fairmount Automation, Inc.	$732	$0	$23,679	$23,679
QBC Diagnostics, Inc.	$726	$0	$5,457	$3,278
Keystone Abrasives Co.	$724	$0	$0	$0
Minus Nine Technologies, Inc.	$662	$0	$0	$0
Dauphin Precision Tool LLC	$613	$0	$0	$0
Godshalls Quality Meats, Inc.	$567	$0	$0	$0
SMGT, Inc.	$550	$0	$6,824	$6,824
Rexmet Corporation	$547	$0	$0	$0
Bio Rad Laboratories Inc.	$541	$0	$8,954	$8,954
World Electronics Sales and Services	$538	$0	$7,688	$7,688
Dental Designs, Inc.	$516	$0	$911	$0
The Creative Touch, Inc.	$493	$0	$5,669	$0
Byproduct Industries, Inc.	$472	$0	$0	$0
21st Century Software, Inc.	$466	$0	$46,773	$46,773
Boose at Cornwall, Inc.	$454	$0	$0	$0
Lozier Corporation	$427	$0	$2,922	$2,922
TIW Technology, Inc.	$426	$0	$7,219	$284
Team Ten LLC	$392	$0	$957	$802
Innovative Control Systems, Inc.	$364	$0	$4,672	$4,672
PBM, Inc.	$337	$0	$0	$0
Kovatch Mobile Equipment	$337	$0	$27,379	$333
Alertek LLC	$279	$0	$0	$0
Portec Rail Products, Inc.	$189	$0	$2,210	$2,210
Control Chief Corporation	$143	$0	$5,358	$5,358
PSB Industries, Inc.	$120	$0	$7,493	$7,493
Kovatch Corp	$119	$0	$3,020	$3,020
XF Enterprises, Inc.	$77	$0	$0	$0
Abbott Furnace Company, Inc.	$0	$0	$57,061	$57,061
Accentra, Inc.	$0	$0	$47,527	$2,798
Accudyn Products Inc.	$0	$0	$7,406	$4,576
Ace Animals, Inc.	$0	$0	$14,759	$14,759
Adolor Corporation	$0	$0	$52,551	$26,859
Adonix Transcomm, Inc.	$0	$0	$143,933	$143,933
Advanced Carbon Technology Inc.	$0	$0	$7,635	$7,635

Taxpayer Name	*2009 Credit Awarded*	*2009 Credit Utilized[1]*	*2007 & 2008 Credit Awarded*	*2007 & 2008 Credit Utilized[1]*
Advanced Rail Technology, Inc.	$0	$0	$47,064	$47,064
AK Steel Corporation	$0	$0	$7,540	$5,083
Akustica, Inc.	$0	$0	$50,313	$50,313
Alcoa Inc.	$0	$0	$625,076	$625,076
Alcoa Kama Inc (fka Kama of Illinois Corp)	$0	$0	$5,126	$5,126
Algor Inc.	$0	$0	$16,308	$0
Alita Pharmaceuticals, Inc.	$0	$0	$115,532	$115,532
Allomet Corporation	$0	$0	$142,196	$0
Alumax Mill Products Inc.	$0	$0	$887	$887
American Textile Company, Inc.	$0	$0	$5,772	$5,772
Ansoft Corporation	$0	$0	$150,058	$95,463
Ansys Inc.	$0	$0	$244,353	$244,353
Apogee Biotechnology Corporation	$0	$0	$48,158	$48,158
Appleton Papers Inc.	$0	$0	$15,932	$13,635
Applied Clinical Intelligence, LLC	$0	$0	$2,162	$1,257
Aptagen, LLC	$0	$0	$2,112	$2,112
Area Tool & Manufacturing, Inc.	$0	$0	$6,547	$6,547
Arkema Inc.	$0	$0	$163,241	$163,241
Arrow International, Inc.	$0	$0	$129,944	$33,287
Arvite Technologies, Inc.	$0	$0	$8,514	$8,514
Ascenta Therapeutics, Inc.	$0	$0	$70,869	$70,869
Ashland Inc.	$0	$0	$3,336	$0
Auxilium Pharmaceuticals Inc.	$0	$0	$213,470	$18,409
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
Becton Dickinson and Company	$0	$0	$24,175	$7,555
Belco Tool And Manufacturing Inc	$0	$0	$18,450	$8
Benco Dental Supply Co.	$0	$0	$1,660	$1,660
Berks Engineering Company	$0	$0	$5,539	$5,539
Better Baked Foods, Inc.	$0	$0	$98	$98
Binney & Smith, Inc.	$0	$0	$21,633	$21,376
Bio Med Sciences, Inc.	$0	$0	$19,575	$19,575
Biomarine Ntron Inc.	$0	$0	$43,226	$0
Biometric Imaging, Inc.	$0	$0	$7,555	$369
Biorexis Pharmaceutical Corporation	$0	$0	$94,077	$5,981
Biosafe, Inc.	$0	$0	$28,434	$28,434
Biosense Corporation	$0	$0	$24,074	$0
Blair Strip Steel Co.	$0	$0	$4,330	$0
Bodymedia, Inc.	$0	$0	$97,538	$97,538
Boehringer Laboratories, Inc.	$0	$0	$55,260	$55,260
Boston Scientific Corporation	$0	$0	$81,800	$81,800
Boyesen, Inc.	$0	$0	$9,826	$9,826
Bradley C. Rinehart	$0	$0	$2,605	$2,605
Brotech Corporation	$0	$0	$2,977	$0
Builders Support & Supply, Inc.	$0	$0	$2,746	$1,316
Burnham LLC	$0	$0	$30,364	$14,479
Burstnet Technologies Inc.	$0	$0	$2,604	$0
Campbell Manufacturing, Inc.	$0	$0	$289	$289
Can Corporation of America, Inc.	$0	$0	$21,926	$20,996
Cardiokine, Inc.	$0	$0	$218,317	$218,317
Cellatope Corporation	$0	$0	$29,137	$29,137
Cephalon, Inc.	$0	$0	$871,795	$43,314
Channellock, Inc.	$0	$0	$27,940	$2,604
Chant Engineering Company, Inc.	$0	$0	$83,757	$27,338
Chemimage Corporation	$0	$0	$237,405	$0
Ciber, Inc	$0	$0	$312,112	$204,822

Taxpayer Name	*2009 Credit Awarded*	*2009 Credit Utilized* [1]	*2007 & 2008 Credit Awarded*	*2007 & 2008 Credit Utilized* [1]
Cinergen, LLC	$0	$0	$4,681	$4,681
Classic Industries, Inc.	$0	$0	$15,843	$15,843
Clean Burn, Inc.	$0	$0	$4,509	$0
CNH America LLC	$0	$0	$711,786	$0
Coates Analytics LLP	$0	$0	$30,826	$30,826
Coldlight Solutions, Inc.	$0	$0	$10,168	$0
Communications Test Design, Inc.	$0	$0	$10,166	$10,166
Competition Tire East, Inc.	$0	$0	$9,155	$9,155
Comprehensive Safety Compliance, Inc.	$0	$0	$4,262	$2,731
Computer Support Services, Inc.	$0	$0	$1,224	$1,224
Conductive Technologies Inc.	$0	$0	$2,313	$2,313
Corry Micronics, Inc.	$0	$0	$12,159	$0
Crayola LLC	$0	$0	$12,109	$12,109
Creative Pultrusions, Inc.	$0	$0	$2,918	$2,918
Cue Inc.	$0	$0	$361	$361
Cybergenetics Corp	$0	$0	$27,902	$27,902
Dads Product Company	$0	$0	$6,451	$6,451
Datacap Systems, Inc.	$0	$0	$309,330	$178,476
Del Monte Corporation	$0	$0	$71,714	$71,714
Dentsply LLC	$0	$0	$11,799	$11,799
Dentsply Prosthetics LLC	$0	$0	$145,225	$68,701
Dielectric Solutions LLC	$0	$0	$50,703	$0
Diversified Coatings, Inc.	$0	$0	$3,712	$3,712
DOPACO Inc.	$0	$0	$6,385	$6,385
Drug Plastics & Glass Co. Inc.	$0	$0	$30,338	$25,994
Duct Tite LLC	$0	$0	$42,900	$42,900
Duramed Research, Inc.	$0	$0	$255,980	$201,637
Duratite Systems LLC	$0	$0	$21,008	$21,008
Dutchland, Inc.	$0	$0	$18,196	$18,196
Dynamic Materials Corporation	$0	$0	$12,640	$12,640
Dynamis Therapeutics, Inc.	$0	$0	$116,002	$57,717
E I Du Pont De Nemours and Company	$0	$0	$109,519	$22,812
Eagle Brass Company	$0	$0	$7,607	$7,607
Eagle Far East Inc.	$0	$0	$1,752	$1,017
Eaton Hydraulics Inc.	$0	$0	$3,862	$3,862
Eclipsys Solutions Corporation	$0	$0	$27,691	$496
Edgemate Inc.	$0	$0	$1,058	$1,058
EMD Serono, Inc.	$0	$0	$169,238	$169,238
End User Services Inc.	$0	$0	$6,040	$0
Energy Technology Partners, LLC	$0	$0	$60,762	$60,762
Equitable Production Company	$0	$0	$14,947	$14,947
Eric W. Kinter	$0	$0	$7,221	$7,221
Erie Plastics Corporation	$0	$0	$15,648	$0
Ernst Conservation Seeds LLP	$0	$0	$4,219	$4,219
Everight Positions Technologies Corp.	$0	$0	$8,410	$0
Everite Machine Products Co., Inc.	$0	$0	$5,614	$0
Excalibur Machine, Inc.	$0	$0	$1,581	$61
Fabri Kal Corporation	$0	$0	$10,121	$0
Fedex Ground Package System, Inc.	$0	$0	$223,711	$223,711
Fleetwood Industries	$0	$0	$95,765	$43,265
Fluorous Technologies, Inc.	$0	$0	$21,652	$0
Foodswing Inc.	$0	$0	$30,281	$0
Freedom Sciences LLC	$0	$0	$67,782	$67,782
Frontline Placement Technologies, Inc.	$0	$0	$76,247	$70,885
Fujirebio Diagnostics Inc.	$0	$0	$23,849	$23,849
G.O. Carlson, Inc.	$0	$0	$2,559	$2,559
Gary D. Bell	$0	$0	$7,221	$7,221
GBNF LLC (fka Ram Industries, LLC)	$0	$0	$7,309	$7,309

Taxpayer Name	*2009 Credit Awarded*	*2009 Credit Utilized*[1]	*2007 & 2008 Credit Awarded*	*2007 & 2008 Credit Utilized*[1]
Gecco Inc.	$0	$0	$887	$755
Gemin X Pharmaceuticals US, Inc.	$0	$0	$206,935	$0
Genaera Corporation	$0	$0	$118,548	$118,548
General Dynamics C4 Systems Inc.	$0	$0	$15,357	$15,357
Global, Inc.	$0	$0	$31,621	$0
Globalpops Media Services LLC	$0	$0	$4,597	$0
Golden Brothers, Inc.	$0	$0	$3,073	$3,073
Goulds Pumps PA Inc.	$0	$0	$1,472	$1,472
Greene, Tweed & Co, Inc.	$0	$0	$35,378	$35,378
Griffith Brothers Whitetail Ridge Inc.	$0	$0	$9,907	$9,907
GVM, Inc.	$0	$0	$2,411	$1,421
Hanley & Bird, Inc.	$0	$0	$4,995	$4,995
Harbor Steel Inc.	$0	$0	$4,658	$100
Harsco Corporation	$0	$0	$1,160	$1,160
Hodge Foundry, Inc.	$0	$0	$1,238	$1,238
Hofman Industries, Inc.	$0	$0	$1,257	$452
I3 Archive, Inc.	$0	$0	$36,281	$0
Illinois Tool Works Inc.	$0	$0	$36,287	$0
Ingmar Medical, Ltd.	$0	$0	$10,648	$10,648
Integrated Management Solutions Inc.	$0	$0	$3,743	$3,743
IntelliStem Orthopaedic Innovations, Inc.	$0	$0	$4,397	$1,962
Interdigital Communications Corporation	$0	$0	$319,745	$27,473
Interface Solutions, Inc.	$0	$0	$27,426	$599
IOFY Corporation	$0	$0	$92,893	$92,893
Ismael J. Hidalgo	$0	$0	$11,790	$11,790
J&J Pharmaceutical Research and Development LLC	$0	$0	$1,904,965	$1,652,893
James Austin Company	$0	$0	$437	$437
James L. Rutkowski, DMD & Associates	$0	$0	$1,595	$0
Jennison Corporation	$0	$0	$14,701	$14,701
JTM Foods, Inc.	$0	$0	$17,875	$17,875
Justsystems Evans Research Inc.	$0	$0	$62,907	$0
JW Kitko & Sons Wood Products Inc.	$0	$0	$4,102	$4,102
Kensey Nash Corporation	$0	$0	$68,493	$18,458
Keystone Findings, Inc.	$0	$0	$1,294	$1,294
Koehler-Bright Star Inc.	$0	$0	$10,598	$10,598
Kollabnet, Inc.	$0	$0	$13,439	$13,439
Kopp Glass, Inc.	$0	$0	$967	$967
Koryak Consulting Inc.	$0	$0	$11,843	$1,936
L T L Wholesale, Inc.	$0	$0	$975	$975
L.F. Lambert Spawn Company, Inc.	$0	$0	$2,109	$0
Lazarus Therapeutics, Inc.	$0	$0	$8,646	$0
Leech Industries, Inc.	$0	$0	$3,731	$3,731
Lepton Technologies Inc.	$0	$0	$19,489	$0
Library Video Company	$0	$0	$38,200	$0
Lightfoot Inc.	$0	$0	$24,668	$0
LL Kurtz, Inc.	$0	$0	$5,879	$0
Lucas Systems, Inc.	$0	$0	$137,578	$23,585
Lutron Electrics Co., Inc.	$0	$0	$574,651	$574,651
Lyco I LLC	$0	$0	$18,830	$18,830
Mack Trucks, Inc.	$0	$0	$384,305	$164,078
Majr Products Corporation	$0	$0	$7,353	$7,353
Management Science Associates, Inc.	$0	$0	$39,600	$39,600
MapQuest, Inc.	$0	$0	$52,293	$31,314
Marvin N. Hamilton	$0	$0	$50,438	$50,438
Matric Limited	$0	$0	$4,294	$3,307
Maya Design Inc.	$0	$0	$21	$21
McLanahan Corporation	$0	$0	$55	$55
McNeil PPC Inc.	$0	$0	$67,552	$67,552

Taxpayer Name	*2009 Credit Awarded*	*2009 Credit Utilized*[1]	*2007 & 2008 Credit Awarded*	*2007 & 2008 Credit Utilized*[1]
MDL Corporation	$0	$0	$6,640	$6,475
MEI, Inc.	$0	$0	$142,922	$77,987
Mesh Semiconductor, Inc. (fka Gatechange Technologies, Inc.)	$0	$0	$5,250	$5,250
Metal Systems Development, Inc.	$0	$0	$184	$184
Metplas, Inc.	$0	$0	$6,940	$6,940
Minrad, Inc.	$0	$0	$3,081	$0
Mitos Technologies Inc.	$0	$0	$35,817	$35,817
Modern Industries, Inc.	$0	$0	$2,796	$2,796
Moon Tool & Die Inc.	$0	$0	$30,447	$30,447
Mosebach Manufacturing Company	$0	$0	$11,772	$0
National Bearings Company	$0	$0	$23,315	$23,315
New Way Machine Components, Inc.	$0	$0	$96,805	$7,171
Next Level Systems, Inc.	$0	$0	$1,216,949	$113,870
NMS Labs, Inc. (fka National Medical Services, Inc.)	$0	$0	$24,435	$24,435
NTA Enterprises Inc.	$0	$0	$515	$35
Nucleonics, Inc.	$0	$0	$521,727	$521,727
Numonics Corporation	$0	$0	$2,105	$0
Optium Corporation	$0	$0	$88,577	$983
Othera Pharmaceuticals, Inc.	$0	$0	$119,814	$119,814
P.D.K. - Hardy, Inc.	$0	$0	$1,427	$121
Packworld USA, Ltd.	$0	$0	$15,294	$5,105
Parker White Metal Company	$0	$0	$96,810	$0
Patrick M. Dentinger	$0	$0	$11,788	$11,788
Penn Color, Inc.	$0	$0	$8,292	$8,292
Penn Weld Inc.	$0	$0	$2,698	$18
PHB, Inc.	$0	$0	$100,505	$51,161
Philadelphia Stock Exchange, Inc.	$0	$0	$39,335	$39,335
Phoenix Trim Works, Inc.	$0	$0	$37,254	$37,254
Polytek Development Corp.	$0	$0	$14,900	$14,900
Port Erie Plastics, Inc.	$0	$0	$32,230	$32,230
Power Medical Interventions, Inc.	$0	$0	$67,335	$0
Probaris Technologies, Inc.	$0	$0	$10,770	$10,770
Progress For Industry Inc.	$0	$0	$4,604	$1,929
Protective Coating Co.	$0	$0	$1,525	$1,525
Proteopure, Inc.	$0	$0	$6,111	$6,111
P-Wave, Inc.	$0	$0	$32,089	$32,055
Quiq LLC (dba Quiqmeds)	$0	$0	$32,908	$32,908
R E Whittaker Co.	$0	$0	$16,541	$10,874
Reading Alloys, Inc	$0	$0	$13,518	$640
Reading Consumer Products, Inc.	$0	$0	$2,117	$39
Reading Precast, Inc.	$0	$0	$35,891	$35,891
Reading Technologies, Inc.	$0	$0	$2,084	$0
RedPath Integrated Pathology Inc.	$0	$0	$1,214	$1,214
Remcomm, Inc.	$0	$0	$4,574	$0
Renal Solutions, Inc.	$0	$0	$37,313	$0
Resco Products, Inc.	$0	$0	$69,606	$661
Respironics, Inc.	$0	$0	$941,122	$242,164
Rhodia Inc.	$0	$0	$59,276	$59,276
Richardsapex, Inc.	$0	$0	$1,054	$1,054
Robinson Industries Inc.	$0	$0	$17,970	$17,970
Rockland, Inc.	$0	$0	$6,413	$6,413
Ronald P. Sousae	$0	$0	$7,221	$7,221
Rossman Audio LLC	$0	$0	$1,242	$0
Rubbercraft Corporation of California	$0	$0	$1,119	$1,119
SAC Computer Solutions Inc.	$0	$0	$1,729	$1,729
Salvage Direct, Inc.	$0	$0	$13,755	$13,755
Sartomer Company, Inc.	$0	$0	$24,680	$16,299

Taxpayer Name	*2009 Credit Awarded*	*2009 Credit Utilized [1]*	*2007 & 2008 Credit Awarded*	*2007 & 2008 Credit Utilized [1]*
SAS Institute Inc.	$0	$0	$3,471	$3,471
Schoolwires, Inc.	$0	$0	$20,949	$20,949
Scott Technologies Inc.	$0	$0	$38,436	$38,436
Seagate Technology LLC	$0	$0	$50,395	$50,395
Sechan Electronics, Inc.	$0	$0	$31,544	$31,544
Sentient Investment Corporation	$0	$0	$9,145	$0
Siemens Medical Solutions Health Services Corp.	$0	$0	$511,925	$511,925
Siemens Medical Solutions USA, Inc.	$0	$0	$441,484	$0
Signal Technologies, Inc.	$0	$0	$12,146	$12,146
Silberline Manufacturing Co., Inc.	$0	$0	$1,520	$0
Sipco Inc.	$0	$0	$30,983	$17
Sipco Molding Technologies, Inc.	$0	$0	$4,716	$4,716
SKC, Inc.	$0	$0	$5,378	$4,907
Smart Parts, Inc.	$0	$0	$3,638	$1,552
Smart Structures Inc.	$0	$0	$6,902	$0
SmithKline Beecham Corporation DBA GlaxoSmithKline	$0	$0	$7,467,741	$7,467,741
Solarity Inc.	$0	$0	$15,560	$28
Sonomedix, Inc.	$0	$0	$10,984	$0
Southco Inc.	$0	$0	$36,162	$1,993
Spang & Company	$0	$0	$6,256	$2,053
Specialty Chemical Systems, Inc.	$0	$0	$2,970	$2,697
Specialty Tires of America, Inc.	$0	$0	$6,690	$6,690
Spinworks LLC	$0	$0	$24,183	$24,183
SR Holdings LLC (dba SDR Holdings LLC)	$0	$0	$23,584	$23,584
SS Processing, Inc.	$0	$0	$7,965	$5,214
Starlite Diversified, Inc.	$0	$0	$31,357	$31,357
Strobic Air Corporation	$0	$0	$701	$701
Strohl Systems Group, Inc.	$0	$0	$47,005	$30,660
Suburban Tool & Die Co., Inc.	$0	$0	$40,766	$40,766
Summers Laboratories, Inc.	$0	$0	$119,664	$11,210
Sunrise Medical HHG Inc.	$0	$0	$47,655	$0
Surveillance Data, Inc.	$0	$0	$60,911	$60,911
Sweet Ovations Holding Co.	$0	$0	$823	$0
Tacoda, Inc.	$0	$0	$55,993	$16,419
Target Precision LLP	$0	$0	$6,362	$0
Tech Tool & Mold, Inc.	$0	$0	$14,557	$14,557
Techtrol Cyclonetics, Inc.	$0	$0	$7,850	$7,850
Tekresults, Ltd.	$0	$0	$440	$0
Teleflex Incorporated	$0	$0	$146,396	$102,514
The Proctor & Gamble Paper Prod Company	$0	$0	$234,312	$37,778
Thermodepolymerization Process LLC	$0	$0	$1,728	$1,728
Tool-All, Inc.	$0	$0	$11,624	$11,624
Trinity Manufacturing Company	$0	$0	$1,432	$1,432
T S K Partners, Inc.	$0	$0	$5,392	$1,521
TW AOL Holdings Inc. (fka America Online, Inc.)	$0	$0	$1,577	$0
Tyco Electronics Corporation	$0	$0	$840,669	$313,832
Unicast Company	$0	$0	$36,558	$25,044
Universal Electric Corporation	$0	$0	$4,250	$4,250
USSC, LLC	$0	$0	$16,140	$16,140
Verefi Technologies, Inc.	$0	$0	$34,158	$34,158
Verizon Data Services, Inc.	$0	$0	$16,817	$16,817
Victaulic Company	$0	$0	$26,285	$26,285
Viking Tool & Gage Inc.	$0	$0	$36,718	$36,718
Vitae Pharmaceuticals, Inc.	$0	$0	$123,074	$42,732
Vocollect Healthcare Systems	$0	$0	$256,809	$150,463
Vocollect Inc.	$0	$0	$450,620	$450,620
Washington Penn Plastic Co. Inc.	$0	$0	$21,399	$21,399

Taxpayer Name	*2009 Credit Awarded*	*2009 Credit Utilized[1]*	*2007 & 2008 Credit Awarded*	*2007 & 2008 Credit Utilized[1]*
Watson Standard Adhesives Company	$0	$0	$6,944	$6,944
Watson Standard Limited, Inc.	$0	$0	$6,944	$6,944
Wavefront Research, Inc.	$0	$0	$106,948	$101,948
WebClients, Inc.	$0	$0	$4,135	$4,135
Woodcraft Industries, Inc.	$0	$0	$2,103	$1,186
Workhorse Rail LLC	$0	$0	$3,076	$72
Worldgate Service, Inc.	$0	$0	$40,414	$0
TOTAL	**$20,000,000**	**$0**	**$80,000,000**	**$51,442,298**

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 credits exceed the tax liability, the utilized amount is shown as zero. Until a tax year has been closed, it is possible that the tax credits indicated as being utilized may still be transferred, sold or assigned at the option of the taxpayer. Pass through credits and unused credits that were sold or assigned are also included as utilized.