

**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, 2011

## The Pennsylvania R&D Tax Credit Statute

*Act 48 of 2009 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.<sup>1</sup>

Over the years, several changes have been made to the R&D tax credit statute. On December 23, 2003, Act 46 of 2003 was signed into law. Then, on July 12, 2006, Act 116 of 2006 was signed into law. Lastly, Act 48 of 2009 was signed 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 from December 1997 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.<sup>2</sup> 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.

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

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<sup>1</sup> Public Law 99-514, 26 U.S.C. § 41.

<sup>2</sup> Subject to the provisions of Act 48 of 2009.

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) and 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 awarded 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 2008, 2009 and 2010, 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.”<sup>3</sup> 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.<sup>4</sup> 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.<sup>5</sup>

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 2011, about \$27.4 million of the \$215 million awarded in December 2003 through 2009 has not been utilized and is, therefore, available for sale. The breakdown of unused tax credits sold or assigned by year are shown in Table 1.

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.

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<sup>3</sup> “Research and Development Tax Credit Assignment Program Guidelines,” DCED, September 2004.

<sup>4</sup> “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.

<sup>5</sup> 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.

**Table 1. Pennsylvania Research & Development Tax Credit Program  
Statistics on the Sale or Assignment of Unused R&D Tax Credits**

(\$millions)

Year	R&D Credit Awarded	Unused Tax Credits Sold/Assigned	Number of Taxpayers Sold/Assigned Unused Credit	Unused Tax Credits Sold For	Percent of Value Unused Tax Credits Sold For
2003	\$ 15.0	\$ 1.3	18	\$ 1.1	91.4%
2004	\$ 30.0	\$ 3.6	43	\$ 3.2	89.8%
2005	\$ 30.0	\$ 9.0	48	\$ 8.4	93.3%
2006	\$ 40.0	\$ 7.2	67	\$ 6.6	92.5%
2007	\$ 40.0	\$ 7.3	78	\$ 6.9	94.1%
2008	\$ 40.0	\$ 6.5	102	\$ 5.9	91.9%
2009	\$ 20.0	\$ 2.4	56	\$ 2.2	91.6%
<b>TOTAL</b>	<b>\$ 215.0</b>	<b>\$ 37.2</b>		<b>\$ 34.4</b>	<b>92.5%</b>

**R&D Tax Credit Claimed and Awarded in Pennsylvania for December 2010**

Table 2 shows the amount of R&D tax credit approved by the Department in 2010 for qualified research expenditures made by taxpayers in Pennsylvania in taxable year 2009. Without the \$18 million cap, just over \$94 million in credit would have been awarded to 488 taxpayers. 90 percent of approved taxpayers received an R&D tax credit of less than \$50,000, receiving 23.6 percent of the total amount of approved credit. Taxpayers with an approved R&D tax credit of \$50,000 or more claimed 76.4 percent of the approved credit amount. The 49 applicants receiving \$50,000 or more in credit represented 10 percent of the total number of applicants.

**Table 2. Pennsylvania Research & Development Tax Credit Program  
Tentative and Actual Credit for Tax Year 2010<sup>6</sup>**

Actual Credit Range	Number of Applicants	Percent of Applicants	Tentative Credit Amount	Actual Credit Amount	Percent of Actual Credit
\$0 - \$4,999	219	44.9%	\$2,036,505	\$461,037	2.6%
\$5,000 - \$19,999	148	30.3%	\$6,222,331	\$1,524,975	8.5%
\$20,000 - \$49,999	72	14.8%	\$9,321,440	\$2,266,418	12.6%
\$50,000 - \$99,999	29	5.9%	\$10,404,612	\$2,059,283	11.4%
\$100,000 - \$499,999	15	3.1%	\$16,271,821	\$3,283,212	18.2%
\$500,000 - \$999,999	1	0.2%	\$3,787,581	\$634,631	3.5%
\$1,000,000 & greater	4	0.8%	\$46,375,271	\$7,770,444	43.2%
<b>TOTAL</b>	<b>488</b>	<b>100%</b>	<b>\$94,419,561</b>	<b>\$18,000,000</b>	<b>100%</b>

Table 3 details the tentative amount of R&D tax credit approved by the Department in the preceding 13 years, beginning with the inception of the program in December 1997.

<sup>6</sup> Detail may not add up due to rounding; 134 other applicants were rejected and did not receive any credit.

**Table 3. Pennsylvania Research and Development Tax Credit Program  
Tentative Credit Awarded for 1997-2009**

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
December 2009	507	\$80,208,000

Table 4 presents the R&D tax credit approved in December 2010 by business type.

**Table 4. Pennsylvania Research and Development Tax Credit Program  
Actual Credits by Business Type in 2010**

Business Type	Number of Taxpayers	Percent of Taxpayers	Amount of Actual Credit	Percent of Actual Credit
Manufacturing	266	54.5%	\$ 11,943,922	66.4%
Services	174	35.7%	\$ 5,467,294	30.4%
Misc. <sup>7</sup>	48	9.8%	\$ 588,784	3.3%
<b>TOTAL</b>	<b>488</b>	<b>100%</b>	<b>\$ 18,000,000</b>	<b>100%</b>

Over 54 percent of the taxpayers receiving the tax credit were manufacturers, claiming just over 66 percent of the total amount of approved credit. Pharmaceutical manufacturers claimed the largest single share; the 13 pharmaceutical manufacturers requesting credit were awarded \$6.2 million in credit. Another large group of credit recipients included 48 computer-related companies in the service sector. They claimed just over \$0.8 million in credit in 2010.

<sup>7</sup> Misc. business type includes business activities associated with individuals or corporations with North American Industry Classification System (NAICS) codes for the agriculture, construction, utilities, wholesale, retail or financial, insurance and real estate sectors.

Table 5 provides a breakdown of the R&D tax credit claimed by “small” and “not small” businesses in December 2010. As noted earlier, “small” businesses are those with net book assets of less than \$5 million.

**Table 5. Pennsylvania Research and Development Tax Credit Program  
Small and Not Small Businesses in 2010**

Business Size	Number of Applicants	Percent of Applicants	Tentative Credit Amount	Approved Credit Amount	Percent of Approved Credit
Small	213	43.6%	\$ 8,487,767	\$ 3,600,000	20.0%
Not Small	275	56.4%	\$85,931,794	\$14,400,000	80.0%
<b>TOTAL</b>	<b>488</b>	<b>100%</b>	<b>\$94,419,561</b>	<b>\$18,000,000</b>	<b>100%</b>

In December 2010, “small” businesses claimed the entire \$3.6 million in R&D tax credit set aside for them; “small” businesses received 42.4 percent of the credit for which they applied. This is only the fourth year in the history of the program that the whole “small” business set aside has been claimed. Last year, “small” businesses received the entire \$4 million in R&D tax credit set aside for them; they received 46 percent of the credit amount for which they applied. The \$18 million program cap reduced the amount of credit approved for the “not small” businesses to 16.8 percent of the requested amount. Last year, “not small” businesses received 22.4 percent of the amount of credit they requested. The decrease in the cap from \$20 million to \$18 million, along with an increase of \$14.4 million in the tentative amount of credit requested in 2010 over 2009, is responsible for lowering these percentages for December 2010 versus December 2009 awards.

Table 6 shows the history of the R&D tax credit for the “small” business set aside for 1997 through 2009. 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. The third year in which “small” businesses claimed the total amount of credit set aside for them was 2009 when the limit was temporarily lowered to \$4 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 6. Pennsylvania Research and Development Tax Credit Program History of the Small Business Set Aside, 1997-2009**

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
December 2009	211	\$8,688,383	\$4,000,000

Table 7 shows the amount of R&D tax credit that has been applied to CNIT, CSFT and PIT for taxable years 1997 through 2008. The data in Table 7 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 2011.

Table 7 shows the distribution of the R&D tax credits that have been applied to specific tax years. As of February 2011, about 76 percent of the \$285 million in R&D tax credit that has been awarded for 1997 through 2008 has been applied to specific tax periods. About 47.8 percent of the credit awarded has been applied to the CSFT; 47.8 percent has been applied to the CNIT. Approximately 4.5 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 7. Pennsylvania Research and Development Tax Credit Program  
Application by Tax Type and Taxable Year, 1997-2008**

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	\$ 2,785,282	90	\$ 5,187,915	189	\$ 791,636	195
1999	\$ 3,333,375	100	\$ 6,249,500	224	\$ 439,671	162
2000	\$ 4,495,931	77	\$ 6,410,798	189	\$ 523,087	201
2001	\$ 6,364,344	82	\$ 7,021,941	202	\$ 534,126	173
2002	\$ 7,919,918	48	\$ 5,179,615	207	\$ 487,586	169
2003	\$ 8,733,454	62	\$ 8,139,696	208	\$ 337,985	154
2004	\$ 14,764,303	64	\$ 8,151,332	256	\$ 709,007	166
2005	\$ 12,123,216	64	\$ 14,201,226	279	\$1,067,880	176
2006	\$ 10,511,961	80	\$ 14,599,967	309	\$1,602,996	231
2007	\$ 12,587,324	94	\$ 13,288,813	352	\$1,764,727	233
2008	\$ 14,593,669	88	\$ 10,993,272	401	\$1,169,376	276
<b>TOTAL</b>	<b>\$103,021,179</b>		<b>\$102,995,685</b>		<b>\$9,615,940</b>	

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**

Table 8 shows the CNIT and CSFT liabilities for taxable year 2008 (the latest year for which reports are available for all taxpayers) for taxpayers receiving the R&D tax credit in 2010. Table 8 and Table 4 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 8. Pennsylvania Research and Development Tax Credit Program  
Taxable Year 2008 Tax Liabilities by Business Type**

Business Type	2008 CSFT Liability	2008 CNIT Liability
Manufacturing	\$17,122,678	\$105,961,312
Services	\$ 4,572,444	\$ 8,627,477
Misc.	\$ 3,561,381	\$ 13,133,944
<b>TOTAL</b>	<b>\$25,256,503</b>	<b>\$127,722,733</b>

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 2010 to the total tax year 2008 self-assessed CNIT and CSFT liabilities<sup>8</sup>. Of the 483 taxpayers receiving the R&D tax credit in 2010 that are subject to the CNIT or CSFT, their total self-assessed 2008 tax year CNIT and CSFT liabilities totaled \$153 million. Though there are obviously varied ratios per individual taxpayer, overall the amount of tax credit awarded represents 11.8 percent of the self-assessed tax amount and 61.7 percent of the amount of the R&D tax credit requested.

The total 2008 CSFT liability for S corporations and LLCs receiving the R&D tax credit in 2010 was \$0.7 million. Out of the 165 Pennsylvania S corporations or LLCs, 58 had a CSFT liability of zero for 2008. The total 2008 CSFT liability for C corporations receiving the R&D tax credit in 2010 was \$24.6 million. Out of the 318 C corporations, 75 had a CSFT liability of zero for 2008.

The 318 C corporations receiving the tax credit in 2010 had a total taxable year 2008 CNIT liability of \$127.7 million. Of these companies, 190 were C corporations with a taxable year 2008 CNIT liability equal to zero, due to either zero or negative net income in taxable year 2008. 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 a small amount of tax revenue paid by five S Corporations for tax year 2008.

**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 twelve times (most recently in December 2010) and lapsed on nine occasions (1986, 1992, 1995, 1997, 1999, 2004, 2005, 2007 and 2009). Under current federal law, the R&D tax credit expires on December 31, 2011.

<sup>8</sup> In some cases, the tax liability may have been self-assessed and settled.

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, when the federal R&D tax credit is lapsed, it is possible that the Commonwealth could lose applicants 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 2007, the total amount of R&D expenditures in Pennsylvania by private industry had risen to \$10,916 million. This was an increase over the 12 year period of 120.3 percent. Over the same period, total R&D expenditures by private industry in the United States had risen by 147.8 percent to a level of \$269,267 million. For 2007, R&D expenditures in Pennsylvania by private industry were about 3.9 percent of total R&D expenditures by private industry in the United States. Pennsylvania ranked 9<sup>th</sup> in the entire US in R&D spending by private industry in 2007.

For comparison sake, the 488 R&D tax credit applicants in 2010 had total R&D expenditures in 2009 of \$3,573.6 million. Not all R&D done by industry in Pennsylvania is performed by R&D tax credit applicants.

A paper presented at the 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.<sup>9</sup>

A study released in April 2008<sup>10</sup> 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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<sup>9</sup> “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 100<sup>th</sup> Annual Conference in Columbus, OH, November 2007.

<sup>10</sup> “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.<sup>11</sup>

### **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 32 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.<sup>12</sup>

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. In fiscal year 2009, \$63.2 million in R&D tax credit was claimed in New Jersey. 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.<sup>13</sup> 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 thirteen years, 1997 through 2009. 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 effect the recent 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, 1,629 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 488 taxpayers receiving the R&D tax credit in 2010, 170 were either Pennsylvania S corporations, LLCs or LLPs (limited liability partnerships) and 318 were C corporations. The S

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

<sup>12</sup> CCH Incorporated, Multistate Charts, ¶680-200 Credits for Investment/Research Activities.

<sup>13</sup> Companies with 225 employees or less may sell unused R&D tax credits in New Jersey.

corporations, LLCs, or LLPs received \$1.8 million in R&D tax credit, while the C corporations received \$16.2 million.

The 488 taxpayers claiming the R&D tax credit in 2010 had total Pennsylvania research expenditures in taxable year 2009 of \$3,573.6 million. This was a 24.2 percent increase compared to their total Pennsylvania research expenditures in taxable year 2008 of \$2,877.7 million.

### **Impact on Not Small Businesses**

Out of the 488 taxpayers receiving the tax credit in 2010, 275 did not qualify as “small” businesses. Their total Pennsylvania research expenditures in taxable year 2009 were \$3,454.4 million, a 24.0 percent increase over their taxable year 2008 Pennsylvania research expenditures of \$2,785.7 million.

Of the 275 “not small” businesses, 211 increased their Pennsylvania research expenditures in taxable year 2009 over taxable year 2008 by 32.1 percent in the aggregate. Their Pennsylvania research expenditures in taxable year 2009 rose to \$3,027.5 million from \$2,292.5 million in taxable year 2008. Only 64 of these businesses reduced their Pennsylvania research expenditures over the same period. Their Pennsylvania research expenditures in taxable year 2009 declined by 13.4 percent to \$426.9 million from \$493.1 million in taxable year 2008.

### **Impact on Small Businesses**

Out of the 488 taxpayers receiving the tax credit in 2010, 213 were “small” businesses. Their total Pennsylvania research expenditures in taxable year 2009 were \$119.2 million, a 29.6 percent increase over their taxable year 2008 Pennsylvania research expenditures of \$92.0 million.

The 213 “small” businesses received the total \$3.6 million in credit set aside for them in 2010. This is only the fourth 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 213 “small” businesses, 176 increased their Pennsylvania research expenditures in taxable year 2009 over taxable year 2008 by 49.2 percent in the aggregate. Their Pennsylvania research expenditures in taxable year 2009 rose to \$94.7 million from \$63.4 million in taxable year 2008. Only 37 “small” businesses reduced their Pennsylvania research expenditures over the same period. Their Pennsylvania research expenditures in taxable year 2009 declined by 14.1 percent to \$24.6 million from \$28.6 million in taxable year 2008.

### **Impact on First Time Claimants and New Companies**

In 2010, 141 taxpayers were awarded the tax credit for the first time, claiming \$2.1 million in credit. Their Pennsylvania research expenditures totaled \$257.4 million for taxable year 2009. Conversely, 208 taxpayers that claimed the tax credit in 2009 did not receive any credit in 2010. These 208 taxpayers had Pennsylvania research expenditures in taxable year 2008 of about \$1,462.4 million and claimed about \$5.8 million in tax credit in 2009.

Of all the taxpayers claiming the R&D tax credit in 2010, 236 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 \$5.0 million in tax credit in 2010 and had total Pennsylvania research expenditures in taxable year 2009 of about \$554.4 million, a 13.1 percent increase from their Pennsylvania research expenditures in taxable year 2008 of about \$490.3 million.

The 236 recently incorporated companies had a total taxable year 2008 CSFT liability of \$2.3 million; 107 taxpayers had zero tax liability. The 236 new companies had a total taxable year 2008 CNIT liability of \$16.9 million; 190 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 86 taxpayers for which the Department has tracked Pennsylvania research expenditures for the last ten taxable years, from 2000 through 2009. This group of credit recipients has received \$109.6 million in total tax credit from 1997 through 2010, or about 34 percent of the total \$323 million awarded over the fourteen years. These 86 companies represent 29.5 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.

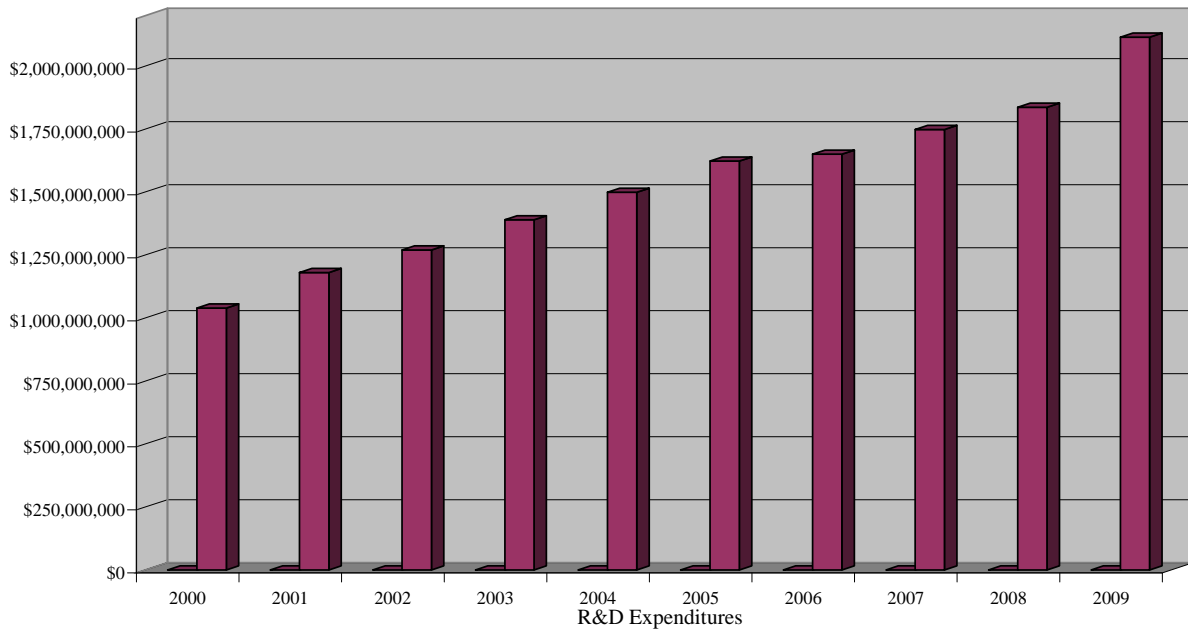
For these 86 taxpayers, their 2009 Pennsylvania R&D expenditures totaled just over \$2.1 billion. This is an aggregate growth rate of 103.4 percent over their 2000 Pennsylvania R&D expenditures of about \$1.0 billion; between 2000 and 2009, the Pennsylvania R&D expenditures for these 86 taxpayers grew at a compound annual growth rate of 8.2 percent

These 86 taxpayers were awarded about \$6.8 million in R&D tax credit in 2010. This credit amount was about 0.3 percent of their total amount of Pennsylvania research expenditures for the taxpayers in taxable year 2009. 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 86 established taxpayers had a total CSFT liability for taxable year 2008 of \$14.0 million and a total CNIT liability for taxable year 2008 of \$96.3 million.

Chart 1 graphically shows the Pennsylvania R&D expenditures for the 86 established taxpayers for the last ten taxable years, 2000 through 2009.

**Chart 1. Pennsylvania R&D Expenditures by Year for 86 Established Companies With PA Expenditure Data Between 2000 and 2009**



Small versus Not “Small”

Of the 86 taxpayers, 60 did not qualify as “small” businesses. They received about \$104.1 million in tax credit over the fourteen years of the program. Their 2009 Pennsylvania R&D expenditures totaled about \$2.1 billion. This is an aggregate growth rate of 101.2 percent over their 2000 Pennsylvania R&D expenditures of about \$1.0 billion; between 2000 and 2009, the Pennsylvania R&D expenditures for these 60 taxpayers grew an compound annual growth rate of 8.1 percent.

Of the 86 taxpayers, there were 26 “small” businesses that received about \$5.5 million in tax credit over the fourteen years of the program. Their 2009 Pennsylvania R&D expenditures totaled about \$28.3 million. This is an aggregate growth rate of 955 percent over their 2000 Pennsylvania R&D expenditures of about \$2.7 million; between 2000 and 2009, the Pennsylvania R&D expenditures for these 26 taxpayers grew an compound annual growth rate of 29.9 percent.

By Industry Type

Of the 86 taxpayers, 40 were classified as manufacturers. They received about \$84.0 million in tax credit over the fourteen years of the program. Their 2009 Pennsylvania R&D expenditures totaled about \$1.6 billion. This is an aggregate growth rate of 74.8 percent over their 2000 Pennsylvania R&D expenditures of \$0.9 billion; between 2000 and 2009, the Pennsylvania R&D expenditures for these 40 taxpayers grew an compound annual growth rate of 6.4 percent.

Of the 86 taxpayers, there were 46 non-manufacturing businesses that received about \$25.6 million in tax credit over the fourteen years of the program. Their 2009 Pennsylvania R&D expenditures totaled about \$490 million. This is an aggregate growth rate of 344 percent over their 2000 Pennsylvania R&D expenditures of about \$110.3 million; between 2000 and 2009, the Pennsylvania R&D expenditures for these 46 taxpayers grew an compound annual growth rate of 18 percent.

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

When all 488 taxpayers receiving the R&D tax credit in 2010 were examined, “small” businesses increased their Pennsylvania research expenditures in taxable year 2009 more than “not small” businesses. However, the Pennsylvania research expenditures for “small” businesses were only 3.3 percent of the total Pennsylvania research expenditures in taxable year 2009. The overwhelming majority of Pennsylvania research expenditures continue to be made by taxpayers not classified as “small” businesses.

Of the 86 taxpayers examined for whom the Department has tracked Pennsylvania research expenditures for the last ten taxable years, for 2000 through 2009, 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 fourteen 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 \$18.0 million in R&D tax credit were awarded by the Department in December 2010. The “small” business set aside was similarly reduced to \$3.6 million for December 2010.
- In 2009, 488 companies were awarded credits, receiving the capped amount of \$18 million, or just over 19 percent of the amount requested.
- In the absence of a cap, \$94.4 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 2009, the 488 companies awarded the R&D tax credit in 2010 had total Pennsylvania research expenditures of \$3,573.6 million, a 24.2 percent increase over their tax year 2008 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 \$3.6 million in tax credit set aside for them in 2009. This only the fourth time that “small” businesses claimed all of the tax credit set aside for them.
- As of February 2010, a total of \$37.2 million in unused R&D tax credit have been sold from 2003 through 2009; approximately \$34.4 million was paid for the unused credit, or about 92.5 percent of their value.



## APPENDIX A

**Table 1. Pennsylvania Research & Development Tax Credit Program  
Taxpayers Receiving Credit in December 2008, 2009 and 2010 in Dollars  
Sorted by 2010 Credit Awarded (Largest to Smallest)**

<i>Taxpayer Name</i>	<i>2010 Credit Awarded</i>	<i>2010 Credit Utilized<sup>1</sup></i>	<i>2008 &amp; 2009 Credit Awarded</i>	<i>2008 &amp; 2009 Credit Utilized<sup>1</sup></i>
Pfizer, Inc.	\$4,091,278	\$0	\$3,972,846	\$849,231
Merck, Sharp & Dohme Corp.	\$1,321,420	\$0	\$1,677,793	\$1,677,793
Lockheed Martin Corporation	\$1,229,546	\$0	\$1,858,493	\$1,858,493
Eli Lilly And Company	\$1,128,200	\$0	\$0	\$0
LSI Corporation	\$634,631	\$0	\$0	\$0
SmithKline Beecham Corporation DBA GlaxoSmithKline	\$435,635	\$0	\$2,990,917	\$2,990,917
General Electric Company	\$363,475	\$0	\$2,814,970	\$108,855
Comcast Corporation	\$305,761	\$0	\$2,526,385	\$37,963
Knopp Neurosciences, Inc.	\$255,460	\$0	\$490,878	\$490,878
Teva Pharmaceuticals USA, Inc.	\$241,071	\$0	\$145,313	\$145,313
Agentase	\$234,957	\$0	\$383,276	\$383,276
Shire Pharmaceuticals, Inc.	\$228,422	\$0	\$648,963	\$648,963
Medrad, Inc.	\$210,774	\$0	\$414,328	\$414,328
Lightwire, Inc.	\$185,983	\$0	\$500,203	\$500,203
Ception Therapeutics, Inc.	\$178,206	\$0	\$1,048,445	\$20,544
Lutron Electrics Co., Inc.	\$163,324	\$0	\$253,397	\$253,397
Edcomm, Inc.	\$134,214	\$0	\$259,452	\$259,452
Heinz Management LLC	\$125,057	\$0	\$593,155	\$0
Carpenter Technology Corporation	\$111,126	\$0	\$933,680	\$564,828
Axion Power Battery Mfg., Inc.	\$109,748	\$0	\$57,539	\$0
Boehringer Ingleheim Pharmaceuticals, Inc.	\$99,643	\$0	\$138,096	\$138,096
Globus Medical, Inc.	\$97,724	\$0	\$69,094	\$69,094
Mutual Pharmaceutical Company, Inc.	\$97,100	\$0	\$667,686	\$570,051
Silverstorm Technologies, Inc.	\$95,081	\$0	\$176,980	\$0
Google, Inc.	\$93,602	\$0	\$0	\$0
Plextronics, Inc.	\$92,779	\$0	\$207,821	\$207,821
Eaton Corporation	\$88,692	\$0	\$0	\$0
Dragonfly Pictures, Inc.	\$83,759	\$0	\$0	\$0
Sanofi Pasteur, Inc.	\$78,092	\$0	\$518,353	\$518,353
Medecision, Inc.	\$76,473	\$0	\$0	\$0
Aprezia Pharmaceutical Company, Inc.	\$75,577	\$0	\$128,701	\$67,411
PH Glatfelter Company	\$72,557	\$0	\$102,697	\$102,697
II-VI Incorporated	\$69,647	\$0	\$181,988	\$118,139
Gemin X Pharmaceuticals US, Inc.	\$68,564	\$0	\$0	\$0
Bitarmor Systems, Inc.	\$67,246	\$0	\$125,631	\$125,631
Honeywell International, Inc.	\$66,282	\$0	\$100,476	\$100,476
Bridge Semiconductor Corporation	\$65,238	\$0	\$96,647	\$49,527
Kennametal Inc.	\$65,095	\$0	\$118,470	\$53,215
Nextgen Healthcare Information Systems, Inc.	\$60,821	\$0	\$173,501	\$173,501
Mars Incorporated	\$60,734	\$0	\$16,778	\$16,778
CNH America, LLC	\$57,627	\$0	\$227,419	\$0
Melior Discovery, Inc.	\$56,545	\$0	\$193,955	\$193,955
Alung Technologies, Inc.	\$54,719	\$0	\$0	\$0
Verizon Data Services, LLC	\$54,514	\$0	\$94,161	\$17,415
Nupathe, Inc.	\$54,157	\$0	\$575,821	\$575,821
Trevena, Inc.	\$53,200	\$0	\$6,556	\$6,556
Compunetix, Inc.	\$51,624	\$0	\$82,463	\$34,893
N.A. Water Systems, LLC	\$51,599	\$0	\$60,690	\$747
Bionanomatrix, Inc.	\$50,592	\$0	\$11,583	\$0
Avid Radiopharmaceuticals, Inc.	\$48,077	\$0	\$225,088	\$225,088

<i>Taxpayer Name</i>	<i>2010 Credit Awarded</i>	<i>2010 Credit Utilized<sup>1</sup></i>	<i>2008 &amp; 2009 Credit Awarded</i>	<i>2008 &amp; 2009 Credit Utilized<sup>1</sup></i>
McKesson Automation, Inc.	\$46,892	\$0	\$147,352	\$0
Cisco Systems, Inc.	\$46,638	\$0	\$61,615	\$0
Novo Nordisk, Inc.	\$46,571	\$0	\$48,215	\$48,215
Numoda Technologies, Inc.	\$46,350	\$0	\$0	\$0
Strategic Polymer Sciences, Inc.	\$45,009	\$0	\$43,123	\$31,255
Beyer Productions, LLC	\$44,532	\$0	\$0	\$0
Victaulic Company	\$44,261	\$0	\$0	\$0
Precision Therapeutics, Inc.	\$43,975	\$0	\$55,827	\$34,585
Global Seating Systems, LLC	\$43,945	\$0	\$32,645	\$32,645
Immunotope, Inc.	\$43,757	\$0	\$103,294	\$103,294
Fidelity Information Services, Inc.	\$42,613	\$0	\$44,620	\$44,620
Integrated Management Solutions, Inc.	\$41,397	\$0	\$0	\$0
Johnson Matthey, Inc.	\$40,834	\$0	\$0	\$0
Respironics, Inc.	\$38,898	\$0	\$330,527	\$115,159
The Hershey Company	\$38,891	\$0	\$119,218	\$119,218
Colorcon Inc. and Division	\$38,202	\$0	\$128,573	\$128,573
Classic Industries, Inc.	\$37,384	\$0	\$0	\$0
Converteam, Inc.	\$37,165	\$0	\$0	\$0
Industrial Scientific Corporation	\$36,637	\$0	\$15,541	\$15,541
Gemini Plastics, Inc.	\$35,726	\$0	\$62,200	\$62,200
Harley Davidson Motor Company Operations, Inc.	\$34,383	\$0	\$0	\$0
Infomc, Inc.	\$34,345	\$0	\$15,004	\$0
Landslide Technologies, Inc.	\$34,271	\$0	\$79,223	\$46,778
Galleon Pharmaceuticals, Inc.	\$33,662	\$0	\$31,749	\$0
Etcetera Edutainment, Inc.	\$33,508	\$0	\$0	\$0
Chant Engineering Co., Inc.	\$33,081	\$0	\$83,757	\$83,757
Schott North America, Inc.	\$32,598	\$0	\$0	\$0
Corry Rubber Corporation	\$32,453	\$0	\$79,800	\$49,964
Equipois, Inc.	\$32,418	\$0	\$30,117	\$224
Cyoptics, Inc.	\$31,752	\$0	\$112,594	\$55,110
Gamry Instruments, Inc.	\$30,974	\$0	\$74,623	\$74,623
Process Combustion Corporation	\$30,705	\$0	\$79,197	\$71,238
Fidelity Flight Simulation	\$30,610	\$0	\$19,258	\$19,258
Latrobe Specialty Steel Company	\$30,386	\$0	\$0	\$0
Thermal Therapeutic Systems, Inc.	\$30,013	\$0	\$10,600	\$0
Accipiter Systems, Inc.	\$29,913	\$0	\$56,082	\$44,827
Phoenix Contact Development	\$29,496	\$0	\$0	\$0
Recro Pharma, Inc.	\$29,452	\$0	\$0	\$0
Cognition Therapeutics, Inc.	\$28,935	\$0	\$18,805	\$1,805
Maya Design, Inc.	\$28,849	\$0	\$21	\$21
JLG Industries, Inc.	\$28,658	\$0	\$266,791	\$55,000
Aquatech International Corporation	\$28,451	\$0	\$71,154	\$34,835
Mapquest PA, Inc.	\$27,939	\$0	\$25,815	\$0
Accu Measurement Testing, Inc.	\$27,371	\$0	\$35,302	\$35,302
Portico Systems of Delaware, Inc.	\$26,950	\$0	\$248,358	\$248,358
Cordis Corporation	\$26,857	\$0	\$30,687	\$30,687
Isosciences, LLC	\$26,759	\$0	\$49,505	\$49,505
West Pharmaceutical Services, Inc.	\$26,663	\$0	\$19,236	\$0
Remark Internet, Inc.	\$26,649	\$0	\$11,147	\$11,147
Net Health Systems, Inc.	\$25,872	\$0	\$19,823	\$19,823
Nielsen-Kellerman Co.	\$25,070	\$0	\$0	\$0
Qortek, Inc.	\$24,986	\$0	\$0	\$0
Pride Mobility Products Corporation	\$24,951	\$0	\$13,636	\$6,365
Eyenovate, Inc.	\$24,837	\$0	\$0	\$0
Blue Belt Technologies, Inc.	\$24,366	\$0	\$0	\$0
National Medical Services Biopharm, LLC	\$24,193	\$0	\$32,185	\$32,185
Garnet Biotherapeutics, Inc.	\$24,001	\$0	\$0	\$0
Piezo Resonance Innovations, Inc.	\$23,039	\$0	\$14,883	\$14,883

<i>Taxpayer Name</i>	<i>2010 Credit Awarded</i>	<i>2010 Credit Utilized<sup>1</sup></i>	<i>2008 &amp; 2009 Credit Awarded</i>	<i>2008 &amp; 2009 Credit Utilized<sup>1</sup></i>
Bentley Systems Incorporated	\$22,855	\$0	\$57,696	\$57,696
Ismael J. Hidalgo	\$22,817	\$0	\$11,790	\$11,790
Patrick M. Dentinger	\$22,817	\$0	\$11,788	\$11,788
Gentex Corporation	\$22,628	\$0	\$56,876	\$0
Verizon Corporate Resource Group, LLC	\$21,986	\$0	\$0	\$0
Valtech Corporation	\$21,558	\$0	\$10,037	\$6,139
Crystalplex Corporation	\$21,333	\$0	\$18,464	\$18,464
Academyone, Inc.	\$21,035	\$0	\$0	\$0
SS Processing, Inc.	\$20,866	\$0	\$7,965	\$7,965
Omniwind Energy Systems, LLC	\$20,628	\$0	\$18,522	\$18,522
Homenet, Inc.	\$20,404	\$0	\$0	\$0
Gelest, Inc.	\$20,166	\$0	\$35,574	\$35,574
Caterpillar, Inc.	\$20,155	\$0	\$60,731	\$60,731
ABB, Inc.	\$19,921	\$0	\$55,693	\$32,913
Gentis, Inc.	\$19,524	\$0	\$103,999	\$90,212
Document Solutions Group, Inc.	\$19,404	\$0	\$16,013	\$16,013
Schell Games, LLC	\$18,669	\$0	\$23,711	\$21,161
Sweet Street Desserts, Inc.	\$18,577	\$0	\$42,317	\$12,251
New Pig Corporation	\$17,573	\$0	\$26,408	\$26,408
Gateway Ticketing Systems, Inc.	\$17,467	\$0	\$82,448	\$14,862
Ellwood Investment Corp.	\$17,397	\$0	\$0	\$0
Coldlight Solutions, LLC	\$17,049	\$0	\$22,967	\$0
Endo Pharmaceuticals, Inc.	\$16,834	\$0	\$0	\$0
Cook Myosite, Inc.	\$16,705	\$0	\$80,205	\$0
Control Concepts Corporation	\$16,679	\$0	\$49,423	\$49,423
Yaupon Therapeutics, Inc.	\$16,675	\$0	\$7,550	\$7,550
Fairchild Semiconductor Corporation	\$16,659	\$0	\$0	\$0
Towercare Technologies, Inc.	\$16,583	\$0	\$18,937	\$18,937
Keystone Nano, Inc.	\$16,459	\$0	\$14,702	\$3,617
Power & Industrial Srv Corp.	\$16,389	\$0	\$6,017	\$6,017
First Insight, Inc.	\$16,349	\$0	\$1,372	\$1,372
Can Corporation of America, Inc.	\$16,211	\$0	\$930	\$930
Videon Central, Inc.	\$16,172	\$0	\$58,149	\$18,055
Ventana USA, LLP	\$16,124	\$0	\$0	\$0
Avere Systems, Inc.	\$15,946	\$0	\$0	\$0
Teletracking Technologies Inc.	\$15,770	\$0	\$106,402	\$106,402
Flexuspine, Inc.	\$15,245	\$0	\$173,105	\$1,640
Psychology Software Tools, Inc.	\$15,038	\$0	\$15,485	\$15,485
Clearcount Medical Solutions, Inc.	\$14,844	\$0	\$56,606	\$53,916
Avery Dennison Corporation	\$14,822	\$0	\$101,539	\$40,517
Fedex Ground Package System, Inc.	\$14,774	\$0	\$163,127	\$163,127
Bioconnect Systems, Inc.	\$14,660	\$0	\$50,752	\$50,752
FHM Holding Company, Inc.	\$14,643	\$0	\$0	\$0
Azur Pharma, Inc.	\$14,639	\$0	\$0	\$0
Supelco, Inc.	\$14,421	\$0	\$6,462	\$6,462
Emerson Process Management Power & Water Solutions, Inc.	\$14,273	\$0	\$771	\$0
EA Fischione Instruments, Inc.	\$14,272	\$0	\$22,706	\$22,706
QR Pharma, Inc.	\$13,887	\$0	\$0	\$0
Neuro Kinetics, Inc.	\$13,778	\$0	\$52,566	\$52,566
Kenexa Corporation	\$13,581	\$0	\$0	\$0
Greene, Tweed & Co, Inc.	\$13,413	\$0	\$28,588	\$28,588
Blade Diagnostics Corporation	\$13,402	\$0	\$38,719	\$38,719
Soft Genetics, LLC	\$13,223	\$0	\$22,136	\$22,136
Nitric Biotherapeutics, Inc.	\$13,101	\$0	\$104,953	\$104,953
Metronome Labs, LLC	\$13,058	\$0	\$0	\$0
Ametek, Inc.	\$12,794	\$0	\$0	\$0
Analytical Graphics, Inc.	\$12,628	\$0	\$0	\$0

<i>Taxpayer Name</i>	<i>2010 Credit Awarded</i>	<i>2010 Credit Utilized<sup>1</sup></i>	<i>2008 &amp; 2009 Credit Awarded</i>	<i>2008 &amp; 2009 Credit Utilized<sup>1</sup></i>
Autodesk, Inc.	\$12,325	\$0	\$0	\$0
Samtec, Inc.	\$12,224	\$0	\$0	\$0
Sungard Higher Education, Inc.	\$11,964	\$0	\$52,489	\$52,489
Herbert Rowland & Grubic, Inc.	\$11,885	\$0	\$0	\$0
Keystone Foods, LLC	\$11,743	\$0	\$0	\$0
Industrial Learning Systems	\$11,554	\$0	\$10,789	\$10,789
Ecotech Marine, LLC	\$11,390	\$0	\$18,660	\$18,660
Cutting Edge Solutions, Inc.	\$11,332	\$0	\$42,265	\$42,265
Multimodal Technologies, Inc.	\$11,305	\$0	\$18,480	\$18,480
Express Dynamics, LLC	\$11,238	\$0	\$23,778	\$23,778
Micromechatronics, Inc.	\$10,928	\$0	\$38,480	\$38,480
C&T Machining, Inc.	\$10,919	\$0	\$0	\$0
Advanced Carbon Technologies, Inc.	\$10,493	\$0	\$7,635	\$7,635
Kuhn Tool & Die Co.	\$10,492	\$0	\$10,637	\$6,476
Electroscience Laboratories, Inc.	\$10,491	\$0	\$3,166	\$829
Orthovita, Inc.	\$10,475	\$0	\$47,430	\$27,147
Regeneron Pharmaceuticals, Inc.	\$10,326	\$0	\$0	\$0
Pelletron Corporation	\$10,325	\$0	\$22,228	\$22,228
Flexible Compensators, Inc.	\$10,208	\$0	\$1,238	\$0
Oven Industries, Inc.	\$10,205	\$0	\$21,116	\$4,611
Entech Engineering, Inc.	\$10,179	\$0	\$0	\$0
RD Coatings, Inc.	\$10,081	\$0	\$0	\$0
Washington Penn Plastic Co., Inc.	\$10,067	\$0	\$14,106	\$14,106
Ycarbon, Inc.	\$10,046	\$0	\$0	\$0
Fismidth, Inc.	\$9,868	\$0	\$27,100	\$27,100
Team Ten, LLC	\$9,853	\$0	\$1,215	\$1,194
Pharmaceutical Manufacturing Research	\$9,842	\$0	\$9,610	\$5,659
Lone Oak Medical Technologies, LLC	\$9,618	\$0	\$0	\$0
Communication Automation Corporation	\$9,462	\$0	\$0	\$0
Kroff Chemical Company	\$9,449	\$0	\$19,279	\$18,994
Bodymedia, Inc.	\$9,409	\$0	\$0	\$0
LL Kurtz Manufacturing, Inc.	\$9,351	\$0	\$0	\$0
Sim Ops Studios, Inc.	\$9,338	\$0	\$26,981	\$21,890
Red Valve Company, Inc.	\$9,230	\$0	\$34,016	\$0
Silberline Manufacturing Co., Inc.	\$9,199	\$0	\$0	\$0
Vertex, Inc.	\$9,143	\$0	\$0	\$0
Milnes Engineering, Inc.	\$9,137	\$0	\$14,402	\$14,402
Quintech Electronics & Communications, Inc.	\$8,837	\$0	\$9,984	\$9,984
Cohera Medical, Inc.	\$8,836	\$0	\$150,176	\$150,176
Ashland, Inc.	\$8,821	\$0	\$3,336	\$3,336
International Business Machines Corporation	\$8,778	\$0	\$140,411	\$140,411
Synopsys, Inc.	\$8,702	\$0	\$4,663	\$0
Innovative Pressure Technologies, LLC	\$8,622	\$0	\$17,444	\$0
Lucas Systems, Inc.	\$8,556	\$0	\$39,029	\$39,029
ExecutivePulse, Inc.	\$8,534	\$0	\$0	\$0
Enantigen Therapeutics, Inc.	\$8,475	\$0	\$2,057	\$0
Puricore, Inc.	\$8,453	\$0	\$17,272	\$0
TCI Ceramics, Inc.	\$8,419	\$0	\$5,361	\$0
Betts Industries, Inc.	\$8,406	\$0	\$13,758	\$13,758
Zband, Inc.	\$8,205	\$0	\$24,208	\$20,082
Qadalyst, LLC	\$8,135	\$0	\$2,163	\$0
Eriez Manufacturing	\$7,937	\$0	\$22,278	\$20,145
Reading Alloys, Inc	\$7,893	\$0	\$6,095	\$1,337
Nutec Tooling Systems, Inc.	\$7,885	\$0	\$98,522	\$98,522
Naval Systems, Inc.	\$7,819	\$0	\$0	\$0
Pittsburgh African Venture Partners, LLC	\$7,686	\$0	\$0	\$0
Ratex Business Solutions, Inc.	\$7,670	\$0	\$3,105	\$0
York Container Company	\$7,651	\$0	\$40,040	\$27,929

<i>Taxpayer Name</i>	<i>2010 Credit Awarded</i>	<i>2010 Credit Utilized<sup>1</sup></i>	<i>2008 &amp; 2009 Credit Awarded</i>	<i>2008 &amp; 2009 Credit Utilized<sup>1</sup></i>
Emotion Kayaks, Inc.	\$7,525	\$0	\$5,209	\$5,209
The Magnus Group, Inc.	\$7,463	\$0	\$3,677	\$37
GES Automation Technology, Inc.	\$7,290	\$0	\$0	\$0
Mesh, Inc.	\$7,235	\$0	\$7,335	\$1,548
Mdot Incorporated	\$7,140	\$0	\$0	\$0
Stein Seal Company	\$7,098	\$0	\$5,795	\$5,795
EDigitalDataCenter, Inc.	\$7,075	\$0	\$0	\$0
Oxford Bio-Imaging Research, Inc.	\$6,958	\$0	\$0	\$0
Fairmount Foundry, Inc.	\$6,824	\$0	\$14,333	\$14,333
C&J Industries, Inc.	\$6,779	\$0	\$7,364	\$7,364
Instrumentation Industries, Inc.	\$6,595	\$0	\$0	\$0
Advanced Cooling Technologies, Inc.	\$6,447	\$0	\$2,703	\$2,703
Boehringer Laboratories, Inc.	\$6,436	\$0	\$32,435	\$32,435
NCA Technologies, Inc.	\$6,346	\$0	\$5,065	\$2
Genco I, Inc.	\$6,321	\$0	\$0	\$0
Gai-Tronics Corporation	\$6,311	\$0	\$22,454	\$22,454
Aerotech Inc.	\$6,206	\$0	\$55,183	\$37,977
Extol International, Inc.	\$6,091	\$0	\$134,386	\$0
Graybill Machines, Inc.	\$6,043	\$0	\$12,813	\$12,813
Jordan Acquisition Group, LLC	\$6,010	\$0	\$16,622	\$16,622
CP Converters, Inc.	\$5,974	\$0	\$17,129	\$17,129
Appcove, Inc.	\$5,887	\$0	\$21,878	\$21,878
Prosoft Technologies, Inc.	\$5,874	\$0	\$32,660	\$30,609
Diasome Pharmaceuticals, Inc.	\$5,777	\$0	\$0	\$0
Tetralogic Pharmaceuticals Corporation	\$5,764	\$0	\$85,497	\$0
Touchtown, Inc.	\$5,697	\$0	\$20,894	\$20,894
Reading Pretzel Machinery Corp.	\$5,667	\$0	\$15,908	\$5,914
Pioneer Hi Bred International, Inc.	\$5,664	\$0	\$8,156	\$8,156
Ingmar Medical, Ltd.	\$5,559	\$0	\$10,648	\$10,648
Golden Brothers, Inc.	\$5,513	\$0	\$0	\$0
Urban Engineers, Inc.	\$5,487	\$0	\$6,971	\$6,971
Acutronic USA, Inc.	\$5,469	\$0	\$0	\$0
RE 2, Inc.	\$5,416	\$0	\$2,781	\$2,781
Orasure Technologies, Inc.	\$5,372	\$0	\$109,690	\$8,815
Lasko Products, Inc.	\$5,358	\$0	\$0	\$0
JR Peters, Inc.	\$5,345	\$0	\$0	\$0
Eastern Manufacturing, Inc.	\$5,331	\$0	\$0	\$0
Just Between Friends, Inc.	\$5,310	\$0	\$3,847	\$3,847
Gyroton Technology, Inc.	\$5,293	\$0	\$29,462	\$16,577
Chemcut Holdings LLC	\$5,260	\$0	\$4,973	\$4,766
Reinsel Kuntz Leshner, LLP	\$5,238	\$0	\$0	\$0
Elsner Engineering Works, Inc.	\$5,184	\$0	\$2,149	\$0
KCF Technologies	\$5,115	\$0	\$2,850	\$2,850
Advanced Mobile Solutions Worldwide, Inc.	\$5,085	\$0	\$0	\$0
Interbots, LLC	\$5,069	\$0	\$0	\$0
EthosGen, LLC	\$5,029	\$0	\$0	\$0
Chariot Solutions, LLC	\$4,984	\$0	\$0	\$0
Reynolds Reynolds Electronics, Inc.	\$4,973	\$0	\$27,554	\$21,875
Minnotte Manufacturing Corporation	\$4,906	\$0	\$0	\$0
Innovative Control Systems, Inc.	\$4,870	\$0	\$364	\$364
Local Focal, Inc.	\$4,779	\$0	\$0	\$0
Synerge, LLC	\$4,769	\$0	\$0	\$0
Huston, Inc.	\$4,753	\$0	\$4,568	\$3,669
KDIndustires, Inc.	\$4,747	\$0	\$33,806	\$0
Basic Carbide Corporation	\$4,739	\$0	\$6,314	\$701
Grant Street Group, Inc.	\$4,685	\$0	\$79,623	\$79,623
Reclamere, Inc.	\$4,512	\$0	\$0	\$0
Four Rivers Software Systems, Inc.	\$4,457	\$0	\$0	\$0

<i>Taxpayer Name</i>	<i>2010 Credit Awarded</i>	<i>2010 Credit Utilized<sup>1</sup></i>	<i>2008 &amp; 2009 Credit Awarded</i>	<i>2008 &amp; 2009 Credit Utilized<sup>1</sup></i>
Datagrove, Inc.	\$4,453	\$0	\$28,906	\$12,823
Richter Precision, Inc.	\$4,390	\$0	\$12,813	\$12,813
York Laboratories, LLC	\$4,369	\$0	\$2,474	\$0
Enzo Life Sciences International, Inc.	\$4,340	\$0	\$0	\$0
Tengion, Inc.	\$4,251	\$0	\$187,040	\$48,815
Nanohorizons, Inc.	\$4,243	\$0	\$10,518	\$10,518
QMAC Quality Machining, Inc.	\$4,207	\$0	\$20,773	\$20,773
CTR Holdings, Inc.	\$4,189	\$0	\$5,153	\$5,153
Melior Pharmaceuticals I, Inc.	\$4,135	\$0	\$0	\$0
C W E, Inc.	\$4,070	\$0	\$8,995	\$3,547
Thermal Transfer Corporation	\$4,051	\$0	\$0	\$0
Softerware, Inc.	\$4,040	\$0	\$11,162	\$8,197
Computer Consulting Team, LLC	\$4,028	\$0	\$5,809	\$5,809
John Paul Mitchell Systems	\$3,920	\$0	\$0	\$0
Mainstream Swimsuits, Inc.	\$3,919	\$0	\$4,212	\$0
Erdman Anthony Associates, Inc.	\$3,899	\$0	\$0	\$0
Pittsburgh Plastics Mfg, Inc.	\$3,870	\$0	\$0	\$0
Henson Company, Inc.	\$3,822	\$0	\$16,265	\$2,661
Interstate Building Materials, Inc.	\$3,820	\$0	\$0	\$0
Tactical Technologies, Inc.	\$3,802	\$0	\$17,849	\$0
West Penn Oil Company, Inc.	\$3,728	\$0	\$0	\$0
Penn Manufacturing Industries, Inc.	\$3,710	\$0	\$0	\$0
WER Corporation	\$3,700	\$0	\$23,739	\$15,317
Precision Ctg Tech Mngf, Inc.	\$3,671	\$0	\$0	\$0
Griffith Brothers Whitetail Ridge, Inc.	\$3,667	\$0	\$6,432	\$6,432
Snaptite, Inc.	\$3,638	\$0	\$2,116	\$0
VT Graphics, Inc.	\$3,545	\$0	\$15,664	\$7,695
Edgemate, Inc.	\$3,539	\$0	\$0	\$0
Lunchtime Software, LLC	\$3,525	\$0	\$2,424	\$2,424
Cardinal Systems, Inc.	\$3,477	\$0	\$0	\$0
ITT Corporation	\$3,444	\$0	\$0	\$0
Juniata Fabrics, Inc.	\$3,394	\$0	\$13,859	\$13,859
Tipton Medical & Diagnostic Center	\$3,359	\$0	\$0	\$0
Artsana USA, Inc.	\$3,351	\$0	\$3,088	\$3,088
Pennoni Associates, Inc.	\$3,338	\$0	\$24,147	\$24,147
Knoll, Inc.	\$3,288	\$0	\$0	\$0
Combined Systems, Inc.	\$3,238	\$0	\$19,385	\$19,385
Philadelphia Tramail Enterprises, Inc.	\$3,179	\$0	\$12,135	\$1,284
Third Eye Diagnostics, Inc.	\$3,178	\$0	\$2,707	\$2,707
Sun Star, Inc.	\$3,171	\$0	\$0	\$0
Lincoln Contracting Equipment Co., Inc.	\$3,163	\$0	\$0	\$0
Pitney Bowes Software, Inc.	\$3,152	\$0	\$0	\$0
Diversified Machine, Inc.	\$3,105	\$0	\$15,554	\$6,000
Russell Biotech, Inc.	\$3,104	\$0	\$0	\$0
Michael & Associates, Inc.	\$3,072	\$0	\$3,694	\$1,954
Johnstown Machining and Fabrication, Inc.	\$3,016	\$0	\$0	\$0
R M Palmer Company	\$3,000	\$0	\$16,825	\$16,825
Science Applications International Corporation	\$2,981	\$0	\$44,204	\$44,204
Drug Plastics & Glass Co. Inc.	\$2,939	\$0	\$30,338	\$30,338
American Enterprises Mpt Corp.	\$2,924	\$0	\$0	\$0
Hamilton Precision Metals, Inc.	\$2,875	\$0	\$0	\$0
General Dynamics Satcom Technologies, Inc.	\$2,869	\$0	\$2,335	\$2,335
Robert Bosch Tool Corporation	\$2,845	\$0	\$1,679	\$1,679
Carnegie Learning, Inc.	\$2,821	\$0	\$15,331	\$0
Assistive Technology Products, Inc.	\$2,795	\$0	\$0	\$0
Angstrom Sciences, Inc.	\$2,780	\$0	\$0	\$0
Keymatrix, Inc.	\$2,771	\$0	\$0	\$0
American Reading Company, Inc.	\$2,770	\$0	\$0	\$0

<i>Taxpayer Name</i>	<i>2010 Credit Awarded</i>	<i>2010 Credit Utilized<sup>1</sup></i>	<i>2008 &amp; 2009 Credit Awarded</i>	<i>2008 &amp; 2009 Credit Utilized<sup>1</sup></i>
Hamill Manufacturing Company	\$2,754	\$0	\$4,982	\$4,982
Ametek Pittman, Inc.	\$2,728	\$0	\$0	\$0
Oberon, Inc.	\$2,698	\$0	\$1,827	\$1,827
Healthcare Lighting, Inc.	\$2,694	\$0	\$0	\$0
Quantum Software Solution, Inc.	\$2,687	\$0	\$4,414	\$4,414
Wampum Hardware Co.	\$2,686	\$0	\$0	\$0
PHW, Inc.	\$2,646	\$0	\$0	\$0
Deasey Machine Tool & Die Works, Inc.	\$2,643	\$0	\$0	\$0
Packaging Specialists, LLC	\$2,630	\$0	\$0	\$0
Prosanos Corporation	\$2,611	\$0	\$52,300	\$52,300
McCormick Taylor Inc.	\$2,610	\$0	\$1,719	\$1,719
Onconova Therapeutics, Inc.	\$2,564	\$0	\$97,055	\$11,520
Nazareth Industrial Corporation	\$2,536	\$0	\$0	\$0
Elan Drug Delivery, Inc.	\$2,533	\$0	\$37,382	\$37,382
Conagra Foods Enterprise Services, Inc.	\$2,516	\$0	\$0	\$0
Computer Sciences Corporation	\$2,364	\$0	\$0	\$0
Hydac Technology Corp.	\$2,353	\$0	\$3,683	\$3,683
ETA Industries, Inc.	\$2,353	\$0	\$3,893	\$3,732
Streamlight, Inc.	\$2,312	\$0	\$20,567	\$20,567
Georgeko Industries, Inc.	\$2,282	\$0	\$0	\$0
Zband Video, Inc.	\$2,245	\$0	\$0	\$0
Toxco, Inc.	\$2,235	\$0	\$0	\$0
World Electronics Sales and Service, Inc.	\$2,193	\$0	\$1,316	\$1,316
Rockland Immunochemicals, Inc.	\$2,180	\$0	\$1,050	\$1,050
Thomas Erie, Inc.	\$2,162	\$0	\$2,839	\$2,839
Patriot Sensors and Controls Corporation	\$2,159	\$0	\$0	\$0
Hydro-Pac, Inc.	\$2,156	\$0	\$40,539	\$40,539
Bel Connector, Inc. (ta Stewart Connector)	\$2,155	\$0	\$26,579	\$20,503
Mallet and Company, Inc.	\$2,137	\$0	\$6,982	\$6,621
R-V Industries, Inc.	\$2,127	\$0	\$4,212	\$4,212
SAS Institute, Inc.	\$2,054	\$0	\$3,471	\$3,471
Thompsons Candle, Co.	\$2,047	\$0	\$0	\$0
Manley Holdings, Inc.	\$2,034	\$0	\$89,484	\$89,484
Fiberline, Inc.	\$1,990	\$0	\$5,054	\$4,317
Biocoat, Inc.	\$1,986	\$0	\$32,622	\$32,622
Neutronics, Inc.	\$1,979	\$0	\$4,332	\$3,229
Amuneal Manufacturing Corp.	\$1,955	\$0	\$71,985	\$71,985
TDY Industries, Inc.	\$1,952	\$0	\$2,037	\$2,037
JMF Defense Systems, LLC	\$1,944	\$0	\$0	\$0
Newage Testing Instruments, Inc.	\$1,930	\$0	\$0	\$0
Ernst Conservation Seeds, Inc.	\$1,894	\$0	\$7,891	\$7,891
Tyrone Milling	\$1,886	\$0	\$3,688	\$2,324
Schneider, Inc.	\$1,882	\$0	\$28,677	\$28,677
Neville Chemical Company	\$1,881	\$0	\$0	\$0
Big B Manufacturing, Inc.	\$1,848	\$0	\$1,920	\$0
General Dynamics C4 Systems, Inc.	\$1,806	\$0	\$15,357	\$15,357
Brainbond, LLC	\$1,794	\$0	\$0	\$0
Adhesives Research, Inc.	\$1,741	\$0	\$32,284	\$2,208
NE Foods, Inc.	\$1,696	\$0	\$4,270	\$4,270
CF Martin Co., Inc.	\$1,693	\$0	\$7,976	\$7,976
Amer Precision Powder Coating, LLC	\$1,682	\$0	\$0	\$0
Traypak Corporation	\$1,659	\$0	\$4,780	\$4,780
SFS Intec Incorporated	\$1,652	\$0	\$806	\$285
Loridian, LLC	\$1,633	\$0	\$2,679	\$2,679
S Vitale Pyrotechnic Industries, Inc.	\$1,628	\$0	\$17,477	\$16,944
Circadiance, LLC	\$1,622	\$0	\$0	\$0
Inmedius, Inc.	\$1,620	\$0	\$25,087	\$14,588
ASI Technologies, Inc.	\$1,618	\$0	\$0	\$0

<i>Taxpayer Name</i>	<i>2010 Credit Awarded</i>	<i>2010 Credit Utilized<sup>1</sup></i>	<i>2008 &amp; 2009 Credit Awarded</i>	<i>2008 &amp; 2009 Credit Utilized<sup>1</sup></i>
J Baur Machining, Inc.	\$1,606	\$0	\$13,306	\$13,306
Inspirafs, Inc.	\$1,585	\$0	\$809	\$0
Invodata, Inc.	\$1,581	\$0	\$8,236	\$0
Specialty Tires of America PA	\$1,578	\$0	\$102,209	\$102,209
Smoothon, Inc.	\$1,564	\$0	\$4,614	\$4,614
Polymeric Systems, Inc.	\$1,553	\$0	\$0	\$0
Lebanon Tool Company, Inc.	\$1,537	\$0	\$0	\$0
Robert Bosch, LLC	\$1,518	\$0	\$47,850	\$3,022
Portec Rail Products, Inc.	\$1,516	\$0	\$2,200	\$2,200
Technology Patents Licensing, Inc.	\$1,501	\$0	\$0	\$0
Surface Chemistry Discoveries, Inc.	\$1,480	\$0	\$0	\$0
Renaissance Nutrition, Inc.	\$1,477	\$0	\$7,132	\$7,132
David Michael & Co., Inc.	\$1,464	\$0	\$7,244	\$6,445
Met-Pro Corporation	\$1,422	\$0	\$12,702	\$12,702
Fry Communications, Inc.	\$1,414	\$0	\$1,163	\$1,163
IMC Biotechnology, Inc.	\$1,315	\$0	\$0	\$0
Vascularstrategies, LLC	\$1,312	\$0	\$1,231	\$0
New Standard Corporation	\$1,298	\$0	\$8,389	\$465
PRL, Inc.	\$1,290	\$0	\$0	\$0
Lake Tool, Inc.	\$1,287	\$0	\$0	\$0
Precision Medical Products, Inc.	\$1,285	\$0	\$3,485	\$3,485
InvestEdge, Inc.	\$1,275	\$0	\$30,251	\$0
The Beistle Company	\$1,237	\$0	\$0	\$0
Olympic Steel, Inc.	\$1,225	\$0	\$0	\$0
American Hydro Corporation	\$1,197	\$0	\$0	\$0
Godshalls Quality Meats, Inc.	\$1,163	\$0	\$567	\$567
Dontech, Inc.	\$1,150	\$0	\$42,901	\$42,901
TM Industrial Supply, Inc.	\$1,145	\$0	\$1,371	\$1,371
Weaver Industries, Inc.	\$1,136	\$0	\$4,846	\$4,846
Cybergenetics Corp.	\$1,124	\$0	\$9,257	\$9,257
Markel Corporation	\$1,110	\$0	\$0	\$0
Saladax Biomedical, Inc.	\$1,106	\$0	\$20,438	\$5,304
The Fredericks Company	\$1,100	\$0	\$14,134	\$13,524
Levan Machine Co., Inc.	\$1,092	\$0	\$5,229	\$5,229
Polymedix Pharmaceuticals, Inc.	\$1,090	\$0	\$131,173	\$97,346
Nitor Technologies, Inc.	\$1,088	\$0	\$0	\$0
Workhorse Rail, LLC	\$1,049	\$0	\$72	\$72
General Machine Products Co. Inc.	\$1,034	\$0	\$1,772	\$1,772
Bostik, Inc.	\$1,021	\$0	\$1,657	\$1,657
Data View, Inc.	\$1,000	\$0	\$1,166	\$0
Dart Container Corporation of PA	\$979	\$0	\$853	\$853
SS XRay Products, Inc.	\$947	\$0	\$1,530	\$741
Dental Designs, Inc.	\$929	\$0	\$1,427	\$1,427
Boose at Cornwall, Inc.	\$914	\$0	\$454	\$0
Medical Products Laboratories, Inc.	\$893	\$0	\$10,895	\$10,895
Universal Refractories	\$794	\$0	\$0	\$0
Topflight Corporation	\$777	\$0	\$3,627	\$0
Hindlepower, Inc.	\$753	\$0	\$53,878	\$53,878
Finish Thompson, Inc.	\$733	\$0	\$21,788	\$3,837
PMC-Sierra US, Inc.	\$726	\$0	\$0	\$0
Alertek, LLC	\$725	\$0	\$279	\$0
RF Extreme, LLC (f/k/a RF Central, LLC)	\$640	\$0	\$1,713	\$1,713
Solar Innovations, Inc.	\$625	\$0	\$8,613	\$3,593
Spring City Electrical Mfg. Co.	\$623	\$0	\$2,294	\$2,294
Sealstrip Corporation	\$615	\$0	\$53,149	\$53,149
X F Enterprises, Inc.	\$593	\$0	\$77	\$0
Comprehensive Safety Compliance, Inc.	\$588	\$0	\$1,774	\$1,774
Scientific Systems, Inc.	\$587	\$0	\$3,455	\$0



<i>Taxpayer Name</i>	<i>2010 Credit Awarded</i>	<i>2010 Credit Utilized<sup>1</sup></i>	<i>2008 &amp; 2009 Credit Awarded</i>	<i>2008 &amp; 2009 Credit Utilized<sup>1</sup></i>
Hauck Manufacturing Company, Inc.	\$581	\$0	\$0	\$0
Visual Composites, LLC	\$556	\$0	\$0	\$0
Whitford Corporation	\$532	\$0	\$0	\$0
Schust Development, Inc.	\$521	\$0	\$0	\$0
RJM Manufacturing, Inc.	\$517	\$0	\$904	\$0
Elite Sportswear LLP	\$498	\$0	\$0	\$0
Valley Instrument Co., Inc.	\$480	\$0	\$0	\$0
Regal Cast, Inc.	\$455	\$0	\$0	\$0
Contec Systems Industrial Corp.	\$444	\$0	\$10,452	\$10,452
Pyrotek Incorporated	\$443	\$0	\$15,230	\$1,927
Whirley Industries, Inc.	\$401	\$0	\$0	\$0
Gaspari Farm Products, Inc.	\$399	\$0	\$0	\$0
Dauphin Precision Tool, LLC	\$370	\$0	\$613	\$0
Comfort Care Resources, Inc.	\$348	\$0	\$0	\$0
DFT, Inc.	\$347	\$0	\$0	\$0
Cue, Inc.	\$307	\$0	\$361	\$361
Keystone Abrasives Co.	\$303	\$0	\$724	\$724
Kalas Mfg., Inc.	\$297	\$0	\$50,520	\$50,520
LWI & Associates, Inc.	\$288	\$0	\$0	\$0
Vigon International, Inc.	\$287	\$0	\$3,675	\$3,675
Marvell Semiconductor, Inc.	\$277	\$0	\$0	\$0
PM Computing, Inc.	\$274	\$0	\$0	\$0
Lozier Corporation	\$217	\$0	\$1,386	\$1,386
Boose Aluminum Foundry Co., Inc.	\$181	\$0	\$7,160	\$494
LF Lambert Spawn Company, Inc.	\$181	\$0	\$0	\$0
PRL Industries, Inc.	\$179	\$0	\$0	\$0
Riggs Industries, Inc.	\$167	\$0	\$0	\$0
Atlas Minerals Chemicals, Inc.	\$145	\$0	\$0	\$0
Richardson Cooling Packages, LLC	\$139	\$0	\$13,409	\$1,382
Sylvin Technologies, Inc.	\$112	\$0	\$0	\$0
Tekresults, Ltd.	\$109	\$0	\$440	\$440
ImageCube, LLC	\$98	\$0	\$0	\$0
Blair Companies	\$44	\$0	\$5,379	\$5,379
21st Century Software, Inc.	\$0	\$0	\$14,207	\$14,207
A Cubed Corporation	\$0	\$0	\$4,509	\$0
Aberdeen Road Company	\$0	\$0	\$15,359	\$15,359
Accenture LLP	\$0	\$0	\$188,265	\$0
Ace Animals, Inc.	\$0	\$0	\$9,224	\$9,224
Aethon, Inc.	\$0	\$0	\$42,461	\$42,461
Agrofresh, Inc.	\$0	\$0	\$123,236	\$123,236
Air Products and Chemicals, Inc.	\$0	\$0	\$35,953	\$0
AK Steel Corporation	\$0	\$0	\$7,540	\$5,083
Algor, Inc.	\$0	\$0	\$3,635	\$0
Alita Pharmaceuticals, Inc.	\$0	\$0	\$115,532	\$115,532
Allegheny Ludlum Corporation	\$0	\$0	\$234,755	\$82,532
Allomet Corporation	\$0	\$0	\$74,252	\$0
Altoona Beasley Manufacturing, Inc.	\$0	\$0	\$9,666	\$20
American Manufacturing & Engineering	\$0	\$0	\$21,645	\$21,645
Amgen, Inc.	\$0	\$0	\$955,716	\$7,778
Amphenol Intercon Systems, Inc.	\$0	\$0	\$7,120	\$7,120
Amplifier Research Corp.	\$0	\$0	\$14,188	\$2,176
Animas Corporation	\$0	\$0	\$112,190	\$0
Ansoft Corporation	\$0	\$0	\$54,595	\$0
Ansys, Inc.	\$0	\$0	\$91,070	\$91,070
Apogee Biotechnology Corporation	\$0	\$0	\$48,158	\$48,158
Applied Systems Associates, Inc.	\$0	\$0	\$87,271	\$82,332
Arkema, Inc.	\$0	\$0	\$163,241	\$163,241
Arrow International, Inc.	\$0	\$0	\$129,944	\$33,287

<i>Taxpayer Name</i>	<i>2010 Credit Awarded</i>	<i>2010 Credit Utilized<sup>1</sup></i>	<i>2008 &amp; 2009 Credit Awarded</i>	<i>2008 &amp; 2009 Credit Utilized<sup>1</sup></i>
Arvite Technologies, Inc.	\$0	\$0	\$558	\$558
Ascenta Therapeutics, Inc.	\$0	\$0	\$70,869	\$70,869
Auxilium Pharmaceuticals, Inc.	\$0	\$0	\$129,688	\$18,409
B&G Manufacturing Co., Inc.	\$0	\$0	\$983	\$983
Bayone Urethane Systems LLC	\$0	\$0	\$6,246	\$1,512
Beaumont Technologies, Inc.	\$0	\$0	\$34,123	\$34,123
Becton Dickinson and Company	\$0	\$0	\$16,620	\$16,620
Belco Tool And Manufacturing, Inc	\$0	\$0	\$10,639	\$0
Benton Foundry, Inc.	\$0	\$0	\$2,562	\$2,562
Berks Engineering Company	\$0	\$0	\$5,539	\$5,539
Bio Rad Laboratories, Inc.	\$0	\$0	\$541	\$0
Biomarine Ntron, Inc.	\$0	\$0	\$43,226	\$141
Biosafe, Inc.	\$0	\$0	\$28,434	\$28,434
BioSpectra, Inc.	\$0	\$0	\$5,219	\$5,203
Bloom Engineering Company, Inc.	\$0	\$0	\$9,106	\$3,213
Bolttech, Inc.	\$0	\$0	\$4,653	\$0
Brotech Corporation	\$0	\$0	\$1,100	\$0
Bulk Chemicals, Inc.	\$0	\$0	\$9,563	\$9,563
Burnham LLC	\$0	\$0	\$15,885	\$0
Byproduct Industries, Inc.	\$0	\$0	\$472	\$472
CA Research, Inc.	\$0	\$0	\$214,193	\$79,805
Caledonian Dye Works, Inc.	\$0	\$0	\$10,246	\$78
Cancer Innovations, Inc.	\$0	\$0	\$1,058	\$0
Cardiokine Biopharma LLC	\$0	\$0	\$21,419	\$0
Cardone Industries, Inc.	\$0	\$0	\$11,847	\$5,449
Cellatope Corporation	\$0	\$0	\$18,919	\$18,919
Centocor Research & Development, Inc.	\$0	\$0	\$5,209,250	\$5,209,250
Certainteed Corporation	\$0	\$0	\$16,970	\$13,785
Channelock, Inc.	\$0	\$0	\$23,355	\$0
Ciber, Inc.	\$0	\$0	\$132,028	\$132,028
Ciclon Semiconductor Device Corporation	\$0	\$0	\$72,501	\$245
Civil Environmental Consultants	\$0	\$0	\$2,292	\$2,292
Clinical Financial Services, LLC	\$0	\$0	\$18,424	\$0
Coexprise, Inc.	\$0	\$0	\$32,036	\$0
Collagesnet, Inc.	\$0	\$0	\$19,352	\$0
Competition Tire East, Inc.	\$0	\$0	\$5,784	\$5,784
Computer Support Services, Inc.	\$0	\$0	\$717	\$717
Control Chief Corporation	\$0	\$0	\$195	\$52
Controlled Chemicals, Inc.	\$0	\$0	\$30,655	\$0
Cook Vascular Corporation	\$0	\$0	\$17,024	\$14,625
Crayola LLC	\$0	\$0	\$12,109	\$12,109
Cummins-Allison Corp.	\$0	\$0	\$2,843	\$2,843
D&E Machining, Inc.	\$0	\$0	\$7,918	\$7,918
Datacap Systems, Inc.	\$0	\$0	\$168,770	\$168,770
Deborah A. Rinehart	\$0	\$0	\$1,011	\$0
Dentsply LLC	\$0	\$0	\$11,799	\$11,799
Dentsply Prosthetics LLC	\$0	\$0	\$81,228	\$0
Discovery Laboratories, Inc.	\$0	\$0	\$30,347	\$17,279
DOPACO, Inc.	\$0	\$0	\$6,385	\$6,385
Draeger Medical Systems, Inc.	\$0	\$0	\$25,280	\$25,280
Duratite Systems LLC	\$0	\$0	\$21,008	\$21,008
Dynamet Incorporated	\$0	\$0	\$13,800	\$10,378
Dynamic Materials Corporation	\$0	\$0	\$2,912	\$2,912
Dynamis Therapeutics, Inc.	\$0	\$0	\$57,978	\$57,978
Dynavox Systems LLC	\$0	\$0	\$19,607	\$0
E I Du Pont De Nemours and Company	\$0	\$0	\$109,519	\$41,960
Eagle Brass Company	\$0	\$0	\$1,888	\$1,888
Eagle Far East, Inc.	\$0	\$0	\$1,752	\$1,701

<i>Taxpayer Name</i>	<i>2010 Credit Awarded</i>	<i>2010 Credit Utilized<sup>1</sup></i>	<i>2008 &amp; 2009 Credit Awarded</i>	<i>2008 &amp; 2009 Credit Utilized<sup>1</sup></i>
East Coast Erosion Blankets LLC	\$0	\$0	\$5,269	\$5,269
East Penn Manufacturing Company	\$0	\$0	\$42,591	\$0
Eaton Electrical, Inc.	\$0	\$0	\$390,576	\$292,429
Eclipsys Solutions Corporation	\$0	\$0	\$27,691	\$496
Ecore International, Inc.	\$0	\$0	\$7,825	\$0
Electron Energy Corporation	\$0	\$0	\$27,203	\$3,846
Electronics for Imaging, Inc.	\$0	\$0	\$50,117	\$50,117
End User Services, Inc.	\$0	\$0	\$6,040	\$6,040
Energy Technology Partners, LLC	\$0	\$0	\$30,215	\$30,215
Equitable Gathering, Inc.	\$0	\$0	\$3,967	\$3,967
Equitable Production Company	\$0	\$0	\$14,947	\$14,947
Erie Plastics Corporation	\$0	\$0	\$5,768	\$0
Essent Corporation	\$0	\$0	\$1,065	\$0
Evaheart Medical USA, Inc.	\$0	\$0	\$1,086	\$0
Everite Machine Products Co., Inc.	\$0	\$0	\$5,614	\$5,614
Excalibur Machine, Inc.	\$0	\$0	\$1,211	\$0
Fabri Kal Corporation	\$0	\$0	\$10,121	\$3,957
Fairmount Automation, Inc.	\$0	\$0	\$732	\$249
Flair Corporation	\$0	\$0	\$10,821	\$10,821
Fleetwood Industries	\$0	\$0	\$54,385	\$10,264
FMC Technologies Measurement Solutions, Inc.	\$0	\$0	\$5,996	\$5,996
Follett Corporation	\$0	\$0	\$6,706	\$6,706
Foodswing, Inc.	\$0	\$0	\$6,829	\$0
Freedom Sciences LLC	\$0	\$0	\$67,782	\$67,782
Frewmill Die Crafts, Inc.	\$0	\$0	\$34,041	\$12,570
Frontline Placement Technologies, Inc.	\$0	\$0	\$46,359	\$46,359
FS Elliott Co., LLC	\$0	\$0	\$38,536	\$38,536
Fusion Coatings, Inc.	\$0	\$0	\$1,079	\$1,079
Gardengenetics LLC	\$0	\$0	\$4,191	\$4,191
Giorgi Foods, Inc.	\$0	\$0	\$23,285	\$6,949
Giorgi Mushroom Co.	\$0	\$0	\$10,466	\$9,728
Global, Inc.	\$0	\$0	\$13,515	\$0
Globalpops Media Services LLC	\$0	\$0	\$4,597	\$4,597
Goulds Pumps PA, Inc.	\$0	\$0	\$1,405	\$1,405
Graco Children's Products, Inc.	\$0	\$0	\$89,890	\$7,721
Graphite Machining, Inc.	\$0	\$0	\$13,674	\$10,383
Graymont (PA), Inc.	\$0	\$0	\$17,608	\$10,761
Greenleaf Corporation	\$0	\$0	\$37,207	\$0
Griffith, Inc. (ta Alpha Systems)	\$0	\$0	\$13,128	\$1,527
GVM, Inc.	\$0	\$0	\$2,411	\$2,411
Harbor Steel, Inc.	\$0	\$0	\$4,658	\$4,100
Hazleton Casting Company	\$0	\$0	\$4,072	\$4,072
Herley Industries, Inc.	\$0	\$0	\$3,455	\$0
Hermance & Strouse Inc.	\$0	\$0	\$15,106	\$140
Herr Foods, Inc.	\$0	\$0	\$1,842	\$0
Hofman Industries, Inc.	\$0	\$0	\$1,257	\$456
Illinois Tool Works, Inc.	\$0	\$0	\$36,287	\$0
Immune Control, Inc.	\$0	\$0	\$310,349	\$166,014
Implementation & Consulting Service	\$0	\$0	\$1,701	\$1,701
Infrascan, Inc.	\$0	\$0	\$33,004	\$30,886
Innovative Solutions & Support, Inc.	\$0	\$0	\$238,200	\$0
IntelliStem Orthopaedic Innovations, Inc.	\$0	\$0	\$2,435	\$0
Interstate Chemical Company, Inc.	\$0	\$0	\$24,416	\$20,608
Interstate Management Resources, Inc.	\$0	\$0	\$69,530	\$33,026
IOFY Corporation	\$0	\$0	\$60,335	\$60,335
Ira G. Steffy Son, Inc.	\$0	\$0	\$8,460	\$8,460
J&J Pharmaceutical Research and Development LLC	\$0	\$0	\$629,531	\$629,531
James L. Rutkowski, DMD & Associates	\$0	\$0	\$1,595	\$1,595

<i>Taxpayer Name</i>	<i>2010 Credit Awarded</i>	<i>2010 Credit Utilized<sup>1</sup></i>	<i>2008 &amp; 2009 Credit Awarded</i>	<i>2008 &amp; 2009 Credit Utilized<sup>1</sup></i>
Jamestown Paint Company	\$0	\$0	\$40,825	\$4,709
Jarex Enterprises LLC	\$0	\$0	\$3,670	\$0
JB Kintner & Sons	\$0	\$0	\$1,661	\$1,661
Jeannette Shade and Novelty Company	\$0	\$0	\$15,249	\$99
Jennison Precision Machine, Inc.	\$0	\$0	\$2,015	\$2,015
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
K H Technologies	\$0	\$0	\$1,936	1936
Kaolin Mushroom Farms, Inc.	\$0	\$0	\$13,579	\$0
Kenco Corporation	\$0	\$0	\$9,688	\$7,134
Kensley Nash Corporation	\$0	\$0	\$33,090	\$33,090
Koehler-Bright Star Inc.	\$0	\$0	\$6,717	\$6,717
Kopcoat, Inc.	\$0	\$0	\$1,487	\$0
Kopp Glass, Inc.	\$0	\$0	\$418	\$418
Koryak Consulting Inc.	\$0	\$0	\$11,843	\$4,114
Kovatch Corp.	\$0	\$0	\$1,527	\$1,527
Kovatch Mobile Equipment	\$0	\$0	\$14,522	\$142
KW Inc.	\$0	\$0	\$9,250	\$9,250
L T H, Inc,	\$0	\$0	\$3,246	\$0
Lazarus Therapeutics, Inc.	\$0	\$0	\$8,646	\$0
LCM Technologies, Inc.	\$0	\$0	\$9,024	\$9,024
LCR Electronics, Inc.	\$0	\$0	\$69,643	\$56,333
Lehigh Valley Technologies, Inc.	\$0	\$0	\$6,930	\$43
Lepton Technologies Inc.	\$0	\$0	\$19,489	\$0
Library Video Company	\$0	\$0	\$17,820	\$0
Lightfoot, Inc.	\$0	\$0	\$24,668	\$24,668
LL Kurtz, Inc.	\$0	\$0	\$5,879	\$5,879
Locus Pharmaceuticals, Inc.	\$0	\$0	\$56,349	\$1,847
Lord Corporation	\$0	\$0	\$165,881	\$38,941
LPS Mortgage Processing Solutions, Inc.	\$0	\$0	\$12,877	\$12,877
LWB Refractories Company	\$0	\$0	\$9,614	\$9,614
Lyco I LLC	\$0	\$0	\$18,830	\$18,830
Mack Trucks, Inc.	\$0	\$0	\$302,585	\$302,585
Magnatech International, Inc.	\$0	\$0	\$3,477	\$2,307
Majr Products Corporation	\$0	\$0	\$7,353	\$7,353
MapQuest, Inc.	\$0	\$0	\$52,293	\$52,293
Matrix Operations Company, LLC	\$0	\$0	\$102,668	\$102,668
McDaniel Advanced Ceramic	\$0	\$0	\$12,089	\$12,089
MDL Corporation	\$0	\$0	\$3,771	\$3,771
Medicigroup, Inc.	\$0	\$0	\$26,815	\$5,865
MH Eby, Inc.	\$0	\$0	\$976	\$976
Mine Safety Appliances Company	\$0	\$0	\$185,740	\$185,740
Minus Nine Technologies, Inc.	\$0	\$0	\$662	\$0
Misco Products Corporation	\$0	\$0	\$8,452	\$0
Monsanto Company	\$0	\$0	\$8,328	\$5,774
Moon Tool & Die, Inc.	\$0	\$0	\$11,201	\$11,201
Morphotek, Inc.	\$0	\$0	\$221,088	\$0
Mr. Bradley C. Rinehart	\$0	\$0	\$2,605	\$2,243
NAC Carbon Products, Inc.	\$0	\$0	\$16,685	\$16,685
National Bearings Company	\$0	\$0	\$19,613	\$19,613
National Magnetics Group, Inc.	\$0	\$0	\$77,259	\$32,178
Neotropix, Inc.	\$0	\$0	\$241,804	\$223,640
New Way Machine Components, Inc.	\$0	\$0	\$43,069	\$43,069
Newage Industries, Inc.	\$0	\$0	\$8,644	\$8,644
NH Laboratories, Inc.	\$0	\$0	\$4,456	\$4,456
NMS Labs, Inc. (fka National Medical Services, Inc.)	\$0	\$0	\$24,435	\$24,435
Novartis Pharmaceuticals Corporation	\$0	\$0	\$315,912	\$315,912

<i>Taxpayer Name</i>	<i>2010 Credit Awarded</i>	<i>2010 Credit Utilized<sup>1</sup></i>	<i>2008 &amp; 2009 Credit Awarded</i>	<i>2008 &amp; 2009 Credit Utilized<sup>1</sup></i>
NTA Enterprises, Inc.	\$0	\$0	\$515	\$35
Nucleonics, Inc.	\$0	\$0	\$86,292	\$86,292
Nvidia Corporation	\$0	\$0	\$61,918	\$3,348
Oberg Industries, Inc.	\$0	\$0	\$18,727	\$14,773
OF Zurn Company	\$0	\$0	\$15,625	\$5,722
OfficeDiggs, Inc.	\$0	\$0	\$31,034	\$31,034
Omega Design Corporation	\$0	\$0	\$12,414	\$12,414
Ontelaunee Farms, Inc.	\$0	\$0	\$8,310	\$0
Optium Corporation	\$0	\$0	\$73,652	\$73,652
Orion Security LSP LLC	\$0	\$0	\$9,419	\$9,419
Osram Sylvania Products, Inc.	\$0	\$0	\$12,543	\$0
Othera Pharmaceuticals, Inc.	\$0	\$0	\$78,615	\$78,615
Packworld USA, Ltd.	\$0	\$0	\$9,661	\$0
Parker White Metal Company	\$0	\$0	\$17,594	\$0
PB Heat, LLC	\$0	\$0	\$6,118	\$6,118
PBM, Inc.	\$0	\$0	\$337	\$337
Penn Engineering and Manufacturing Corp.	\$0	\$0	\$9,422	\$3,245
Penn Weld Inc.	\$0	\$0	\$2,698	\$2,698
Pennlake Corporation	\$0	\$0	\$1,265	\$1,265
Pennsylvania General Energy Company LLC	\$0	\$0	\$194,087	\$5,804
Pharmabridge, Inc.	\$0	\$0	\$24,443	\$12,303
PHB, Inc.	\$0	\$0	\$6,138	\$6,138
Phoenix Trim Works, Inc.	\$0	\$0	\$20,284	\$20,284
Phonetics, Inc. (dba Sensaphone)	\$0	\$0	\$6,228	\$6,228
Pittsburgh Materials Technology, Inc.	\$0	\$0	\$5,618	\$5,618
Plantronics, Inc.	\$0	\$0	\$46,395	\$0
Polytek Development Corp.	\$0	\$0	\$940	\$940
Poolpak Technologies Corporation	\$0	\$0	\$26,017	\$26,017
Port Erie Plastics, Inc.	\$0	\$0	\$12,750	\$12,750
Powell Steel Corporation	\$0	\$0	\$810	\$810
Power Conversion Technologies, Inc.	\$0	\$0	\$10,798	\$10,798
Power Medical Interventions, Inc.	\$0	\$0	\$67,335	\$0
Powercast Corporation	\$0	\$0	\$101,051	\$101,051
Prescient Medical, Inc.	\$0	\$0	\$333,730	\$333,730
Prism Pharmaceuticals, Inc.	\$0	\$0	\$221,077	\$0
Progress For Industry Inc.	\$0	\$0	\$2,675	\$2,675
Promedior, Inc.	\$0	\$0	\$237,863	\$237,863
Protalex, Inc.	\$0	\$0	\$111,059	\$58,435
Protective Coating Co.	\$0	\$0	\$1,525	\$1,525
Protective Industries, Inc.	\$0	\$0	\$1,933	\$1,933
Protez Pharmaceuticals, Inc.	\$0	\$0	\$142,939	\$1,325
Proxicast, LLC	\$0	\$0	\$2,024	\$2,024
PSB Industries, Inc.	\$0	\$0	\$4,723	\$4,723
PSG Controls, Inc.	\$0	\$0	\$12,335	\$12,335
P-Wave, Inc.	\$0	\$0	\$9,467	\$9,433
QBC Diagnostics, Inc.	\$0	\$0	\$726	\$726
R E Whittaker Co.	\$0	\$0	\$16,541	\$16,541
Radius Corporation	\$0	\$0	\$15,013	\$2,959
RCD Technology, Inc.	\$0	\$0	\$48,500	\$48,500
Reading Consumer Products, Inc.	\$0	\$0	\$1,869	\$73
Reading Technologies, Inc.	\$0	\$0	\$49	\$0
RedPath Integrated Pathology Inc.	\$0	\$0	\$1,214	\$1,214
Redzone Robotics, Inc.	\$0	\$0	\$41,083	\$40,854
Relax Software Corporation	\$0	\$0	\$41,917	\$41,917
Resco Products, Inc.	\$0	\$0	\$46,874	\$30,000
Rexmet Corporation	\$0	\$0	\$547	\$233
RJ Lee Group, Inc.	\$0	\$0	\$1,108	\$1,108
Robinson Fans, Inc.	\$0	\$0	\$3,453	\$3,453

<i>Taxpayer Name</i>	<i>2010 Credit Awarded</i>	<i>2010 Credit Utilized<sup>1</sup></i>	<i>2008 &amp; 2009 Credit Awarded</i>	<i>2008 &amp; 2009 Credit Utilized<sup>1</sup></i>
Robinson Industries, Inc.	\$0	\$0	\$17,970	\$17,970
Rohm and Haas Chemicals, LLC	\$0	\$0	\$1,855,030	\$403,511
Ross Technology Corporation	\$0	\$0	\$9,238	\$9,238
Rossmann Audio, LLC	\$0	\$0	\$413	\$0
RSI Silicon Products, LLC	\$0	\$0	\$47,372	\$3,777
Rubbercraft Corporation of California	\$0	\$0	\$1,119	\$1,119
RVL Packaging, Inc.	\$0	\$0	\$834	\$0
S W Race Cars Components, Inc.	\$0	\$0	\$68,888	\$55,916
SAC Computer Solutions Inc.	\$0	\$0	\$1,729	\$1,729
Salvage Direct, Inc.	\$0	\$0	\$5,897	\$5,897
Sanofi Aventis US, Inc.	\$0	\$0	\$2,342,192	\$526,499
Sartomer Company, Inc.	\$0	\$0	\$9,104	\$9,104
Sealed Air Corporation (US)	\$0	\$0	\$2,970	\$2,970
Sechan Electronics, Inc.	\$0	\$0	\$6,035	\$6,035
Secowarwick Corporation	\$0	\$0	\$22,017	\$658
Seegrid Corporation	\$0	\$0	\$107,254	\$107,254
SEI Global Service, Inc.	\$0	\$0	\$548,213	\$223,195
Siemens Medical Solutions USA, Inc.	\$0	\$0	\$441,484	\$441,484
Signal Technologies, Inc.	\$0	\$0	\$12,146	\$12,146
SKC, Inc.	\$0	\$0	\$4,047	\$4,047
Smart Structures, Inc.	\$0	\$0	\$6,902	\$0
SMGT, Inc.	\$0	\$0	\$3,182	\$2,632
Solarity, Inc.	\$0	\$0	\$15,560	\$15,560
Solid Cactus, Inc.	\$0	\$0	\$46,965	\$46,965
Solo Laboratories, Inc.	\$0	\$0	\$30,700	\$30,053
Sonitu Pharmaceuticals, LLC	\$0	\$0	\$2,382	\$2,382
Spang & Company	\$0	\$0	\$6,256	\$4,096
Specialty Chemical Systems, Inc.	\$0	\$0	\$554	\$554
Specialty Tires of America, Inc.	\$0	\$0	\$2,574	\$2,574
SPX Corporation	\$0	\$0	\$38,547	\$38,547
SR Holdings LLC ( dba SDR Holdings LLC)	\$0	\$0	\$13,056	\$13,056
Straight Arrow Products, Inc.	\$0	\$0	\$15,084	\$14,075
Strobic Air Corporation	\$0	\$0	\$701	\$701
Strohl Systems Group, Inc.	\$0	\$0	\$18,748	\$2,403
Supreme Mid-Atlantic Corporation	\$0	\$0	\$2,052	\$1,748
Surelogic, Inc.	\$0	\$0	\$5,822	\$0
Sweet Ovations Holding Co.	\$0	\$0	\$823	\$823
Syandus, Inc.	\$0	\$0	\$42,212	\$23,328
Synchronoss Technologies, Inc.	\$0	\$0	\$10,617	\$10,617
Synthes North America, Inc.	\$0	\$0	\$167,426	\$90,887
Synthes USA HQ, Inc.	\$0	\$0	\$397,789	\$397,789
Syth, Inc.	\$0	\$0	\$251,139	\$136,330
Tacoda, Inc.	\$0	\$0	\$55,993	\$16,419
Target Precision, LLC	\$0	\$0	\$7,947	\$1,585
Techtrol Cyclonetics, Inc.	\$0	\$0	\$7,850	\$7,850
Teikoku USA, Inc.	\$0	\$0	\$6,098	\$6,098
Teleflex Incorporated	\$0	\$0	\$65,787	\$65,787
Teletronics Technology Corporation	\$0	\$0	\$22,319	\$2,651
The Clemens Family Corporation	\$0	\$0	\$49,274	\$15,207
The Creative Touch, Inc.	\$0	\$0	\$6,163	\$0
The Drucker Company, Inc.	\$0	\$0	\$22,062	\$21,671
The Proctor & Gamble Paper Prod Company	\$0	\$0	\$196,534	\$196,534
The Valspar Corporation	\$0	\$0	\$42,647	\$22,781
The WW Henry Company LP	\$0	\$0	\$2,489	\$0
Theraquest Biosciences, Inc.	\$0	\$0	\$20,558	\$0
Thermomegatech, Inc.	\$0	\$0	\$6,955	\$6,955
Timbar Corporation	\$0	\$0	\$18,260	\$0
TIW Technology, Inc.	\$0	\$0	\$2,699	\$0

<i>Taxpayer Name</i>	<i>2010 Credit Awarded</i>	<i>2010 Credit Utilized<sup>1</sup></i>	<i>2008 &amp; 2009 Credit Awarded</i>	<i>2008 &amp; 2009 Credit Utilized<sup>1</sup></i>
Tool-All, Inc.	\$0	\$0	\$8,153	\$8,153
Trinity Manufacturing Company	\$0	\$0	\$1,432	\$1,432
Try Tek Machine Works Incorporated	\$0	\$0	\$2,814	\$283
TVM Building Products, Inc.	\$0	\$0	\$1,962	\$0
Tyco Electronics Corporation	\$0	\$0	\$149,337	\$149,337
Unicast Company	\$0	\$0	\$36,558	\$36,558
USSC, LLC	\$0	\$0	\$13,676	\$13,676
Verefi Technologies, Inc.	\$0	\$0	\$12,654	\$12,654
Verizon Corporate Services Group, Inc.	\$0	\$0	\$10,746	\$10,746
Video Display Corporation	\$0	\$0	\$10,006	\$1,162
Videomining Corporation	\$0	\$0	\$32,638	\$0
Viriome, Inc.	\$0	\$0	\$3,787	\$0
Vivisimo, Inc.	\$0	\$0	\$34,904	\$76
Vocollect Healthcare Systems	\$0	\$0	\$256,809	\$256,809
Vocollect Inc.	\$0	\$0	\$174,581	\$174,581
VPI Acquisition Corp.	\$0	\$0	\$11,086	\$8,470
Walsh Construction Company	\$0	\$0	\$6,530	\$6,530
Weiler Corporation	\$0	\$0	\$12,610	\$8,595
Wolf Technologies, LLC	\$0	\$0	\$4,952	\$4,952
Woodings Industrial	\$0	\$0	\$9,982	\$0
World Wide Plastics, Inc.	\$0	\$0	\$16,965	\$16,965
Worldgate Service, Inc.	\$0	\$0	\$40,414	\$0
WSG Solutions, Inc.	\$0	\$0	\$1,065	\$695
WW Patterson Company	\$0	\$0	\$3,750	\$3,750
Wyeth	\$0	\$0	\$956,979	\$956,979
Xylos Corporation	\$0	\$0	\$34,291	\$1,418
Yuasa Battery, Inc.	\$0	\$0	\$18,352	\$18,352
<b>TOTAL</b>	<b>\$18,000,000</b>	<b>\$0</b>	<b>\$60,000,000</b>	<b>\$36,637,671</b>

**Footnote:**

<sup>1</sup> "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.