

MARCH 15, 2021



**THE RESEARCH & DEVELOPMENT
TAX CREDIT REPORT to the
PENNSYLVANIA GENERAL ASSEMBLY**

Tom Wolf, Governor

C. Daniel Hassell, Secretary of Revenue

PENNSYLVANIA RESEARCH & DEVELOPMENT TAX CREDIT - 2021 REPORT

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INTRODUCTION

AUTHORIZATION

Act 7 of 1997 created the Pennsylvania Research & 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 expenses.

Act 7 of 1997 authorized the Department of Revenue (Department) to approve up to \$15 million in total tax credits per fiscal year. \$3 million of the \$15 million was set aside for "small businesses," which are 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)."

APPLICATION

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.

TAX CREDIT CAP

The current cap of \$55 million, of which \$11 million is set aside for "small" businesses, has been in effect since December 2011. For a history of changes in the cap, see the Legislative Changes page.

TAX CREDIT CALCULATION

The tax credit is calculated using the increase over the taxpayer's base year research expenses for qualified R&D conducted within Pennsylvania. For "not small" businesses, the tentative credit is equal to 10% of the increase in expenses. Since Act 116 of 2006, the tentative credit for "small" businesses is 20% of the increase in expenses.

TAX TYPES

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).

SALE OR ASSIGNMENT

Tax credits awarded in 2003 and later may be sold or assigned. 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. (See Legislative Changes page for more information.)

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LEGISLATIVE CHANGES

TAX CREDIT CAP LEGISLATION

LEGISLATION	AWARD YEARS	TOTAL CREDIT CAP	SMALL BUSINESS SET ASIDE
ACT 7 OF 1997	1997 - 2003	\$15.0 Million	\$3.0 Million
ACT 46 OF 2003	2004 - 2005	\$30.0 Million	\$6.0 Million
ACT 116 OF 2006	2006 - 2008	\$40.0 Million	\$8.0 Million
ACT 48 OF 2009	2009	\$20.0 Million	\$4.0 Million
ACT 48 OF 2009	2010	\$18.0 Million	\$3.6 Million
ACT 26 OF 2011	2011 FORWARD	\$55.0 Million	\$11.0 Million

OTHER LEGISLATIVE CHANGES

ACT 46 - 2003

This act allowed R&D tax credit recipients to apply to the Department of Community and Economic Development (DCED) to sell or assign an R&D tax credit if there has been no claim for allowance filed within one year from the date that the Department approved the credit. The purchaser or assignee must use the newly obtained R&D tax credit in the taxable year in which the purchase or assignment of the credit is made. The purchased or assigned R&D credit cannot be used to offset more than 75% 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.

Additionally, this act 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. 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 2017, 2018, and 2019, along with the amount of credit received and utilized.

ACT 48 - 2009

This act removed the one year holding period established by Act 46 of 2003. Credits awarded in 2009 and later can be sold immediately.

ACT 85 - 2012

This act repealed the sunset date for the R&D tax credit in Section 1712-B of the law, but left the reference to the sunset date in Section 1707-B unchanged.

ACT 85 - 2016

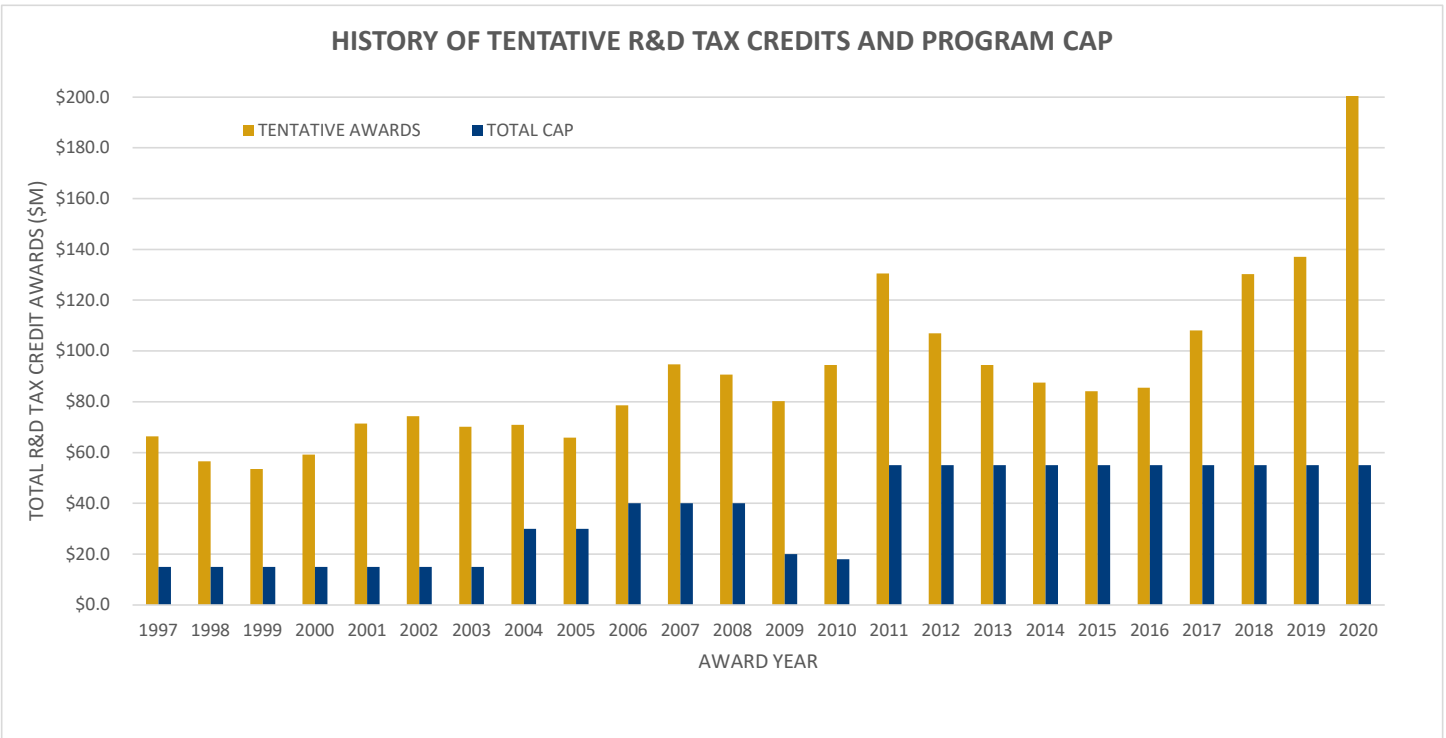
This act repealed the reference to the sunset date in Section 1707-B.

ACT 43 - 2017

This act authorizes the Department of Revenue to perform tax clearances on taxpayers prior to the awarding of a tax credit to ensure all taxpayers are compliant with tax payment and filing obligations.

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TENTATIVE VS. ACTUAL



Without caps on annual awards, \$2,199.2 million in R&D tax credits would have been awarded from the tax credit's inception through December 2020. Actual R&D tax credit awards have totaled \$873.0 million over that timeframe. Over the years, the varying annual credit caps have reduced the amount of R&D tax credit that would have been awarded to 39.7% of what was requested.

Since inception, "small" businesses have received \$145.5 million of the \$190.0 million in tentative R&D tax credits (75.9%). In 10 years of the credit's 23 years of existence, "small" businesses have requested more than the small business set aside including each of the past six years.

Since inception, "not small" businesses have received \$727.5 million of the \$2,007.5 million in tentative R&D tax credits (36.2%).

The table below shows tentative vs. actual credits for December 2020 awards (\$K):

ACTUAL CREDIT RANGE	APPLICANTS	TENTATIVE	ACTUAL	% OF ACTUAL	% OF TENTATIVE
\$0 - \$4.9	362	\$2,882.0	\$833.8	1.5%	28.9%
\$5.0 - \$19.9	396	\$13,193.3	\$4,299.6	7.8%	32.6%
\$20.0 - \$49.9	206	\$18,003.1	\$6,306.2	11.5%	35.0%
\$50.0 - \$99.9	89	\$17,872.6	\$6,046.1	11.0%	33.8%
\$100.0 - \$499.9	46	\$27,444.9	\$7,739.6	14.1%	28.2%
\$500.0 - \$999.9	6	\$17,990.6	\$4,173.6	7.6%	23.2%
\$1,000.0 OR GREATER	8	\$110,356.8	\$25,601.2	46.5%	23.2%
	1,113	\$207,743.3	\$55,000.0	100.0%	26.5%

Overall, taxpayers received 26.5% of the tentative R&D tax credit awards in December 2020.

The vast majority of taxpayers (98.7%) received less than \$500,000 in R&D tax credits in December 2020. These business received 45.9% of total R&D tax credit awards. Taxpayers receiving \$500,000 or more in R&D credits in December 2020 (1.3% of total applicants) received 54.1% of total R&D awards.

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2020 RECIPIENTS

R&D CREDITS - DECEMBER 2020 (\$M)

BUSINESS TYPE	APPLICANTS	% OF APPLICANTS	TENTATIVE	ACTUAL	% OF ACTUAL
SMALL	470	42.2%	\$18.1	\$11.0	20.0%
NOT SMALL	643	57.8%	\$189.7	\$44.0	80.0%
TOTAL	1,113	100.0%	\$207.7	\$55.0	100.0%

BUSINESS TYPE	APPLICANTS	% OF APPLICANTS	ACTUAL	% OF ACTUAL
MANUFACTURING	442	39.7%	\$17.9	32.5%
INFORMATION	45	4.0%	\$8.2	15.0%
SERVICES	319	28.7%	\$19.5	35.5%
MISCELLANEOUS	307	27.6%	\$9.4	17.0%
TOTAL	1,113	100.0%	\$55.0	100.0%

BUSINESS TYPE	2018 CNIT LIABILITY (\$M)
MANUFACTURING	\$137.4
INFORMATION	\$58.8
SERVICES	\$72.2
MISCELLANEOUS	\$19.5
TOTAL	\$287.9

"Small" taxpayers received \$11.0 million in R&D tax credits in December 2020. This is the sixth straight year that "small" taxpayers have requested more than the "small" business set-aside (\$11.0 million). "Small" taxpayers received 60.9% of their tentative award amount.

"Not small" taxpayers received 23.2% of their tentative award amount.

Manufacturers received \$17.9 million of the total \$55.0 million awarded in December 2020. The largest group of recipients in the manufacturing sector were the 14 pharmaceutical and medicine manufacturers, which received \$10.0 million.

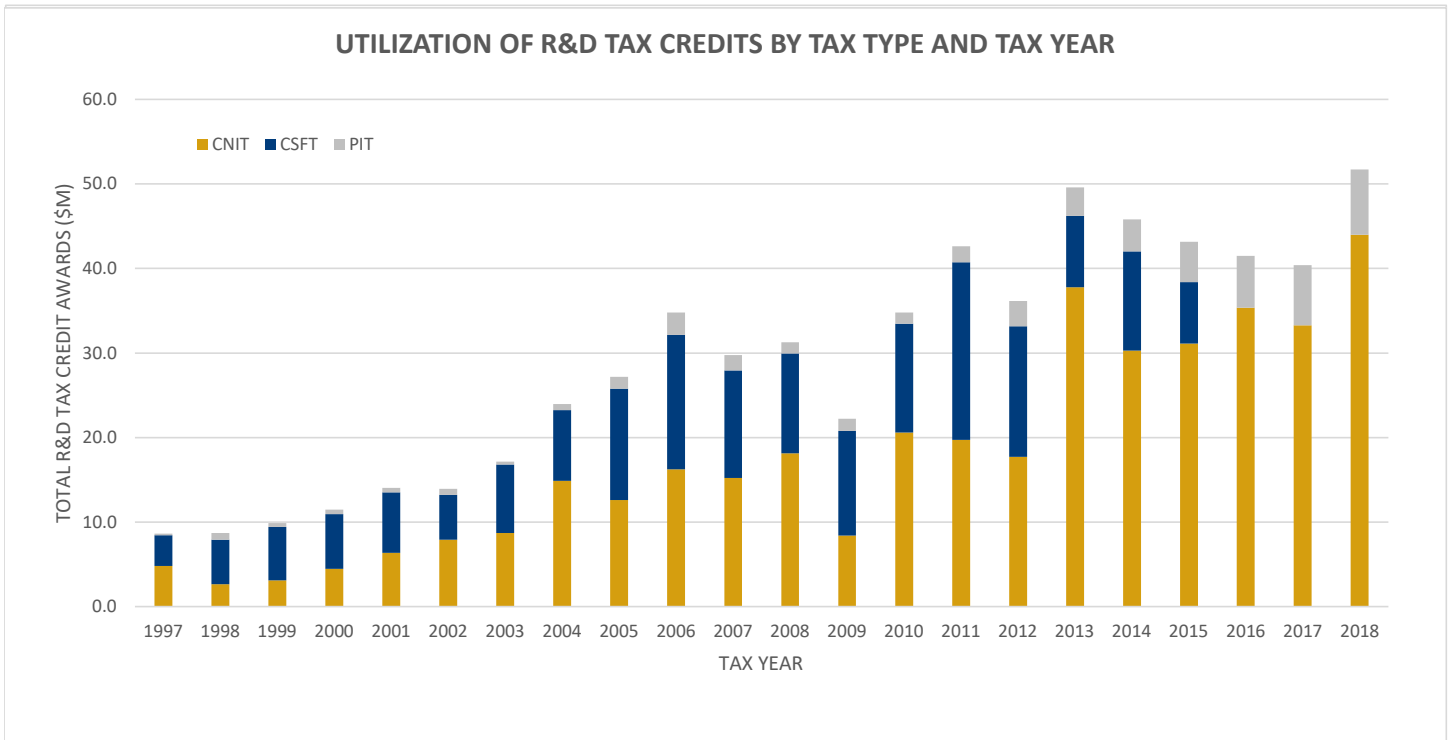
The Information sector received the largest amount of R&D tax credit per recipient - approximately \$183,000.

In the Service sector, the largest group of recipients were the 94 computer system designers, which received \$7.8 million.

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 2020 to the total tax year 2018 self-assessed CNIT, the latest year for which reports are available for all taxpayers. Of the 1,113 taxpayers receiving the R&D tax credit in 2020, 221 had positive CNIT liabilities, with a total self-assessed 2018 tax year liability of \$287.9 million.

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UTILIZATION



The chart above shows the amount of R&D tax credit that has been applied against the Corporate Net Income Tax (CNIT), Capital Stock/Foreign Franchise Tax (CSFT), and the Personal Income Tax (PIT). The figures shown are from taxpayers that have directly received the tax credit from the Department, as well as those taxpayers that have purchased unused R&D tax credits. 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 2021.

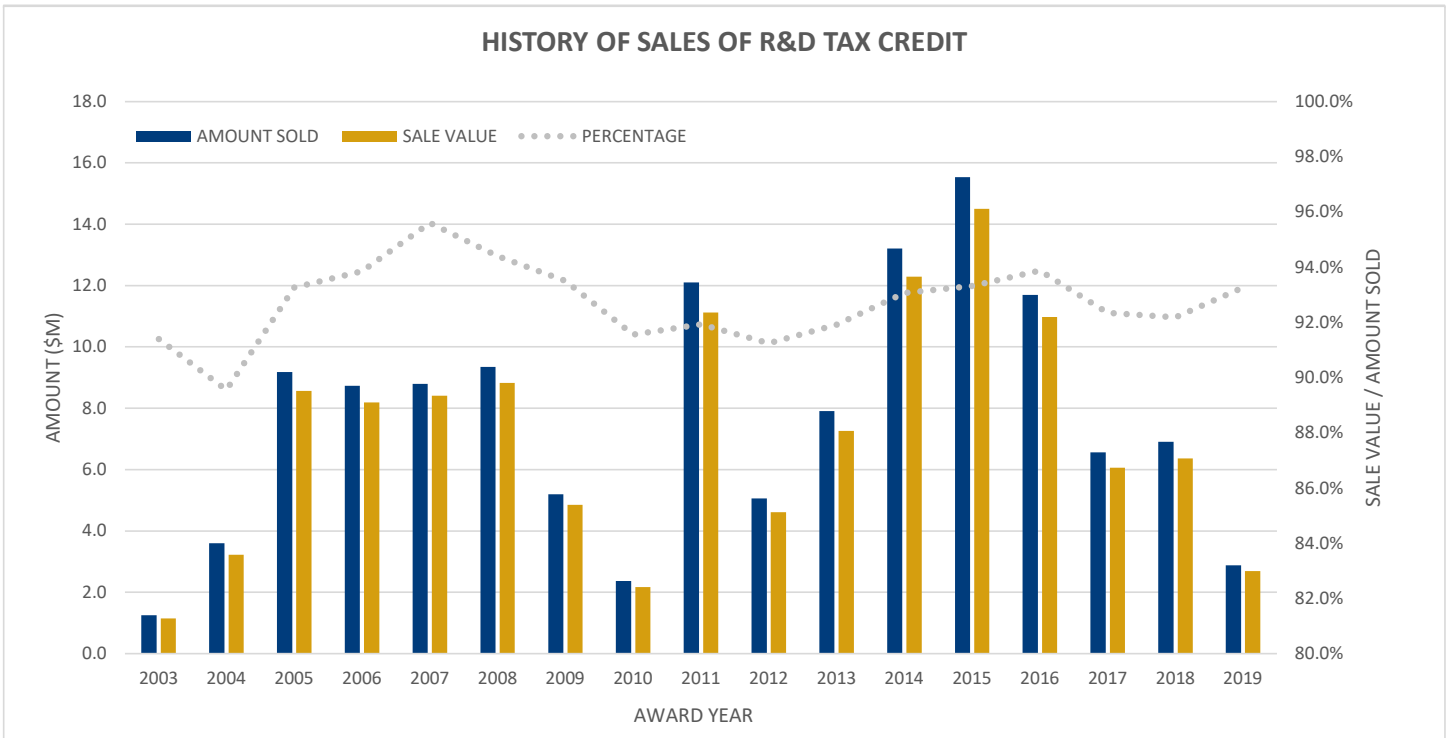
R&D tax credit utilizations by tax type for tax years 1997-2019 (\$M):

TAX TYPE	UTILIZATION	SHARE OF UTILIZATION
CNIT	393.6	61.6%
CSFT	193.3	30.3%
PIT	52.0	8.1%
	638.8	100.0%

Utilizations of \$638.8M represents 83.7% of the total amount awarded between 1997 and 2018.

In the chart above, utilizations of the R&D tax credit against CSFT stop after tax year 2015 because CSFT was repealed for tax year 2016.

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 assessment or the application of other credits.



As noted on the Legislative Changes page, Act 46 of 2003 permits taxpayers with unused R&D tax credits to sell them for cash to other taxpayers who can use them. 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.

The buyer of the unused R&D tax credit can use it to offset up to 75% of a qualified tax liability. The buyer cannot carry forward, carry back, get a refund, 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 tax R&D tax credit.

As of February 2020, \$130.3 million of the \$728.0 million in R&D tax credits awarded between 2003 and 2019 have been sold (17.9%). Taxpayers purchasing the tax credits paid \$121.3 million (93.1% of the value of the credits).

The chart above shows the value of the tax credits sold and the sales price for each award year between 2003 and 2019. The dotted line shows the amount paid for the tax credits divided by the value of the tax credit.

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STATE COMPARISONS

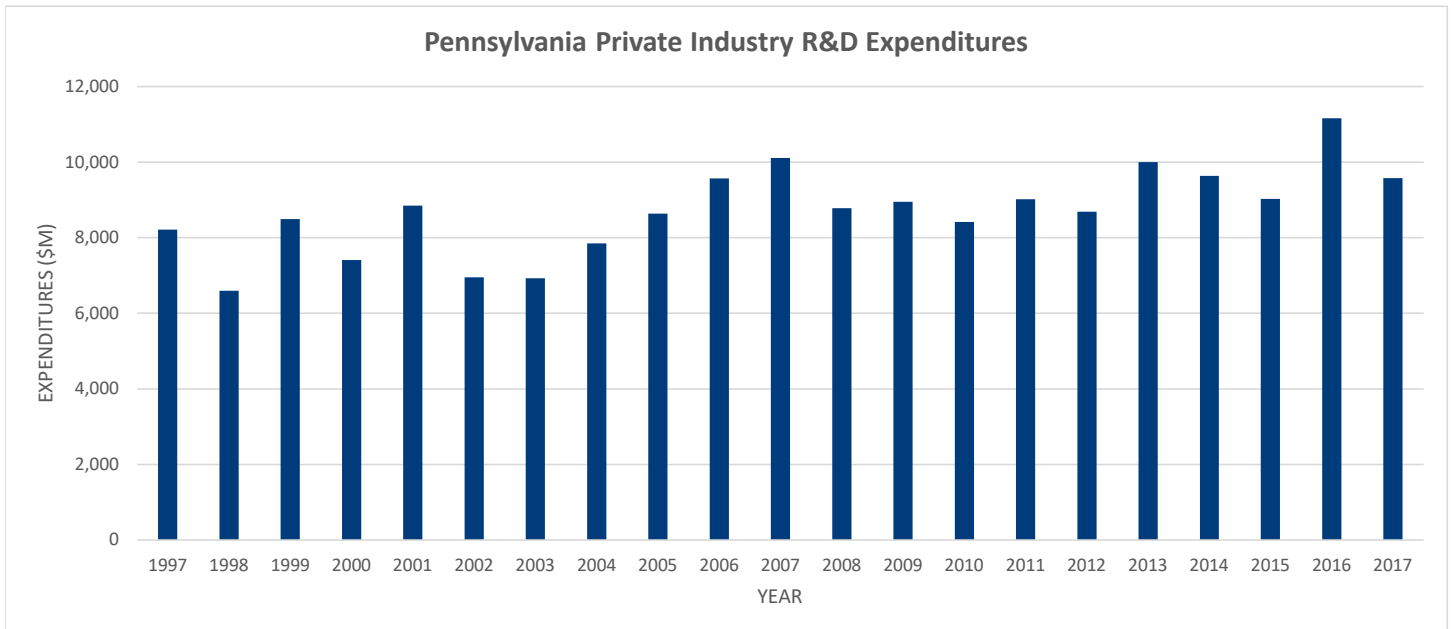
A majority of states have sought to capture the potential benefits of encouraging R&D within their state by enacting an R&D tax credit. There are 40 states, including Pennsylvania, that have provided for R&D tax credits in recent law. Credits are usually applied against either corporate net income (CNIT) tax or the personal income tax (PIT) liabilities, depending on the existing business tax structure of the state. The table below details the R&D tax credit structure of bordering states.

STATE	TAX TYPES	CREDIT CAP
DELAWARE	CNIT & PIT	None
MARYLAND	CNIT & PIT	Total credits for both the Basic R&D tax credit and the Growth R&D tax credit cannot exceed \$12 million per year.
NEW JERSEY	CNIT	None
NEW YORK	CNIT & PIT	Excelsior R&D credits are limited to Excelsior Jobs Program participants and contain multiple credit components. Credit components in the aggregate shall not exceed \$183 million in TY 2021; caps in other tax years vary.
		The Life Sciences R&D tax credit is capped at \$10 million per year. If the tax credits applied for exceed the cap, then the excess credits will be treated as having been applied for in the subsequent year.
OHIO	Commercial Activities Tax & PIT	None
WEST VIRGINIA	No Credit	N/A

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EFFECTIVENESS OF THE PENNSYLVANIA TAX CREDIT PROGRAM

The timeframe 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 had a potential impact on increasing research expenses in twenty-three years, 1997 through 2019. The chart below illustrates Pennsylvania private industry R&D expenditures by year.



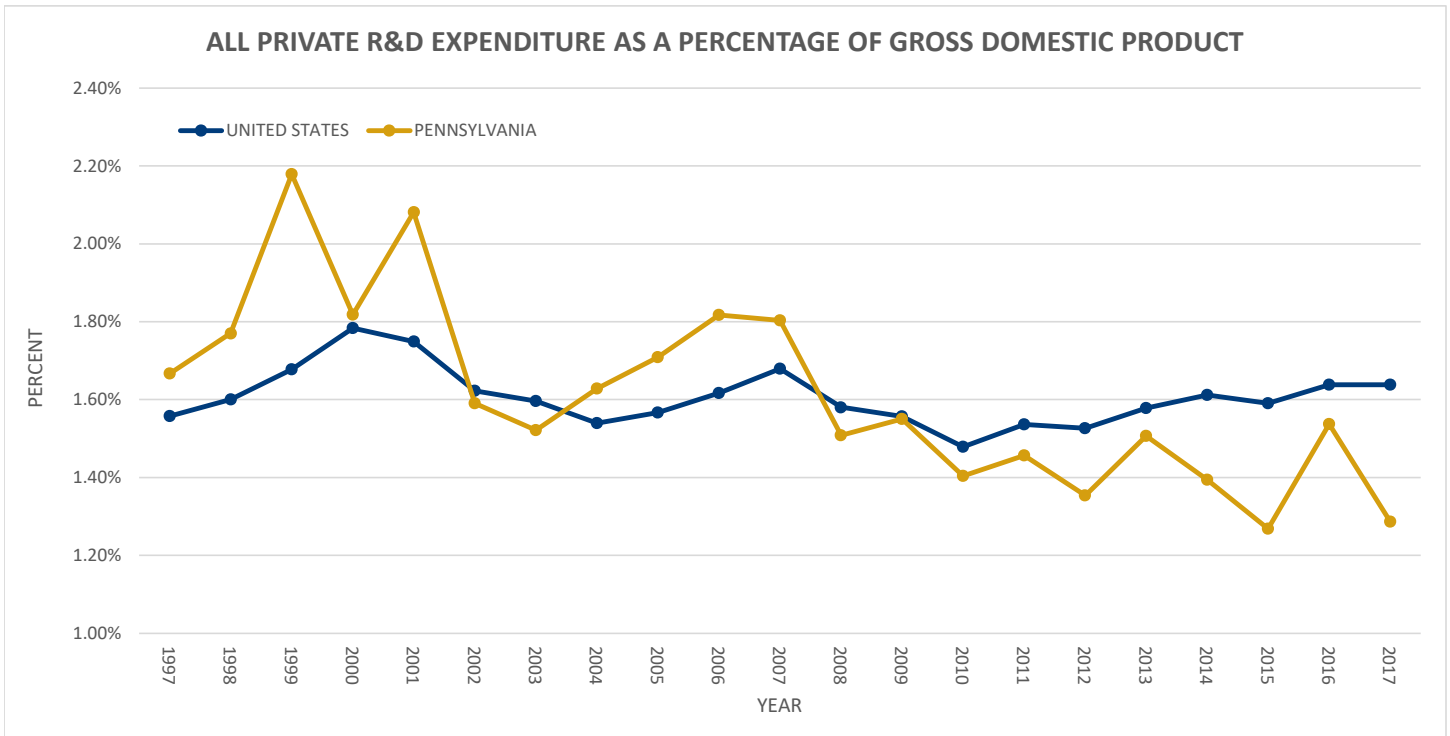
While there is not a study measuring the effects of the R&D tax credit in Pennsylvania, a study released by the Milken Institute in December 2015 could be used to gauge the effectiveness of the R&D tax credit programs in a general sense. The study measures the impact of a proposal to double the existing rate of calculation in the California R&D tax credit from 15 percent to 30 percent of the increase in California R&D expenses over the base year. The report concluded that, in the tenth year after adopting the change, the \$700 million in additional R&D credits would stimulate between \$4.5 billion and \$6.8 billion in additional R&D activity in California, with a multiplier between 6.4 and 9.7. Further, the report found that that, in the tenth year after adopting the change, the gross domestic product (GDP) of California would be higher by between \$7.7 billion and \$10.5 billion, or a maximum of about 0.4% expansion.

Pennsylvania has a very different mix of economic activity from California, and it is unclear that the same conclusions could be drawn relative to the Commonwealth. In fact, in 2017 California was home to \$120.1 billion in private R&D spending, over 1/3 of the US total, and issued between \$1.5 and \$1.6 billion in R&D tax credits. Given that massive difference in R&D infrastructure, it is likely that Pennsylvania is affected differently by research and development incentives in the tax code.

State and even country level statistical analysis is greatly complicated by small sample size, idiosyncratic behaviors amongst a few firms, and accurately comparing various taxing regimes. While a higher level analysis may not provide lessons directly applicable to Pennsylvania, a 2017 study by Russel Thomson at MIT does seek to address some of the aforementioned statistical issues. Looking at a panel data from 29 industries in 26 OECD countries over 20 years, the study found that in the long-run, incentivizing R&D through tax credits does produce increased R&D expenditures. Reducing the tax price of R&D (the breakeven benefit-cost ratio where incremental R&D investment is profitable after tax) by 10% produced a corresponding 5% increase in R&D spending. While this effect is unlikely to be exactly the same in Pennsylvania, the MIT study does suggest that R&D spending could have been positively affected over the more than two decades the R&D credit has been part of the tax code.

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EFFECTIVENESS OF THE PENNSYLVANIA TAX CREDIT PROGRAM (CONTINUED)



Source: 1997 through 2017 from National Science Foundation

As shown in the chart above, the pattern of total R&D expenditure as a percentage of GDP does not conform to the one seen in recent years on the national level. The drop in GDP during the recession does initially inflate the R&D share of the US economy, but once the recovery began in 2010, the R&D share is largely flat and resumes growth after 2015. By contrast the R&D share of the Pennsylvania economy is much more volatile, particularly from 2013 onward. An analysis of this deviation would require more data points, but the expansion of the natural gas industry and related manufacturing in Pennsylvania specifically may be related.

In order to fairly and equitably award credits to businesses within the Commonwealth of Pennsylvania, the Department has taken steps to establish an on-line application process that creates transparency in the application itself, assists with the evaluation of those applicants, and provides insight into the economic benefits of the R&D Credits awarded to those businesses.

Beginning with the 2018 R&D Application, the department created the online application system with each applicant creating a unique User ID and Password. Implementing the R&D Credit online application provided the opportunity to add valuable business rules. These rules can require data entry in certain key fields that if in the past left blank would have resulted in a denial or mail correspondence. The rules also create the opportunity to present only relevant fields to the applicant based on the entry of information, such as after selecting an entity type. Once completed, the applicant receives a unique confirmation number to reference when accessing the application in the future and to identify related correspondence.

The electronic application process provided a mechanism to create a workflow that tracked the status of the application for the taxpayer, indicating whether the application was received, pending, reviewed, approved, or rejected. Once verification of the initial application was complete, the approval process continued confirming that the applicant and/or 20 percent owner was in compliance filing and paying all appropriate tax returns.

As the Department is tasked with the integrity of the application process and credits awarded, the department moved toward a system designed to further substantiate the applicant's PA-Qualified Expenditures, Total Expenditures, Direct Wages, and 3rd Party/Subcontracted Labor. Data analytics were developed and incorporated to group selected applicants based on information from the application and applicant history. Selected applicants were asked to provide records to substantiate areas including that wages were incurred for an employee conducting qualified research and development activities in Pennsylvania.

This review process provides greater assurance that the claimed research and development activities met the statutory qualifications for a tax credit.

Act 43-2017 authorizes the Department of Revenue to perform tax clearances on taxpayers prior to the awarding of a tax credit to ensure all taxpayers are compliant with tax payment and filing obligations.

The two issues for determination are entity tax compliance and ownership tax compliance for entity owners with a 20% or greater share of ownership.

For the R&D tax credit, 4.0% of applicants were deemed noncompliant and therefore not eligible to receive the credit. Approximately \$0.8 million in liabilities were cleared through either payments, error resolution, credits, or account adjustments. Additionally, 150 taxpayers filed returns when prompted by Revenue during the compliance process.

The Department recommends that the General Assembly consider the following changes:

Move the due date for the application to December 1 to allow the taxpayer to have completed both state and federal returns.

Move the period in which sales and assignments may be processed by the Department to June 1 following the immediate tax year in which the credit was awarded.

Authorize the Department to require a taxpayer to hire an independent CPA to perform agreed upon procedures.

Allow the Department to audit and recapture credits in applicable cases.

Standardize due process rights to taxpayers denied tax credits for noncompliance or were subject to recapture within six months of the award date.

Require the brokers to be registered with the Department.

Require taxpayers to file federal Form 6765 with the PA R&D tax credit application to allow the Department to perform reconciliations on eligible expenditures and disallow submission of a pro forma statement only.

Require taxpayers to claim a federal income tax credit to qualify for the state credit.

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APPENDIX A - TAXPAYERS RECEIVING CREDIT IN EITHER DECEMBER 2018, 2019, OR 2020

NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
JANSSEN RESEARCH & DEVELOPMENT LLC	10,024.9	6,841.2	6,332.6	10,024.9	6,841.2
COMCAST HOLDINGS CORPORATION	389.7	6,466.0	4,857.3	389.7	6,466.0
UBER TECHNOLOGIES INC	3,354.7	3,486.8	4,788.9	0.0	0.0
GLAXOSMITHKLINE LLC	772.5		3,388.9	769.5	
MERCK SHARP & DOHME CORP	402.3	773.8	1,759.3	0.0	0.0
UATC LLC			1,688.3		
SPARK THERAPEUTICS, LLC			1,687.3		
CABOT OIL & GAS CORPORATION			1,098.3		
CSLB HOLDINGS, INC	270.6	1,044.0	772.6	270.6	0.0
ARGO AI, LLC	109.5	592.3	740.7	0.0	0.0
BOEING CO	567.4	1,247.1	740.0	567.4	805.3
BAE SYSTEMS LAND & ARMAMENTS INC		114.4	680.5		114.4
JANSSEN BIOTECH INC	501.4	184.5	644.1	501.4	184.5
VANGUARD GROUP INC	624.9		595.5	624.9	
ANSYS INC	548.6	530.2	456.9	548.6	530.2
ARAMARK CORP	33.3	73.8	356.7	33.3	0.0
INTEL AMERICAS INC	1,241.7	945.6	324.6	295.8	417.7
QINTEL, LLC			270.6		
FACEBOOK INC	121.1	174.6	268.6	121.1	174.6
CARPENTER TECHNOLOGY CORPORATION	95.3		267.7	95.3	
CERNER CORPORATION	150.8	268.0	265.8	150.8	0.0
KIMBERLY CLARK CORPORATION			217.9		
AMERICAN HYDRO CORPORATION			217.3		
GILEAD SCIENCES INC			212.3		
IQVIA INC	239.0	309.1	179.6	238.1	309.1
EQT PRODUCTION COMPANY		1,487.1	178.6		0.0
ARRIS GLOBAL SERVICES, INC	19.1		172.0	19.1	
THERAPYNOTES LLC			171.8		
ASTROBOTIC TECHNOLOGY INC	40.6	46.5	171.2	0.0	0.0
WEBPAGEFX INC	131.2	166.1	169.3	111.0	166.1
TMUNITY THERAPEUTICS INCORPORATED	27.6		168.7	0.0	
QORTEK INC	62.5	140.4	161.7	62.5	139.2
PRODUCTION SYSTEMS ACQUISITION CO LLC		110.2	159.9		0.0
AURORA INNOVATION INC	116.7	151.6	159.4	0.0	0.0
EASTMAN CHEMICAL RESINS INC		89.3	151.5		89.3
FUJIREBIO DIAGNOSTICS INC	117.5	210.7	150.7	26.0	19.4
VELICEPT THERAPEUTICS INC	70.5	233.2	149.5	70.5	233.2
MICRO MOLD CO INC		3.6	143.4		3.6
CARLISLE FLUID TECHNOLOGIES INC	135.7	231.2	131.7	135.7	231.2
SUSQUEHANNA INTERNATIONAL GROUP LLP			130.9		
DUOLINGO INC	121.1	175.3	129.9	121.1	0.0
COLDEGE TECHNOLOGIES INC			127.9		
VEEDER ROOT COMPANY		138.5	126.6		0.0
ATHENA GLOBAL ADVISORS, INC	17.8	68.1	126.6	17.8	68.1
EXELON CORPORATION		179.7	122.8		106.3
DOUGLAS PHARMA US INC			122.0		
SHIRE HUMAN GENETIC THERAPIES INC	148.5	117.4	121.3	148.5	0.0
CLASSIC INDUSTRIES INC			120.4		
PETUUM INC		175.8	118.7		0.0
CJL ENGINEERING INC	149.0	128.7	116.6	149.0	0.0

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
EAST PENN MANUFACTURING CO	15.3	131.4	115.9	15.3	0.0
JAZZ PHARMACEUTICALS INC	28.5	132.1	115.0	28.5	132.1
RE2 INC	39.6		111.5	0.0	
BILL ME LATER INC			111.4		
ZOLL MANUFACTURING CORP	173.7	154.8	111.3	173.7	0.0
EXCEL HEALTH LLC	34.6	58.4	108.8	0.0	0.0
TRI R SALES INC		106.6	107.8		0.0
EISAI INC	36.3		106.1	36.3	
BLACK KNIGHT FINANCIAL SERVICES INC		13.0	105.4		13.0
MARINUS PHARMACEUTICALS INC			105.2		
DICKS SPORTING GOODS INC			98.9		
KRYSTAL BIOTECH INC	81.1	47.6	96.7	0.0	0.0
ELI LILLY & COMPANY	579.3	221.8	96.1	0.0	43.8
COMMUNICATIONS TEST DESIGN INC	219.8	168.9	94.7	0.0	0.0
CGI TECHNOLOGIES & SOLUTIONS INC			94.5		
ENERSYS DELAWARE INC	6.7	93.2	92.8	0.0	0.0
YORK INTERNATIONAL CORPORATION	214.5		91.5	214.5	
WAVE LIFE SCIENCES USA INC			91.0		
ARMSTRONG WORLD INDUSTRIES INC	198.2	100.2	91.0	78.0	100.2
ELSEVIER INC		58.8	90.4		58.8
JOHNSRUD & ASSOCIATES ARCHITECTS, LLC		51.1	87.5		0.0
INTERACTIVE LIQUID LLC	38.4	73.0	86.9	38.4	73.0
ALLEGHENY PAPER SHREDDERS CORPORATION		192.4	85.3		192.4
HARBOR BUSINESS COMPLIANCE CORPORATION	40.7	68.2	82.6	40.7	68.2
NUIX NORTH AMERICA INC		100.1	82.3		0.0
MADAME RX, LLC			81.5		
MOBILE OUTFITTERS LLC (CURIO HOLDING CO)	10.0	29.9	81.1	0.0	29.9
MEBIAS DISCOVERY INCORPORATED		44.4	80.2		44.4
KROLL BOND RATING AGENCY, INC	49.2	78.8	78.8	0.0	9.1
APPLIED SYSTEMS ASSOCS INC	63.7	49.3	78.3	63.7	49.3
BARRY ISETT & ASSOCIATES INC	11.8	69.0	78.2	11.8	54.6
HUBERT C JASINSKI DENTAL LABORATORY INC	37.0	23.2	77.6	37.0	23.2
ANALYTICAL GRAPHICS INC	65.2	130.6	77.5	4.5	8.1
BIMBO BAKERIES USA INC	117.5	133.0	76.4	117.5	0.0
CAMCO MANUFACTURING INC	6.7	45.3	76.4	0.0	0.0
SEI GLOBAL SERVICES INC	897.0	655.1	75.2	0.0	0.0
ABRIDGE AI INC			74.6		
HOUWZER LLC	37.9	61.2	74.1	37.9	61.2
HYDRO EXTRUSION USA LLC			74.0		
NVIDIA CORPORATION	77.1	83.1	73.7	0.0	0.0
RIEKER INSTRUMENT COMPANY INC			71.6		
METSO MINERALS INDUSTRIES INC			71.4		
MKSD, LLC			71.1		
VICTAULIC COMPANY	130.1	54.0	70.6	130.1	54.0
PROMPTWORKS, LLC		65.4	69.6		0.0
DELCO INNOVATIONS			68.8		
ERIE INDEMNITY COMPANY AS AIF FOR ERIE I			67.9		
KUHN TOOL & DIE CO	44.7	30.8	67.8	39.4	30.8
GENEOS THERAPEUTICS, INC			67.4		
REMCOR INC		19.5	66.7		19.5

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
ELMAGIN CAPITAL, LLC		49.6	66.4		0.0
IMMUNOCORE LLC		384.0	66.0		0.0
DASSAULT SYSTEMES AMERICAS CORP		2.8	65.6		2.8
CRYOCONCEPTS LP	7.4	34.0	65.5	0.0	0.0
LYGENESIS INC			64.7		
PTC INC			64.6		
JOHN R BROMILEY COMPANY INC	20.6	49.3	64.3	20.6	0.0
STP INVESTMENT SERVICES LLC		47.9	63.9		10.8
GURU TECHNOLOGIES INC	23.0	45.0	63.6	22.9	45.0
COVESTRO LLC	105.7	188.7	62.6	105.7	94.4
ARBUTUS BIOPHARMA INC			62.0		
GECKO ROBOTICS INC	32.1	158.5	62.0	32.1	158.5
IKOS HOLDINGS INC	18.3	35.7	61.9	18.3	35.7
KAARTA, INC	21.9	45.4	61.8	21.9	0.0
CLEAVERSOF	14.2		61.4	0.0	
ADC THERAPEUTICS AMERICA INC	57.8	91.4	61.0	0.0	0.0
QSI MANAGEMENT LLC	244.2	194.3	60.9	0.0	0.0
BMH LLC	256.1		60.8	256.1	
WIZEHIVE INC	10.6		60.1	10.6	
INOVALON INC			59.6		
HEALTH UNION			59.5		
BERKADIA COMMERCIAL MORTGAGE LLC			59.2		
VENATORX PHARMACEUTICALS INC		119.7	57.7		0.0
AMERICAN MILLWORK & CABINETRY INC			57.7		
GUIDEWIRE SOFTWARE INC		96.8	57.5		0.0
SHARP EDGE LABS INC	20.4	27.6	57.2	20.4	27.6
SERVICELINK HOLDINGS, LLC			55.6		
SUBURBAN TOOL & DIE CO INC		36.3	55.5		36.3
INNOVATIVE SYSTEMS INC	24.8	77.5	55.5	24.8	61.0
GRAYBILL MACHINES INC		47.4	55.3		0.0
MATERIALS RESEARCH AND DESIGN, INC	87.7	159.8	55.2	0.0	159.8
COGNISTIC LLC		33.7	55.1		33.7
HOLBROOK TOOL & MOLDING INC			54.9		
JOHN BEAN TECHNOLOGIES CORP	141.6	115.9	54.7	0.0	9.0
PHASEBIO PHARMACEUTICALS INC	11.9		53.8	0.0	
TESSY PLASTICS CORP			53.7		
PROFI-VISION, INC			53.5		
TASTEPOINT INC			53.2		
SYNERGY MEDIA GROUP LLC		19.9	53.1		0.0
KRAMER-MARKS, PC		48.7	52.6		0.0
INFRASCAN INC		38.7	52.5		38.7
SIDECAR INTERACTIVE INC	32.5	72.8	52.2	32.5	0.0
ADVANCED COOLING TECHNOLOGIES INC	27.2	21.5	52.0	27.2	21.5
MORGAN, LEWIS & BOCKIUS LLP	65.4	71.8	52.0	0.0	0.0
B & H INDUSTRIES INC	22.5	29.3	51.9	22.5	29.3
APOLLO NEUROSCIENCE INC		21.8	51.5		21.8
HPT PHARMA LLC			51.4		
FORMCRAFT INTERIORS, INC			50.4		
TORCHLIGHT TECHNOLOGY GROUP LLC		36.3	50.3		0.0
BTB GROUP LLC			48.8		

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
ADEPT GROUP HOLDINGS LLC		51.2	48.7		0.0
B & B DESIGNED SYSTEMS, INC	14.2		48.1	0.0	
CMW HOLDCO, INC	20.8	64.7	47.9	0.1	0.0
ENERGY MANAGEMENT SYSTEMS INC			47.9		
AVERY DENNISON CORPORATION	81.4	53.7	47.6	0.0	0.0
LEVANTE BREWING INC			47.3		
BUCKLEY FUTURES LLC			47.3		
CIMA NETWORK INC			47.3		
BRASKEM AMERICA INC			47.3		
CITIZENDEVELOPER COM LLC		37.9	46.8		37.9
ELLUCIAN COMPANY LP			46.8		
SOUTHCO INC		63.0	46.7		16.7
BLUE AVIONICS INC		12.0	46.0		12.0
ALTAIR INTEGRATED SERVICES LLC			45.7		
COMPLEXA INCORPORATED	178.2	69.5	45.5	178.2	69.5
GATEKEEPER INC			45.3		
SOLID STATE CERAMICS INC	1.1	41.4	44.2	1.1	38.9
GRAVIC INC		12.4	43.9		12.4
JUST PLAY PRODUCTS LLC	70.5	51.8	43.7	0.0	0.0
ASPINITY, INC			43.1		
COOK MYOSITE INCORPORATED	41.1	44.3	43.1	0.0	0.0
FLOWMETRIC DIAGNOSTICS, INC	39.8	41.4	42.7	39.8	41.4
RS ENERGY GROUP, INC	30.5	47.6	42.7	0.0	14.3
ROBOTWITS LLC	4.9	20.4	42.6	4.9	0.0
GHOST ROBOTICS LLC			42.3		
GREYGHT, INC		22.0	42.1		0.0
INNOVU LLC	124.8	122.1	41.3	124.8	0.0
FINPAY HOLDINGS, LLC		6.2	41.1		0.0
X CARD HOLDINGS LLC	27.3	9.9	40.9	27.3	9.9
LEAGUESIDE	16.8	38.1	40.8	16.8	38.1
SMS GROUP INC		43.9	39.9		43.9
MYOTA, INC			39.5		
CORIELL LIFE SCIENCES, INC	6.9	41.7	38.9	0.0	0.0
SEEGRID OPERATING CORPORATION	50.1	65.3	38.7	0.0	0.0
SCRUB DADDY INC	18.4	34.8	38.7	18.3	34.8
CMT LABORATORIES INC	34.2	91.5	38.6	34.2	91.5
PRINTFLY CORPORATION	61.8	74.2	38.6	61.8	74.2
POCKET EXPERT LLC	8.0	18.2	38.5	0.0	0.0
US SPECIALTY FORMULATIONS LLC	32.5	17.8	38.4	7.4	0.0
AGGREGATES EQUIPMENT INC	114.2	151.9	38.0	74.1	0.0
MSA SAFETY INCORPORATED			37.8		
NABRIVA THERAPEUTICS US, INC	73.5	81.0	37.7	73.5	0.1
AUDIA INTERNATIONAL, INC	18.4	3.5	37.2	0.0	0.0
PNEU DART INC			37.2		
OBERG HOLDING COMPANY, LLC			37.0		
LISTRAK INC	77.4	88.7	36.8	77.4	88.7
INTERSTATE HOLDINGS INC	43.3	50.5	36.8	43.3	0.0
ABBOTT ACQUISITION COMPANY, LLC	39.0	28.7	36.2	39.0	28.7
STRONGBRIDGE US INC			36.1		
QUIRE LLC	12.5	18.7	36.1	12.5	18.7

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
MEI INC		87.8	36.1		81.4
BAYER HEALTHCARE LLC	447.5	165.7	36.0	0.0	0.0
INGMAR MEDICAL LTD	33.5	23.6	35.6	33.5	0.0
BIOMEME INC	96.1	137.3	35.1	96.1	0.0
AEROTECH INC	37.2	55.0	35.1	37.2	55.0
CHRISTOPHER D CERA			34.9		
ULTRAGENYX PHARMACEUTICAL INC	21.7	26.0	34.7	0.0	17.7
AUTODESK INC			34.7		
MESH INC			34.6		
PARAGON ENGINEERING SERVICES INC	10.8	6.2	34.6	10.8	0.0
LUNGPACER MEDICAL USA INC		136.9	34.4		0.0
ALLEVI INC			34.3		
UNIVERSAL STAINLESS & ALLOY PRODUCTS INC			34.2		
MATRIX PDM ENGINEERING, INC	89.9	46.5	34.2	0.0	0.0
ENERGYCAP INC	51.4	15.1	33.8	51.4	0.0
TITUS COMPANY		39.1	32.8		0.0
TRANSDUCERWORKS LLC	19.8	9.5	32.7	19.8	9.5
REUTHER & BOWEN PC			32.6		
MANLEY HOLDINGS INC		53.2	32.5		53.2
SUSQUEHANNA CIVIL INC		27.3	32.3		27.3
PIXELLE SPECIALTY SOLUTIONS LLC			32.2		
FAIRMOUNT FOUNDRY INC	1.9	6.4	32.1	1.9	0.0
KINSLEY CONSTRUCTION INC	82.9	24.0	32.1	82.9	24.0
SIEMENS INDUSTRY INC	7.0		32.0	7.0	
KNOPP BIOSCIENCES LLC	90.7	50.5	32.0	90.7	0.0
BAINBRIDGE HEALTH INC	20.2	34.1	31.9	20.2	34.1
KS TOOLING, INC	91.3	39.5	31.9	91.3	0.0
IVIEW THERAPEUTICS, INC		5.6	31.8		5.6
CHANNELAPE INC	28.2	45.3	31.6	28.2	45.3
WEST PHARMACEUTICAL SERVICES INC		72.2	31.5		72.2
DESIGN MANAGEMENT GROUP			31.5		
SICOM SYSTEMS INC			31.5		
SHORTS TOOL & MFG INC			31.3		
MILNES ENGINEERING INC			31.2		
ST MARYS TOOL & DIE CO INC	43.1	58.6	31.2	43.1	0.0
MORTGAGE CONNECT LP			31.0		
NEW HEIGHTS LLC			31.0		
FOX CHASE MANAGEMENT, INC			30.8		
XACT METAL, INC		12.2	30.7		12.2
COLORCON INC	14.6	17.3	30.5	14.6	17.3
GALERA THERAPEUTICS INC	22.1	24.4	30.4	0.0	0.0
PREMIER AUTOMATION HOLDINGS INC	30.9	50.9	30.4	30.9	0.0
CHEMIMAGE CORPORATION	42.1	44.8	30.4	0.0	0.0
MATTHEWS INTERNATIONAL CORPORATION	24.1		30.2	24.1	
CORE BUSINESS SOLUTIONS INC		33.5	30.1		0.0
GENERAL DYNAMICS MISSION SYSTEMS INC	37.6	28.9	30.0	37.6	28.9
VIPER NETWORK SYSTEMS LLC	22.1	27.9	29.9	22.1	0.0
FOOT LOCKER CORPORATE SERVICES INC	37.1	51.0	29.9	37.1	0.0
BOHLER ENGINEERING PA LLC	78.0	68.2	29.5	0.0	0.0
PAYPAL INC	32.8	34.3	29.4	0.0	0.0

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
ARCCA INCORPORATED	6.0	41.4	29.4	6.0	24.1
AAYUNA INC		39.6	29.2		0.0
ANTHONY D FOLINO CONSTRUCTION INC	5.3		29.2	0.0	
SOLVAY USA, INC		7.4	29.1		0.0
INDOVINA ASSOCIATES ARCHITECTS		31.3	29.0		0.0
SKINJECT, INC		4.8	28.7		0.0
FENIX GROUP INTERNATIONAL, LLC	42.2	60.7	28.7	0.0	0.0
SAPIENS USA INC			28.6		
KCF TECHNOLOGIES, INC	74.2	92.1	28.3	0.0	0.0
DEACOM INC	128.0	215.8	28.3	0.0	119.1
AKAS TEX LLC	15.3	26.5	28.2	0.0	26.5
THE OTT GROUP, INC	39.6	42.5	28.1	0.0	0.0
COMPU CRAFT FABRICATORS INC			28.0		
GO2POWER LLC	25.3	35.1	27.9	0.0	0.0
DL HOWELL & ASSOCIATES, INC			27.9		
MORGAN STANLEY SERVICES GROUP INC			27.8		
I B ABEL INC			27.8		
CONTAINER RESEARCH CORPORATION		33.2	27.5		0.0
TTMS, INC			27.4		
LINDY PAVING INC	19.3	16.8	27.3	19.3	16.8
JOHNSTON MECHANICAL, LLC	12.0	16.3	27.2	0.0	0.0
TYBER MEDICAL LLC	59.5	347.8	26.8	0.0	0.0
ADVANCED SIMULATION TECHNOLOGY INC	24.6	25.5	26.7	24.6	25.5
KELLER GROUP, INC		20.7	26.6		0.0
PHRG HOLDING INC			26.4		
ADVERTISING SPECIALTY INSTITUTE INC	76.1	62.5	26.3	0.0	0.0
INTERNET PIPELINE INC			26.2		
APPLIED CONTROL ENGINEERING, INC	53.8	51.0	26.1	53.8	0.0
GENERAL DYNAMICS INFORMATION TECHNOLOGY			26.0		
LIBERTY CC HOLDINGS LLC			26.0		
INSTINCT SCIENCE LLC	11.9	23.5	26.0	11.9	23.5
CVS PHARMACY INC	29.5		25.9	29.5	
APPLIED EDUCATIONAL SYSTEMS INC			25.9		
LOCOMATION			25.7		
ADOBE INC	10.1	55.9	25.7	10.1	0.0
ORCHESTRA BIOMED, INC			25.7		
O Z ENTERPRISES INC			25.6		
RHOADS INDUSTRIES, INC		160.6	25.5		0.0
LUCAS SYSTEMS INC	31.3	33.7	25.1	31.3	0.0
ONCOURSE SYSTEMS FOR EDUCATION, LLC	16.5	11.3	24.8	0.0	11.3
STEEM MONSTERS CORPORATION			24.7		
JETSPRING LLC	1.4	21.8	24.5	0.0	0.0
D GILLETTE INDUSTRIAL SERVICE INC			24.2		
PSNERGY, LLC	7.1	18.8	24.2	7.1	18.8
TL LIGHTING HOLDINGS, LLC	7.4	11.8	24.1	0.0	0.0
PINNACLE 21 LLC	19.4	103.8	24.1	19.4	103.8
LEIDOS, INC		38.7	24.1		38.7
CURRY SUPPLY HOLDINGS, INC			24.1		
ADVANCED POWDER PRODUCTS INC		36.0	24.0		36.0
INTUIDEX INC	14.1		23.9	0.0	

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
CHONDRIAL THERAPEUTICS INC	94.2	170.2	23.9	94.2	0.0
MEPUSH INC	4.0	5.4	23.9	0.0	0.0
ALPHATHERA, LLC			23.8		
AMERICAN DENTAL DESIGNS INC			23.5		
OCUGEN INC	30.4	28.5	23.4	0.0	0.0
MULTI COLOR CORPORATION	7.8	41.1	23.4	7.8	0.0
MINE VISION SYSTEMS INC	30.0	10.7	23.2	30.0	10.7
MASCARO CONSTRUCTION COMPANY L P		15.7	23.2		0.0
REFLEXION INTERACTIVE TEHNOLOGIES, LLC		13.7	23.2		13.7
EASTMAN CHEMICAL COMPANY	1.6	4.7	23.2	1.6	0.0
PHOENIX CONTACT DEVELOPMENT & CUSTOMERS BANCORP INC			23.1		
NIMBUS ROBOTICS INC			23.0		
PRO SHOPKEEPER COMPUTER SOFTWARE COMPANY	25.4	31.6	22.9	25.4	31.6
CODY COMPUTER SERVICES, INC		1.8	22.8		0.0
FPOLISOLUTIONS, LLC			22.8		
J M HUNT ASSOCIATES INC			22.8		
TX3 SERVICES, LLC			22.8		
NETBEEZ, INC	15.3	23.7	22.8	0.0	0.5
SJ CONSULTING GROUP INC	20.7	43.6	22.6	0.0	43.6
TELETRACKING TECHNOLOGIES INC	11.1	17.6	22.5	11.1	17.6
E B ENDRES, INC	11.8	28.4	22.5	0.0	0.0
J D ECKMAN INC	100.5	74.3	22.4	100.5	0.0
THRIVE COMMERCE LLC	2.1	23.9	22.4	2.1	23.9
EMEH INC			22.3		
VOODOO BREWING COMPANY INC			22.3		
PENN STATE CONSTRUCTION, J&D, LLC	4.7	20.3	22.2	0.0	0.0
ARCHITECTURAL POLYMERS INC	28.0		22.2	0.0	
MCCARL'S SERVICES INC			22.2		
VOCI TECHNOLOGIES INCORPORATED	15.1	14.4	22.1	0.0	0.0
KERITON INC	13.2	4.3	22.0	13.2	4.3
AIRVIZ INC	30.5	36.8	21.9	0.0	0.0
ALUMISOURCE CORPORATION			21.9		
ADVANCED CARBIDE GRINDING INC			21.8		
SPOTME FITNESS COMPANY			21.6		
PHYTOGENX INC	39.8	37.2	21.5	39.8	0.0
SOLO LABORATORIES, INC			21.4		
CUSTOM METAL FABRICATING, INC	16.7	12.7	21.4	0.0	0.0
M & S CENTERLESS GRINDING INC	26.8	39.4	21.3	26.8	0.0
LOBAR SITE DEVELOPMENT CORPORATION	1.3	1.6	21.2	1.3	1.6
ADVANCED GLASS & METAL, LLC		18.4	21.2		0.0
DOSSIER SYSTEMS INC	19.9	10.2	20.9	19.9	0.0
LAKE TOOL INC	17.8		20.8	17.8	
LEHIGH DEFENSE LLC	5.9	2.9	20.8	0.0	0.0
GAI TRONCIS CORPORATION		11.6	20.6		11.6
PYROTECHNICS MANAGEMENT INC	7.6	17.8	20.6	7.6	17.8
JWF HOLDINGS INC	19.3		20.6	0.0	
PROXICAST, LLC		5.6	20.5		0.0
PRINT MAIL SOLUTIONS INC	19.4	27.9	20.5	0.0	27.9
SOCIAL MEDIA INFORMATION LLC	21.0		20.2	21.0	

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
MRO CORPORATION			20.2		
BRA-VOR TOOL & DIE CO INC			20.2		
STREAMLIGHT INC		60.0	20.1		60.0
ACTCO TOOL & MFG CO	16.3		20.1	16.3	
PERFIDO, WEISKOPF, WAGSTAFF & GOETTEL		2.1	20.0		0.0
WEIS MARKETS INC	32.9		19.9	0.0	
SAMTEC INC		9.5	19.8		0.0
SIGNALLAMP HEALTH INC			19.7		
DIAMOND KINETICS, INC	18.6	18.5	19.7	18.6	18.5
RAPID FLOW TECHNOLOGIES, INC			19.5		
EDTELL LLC			19.5		
LOGISTICS PLUS INC			19.2		
APEXDROP, LLC	2.0		19.1	0.0	
P J DICK INCORPORATED			19.0		
TMNA SERVICES, LLC	140.2	134.1	19.0	0.0	134.1
METROPOLITAN ACOUSTICS LLC			18.9		
GRIDWISE INC			18.8		
ALTRA INDUSTRIAL MOTION CORP			18.8		
SAA ARCHITECTS INC			18.8		
BENCHMARK CONSTRUCTION COMPANY INC	20.1	14.3	18.7	20.1	14.3
CONTROLLED MOLDING INC	44.1		18.6	25.8	
RAJANT CORPORATION			18.6		
SPS TECHNOLOGIES LLC			18.6		
MASTER MACHINE CO INC			18.6		
MESHNET, INC		5.6	18.5		0.0
FOLLETT CORPORATION	36.8	22.0	18.5	36.8	22.0
ONEX INC	44.9	18.2	18.4	44.9	0.0
CAMPUS ESP INC		18.5	18.4		18.5
LEHIGH CEMENT COMPANY LLC	113.2	138.4	18.3	113.2	138.4
SIEMENS MOBILITY, INC			18.2		
CORRY MICRONICS INC	22.8	5.4	18.1	22.8	5.4
PRIDE MOBILITY PRODUCTS CORPORATION	46.8	56.7	18.0	46.6	0.0
BIRDBRAIN TECHNOLOGIES LLC	9.4	13.4	18.0	9.3	5.8
KEF ROBOTICS INC			17.9		
UNITED PARCEL SERVICE INC	11.0	27.3	17.9	11.0	0.0
SIEMENS PRODUCT LIFECYCLE MANAGEMENT	23.0	30.3	17.8	23.0	0.0
MBF THERAPEUTICS INC		7.5	17.8		7.5
O'NEAL INDUSTRIES, INC	33.7		17.7	33.7	
PHILADELPHIA MEDICAL MANAGEMENT COMPANY			17.7		
MOLECULAR DEVICES LLC	35.5	62.2	17.7	0.0	0.0
WAGMAN, INC & SUBSIDIARIES	27.8	55.2	17.7	0.0	0.0
WECREATE LLC	11.3	20.8	17.6	11.3	10.0
PRIMEPAY LLC	26.1	37.4	17.6	26.1	37.4
II VI INCORPORATED	66.2	55.3	17.4	0.0	0.0
LIQUID FILLING SOLUTIONS, LLC			17.4		
TUBE METHODS, INC	19.7	33.0	17.3	0.0	0.0
PDC MACHINES INC	59.7		17.2	22.8	
ERIE CUSTOM COMPUTER APPLICATIONS INC	28.2	21.6	17.2	28.2	0.0
CARMELL THERAPEUTICS CORPORATION	40.9		17.2	40.9	
METHOD AUTOMATION SERVICES INC			17.1		

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
YORK STEEL RULE DIES, INC			17.0		
PROMINENT FLUID CONTROLS INC	8.5	9.6	17.0	8.5	9.6
GETTLE INCORPORATED	41.6	19.9	17.0	41.6	19.9
YORK BUILDING PRODUCTS CO INC			16.9		
21ST CENTURY SOFTWARE TECHNOLOGIES INC			16.9		
AMERICAN PROCESS LETTERING INC			16.8		
HEBI ROBOTICS INC		33.4	16.8		33.4
CORAZON INC	7.9	21.3	16.8	0.0	0.0
NCC AUTOMATED SYSTEMS INC	44.2	43.9	16.7	44.2	32.6
FOREST DEVICES	19.7	55.7	16.7	19.7	55.7
AREA TOOL & MANUFACTURING INC		25.0	16.6		0.0
SUVODA LLC			16.6		
VERSUM MATERIALS INC			16.5		
CENERO LLC	29.2	12.0	16.5	29.2	12.0
GLOBUS MEDICAL INC	113.9	143.5	16.5	113.9	143.5
MAVERICK DENTAL SOLUTIONS		14.8	16.4		0.0
APPLE INC			16.4		
NUVENTIVE LLC	14.4	17.3	16.4	0.0	0.0
MENASHA CORPORATION	28.9	38.2	16.3	28.9	38.2
G E M MECHANICAL SERVICES INC	21.9	4.2	16.2	21.9	4.2
TRUMBULL CORPORATION	23.6	43.3	16.1	23.6	43.3
OMEGA SYSTEMS CONSULTANTS INC	3.5	16.2	16.1	0.0	0.0
GEMINI MACHINING COMPANY INC			16.0		
FORNEY LP	17.6	15.2	16.0	17.6	15.2
LEARNING SCIENCES INTERNATIONAL LLC	21.5	26.8	15.9	21.5	0.0
SHADOWFAX INC	7.2	8.4	15.9	0.0	8.4
SCHELL GAMES LLC			15.9		
AES CLEAN TECHNOLOGY INC			15.8		
TRC COMPANIES, INC			15.7		
MASON JARS COMPANY	11.6	12.9	15.7	11.6	0.0
GWYNEDD MANUFACTURING INC	52.1	50.1	15.7	0.0	50.1
SMART DEDUCT, INC		6.1	15.6		0.0
NSV INC		6.9	15.5		0.0
IMVAX INC			15.4		
GRANT STREET GROUP INC	6.9	18.9	15.4	0.0	0.0
DEIBLER MACHINING LLC	11.2		15.4	11.2	
UNIVERSAL MACHINE CO OF POTTSTOWN INC		49.3	15.3		0.0
RETURN LOGIC, INC	8.3	17.6	15.2	8.3	17.6
EPICOR SOFTWARE CORPORATION	22.1		15.2	22.1	
LAMINAR FLOW INC	19.5	18.4	15.2	19.5	18.4
NEUEXCELL THERAPEUTICS INC		19.6	15.2		19.6
ECOREMEDY, LLC			15.1		
COMMERCIAL MANAGEMENT SYSTEMS, LLC			15.0		
NEAR MISS MANAGEMENT LLC	31.2		15.0	31.2	
DRAYNOW INC			14.9		
PARKER WHITE METAL COMPANY	9.0		14.9	9.0	
STARN TOOL & MANUFACTURING COMPANY	5.5	38.5	14.9	5.5	0.0
NET HEALTH SYSTEMS INC	102.0	73.3	14.7	8.9	0.0
THE EXONE COMPANY			14.6		
WESTLAKE PLASTICS COMPANY			14.5		

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
HELIUS MEDICAL, INC	13.8	6.2	14.5	0.0	0.0
AMERICAN INTERNATIONAL RELOCATION SOLUTI			14.5		
POLYK TECHNOLOGIES LLC		5.3	14.3		5.3
LOANSTAR TECHNOLOGIES LLC			14.3		
TYNDALE ENTERPRISES INC	30.3	10.5	14.3	0.0	0.0
NANOGRIPTECH INC			14.3		
FIVE ELEVEN PHARMA INC	18.6		14.3	18.6	
HANOVER FOODS CORPORATION	6.0	17.5	14.3	0.0	0.0
MYERS DRUGSTORE INC			14.2		
KRAEMER TEXTILES INC	20.4	28.5	14.2	20.4	28.5
PHILADELPHIA PROTECTION BUREAU INC	0.8	21.0	14.1	0.8	0.0
MICHAEL F RONCA & SONS INC	20.2	16.0	14.1	20.2	0.0
AMPHENOL THEMOMETRICS, INC	29.0	20.6	14.1	29.0	20.6
REX MEDICAL, LP			14.0		
KEYSTONE MACHINERY CORPORATION	14.3	15.4	13.9	14.3	0.0
SELECT MEDICAL CORPORATION			13.9		
APTAGEN, LLC	2.7	3.6	13.9	0.0	0.0
ACUTEC PRECISION AEROSPACE, INC	16.2	22.3	13.8	16.2	22.3
GAP HOLDING COMPANY INC	30.3	29.9	13.7	21.2	21.0
KIEWIT POWER CONSTRUCTORS CO			13.6		
ARROW ELECTRIC INC	20.1	19.8	13.6	20.1	19.8
HERSHEY ENTERTAINMENT & RESORTS COMPANY		4.8	13.5		4.8
H F LENZ CO			13.5		
KERMITOOL ACQUISITION COMPANY INC			13.5		
GLEN ROAD SYSTEMS INC			13.4		
UNITED METAL FABRICATORS INC	2.7	5.6	13.3	2.7	5.6
CRABTREE, ROHRBAUGH & ASSOCIATES, INC		2.8	13.3		0.0
UNITED PARCEL SERVICE GENERAL SERVICES	5.9	11.6	13.3	1.2	11.6
ARCO ENTERPRISES, INC			13.3		
SMOOTH ON INC			13.3		
CREATIVE MULTIMEDIA SOLUTIONS LLC	8.9	11.9	13.2	0.0	0.0
VERRICA PHARMACEUTICALS INC			13.2		
ANDRITZ INC	22.3	15.7	13.2	22.3	15.7
PHILADELPHIA D & M INC	16.4	14.2	13.2	16.4	14.2
PREMIER DENTAL PRODUCTS COMPANY	12.4	13.8	13.1	12.4	0.0
NALCO COMPANY LLC	9.3	34.7	13.1	0.0	0.0
NUTRISYSTEM INC	20.1	22.1	12.7	20.1	22.1
HENDRICK MANUFACTURING COMPANY			12.7		
ANHOLT TECHNOLOGIES INC	33.5	27.5	12.6	33.5	27.5
TOWERSTAR PETS LLC	11.8		12.5	11.8	
ADRICH INC			12.3		
SOCO, INC			12.2		
HATZEL&BUEHLER INC			12.2		
WRIGHT LABS LLC	2.3	8.4	12.1	0.0	0.0
SOULDERS INDUSTRIES INC			12.0		
R N D SERVICES INC			12.0		
FLINCHBAUGH COMPANY INC			12.0		
OPENFORGE LLC			12.0		
DIGITAL GRAPES LLC		20.0	11.9		20.0
MAVEN MACHINES, INC	43.6	57.6	11.9	0.0	0.0

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	2018	2019	2020	2018	2019
V T GRAPHICS, INC	27.7	31.5	11.9	0.0	0.0
ROAR FOR GOOD LLC			11.8		
ADVANSIX INC	5.7	18.0	11.8	5.7	18.0
BCL MANUFACTURING INC		11.1	11.8		0.0
INTERVALA, LLC	22.7	23.4	11.8	22.7	0.0
HYTECH TOOL & DESIGN CO	2.5	9.9	11.7	2.5	0.0
FOCUS FORWARD LLC			11.7		
PEARL STREET TECHNOLOGIES, LLC			11.7		
SAY PLASTICS INC	27.9	35.5	11.7	27.9	35.5
DOBIL LABORATORIES INC	10.3	17.9	11.7	0.0	0.0
VESPER MEDICAL INC			11.6		
DUCK DUCK GO INC	7.2	4.7	11.6	7.2	4.7
READING PRECAST INC	16.5	8.2	11.5	16.5	0.0
HAROLD BECK & SONS INC	3.6	12.4	11.5	3.6	0.0
GLOBAL METAL POWDERS LLC	15.2	4.1	11.4	0.0	0.0
KANE INNOVATIONS INC	11.0	20.7	11.4	4.7	0.0
TURN 14 DISTRIBUTION INC	24.2	20.2	11.3	0.0	0.0
SHOEMAKER MFG SOLUTIONS INC	5.1	8.0	11.3	0.0	0.0
SKC INC	4.1		11.3	4.1	
LANDSTUDIES, INC	37.0	17.1	11.3	37.0	0.0
PENN ENGINEERING & MANUFACTURING CORP	27.2	30.9	11.3	20.1	14.0
QMAC-QUALITY MACHINING INC			11.2		
HUCKESTEIN MECHANICAL SERVICES, INC			11.2		
PRECISION MACHINERY SYSTEMS, INC			11.2		
JAREX ENTERPRISES, LLC		15.0	11.1		0.0
BLASTPOINT INC		6.6	11.0		0.0
DASH SOLUTIONS INC			11.0		
PARA COAT TECHNOLOGIES INC	3.2	13.3	11.0	0.0	0.0
THREE10 SOLUTIONS, INC			11.0		
TRILION QUALITY SYSTEMS LLC			11.0		
ACCIPITER SYSTEMS INC	35.7	0.6	10.9	35.7	0.0
PROACTIVE SENSING, INC			10.9		
UNITY TECHNOLOGIES SF			10.9		
SPCR ACQUISITION, INC			10.9		
SITE DESIGN CONCEPTS INC	10.7	8.9	10.9	10.7	8.9
ARIEL PRECISION MEDICINE INC	16.6	26.7	10.9	16.6	26.7
EPIPHANY ENVIRONMENTAL, LLC			10.9		
E K L MACHINE INC		8.8	10.8		8.8
TRIDIUUM, INC			10.8		
LEGAL SIFTER, INC	47.4	70.9	10.8	47.4	70.9
PANACEA TECHNOLOGIES INC			10.7		
H QUEST VANGUARD INC			10.7		
PHONETICS INC	65.4	52.9	10.7	65.4	15.9
JOBBO INVESTMENTS, INC	15.6	7.9	10.6	0.0	0.0
PRIMBIO RESEARCH INSTITUTE LLC	10.0	23.1	10.5	10.0	0.0
STATE OF THE ARC WELDING AND FABRICATING	10.3	2.2	10.4	0.0	2.2
GATEWAY TICKETING SYSTEMS INC	0.6	33.4	10.3	0.6	0.0
NEUROFLOW	12.0	38.9	10.3	0.0	0.0
REYNOLDS & REYNOLDS ELECTRONICS INC	15.9	27.0	10.3	0.0	27.0
MECCO PARTNERS			10.3		

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
MAKERPLACE INC			10.2		
VISNETA, LLC		7.6	10.2		0.0
BUDGE INDUSTRIES LLC			10.2		
MODERN CABINET AND CONSTRUCTION INC	1.9	2.4	10.2	1.9	0.0
TRACEY MECHANICAL INC	11.5	12.0	10.2	11.5	12.0
CHIRAL TECHNOLOGIES INC		11.2	10.2		0.0
HABITAT LOGISTICS INC			10.1		
SYNERGETIC SOUNDS INC		31.6	10.1		0.0
CLEARLY CLEAN PRODUCTS LLC			10.0		
CORRY MANUFACTURING COMPANY		4.5	10.0		0.0
CENTURION CONSTRUCTION GROUP LLC			10.0		
SCISWFIT LLC		6.4	10.0		0.0
RKI APPS LLC	12.4	14.9	9.9	12.4	14.9
STRAIGHT ARROW PRODUCTS, INC	9.0	4.2	9.8	0.0	0.0
PAVONE MARKETING GROUP, INC			9.8		
WIMER FUEL INJECTION & TURBO, LLC			9.7		
CONFLUENCE TECHNOLOGIES INC	24.9	51.5	9.7	21.9	25.7
LAGOS INC			9.7		
JELD WEN INC			9.6		
JANDM FLUIDICS INC		11.0	9.5		11.0
VANZYVERDEN INC		9.9	9.4		9.9
AFP ADVANCED FOOD PRODUCTS LLC	28.7	24.5	9.3	28.7	24.5
CENTROID CORPORATION			9.3		
PERSONALIZED GENETICS			9.3		
SPECTRUM CONTROL INC		5.3	9.3		0.0
SPICES INC	8.6	11.4	9.2	0.0	5.3
PROTECTIVE INDUSTRIES INC		16.9	9.2		16.9
VILIMIA, INC			9.1		
THE DVCC GROUP, INC			9.1		
TELEDYNE INSTRUMENTS INC			9.1		
VEGAN TREATS INC		12.5	9.1		0.0
SEAT ENGINE TICKETING LLC			9.0		
AVID RADIOPHARMACEUTICALS INC			9.0		
SILVERTIP INC	11.9	12.1	9.0	11.9	1.6
BLUE MOUNTAIN QUALITY RESOURCES INC	52.8	59.0	9.0	0.0	0.0
CUSTOM PROCESSING SERVICES INC	14.8	17.0	9.0	0.0	0.0
SUBURBAN PRECISION MOLD CO INC			8.9		
ARIECA INC			8.9		
LAMINATORS INCORPORATED	10.4	13.3	8.9	10.4	13.3
GASBARRE PRODUCTS INC		61.2	8.9		61.2
FARM JENNY LLC			8.8		
TURN 5 INC	12.6	18.4	8.8	0.0	0.0
CAPTIS DIAGNOSTICS LLC			8.7		
DATA CAP SYSTEMS INC	263.2	49.5	8.7	192.4	0.0
QUALITY BRIDGE & FAB INC			8.7		
VERTEX INC	42.0	27.4	8.6	42.0	27.4
MEDICAL PRODUCTS LABORATORIES, INC	8.9	9.3	8.6	0.0	9.3
APTER INDUSTRIES INC	10.1	13.1	8.6	10.1	13.1
SLOAN BROTHERS CO	12.7		8.6	0.0	
EAFAB CORPORATION	8.1	8.6	8.6	8.1	8.6

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
GREYSIGNAL INC	3.7	6.6	8.6	3.7	0.0
BORTON LAWSON HOLDING CO INC			8.6		
PRECISION PROFILES, LLC			8.6		
SENTINEL PROCESS SYSTEMS INC		23.6	8.5		4.8
EXH INC	5.8	8.4	8.4	0.0	0.0
LANCONNECT INC	33.1	40.9	8.4	0.0	40.9
BROOKVILLE GLOBAL HOLDINGS INC			8.4		
SPOTLESS MATERIALS INC			8.3		
RALPH S ALBERTS CO INC	8.0	6.0	8.3	7.9	6.0
SNOWDON INTERNATIONAL LIMITED	8.5	10.0	8.3	8.5	10.0
PERSEA NATURALS, LLC			8.3		
SARRIS CANDIES INC	6.8	0.7	8.3	0.0	0.7
EXYN TECHNOLOGIES INC			8.2		
AE DESIGN INC	8.7	19.2	8.1	8.7	19.2
ALLVISION IO INC			8.1		
TRIGON INCORPORATED		16.2	8.1		0.0
STERLING DRIVE VENTURES, LP			8.0		
SENSE TECHNOLOGY, INC			8.0		
GAMRY INSTRUMENTS INC	17.2	5.8	8.0	17.1	5.8
EBAY INC			7.9		
BORE TECH INC	4.4	11.3	7.9	0.0	11.3
HOWDEN NORTH AMERICA INC		11.8	7.9		11.8
L & H SIGNS INC	55.3	14.4	7.8	55.3	14.4
SFS GROUP USA INC	5.7	4.9	7.8	5.7	4.9
HERBERT ROWLAND & GRUBIC INC			7.8		
PROTECS LLC		18.0	7.8		18.0
AMRING PHARMACEUTICALS INC			7.8		
KEYSTONE COMPLIANCE LLC	21.2	9.6	7.7	21.2	0.0
BSEG LLC		26.5	7.7		26.5
FINISH TECH CORP		12.0	7.6		0.0
SIGNATURE DOOR INC		13.0	7.6		13.0
B & C TRANSIT, INC			7.5		
ECOTECH, INC		12.2	7.5		0.0
DRUG PLASTICS & GLASS CO INC	39.9	40.6	7.5	39.9	0.0
GLOBAL PACKAGING INC			7.4		
SERIES U OF UM PARTNERS LLC	12.4	7.1	7.4	0.0	0.0
DIGIN TECHNOLOGIES LLC			7.4		
GREENWICH TERMINALS LLC	7.3	9.5	7.4	7.3	0.0
VISTACOM INC			7.3		
SAGE TECHNOLOGY SOLUTIONS INC		10.1	7.3		10.1
ENCLARA PHARMACIA	18.0	10.8	7.3	18.0	10.8
INTEGRAL MOLECULAR INC			7.2		
SAMUEL, SON & CO USA INC			7.2		
X-NAV TECHNOLOGIES LLC		34.1	7.1		0.0
FORTRESS POWER LLC			7.1		
REXMET CORPORATION		12.4	7.0		0.0
ARRAY ARCHITECTS, INC		20.5	7.0		0.0
ENTASIS, INC		4.3	6.9		4.3
TB WOODS INCORPORATED			6.9		
ORTHOS ENTERPRISES INC	19.8	23.5	6.9	19.8	23.5

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
LANCASTER SWINE HEALTH SERVICES, PC			6.9		
SP ACQUISITION COMPANY, LLC	2.0	0.3	6.8	0.0	0.0
ATKIN OLSHIN SCHADE ARCHITECTS INC		11.1	6.8		0.0
SWEET NOTE BAKERY INC	10.5	9.8	6.8	10.5	9.8
LUNCHTIME SOFTWARE LLC	9.4	9.6	6.8	9.4	9.6
ERDMAN ANTHONY ASSOCIATES INC		7.6	6.8		7.6
PB HEAT LLC	6.4	0.6	6.7	6.4	0.0
CALUMET SPECIALTY PRODUCTS PARTNERS LP	10.5		6.7	0.0	
BENEFIT ALLOCATION SYSTEMS, LLC		8.9	6.7		0.0
ROCKET CLOUD INC			6.7		
PETER MARGITTAI ARCHITECTS LLC			6.7		
DELTA INFORMATION SYSTEMS INC	10.7	6.6	6.7	0.0	0.0
ASKO INC	4.5	2.2	6.6	3.3	2.2
KADCO CERAMICS LLC	6.4		6.6	0.0	
416 JOHNSON PROPERTIES, LTD	6.3	5.4	6.6	0.0	0.0
VEKA INC			6.6		
NATIONAL REFRIGERATION & AIR		5.3	6.5		5.3
VICTORY NUTRITION INTERNATIONAL INC			6.5		
NORTHPORT DISTRIBUTION LLC	4.4	4.5	6.5	4.4	0.0
ROCON INC			6.5		
HANOVER IRON WORKS INC	7.5	7.9	6.5	7.5	7.9
SPOTLESS MATERIALS LLC			6.4		
CRIMEWATCH TECHNOLOGIES INC	9.5	10.5	6.4	9.5	10.5
ELECTRO-TECH SYSTEMS INC	29.7	27.7	6.4	29.7	0.0
MATERIALS CONSERVATION COLLABRATIVE			6.4		
DESMONE & ASSOCIATES INC	23.0	10.9	6.4	0.0	10.9
BOARDBOOKIT INC	6.5	6.9	6.4	6.5	6.9
SOLENOID SOLUTIONS, INC			6.4		
PITTSBURGH PLASTICS MANUFACTURING INC	0.4	7.6	6.4	0.4	7.6
DIETZ & WATSON INC		36.4	6.4		36.4
DATAFORMA INCORPORATED	10.8		6.3	0.0	
SIMPLE ORIGIN		4.2	6.3		0.0
PENN COLOR INC	6.6	5.6	6.3	6.6	5.6
PENN WELD INC	0.6	9.5	6.3	0.6	8.5
WOLFGANG OPERATIONS LLC	8.6		6.3	8.6	
PLASTIKOS INC	10.1	6.8	6.3	10.1	6.8
ACS INTERNATIONAL RESOURCES INC		5.3	6.3		0.0
C360 TECHNOLOGIES INC	17.5	10.4	6.2	0.0	0.0
ADVANCED MANUFACTURING TECHNOLOGIES INC	6.5	2.1	6.2	6.5	2.1
VASCULARSTRATEGIES, LLC	5.0	9.5	6.2	0.0	0.0
HOUGHTON INTERNATIONAL INC	25.3	8.8	6.2	25.3	8.8
KEMPER EQUIPMENT INC	19.2	10.9	6.2	0.0	10.9
IMS TECHNOLOGY SERVICES INC	22.1	18.5	6.2	22.0	18.5
CANARY COMPLIANCE	48.6	7.3	6.1	0.0	0.0
J BAUR MACHINING INC	10.4	12.1	6.1	10.4	12.1
SOFTGENETICS LLC	17.6		6.0	17.6	
PRECISION MEDICAL INC	18.2	17.1	6.0	18.2	17.1
DISCOVERY ROBOTICS CORPORATION		23.0	6.0		23.0
INTERNATIONAL CHEMICAL COMPANY	39.0	17.9	6.0	1.0	1.4
SHERPA SOFTWARE LLC	1.6		6.0	0.0	

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	2018	2019	2020	2018	2019
RUSSELL STANDARD CORPORATION			5.9		
OLIVER TOLAS HEALTHCARE PACKAGING INC	10.4	0.3	5.9	10.4	0.3
YELP INC	9.2	68.5	5.9	9.2	0.0
VIDEO DIRECTIVES LLC		2.3	5.9		0.0
MISSION CRITICAL PARTNERS INC	3.7		5.9	0.0	
CLARK ASSOCIATES INC	9.8	15.0	5.9	9.8	15.0
T & M ASSOCIATES INC		8.7	5.8		8.7
ARMADA PARTNERS LP		8.0	5.8		0.0
WELLINGTON POWER CORPORATION		12.9	5.8		12.3
PROGENYHEALTH HOLDINGS, LLC			5.8		
HOMELAND MANUFACTURING SERVICES INC	0.9	2.0	5.8	0.9	2.0
HARRY J LAWALL & SON INC		10.8	5.7		0.0
THUBRIKAR AORTIC VALVE, INC			5.7		
HARMAN DEUTSCH CORP			5.7		
AVANCEON LP	22.9	18.9	5.7	22.9	0.0
DMLOGIC, LLC	9.5	38.3	5.7	0.0	0.0
PANTHER LEARNING SYSTEMS INC	1.8	3.7	5.7	1.8	3.7
KENSON PLASTICS, INC			5.6		
WAZOODLE FABRICS LLC	2.9	9.1	5.6	0.0	0.0
COZEN OCONNOR			5.6		
TECH TUBE INC	27.1	3.9	5.6	0.0	0.0
ARIN TECHNOLOGIES	2.5	8.3	5.6	2.5	8.3
SKF USA INC			5.6		
ALL FILL CORP		1.1	5.5		0.0
ZOOMI, INC			5.5		
CLINICAL RESEARCH ASSOCIATES OF CENTRAL	17.5	19.7	5.5	0.0	0.0
CLIMATECH HOLDING CO	6.6	8.2	5.5	0.0	0.0
MB CASTINGS LLC			5.5		
NURSE NAVIGATOR SOLUTIONS LLC	1.9	8.2	5.4	0.0	0.0
DIVERSIFIED TRAFFIC PRODUCTS INC	5.6	4.9	5.4	5.6	4.9
SS INDUSTRIES LLC	1.4	10.2	5.4	0.0	10.2
K12SYSTEMS INC	1.8	2.2	5.4	1.8	2.2
BETTS INDUSTRIES INC	6.6	10.9	5.4	6.6	10.9
SEALSTRIP CORPORATION	4.1		5.3	4.1	
RJC MANUFACTURING SERVICES LLC		12.6	5.3		0.0
RELX INC			5.3		
CARRIER CLASS GREEN INFRASTRUCTURE LLC	14.7	19.4	5.3	14.7	19.4
AMERICAN MANUFACTURING CORPORATION			5.2		
GODSHALLS QUALITY MEATS INC	15.3	13.5	5.2	15.3	0.0
A L PATTERSON INC			5.2		
BERNARDON PC			5.2		
CADENCE INC	26.5	28.5	5.2	0.0	0.0
BORDERWISE INCORPORATED			5.2		
MICRO COAX INC			5.2		
WALSH CONSTRUCTION COMPANY II LLC			5.1		
DFT INC		1.9	5.1		1.9
LORNE G SEIFERT, LLC	5.8	5.2	5.1	0.0	0.0
ROCKLAND, INC	18.6	12.3	5.1	0.0	0.0
THE LACKNER GROUP, INC	8.9	2.6	5.1	8.9	2.6
CONSTRUCTURAL DYNAMICS, INC		6.8	5.1		0.0

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
B J TERRONI CO INC		3.9	5.1		0.0
PULSER LLC			5.0		
INSTECH LABORATORIES INC			5.0		
SUPERIOR PLASTIC PRODUCTS INC	5.8	17.1	5.0	5.8	10.0
DAVID WEBER CO INC			5.0		
ITR LLC			4.9		
PRESCIENT WEATHER LTD		3.1	4.9		0.0
VASTEX INTERNATIONAL INC	23.0	10.4	4.9	0.0	0.0
FINISH THOMPSON INC	6.3	4.9	4.9	0.0	0.0
ATLANTIS TECHNOLOGIES LLC		45.7	4.9		20.8
CRYSTAL INC PMC	2.9	0.7	4.8	2.9	0.7
HOSLER CORP	6.2		4.8	0.0	
PHOSPHOLUTIONS, LLC		2.2	4.8		0.0
HUGHES ENTERPRISES OF NEW JERSEY INC			4.8		
ACCUDYN PRODUCTS, INC	76.8	40.7	4.8	76.5	0.0
SEASONS EVOO HOLDINGS LLC	0.2		4.8	0.0	
LCR EMBEDDED SYSTEMS, INC	13.6	4.6	4.7	0.0	0.0
AEGIS INDUSTRIAL SOFTWARE CORPORATION			4.7		
AMERICAN TURNED PRODUCTS	9.9	13.1	4.7	0.0	13.1
VSI OF DELAWARE INC	9.2	7.5	4.7	9.2	0.0
WILSON LEGAL SOLUTIONS INC	62.6	7.2	4.7	0.0	0.0
SIGNATURE CUSTOM CABINETS INC			4.7		
PDM CONSTRUCTORS, LLC	12.4	8.5	4.6	12.4	8.5
WALSH GRANITE JV	9.1	0.9	4.6	0.0	0.0
WEAVER INDUSTRIES INC	0.9	3.5	4.6	0.9	3.5
NEWCASTLE CO INC		7.8	4.6		7.8
K2 KINETICS LLC	11.3		4.6	11.3	
CAREL USA INC	3.7	6.7	4.5	3.7	6.7
ENERSYS ADVANCED SYSTEMS INC			4.5		
EKTO VR INC			4.5		
GUARDIAN PROTECTION SERVICES INC	1.1		4.4	1.1	
GOLDEN BROTHERS INC	10.6	3.3	4.4	10.6	0.0
RACESENG INC	4.7	8.8	4.4	0.0	0.0
YAZOO MILLS, INC			4.4		
HUNTER MECHANICAL INC	25.0	10.1	4.4	25.0	10.1
OGONTZ CORPORATION		5.9	4.4		5.9
CARDIAC ASSIST INC	33.7		4.4	0.0	
PRECISION CUSTOM COMPONENTS, LLC			4.3		
PDQ INDUSTRIES INC		5.4	4.3		0.0
R S MOWERY SONS INC			4.2		
MEDIUS AG, LLC	4.2	8.4	4.2	0.0	0.0
VENTANA USA		3.7	4.2		0.0
ARCHITECTURAL PRECAST INNOVATIONS INC	6.0	3.5	4.1	6.0	0.0
CONEWAGO HOLDINGS INC			4.1		
FOUR SEASONS PRODUCE INC			4.1		
VALLEY INSTRUMENT CO INC	3.0	2.7	4.1	3.0	0.0
SOMERSET PLANNING & ENGINEERING SERVICES			4.0		
XPER, INC F/K/A IBIS TEK, INC			4.0		
SNAKE CREEK LASERS LLC	15.7	8.9	4.0	0.0	8.9
PREMIER CUSTOM BUILT INC			4.0		

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	2018	2019	2020	2018	2019
CERTAINTED CORPORATION	49.2	46.1	3.9	49.2	0.0
PCA CORRUGATED AND DISPLAY LLC			3.9		
TRICE MEDICAL INC	3.0		3.9	0.0	
CONCURRENT ELECTRONIC DESIGN AUTOMATION	1.6	8.8	3.9	1.6	0.0
HERMANCE & STROUSE INC	3.7	6.3	3.8	3.7	5.3
INVESTEDGE INC		17.2	3.8		10.2
ARMOUR TECHNOLOGIES INC			3.8		
SCHEERER BEARING CORPORATION	2.4	4.0	3.8	2.4	4.0
HIREKU INC	0.8		3.8	0.0	
SYANDUS INC	4.5	4.8	3.8	4.5	4.8
MBIC HOLDINGS INC			3.8		
AMPHENOL INTERCON SYSTEMS INC	13.5	21.8	3.8	6.1	0.6
MICHELMAN STEEL ENTERPRISES LLC	48.4	42.0	3.7	48.4	42.0
F & S TOOL INC	7.6	5.4	3.7	7.5	5.4
BLUESTONE COMMUNICATIONS INC			3.7		
PARAGON HOLDING CORP	5.8	10.1	3.7	5.8	10.1
SCHOOL GATE GUARDIAN INC	4.0	0.6	3.7	4.0	0.6
MST ASSOCIATED COS INC			3.7		
HYDAC TECHNOLOGY CORPORATION		19.0	3.7		19.0
ALLEGHENY PETROLEUM PRODUCTS CO			3.7		
NIC USA INC	8.9		3.7	8.9	
NUVISION ENGINEERING INC			3.7		
CONTROL ANALYTICS INC		26.1	3.6		7.5
TEKGARD INC		1.5	3.6		0.0
COLORFIN, LLC		5.4	3.5		0.0
RLC ELECTRONIC SYSTEMS INC	10.0	7.2	3.5	10.0	0.0
CLIMECO CORPORATION			3.5		
CDG ENVIRONMENTAL LLC	7.8	9.6	3.5	0.0	9.6
VERTICAL SCREEN INC	19.4	8.9	3.5	0.0	0.0
FRONT STREET REFRIGERATED SERVICES LLC	0.9	3.6	3.5	0.9	0.0
SHAW INDUSTRIES INC	5.4	8.7	3.5	5.4	8.7
ECOPAX LLC	13.6		3.5	0.0	
ARMSTRONG UTILITIES INC	5.6		3.5	5.6	
METCO INDUSTRIES INC		2.7	3.5		2.7
DYNAMET INCORPORATED	3.6	5.1	3.4	3.6	0.0
SWAIN AUSTRALIAN TOURS, INC			3.4		
SHANKS EXTRACTS INC	5.2	1.6	3.4	5.2	1.6
REACTION BIOLOGY CORPORATION		75.2	3.4		55.8
DURAWOOD PRODUCTS INC	33.5	0.6	3.4	0.0	0.0
WILD MEADOW FARMS LLC	6.8	3.6	3.4	0.0	0.0
BRACALENTES MANUFACTURING CO INC		2.5	3.3		0.0
KRANDO METAL PRODUCTS INC	22.3	9.2	3.3	22.3	9.2
CHICK WORKHOLDING SOLUTIONS INC			3.3		
RESCO PRODUCTS INC			3.2		
BRUNNER INDUSTRIAL GROUP			3.2		
ALLEGHENY PERFORMANCE PLASTICS LLC		6.3	3.1		6.3
PENN STATE MECHANICAL CONTRACTORS INC	2.3		3.1	2.3	
ARRAY ANALYTICS INCORPORATED		4.8	3.1		0.0
RACKSPACE US INC			3.1		
MODERN INDUSTRIES INC			3.1		

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	2018	2019	2020	2018	2019
PENN AIR & HYDRAULICS CORP	9.0	10.8	3.1	9.0	0.0
BIOHYBRID SOLUTIONS LLC	7.9		3.1	0.0	
MCC INTERNATIONAL INC	0.6		3.0	0.0	
VENANGO STEEL INC		20.2	3.0		20.2
KEYSTONE BIOANALYTICAL, INC		34.2	3.0		0.0
MCS INDUSTRIES INC	2.3	1.7	3.0	2.3	1.7
TRI-M GROUP, LLC			3.0		
SB GLOBAL FOODS INC	8.8	5.5	3.0	8.8	5.5
XYNTEK INCORPORATED	110.7	2.1	3.0	0.0	0.0
COLUMNTEK LLC	2.1	4.9	3.0	0.0	4.9
WOLF TECHNOLOGIES LLC		2.7	2.9		0.0
WHIRLEY INDUSTRIES INC	11.7	6.0	2.9	11.7	6.0
1DA CORPORATION	32.9	5.6	2.9	0.0	0.0
KOGNITION, LLC			2.9		
DYCO INC	4.5		2.9	4.5	
HACCP ASSURANCE SERVICES INC			2.9		
MAGNATECH INTERNATIONAL INC			2.9		
S & W RACE CARS & COMPONENTS INC		10.8	2.9		0.0
LAMTEC CORPORATION	22.8	3.4	2.9	0.0	3.4
AMERICAN MANUFACTURING & ENGINEERING CO	4.9		2.9	4.9	
SILA HEATING & AIR CONDITIONING, INC			2.9		
FORMS AND SURFACES INC	11.6		2.9	11.6	
CAPSEN ROBOTICS INC	26.6	16.8	2.9	26.6	16.8
JACOB A WEAVER COMPANY	1.2		2.8	0.0	
PRIMAXX INC		2.9	2.8		0.0
FLUITRON INC	8.0	5.2	2.8	8.0	5.2
LOWE ENGINEERING COMPANY, INC		5.7	2.8		0.0
DRUMMOND SCIENTIFIC COMPANY		22.4	2.8		22.4
BIGBEE STEEL & TANK CO		6.1	2.8		0.0
DAGOSTINO ELECTRONIC SERVICES INC	8.5		2.8	8.5	
GENERAL TRANSERVICE INC	0.6	0.6	2.8	0.0	0.6
CAGENT VASCULAR LLC	23.0		2.7	0.0	
INTEGRATED FABRICATION & MACHINE INC	0.8	0.3	2.7	0.8	0.3
PEQUEA MACHINE INC	3.2	4.5	2.7	0.0	4.5
JDAVIS ARCHITECTS, PLLC			2.7		
CASTLE MOLD & TOOL INC	22.1	5.4	2.7	22.1	5.4
REARICK TOOLING INC	2.9	4.3	2.7	2.9	4.3
METER READINGS HOLDING I CORP			2.7		
BOXPLOT ANALYTICS			2.7		
NORTH AMERICAN TICKET ORGANIZATION			2.7		
HINDLE POWER INC	38.1	11.7	2.7	38.1	11.7
S J A CONSTRUCTION INC	0.6	4.0	2.6	0.6	0.0
WIEGEL MACHINE INC			2.6		
PORT ERIE PLASTICS INC	12.2	7.1	2.6	12.2	7.1
FLEXICON INC		15.4	2.6		0.0
SPECTRUM CONTROL TECHNOLOGY INC		0.7	2.6		0.0
THERM OMEGA TECH INC	14.2	10.9	2.6	14.2	0.0
PPG INDUSTRIES INC		62.4	2.6		62.4
PRECISION CUT INDUSTRIES INC			2.6		
KALINOWSKI MACHINE LLC			2.6		

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
IPEG INC		2.2	2.6		2.2
SPARK CURES LLC			2.5		
INDUSTRY WEAPON INC	7.1	1.6	2.5	7.1	1.6
CARGAS SYSTEMS INC	21.1	5.2	2.5	21.1	0.0
SRVD INC	5.9	6.5	2.5	5.9	2.2
BEN PEOPLES INDUSTRIES			2.5		
PROUD DEVELOPMENT			2.5		
ROAD-CON, INC			2.4		
MILFORD ENTERPRISES INC			2.4		
WILSON ENGINEERING SERVICES PC			2.4		
SPECIALTY TIRES OF AMERICA(PENNSYLVANIA)	15.6	15.4	2.4	15.6	15.4
JAKULIE LLC			2.4		
MATERION BRUCH INC	8.5	7.0	2.4	0.0	7.0
SPRING CITY ELECTRICAL MANUFACTURING	0.7	0.2	2.3	0.7	0.2
SPECIALTY SEAL GROUP, INC	9.0	3.3	2.3	0.0	0.0
ZEIGLER BROS INC			2.3		
SUPERIOR TIRE & RUBBER CORP	7.7	4.1	2.3	7.7	2.3
SHUMAKER INDUSTRIES INC	36.5	46.9	2.3	36.5	0.0
GRIFF & ASSOICATES, LP	5.9	2.4	2.3	0.0	0.0
PHB INC	0.4		2.3	0.4	
SOMERSET WELDING & STEEL INC		2.7	2.3		0.6
SHEETZ INC	31.7	7.3	2.3	31.7	0.0
ROYSE GREEN TECHNOLOGIES INC			2.3		
WHITE OAK MILLS INC	4.3	10.2	2.2	4.3	10.2
INTEL CORPORATION		143.0	2.2		0.0
MGS INC	4.5	5.5	2.2	4.5	0.0
ASH TEC INC			2.2		
EHR COMMAND CENTER LLC			2.2		
CUHACI & PETERSON ARCHITECTS INC			2.2		
COMPETITION TIRE EAST INC	5.7	4.0	2.2	0.0	0.0
SOLUTION TREE INC			2.2		
ARKEMA INC	123.2	57.0	2.2	123.2	57.0
B & G MANUFACTURING CO INC			2.2		
WL SNOOK & ASSOCIATES, INC			2.2		
ULTRA POLY CORPORATION			2.2		
BLEND PRO INC	18.1		2.1	0.0	
INNAMED, INC			2.1		
ELECTRON ENERGY CORP	8.3	4.6	2.1	0.0	0.0
ALCOM PRINTING GROUP, INC		3.6	2.1		0.0
JERSEY SHORE STEEL CO		2.9	2.1		0.0
LABELPACK AUTOMATION INC	1.8	1.1	2.1	1.8	1.1
PACKAGING CORPORATION OF AMERICA		8.1	2.1		0.0
CORLE BUILDING SYSTEMS INC	18.4	23.8	2.1	18.4	23.8
AP THERMOFORMING LLC	9.2		2.1	0.0	
UNITED GILSONITE LAB			2.0		
WHITETHORN DIGITAL, LLC			2.0		
DYER QUARRY INC			2.0		
LUXTECH LLC	5.9		2.0	5.9	
NEAR EARTH AUTONOMY INC		1.3	2.0		1.3
BLAIR STRIP STEEL COMPANY	1.7	3.9	2.0	0.0	0.7

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	2018	2019	2020	2018	2019
PORTER CONSULTING ENGINEERS, PC			2.0		
IHEARTCOMMUNICATIONS INC			2.0		
RUCKUS WIRELESS INC			1.9		
BEAVER STEEL SERVICES INCORPORATED	3.4	3.8	1.9	3.4	3.8
COMPOSITE PANELS INNOVATIONS, LLC	3.3	4.5	1.9	0.0	4.5
WEAVER COMPANIES INC	6.6	5.0	1.9	0.0	0.0
D F STAUFFER BISCUIT CO INC	19.6	8.1	1.9	0.0	0.0
PENN WOOD PRODUCTS INC		0.8	1.9		0.8
FRAMKAT LP		5.0	1.9		0.0
LSC DESIGN INC	9.6	24.0	1.9	9.6	24.0
PYROTEK INCORPORATED	2.7	7.5	1.9	2.7	0.0
NORTHEAST INDUSTRIAL MANUFACTURING INC	5.0	0.5	1.8	5.0	0.5
XYLOCOR THERAPEUTICS INC			1.8		
KEYSTONE SPORTING ARMS LLC		4.1	1.8		0.0
GARDNERS CANDIES INC	4.3	5.5	1.8	4.3	5.5
BASIC CARBIDE CORPORATION			1.8		
ATOPTIX, INC	5.8	10.0	1.8	0.0	0.0
CUSTOM LAMINATING CORPORATION	1.2		1.8	1.2	
PSYCHOLOGY SOFTWARE TOOLS INC			1.8		
INTEGRESS INC			1.8		
MAINSTREAM SWIMSUITS INC	6.6		1.8	3.4	
TIW TECHNOLOGY INC	4.6	2.5	1.8	4.6	0.0
LINCOLN CONTRACTING & EQUIPMENT CO INC		9.1	1.8		9.1
MICHELS BAKERY INC	3.5	0.7	1.7	0.0	0.0
GRANUM AI LLC		63.7	1.7		15.0
MILTON STEEL COMPANY	2.6		1.7	2.6	
HAMILTON PRECISION METALS INC			1.7		
GGG INFORMATION SERVICES INC		2.5	1.7		0.0
FREW MILL DIE CRAFTS INC			1.7		
JETNET CORPORATION	1.9	4.3	1.7	1.9	4.3
D & E MACHINING LTD			1.7		
RUSHABH INSTRUMENTS LLC	7.1		1.7	7.1	
PROJECT EXECUTION NETWORK	9.8	11.7	1.6	0.0	0.0
NORMA PENNSYLVANIA INC			1.6		
INCLINATOR COMPANY OF AMERICA			1.6		
LIGHTWEIGHT MANUFACTURING INC	1.7		1.6	0.0	
STATE OF THE ART INC	0.4	1.4	1.6	0.0	1.4
STEIN SEAL COMPANY	11.1		1.6	11.1	
STARKIST CO	2.3	5.9	1.6	2.3	5.9
MD ALLY, INC			1.6		
ABERDEEN ROAD COMPANY		5.3	1.6		5.3
LEE INDUSTRIES INC	7.0	3.5	1.6	0.0	3.5
STONER INCORPORATED	3.5	7.5	1.6	3.5	0.0
SK TOOL AND DIE INC			1.6		
GRUDI ASSOCIATES INC	13.7	8.3	1.6	13.7	0.0
LITTLESTOWN FOUNDRY INC	3.4	2.5	1.5	3.4	0.0
WELD TOOLING CORPORATION			1.5		
BACKFLIPS INC	1.0	1.3	1.5	1.0	0.0
WEPCO INC			1.5		
INVISIBLE SENTINEL INC			1.5		

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	2018	2019	2020	2018	2019
ARGOLYTICS, LLC			1.5		
LANCASTERERC HOLDINGS LLC			1.5		
SENTIENT INVESTMENT CORPORATION		0.7	1.5		0.7
BOSTOCK COMPANY INC		3.8	1.5		3.8
TOASTERPARTY			1.5		
HANNA TRANSFER COMPANY NORTH	10.0	10.9	1.5	10.0	10.9
INNOTECH LASER			1.5		
HENRY MOLDED PRODUCTS INC	3.6	24.4	1.5	3.6	24.4
MODULE DESIGN INC			1.5		
INNOVATIVE SINTERED METALS, INC	12.4	21.7	1.4	0.0	0.0
LIQUID BIOTECH USA INC			1.4		
WEBSTAIRANT STORE INC	0.4		1.4	0.4	
GREENLEAF CORPORATION			1.4		
GREINER INDUSTRIES INC		6.0	1.4		0.0
LBN INC			1.4		
ERNST CONSERVATION SEEDS INC		1.9	1.3		1.9
RICHTER PRECISION INC	4.9		1.3	4.9	
ATI OPERATING HOLDINGS LLC			1.3		
HRANEC SHEET METAL INC	6.0	3.6	1.3	6.0	3.6
CLEAVELAND PRICE INC		30.2	1.3		30.2
PANDO INTERNATIONAL LLC			1.3		
DEPIRO ENTERTAINMENT LLC			1.3		
PETCO ANIMAL SUPPLIES STORES INC	1.6		1.3	1.6	
SOLAR TECHNOLOGY INC	4.3	5.9	1.2	0.0	0.0
GREAT COASTERS INTERNATIONAL INC		2.6	1.2		2.6
BASHLIN INDUSTRIES INC		0.9	1.2		0.9
PROCESS APPLICATIONS LIMITED		11.0	1.2		0.0
ATRIN PHARMACEUTICALS	6.7	7.9	1.2	0.0	7.9
PENNSYLVANIA PAPER & SUPPLY CO			1.2		
GARMAN BUILDERS INC		1.8	1.2		0.0
M3 MEDIA GROUP INC			1.2		
TENEX TECHNOLOGIES, LLC		20.4	1.2		0.0
WORLD ELECTRONICS SALES & SERVICE INC	7.5		1.2	7.5	
POLYMER MOLDING INC	0.4	3.1	1.1	0.4	0.0
NEW STANDARD CORPORATION		2.2	1.1		2.2
NEVILLE CHEMICAL COMPANY	7.0		1.1	0.0	
PAUL B ZIMMERMAN INC			1.1		
CIMA TECHNOLOGY INC			1.1		
THE DOYLE GROUP, INC	1.3	1.3	1.1	0.0	0.0
KARINS ENGINEERING, INC & SUBSIDIARY			1.1		
NORTHWAY INDUSTRIES INC	36.1	6.3	1.1	10.2	0.0
AVERY DENNISON RETAIL INFORMATION	15.2	41.1	1.1	15.1	0.0
J B KINTNER & SONS INC	28.5	9.4	1.1	28.5	9.4
ACME MACHINE & WELDING CO LLC			1.1		
IHEARTMEDIA MANAGEMENT SERVICES, INC			1.0		
ZILLOW INC			1.0		
HAMPTON HOURLY ADMINISTRATION			1.0		
COMMONWEALTH FIRE PROTECTION CO	4.2	3.8	1.0	4.2	0.0
SPECTRUM MICROWAVE INC		3.0	1.0		0.0
ARDEX LP	10.4	6.1	1.0	10.4	6.1

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
ACME CORRUGATED BOX CO	0.2	0.2	1.0	0.2	0.0
PENNLAKE CORPORATION	0.1	2.8	1.0	0.1	2.8
TUDI HOLDINGS, INC			1.0		
CKJK, LLC		3.6	0.9		3.6
HIGHLAND TANK & MFG CO		1.4	0.9		0.0
OROURKE & SONS INC			0.9		
EDU LINK INCORPORATED	0.3	3.6	0.9	0.0	3.6
INFINITE INVENTION, INC			0.9		
VPI ACQUISITION LLC			0.8		
PMC ORGANOMETALLIX, INC	1.8	1.3	0.8	1.8	1.3
EAGLE METALS INC	0.5	0.4	0.8	0.5	0.4
EVOLUTION MOLDING SOLUTIONS INC			0.8		
NATIONAL MAGNETICS GROUP INC	17.4	7.7	0.8	17.4	7.7
HERKULES USA CORPORATION	14.0	2.7	0.8	0.0	2.7
LOZIER CORPORATION		0.5	0.8		0.0
KROFF INC			0.7		
CANTO TOOL CORPORATION		0.4	0.7		0.4
LIVANOVA USA INC			0.7		
KIERANTIMBERLAKE, LLC	2.7	5.1	0.7	2.7	5.1
TIMBERLANE INC	1.3	2.9	0.7	1.3	0.0
UNIVERSAL INDUSTRIAL GASES INC	14.4	7.3	0.7	14.4	7.3
J & A TOOL COMPANY INC		4.0	0.7		4.0
ALWARD TOOL			0.7		
CHOITEK, LLC	0.5		0.7	0.0	
RIVERSIDE MATERIALS INC	1.3	1.4	0.7	1.3	1.4
JACK WOOD PRODUCTS LLC	0.7	2.3	0.7	0.0	0.0
C U E INC			0.6		
RICHARDSAPEX, INC		1.9	0.6		0.0
ERP ESSENTIALS LLC	0.8	0.6	0.6	0.0	0.0
UPCONTENT LLC			0.6		
RADIUS CORPORATION	10.4	3.4	0.6	0.0	3.4
AGR INTERNATIONAL INC	5.8		0.6	0.0	
SNYDER DISTRIBUTORS INC	1.8	0.7	0.6	1.8	0.7
AMERICAN ADDITIVE MANUFACTURING, LLC			0.6		
FEDERAL CARBIDE COMPANY	0.7	2.9	0.6	0.7	0.0
DIVERSIFIED COATINGS INC	2.0		0.6	2.0	
GRUE & BLEEN LLC	9.6		0.5	0.0	
BERK INTERNATIONAL LLC	7.7	3.9	0.5	7.7	3.9
HIGHWOOD USA LLC	22.0	4.4	0.5	0.0	0.0
THE MID-STATE SOLUTIONS GROUP, LLC			0.5		
KEYSTONE MANUFACTURING INC	2.0	1.5	0.5	2.0	1.5
PULSE TECHNOLOGIES, INC	32.2	19.3	0.5	0.0	0.0
DEASEY MACHINE TOOL & DIE WORKS INC		3.5	0.4		0.0
NEWMAN & COMPANY INC	3.1	7.7	0.4	3.1	0.0
VIKING TOOL & GAGE INCORPORATED	3.5	1.3	0.4	3.5	1.3
SUNNY DELL FOODS INC	5.8	4.0	0.4	5.8	0.0
MCCOURT LABEL CABINET COMPANY	0.2	0.4	0.4	0.0	0.4
DYNAMIC ENERGY SOLUTIONS LLC	8.1	0.9	0.4	8.0	0.9
NCA TECHNOLOGIES INC			0.3		
ARDOR & FORGE			0.3		

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
HILLSIDE ACQUISITION GROUP LLC	1.7	3.1	0.3	1.7	3.1
VAXFORM LLC	7.7		0.3	7.0	
PLASTECH CONTAINER SYSTEMS INC	4.8	0.7	0.3	1.5	0.0
ROBERT MAZZA INC			0.3		
THE MILNES CO, INC	19.5		0.2	0.0	
ELITE ALLOY CONCEPTS, LLC			0.2		
MEDICO INDUSTRIES INC		0.4	0.2		0.0
HEFNER MACHINE & TOOL, INC	29.2	84.8	0.1	0.0	0.0
SMITH PROVISION CO INC	1.0		0.1	1.0	
REED MANUFACTURING COMPANY			0.1		
STOLTZ MFG LLC	1.4		0.1	1.4	
QRONO INC	0.3	0.3	0.1	0.3	0.3
COLUMBIA NORTHWEST INC					
ADVENT DESIGN CORPORATION	46.9	48.1		46.9	48.1
HALLER ENTERPRISES, INC	12.5			12.5	
QUINN ANALYTICS, LLC	0.1			0.0	
CRONAN SHEET METAL, INC	0.3			0.3	
LIBERTY ELECTRONICS INC		13.4			0.0
EASTHILL GROUP INC	3.2	1.1		0.0	0.0
LIGHTHOUSE ELECTRIC COMPANY INC	30.8	19.3		30.8	0.0
ATLAS MOLDING, LLC	1.6			1.6	
SOCIAL STATION LLC	16.2	18.9		0.0	0.0
X-F ENTERPRISES, INC	0.8			0.0	
ATEECO INC	14.0	6.6		14.0	0.0
TURNKEY TAXES, INC	2.7			0.0	
ARCONIC, INC	494.1			362.7	
ACTON TECHNOLOGIES, INC	0.3			0.0	
VOCOLLECT, INC	32.1			0.0	
VERIZON PENNSYLVANIA, LLC	0.6			0.0	
RUNABOUT MEDIA GROUP LLC		0.1			0.1
IT ASSIST, LLC	22.9			0.0	
DAWAR TECHNOLOGIES, INC	2.8			2.8	
BLILEY TECHNOLOGIES INCORPORATED	1.2			1.2	
DRV, INC	36.2			0.0	
YORK IMPERIAL PLASTICS, INC	26.0			15.0	
POWERLINK VALUATIONS, LLC	27.8			0.0	
JAMESTOWN PAINT COMPANY	8.2			0.0	
ENSINGER INC	18.8	19.1		18.8	18.9
CUSTOM MOLDS/PLASTICS	25.7			0.0	
THE BEISTLE COMPANY	1.6			1.6	
JOHNSON MATTHEY, INC	47.0			47.0	
INNOVATIVE CONTROL SYSTEMS INC	32.5	7.7		24.5	6.7
PBM, INC	36.1	49.3		0.0	0.0
SECURITY RISK ADVISORS INC	2.5	4.6		2.5	0.0
NEURO KINETICS, INC	17.1			0.0	
YARDS BREWING COMPANY LLC	9.7	5.2		0.0	0.0
AMERICAN TEXTILE COMPANY, INC	1.5			0.0	
MORRIS KNOWLES & ASSOCIATES, INC	2.4			2.4	
STRASBURG RAILROAD COMPANY	1.7	0.3		0.0	0.0
BELLEFIELD SYSTEMS, LLC	0.3	17.5		0.0	0.0

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
RUE ENVIRONMENTAL LLC		2.1			2.1
AESYNT INCORPORATED		189.7			0.0
JEANNETTE SHADE AND NOVELTY COMPANY DBA	32.8	74.3		32.8	74.3
HEAT EXCHANGE AND TRANSFER, INC	15.0			0.0	
HARRY MILLER CORPORATION	5.5			0.0	
GELEST, INC	32.9			8.6	
GRAYMONT PA, INC	126.7			126.7	
SUPERIOR TECH, INC	8.7	8.7		0.0	0.0
DAVID MICHAEL CO, INC	92.2			91.0	
P H GLATFELTER COMPANY	62.5			0.0	
PENN STATE INDUSTRIES, INC	11.6			11.6	
PEACOCK LABORATORIES	0.6			0.0	
MACRON DYNAMICS INC	4.7	7.0		4.7	7.0
PHOTONIS DEFENSE, INC	10.2	5.5		0.0	2.8
SECO/WARWICK CORPORATION	81.8			9.1	
JBS SCIENCE, INC	13.0			0.0	
IMCARE BIOTECH, LLC	31.0			31.0	
L T L WHOLESALE INC	1.8	0.2		1.8	0.0
YORK ICE CO, INC	1.9			1.9	
TRY TEK MACHINE WORKS INCORPORATED	1.2			1.2	
MOREFRAMES ANIMATION, LLC	13.5			0.0	
KOVATCH MOBILE EQUIPMENT CORP	31.4			0.0	
EPIC WEB STUDIOS	24.8			0.0	
HOLTEC MANUFACTURING DIVISION	157.6			6.1	
CARNEGIE ROBOTICS, LLC	7.5			0.0	
GLOBAL DATA MANAGEMENT SYSTEMS, LLC	11.1			0.0	
PIK-RITE, INC	14.3			0.0	
NUTEC TOOLING SYSTEMS INC		22.4			0.0
STEWART & TATE, INC	3.5			3.5	
BALDWIN PUBLISHING, INC	2.8			0.0	
PENTEC HEALTH, INC	103.9			33.2	
TYRONE MILLING	1.4			1.4	
ARCWEB TECHNOLOGIES LLC		8.0			0.0
MALLET & COMPANY INC	2.0	10.3		2.0	10.3
CIW ENTERPRISES, INC	12.0			12.0	
DUN & BRADSTREET, INC	16.6			16.6	
OLIVER M DEAN INC		2.6			2.6
LOAD RITE CORP	1.8	3.8		1.8	0.0
LUZERNE FARM, LLC	10.3			0.0	
TRI-STATE TECHNOLOGY PROFESSIONALS INC	76.1	43.1		76.1	43.1
DIGITAL DREAM LABS, LLC	8.4			0.0	
COYOTELIGHT, INC	0.6			0.6	
STANDARD OFFSET PRINTING COMPANY	19.5			19.5	
SAMUEL STRAPPING SYSTEMS, INC	1.9			0.0	
PERFICIENT INC	1.5	6.6		1.5	6.6
JAMES J ANDERSON CONSTRUCTION COMPANY		0.7			0.7
INDECK KEYSTONE ENERGY, LLC	2.0			0.0	
CRESCENT INDUSTRIES INC	36.5	16.5		0.0	16.5
SHIFT COLLABORATIVE, LLC	0.9			0.0	
IMET CORPORATION	18.6			18.6	

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
SOFTERWARE INC	21.7	23.4		21.7	23.4
AQUAPHOENIX SCIENTIFIC, INC	0.9			0.9	
TECHKNOWSERV CORPORATION	12.4			12.4	
SCHLOUCH INCORPORATED	2.2			2.2	
ADVANCED COMPOSITE PRODUCTS INC	12.7	3.8		12.7	0.0
PIEZO ENERGY, INC	16.2			2.4	
TIRED HANDS BREWING COMPANY	28.6	11.9		28.6	0.0
PACKAGING PROGRESSIONS INC	40.6	6.0		40.6	0.0
WAWA, INC	1.1			0.0	
FORMTECH ENTERPRISES, INC	0.5			0.0	
GSM INDUSTRIAL INC	30.2	29.9		30.2	29.9
GEORGEKO INDUSTRIES, INC	19.8			0.0	
FIBROCELL SCIENCE INC	75.9	59.3		0.0	0.0
COCALICO DISTRIBUTION LLC	0.4	0.8		0.0	0.0
NEVERWET, LLC	72.0			0.0	
ASSET MAP LLC	15.7	15.3		0.0	15.3
J J WHITE INC	8.5	11.5		8.5	0.0
ARMSTRONG ACCUSPEC, LLC	1.1			0.0	
HENRY H OTTENS MANUFACTURING CO INC	15.5	10.7		15.5	0.0
NEUTRONICS, INC	10.7			6.8	
AMERICAN INTERNATIONAL FORWARDING, INC	14.4			0.0	
MANITOWOC COMPANY INC	24.6	330.2		0.0	5.3
DELSTAR TECHNOLOGIES, INC	5.5			5.5	
ESSENT CORPORATION	28.5			0.0	
DENTAL DESIGN LABS, INC	2.6			2.6	
SKILL SURVEY INC	7.1	3.7		7.1	3.7
G O CARLSON INC		9.7			9.7
COMBUSTION SERVICE & EQUIPMENT COMPANY	11.3	1.2		11.2	1.2
BROTHERS, INC	11.0			0.0	
UNILOG CONTENT SOLUTIONS, LLC	18.2			0.0	
R A WALTON & CO INC	13.5	10.2		13.5	10.2
OBERG INDUSTRIES, INC AND QSS	34.8			0.0	
FARO TECHNOLOGIES, INC	3.6			3.6	
PRECISION SOLUTIONS, INC	0.8			0.0	
BOOSE ALUMINUM FOUNDRY CO, INC	0.2			0.2	
FARMERS PRIDE INC	62.7	120.7		0.0	0.0
CHANNELLOCK INC	10.4	37.2		0.0	0.0
WAMPOLE MILLER INC	38.4	5.1		38.4	0.0
STANDARD PRECISION MANUFACTURING INCORPO	4.9			2.8	
GEN7, INC	6.0			0.0	
KUNZLER & COMPANY INC	4.6	1.4		4.6	1.4
OTREVA, LLC	5.8			5.8	
GENERAL DYNAMICS SATCOM TECHNOLOGIES INC	13.3	7.2		13.3	7.2
THREE M TOOL AND DIE CORP	4.6			4.6	
BRAYMAN HOLDING COMPANY, INC	10.2			0.0	
C W E INC		2.0			2.0
NICHOLSON CONSTRUCTION COMPANY		18.9			0.0
MORGAN ADVANCED MATERIALS AND TECHNOLOGY	8.4			8.4	
MICROCHIP TECHNOLOGY INCORPORATED		2.8			0.0
BLOOM ENGINEERING COMPANY, INC	14.0			1.9	

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
AQUATECH INTERNATIONAL LLC	9.3	25.2		0.0	0.0
REMEDY SIMULATION GROUP, INC	13.2	4.9		0.0	0.0
INOLEX CHEMICAL COMPANY	11.2	5.2		11.2	5.2
KORE MART LIMITED	9.7			9.7	
CERNOSTICS INC		26.0			26.0
A T & T SERVICES INC	32.4	18.7		32.4	0.0
GEORGIA PACIFIC CONSUMER OPERATIONS, LLC	17.1			0.0	
COGNITION THERAPEUTICS INC		97.3			97.3
FOX CHASE CHEMICAL DIVERSITY CENTER INC		26.8			26.8
PRECISION PIPELINE, LLC	485.8			485.8	
ONCOCEUTICS INC	108.8	21.4		108.8	21.4
KIEWIT ENGINEERING GROUP INC	2.8	1.5		2.8	1.5
MARS INCORPORATED	70.7			70.7	
BRIO DESIGNS PARTNERS LLC		4.7			0.0
FXI, INC	14.8			14.8	
HONEYWELL SAFETY PRODUCTS USA, INC	3.4			3.4	
WBQ INTERMEDIATE LLC	8.7	7.7		0.0	0.0
UNION CARBIDE CORPORATION	5.6	50.3		5.6	0.0
DART CONTAINER CORP OF PENNSYLVANIA	114.3			114.3	
AVERE SYSTEMS, INC	19.3			9.2	
CUTANEA LIFE SCIENCES, INC	18.8			0.0	
FINISAR CORPORATION		4.8			0.0
CARPENTER POWDER PRODUCTS, INC	1.1			0.0	
RED HAT INC	24.6	38.9		24.6	38.9
MALLINCKRODT, INC	28.5			0.0	
CHROMALOX, INC	11.4			11.4	
TREVENA, INC	52.2			0.0	
M3 USA CORPORATION	3.1			3.1	
DRINKWORKS CORPORATION	1.2			0.0	
INTERNATIONAL BUSINESS MACHINES CORPORAT	195.0			0.0	
CALIBER THERAPEUTICS INC		31.6			0.0
SIMONA AMERICA, INC	6.8			6.8	
MIKROS SYSTEMS CORPORATION	8.0			0.0	
CHARLES BESELER COMPANY	1.9			1.9	
ACOUSTICSHEEP LLC		1.0			0.0
JORDAN ACQUISITION GROUP LLC	1.4	2.1		0.0	0.0
OATH AMERICAS, INC	2.9			2.9	
SCHENCK ACCURATE, INC	16.1			16.1	
PARKER HANNIFIN CORPORATION	14.6			14.6	
LEECH INDUSTRIES INC	6.0	4.0		6.0	4.0
METAPHASE TECHNOLOGIES INC	3.7	10.8		0.0	0.0
TRIUMPH CONTROLS, LLC	19.0			0.0	
SSM INDUSTRIES, INC	46.5			46.5	
DGI-MENARD, INC	65.3			11.6	
RPM INDUSTRIES, LLC	0.9			0.0	
VERIZON SERVICES ORGANIZATION, INC	1.2			1.2	
GEORGIA PACIFIC CORRUGATED, LLC	4.4			0.0	
EMONEY ADVISOR HOLDINGS, LLC	116.9			0.0	
NEWLINK GENETICS CORPORATION		48.0			0.0
INFIANA USA INC	24.4	19.3		24.4	19.3

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
STUBHUB, INC	5.5			5.5	
CERTES NETWORKS INC	15.7	0.5		15.7	0.0
DEVELOPMENT DIMENSIONS INTERNATIONAL, IN	12.8			0.0	
COMPREHENSIVE FIRE TECHNOLOGIES	44.5	34.9		0.0	34.9
CROMPCO, LLC	6.2	2.4		0.0	0.0
KOMATSU MINING CORP FKA JOY GLOBAL INC	187.2	23.7		115.3	0.0
DOMTAR CORPORATION	196.0	29.9		196.0	29.9
HOLCIM US INC		18.3			18.3
GHD, INC	7.5			7.5	
COBHAM ADVANCED ELECTRONIC SOLUTIONS INC	0.5	24.2		0.0	0.0
QUADGEN WIRELESS SOLUTIONS INC		12.5			12.5
AKUSTICA, INC	27.5			0.0	
NEWAGE INDUSTRIES INC	4.5	3.0		4.5	3.0
SWIFT FINANCIAL CORPORATION	54.3			0.0	
VICTAULIC FIRE SAFETY COMPANY, LLC	2.0			0.0	
DOW CHEMICAL COMPANY	52.1	206.7		0.0	0.0
GENEX HOLDINGS, INC	32.7			32.7	
INTEGRA YORK PA, INC	37.6			37.6	
THE HERSHEY COMPANY	237.1			237.1	
GREINER EXTRUSION US, INC	1.0			1.0	
TALEN ENERGY SUPPLY LLC		39.1			0.0
A T & T MOBILITY SERVICES LLC	18.5	16.4		18.5	0.0
ARGAN, INC	249.8			249.8	
SAVANA, INC	158.5			158.5	
INTERNATIONAL SOS ASSISTANCE, INC	47.4			0.0	
INFINERA CORPORATION	55.1	122.3		0.0	0.0
T MOBILE USA INC	13.1	16.6		13.1	0.0
ZENTIS BETEILIGUNGSVERWALTUNGS GMBH & CO		5.5			0.0
LOANLOGICS, INC	1.8			1.8	
SEAKEEPER INC	6.4	267.3		6.4	2.6
ARTSANA USA, INC	4.4			4.4	
GARTNER BURDICK BAUER NILSEN INC		4.0			0.0
HEALTHPLANCRM, LLC	3.5			0.0	
PROGENY SYSTEMS CORPORATION	14.8	17.6		0.0	0.0
GOOGLE LLC	1,506.9	2,360.8		1,501.1	0.0
DUANE MORRIS LLP		6.6			0.0
SHARP INNOVATIONS, INC	19.9			0.0	
SRC SOLUTIONS INC	104.3	83.2		104.3	83.2
JUST BORN, INC		8.5			8.5
AETNA LIFE INSURANCE COMPANY	5.2			0.0	
PITTSBURGH TECHNOLOGIES GROUP, INC	3.3			3.3	
TRS TECHNOLOGIES, INC	16.2			16.2	
NESSCO ENTERPRISES LLC		0.5			0.0
BLACKNEY-HAYES ARCHITECTS, PC	63.1			0.0	
KW, INC	20.4			20.4	
INDUSTRIAL VISION SYSTEMS, INC	10.8	3.0		10.8	0.0
ZIPCORP INC	10.2	0.9		0.0	0.0
TOUCHTOWN INC	6.2	15.7		0.0	9.8
ARTSKILLS, INC	7.5			0.0	
HAVPAK, INC	20.6			0.0	

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	2018	2019	2020	2018	2019
COMMUNICATION SYSTEMS, INC	6.9			6.9	
SHIRLEYS COOKIE CO, INC	2.9			0.0	
EA FISCHIONE INSTRUMENTS, INC	2.8			0.0	
CRAZY AARON ENTERPRISES INC		15.3			0.0
CONTEC SYSTEMS INDUSTRIAL CORPORATION		4.9			0.0
QUANTUM SOFTWARE SOLUTIONS INC	1.3	0.6		1.3	0.0
SIGNAL TECHNOLOGIES INC		2.7			0.0
UNI-TEC CONSULTING ENGINEERS, INC	0.9			0.0	
MICHAEL & ASSOCIATES, INC	0.6			0.0	
BIG B MANUFACTURING INC		14.2			0.0
THOMPSONS CANDLE CO	5.8	22.2		0.0	8.2
STOLTZFUS STRUCTURES LLC		11.7			0.0
GRIFFITH CONSULTING LLC	65.7	46.6		65.7	0.0
RICHARDSON COOLING PACKAGES, LLC	3.7			0.0	
TOLEDO FURNITURE, INC	0.1			0.0	
SANDQUIST CORPORATION		8.6			8.6
RIGHT REASON TECHNOLOGIES, LLC	3.3			0.0	
QUINN & ASSOCIATES, INC	2.0			2.0	
APPCOVE, INC	14.0			0.0	
ADVANCED TECHNOLOGY SERVICES GROUP LLC	189.3	102.4		0.0	0.0
MATREYA, LLC	2.0			0.0	
RAPID REACTION INC	1.6	0.2		1.6	0.2
SIGNATURE VACUUM SYSTEMS INC	8.4	7.9		8.4	7.9
CUSTOM MILLING & CONSULTING, INC	0.3			0.3	
REDDOG INDUSTRIES INC		7.6			7.6
MATHWAY, LLC	69.0			0.0	
GRIFFITH BROTHERS WHITETAILED RIDGE, INC	0.2	1.4		0.0	0.0
AMERICAN MADE LLC		10.2			10.2
BEILER HYDRAULICS INC	2.4	1.7		2.4	1.7
BIOCHEM INSIGHTS, INC	7.3			0.0	
THREERIVERS 3D, INC	7.5			0.0	
CREATIVE BENDING SYSTEMS, INC	5.0			0.0	
DEFIANCE METAL PRODUCTS OF PA, INC	4.2			4.2	
RADIAN GUARANTY INC	35.2	44.8		0.0	0.0
LESLEH PRECISION INC	6.1	8.6		6.1	8.6
MEGAPHASE LLC		8.5			0.0
COSMOS TECHNOLOGIES, INC					
FISHUSA, INC	3.7			0.0	
CENTER HARDWOOD, LLC	8.5			0.0	
GENUS LIFESCIENCES, INC	109.7			109.7	
D T DAVIS ENTERPRISES LTD	37.1	10.9		37.1	0.0
BARTONPARTNERS ARCHITECTS PLANNERS	18.2			18.2	
GET WIRELESS INC		2.1			0.0
C B P ENGINEERING CORP	2.5			1.0	
DOUTT TOOL, INC	4.6			4.6	
VIDORAY LLC	13.4	1.7		0.0	0.0
SINTERFIRE, INC	2.5			2.5	
COATING & CONVERTING TECHNOLOGIES		32.5			0.0
CLEMENS FAMILY CORPORATION		42.2			0.0
LASER TOOL, INC	33.1			0.0	

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
GREAT LAKES AUTOMATION SERVICES INC	1.8	2.6		0.0	2.6
RECLAMERE, INC	20.5			20.5	
JOHN ROCK, INC	15.2			0.0	
PHILLY SHIPYARD INC	1,546.7	61.9		1,546.7	0.0
QUEST DIAGNOSTICS OF PENNSYLVANIA INCORP	10.1			10.1	
SAP AMERICA INC	853.7	719.9		853.7	719.9
J & R ACQUISITION CORP	3.6	5.3		3.6	5.3
PASS AND SEYMOUR, INC	30.9			30.9	
MECO DEMOLITION, INC	9.0			0.0	
CMC ENERGY SERVICES INC		11.3			11.3
MISKO INC	86.4	6.9		86.4	0.0
UNIQUE PRETZEL BAKERY, INC	0.7			0.7	
NICHOLSON KOVALCHICK ARCHITECTS, INC	12.7			12.7	
KOLLMORGEN CORPORATION		2.9			0.0
BIMAX OF PA INC		6.8			0.0
CISCO SYSTEMS INC	167.5	145.1		0.0	0.0
ARMADA SUPPLY CHAIN SOLUTIONS, LLC	7.8			7.8	
ANDRITZ METALS, INC	2.3			0.0	
SHOP VAC CORPORATION	23.4			23.4	
CHARGEITSPOT, LLC	7.3			0.0	
AVANTOR PERFORMANCE MATERIALS HOLDINGS,	44.2			0.0	
ESTENDA SOLUTIONS, INC	3.1			0.0	
BENTLEY SYSTEMS INCORPORATED	21.1	16.0		21.1	16.0
INTACT VASCULAR INC	36.7	41.9		0.0	0.0
THE DIAL CORPORATION	3.7			0.0	
EXECUTIVEPULSE, INC	3.9			0.0	
SPD ELECTRICAL SYSTEMS, INC	81.8			0.0	
JCR SALES MFG, LLC	4.5			0.0	
EARTH SHAPERS LLC	2.3	1.2		2.3	1.2
GHD SERVICES, INC	4.0			4.0	
SAS INSTITUTE INC	1.0	7.0		0.0	7.0
ROMARK LOGISTICS OF PA INC	4.0	9.4		0.0	0.0
QUEST DIAGNOSTICS CLINICAL LABORATORIES	54.2			54.2	
HOLTEC INTERNATIONAL POWER DIVISION, INC	181.5	211.5		0.0	19.7
INTERTEK USA, INC	15.1			0.0	
SWING KINGDOM, LLC	2.5			2.5	
SANOFI PASTEUR, INC	75.8			75.8	
INTEGRA LIFESCIENCES CORPORATION	9.1			9.1	
KNOLL, INC	59.8			59.8	
MARS INFORMATION SERVICES, INC	15.1			0.0	
C&R DIRECTIONAL BORING, LLC	25.2			25.2	
NOKIA OF AMERICA CORPORATION	140.6			140.6	
INTERDIGITAL COMMUNICATIONS, INC	39.0			39.0	
SOLAR INNOVATIONS, INC	20.7			20.7	
DIAMOND MT INC	8.8	7.3		0.0	0.0
ACCUSOURCE, LLC	4.3			4.3	
FRENCHCREEK PRODUCTION INC		1.8			1.8
ACCEL DIAGNOSTICS, LLC	3.4			3.4	
FEDERAL HEARINGS & APPEALS SERVICES, INC	29.0			0.0	
TSE, INC	15.6			0.0	

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	2018	2019	2020	2018	2019
PECA LABS INC		1.7			0.0
ANDURIL, INC	1.4			0.0	
MATRIX OPERATIONS COMPANY LLC		0.8			0.0
TEAM TEN, LLC	9.8			9.8	
MAGNETIC WINDINGS CO, INC	8.6			8.6	
HONEYWELL INTERNATIONAL, INC	279.7			279.7	
MEEKER HOLDING COMPANY INC	7.5	11.3		7.5	11.3
DASSAULT SYSTEMES BIOVIA CORP	2.2			2.2	
LARSON TEXTS INC	40.6	53.2		40.6	53.2
AERZEN USA CORPORATION	104.9			19.0	
VEYKO, INC	14.8			0.0	
QUAD GRAPHICS MARKETING, LLC	4.3			4.3	
ARCADIS US, INC	40.4			40.4	
TRACK 5 MEDIA LLC	27.9	12.0		0.0	0.0
MARKETING G2, LLC	18.3			5.1	
ROBERT BOSCH LLC	19.4	30.9		0.0	0.0
S & S X RAY PRODUCTS INC		0.5			0.0
UNIVERSAL PROTECTIVE PACKAGING INC		2.0			0.0
FOREVER, INC	7.1			7.1	
NOVATECH, LLC	4.2	2.2		0.0	0.0
AMETEK INC		14.3			14.3
INSPIRAFS, INC	20.4			0.0	
CYBERSONICS, INC	17.7			0.0	
FRES CO SYSTEM USA INC	21.1	5.7		21.1	5.7
DOCUMENT SOLUTIONS GROUP, INC	1.3			1.3	
SUSSEX WIRE INC	4.5	3.3		4.5	3.3
ESAB GROUP INC		26.4			26.4
SAGE SOFTWARE, INC	5.9			5.9	
ANSALDO STS USA INC	81.5	65.3		81.5	0.0
REAXIS, INC	2.7			0.0	
QUALARIS HEALTHCARE SOLUTIONS, INC	12.4			12.4	
CHELSEA BUILDING PRODUCTS INC	59.5	8.8		59.5	8.8
FEDEX GROUND PACKAGE SYSTEM INC	43.3	5.2		43.3	0.0
NURSERY SUPPLIES INC		3.4			3.4
SOLUTIA INC		12.2			12.2
LABORATORY TESTING, INC	6.2			6.2	
READEEMING BEAUTY, INC	1.5			1.5	
WACKER CHEMICAL CORPORATION	18.9			7.2	
VISTAR MEDIA INC		45.8			45.5
INTEGRATED POWER DESIGNS, INC	0.8			0.8	
WHITING CORPORATION		8.8			0.0
RECRO PHARMA INC	97.4	43.7		0.0	0.0
MINTEQ INTERNATIONAL INC	3.3	3.4		3.3	3.4
PROVIDENCE ENGINEERING CORPORATION	15.0	15.0		14.9	15.0
PSI PUMPING SOLUTIONS, INC	3.5	55.7		0.0	55.7
OPTOFLUIDICS INC		11.6			11.6
PROBLEM SOLUTIONS, LLC	14.5			2.1	
FORBO FLOORING, INC	16.0			16.0	
SPECIALTY MINERALS, INC	11.9			8.7	
STRUCTURED MINING SYSTEMS, INC	5.3			5.3	

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
FABRICATED COMPONENTS, INC	51.6			51.6	
CUMMINS ALLISON CORP	4.7	15.1		4.7	0.0
AXALTA COATING SYSTEMS, LLC	32.6			0.0	
BIO MED SCIENCES INCORPORATED	10.8	17.1		10.0	6.4
SPECTRAGENETICS INC		8.3			0.0
SPECIALTY FABRICATION & POWDER COATING	2.6	0.1		2.6	0.1
SILBERLINE MANUFACTURING CO, INC	12.4			12.4	
SMITHWISE, INC	19.5			0.0	
GRAPHIC PACKAGING INTERNATIONAL INC		3.4			0.0
ASHLEY FURNITURE INDUSTRIES, INC	8.5			0.0	
MIMEDX GROUP, INC	10.6			0.0	
HERAEUS INCORPORATED	40.3	80.9		27.4	0.2
EFS NETWORKS INC	13.2	2.0		0.0	0.0
GENTEX CORPORATION	45.1			45.1	
KLEINSCHMIDT ASSOCIATES INC	10.7	12.9		4.4	0.0
LIFE SUPPORT INTERNATIONAL INC		55.2			0.0
GEORGIA PACIFIC PANEL PRODUCTS, LLC	3.4			0.0	
INSTEEL WIRE PRODUCTS COMPANY		5.2			0.0
WABTEC CORP	34.9			34.9	
GILBERT ARCHITECTS, INC	8.5			8.5	
PPG ARCHITECTURAL FINISHES, INC	33.5			0.0	
ROSENBERGER USA CORP	6.1	5.5		6.1	5.5
TEKRESULTS LTD	1.4	2.3		1.4	2.3
HAVPAK INTERNATIONAL, INC	7.8			0.0	
RICHARDS ENERGY GROUP INC	14.5	11.9		14.5	11.9
PENN MANUFACTURING INDUSTRIES, INC	15.6			0.0	
X CELL TOOL & MOLD INC	29.6	12.2		29.6	12.2
CJ ROBINSON COMPANY		1.8			1.8
ALPINE SALES & RENTAL CORP	9.0			0.0	
POSITEK RFID, LP	2.8			0.0	
BIOSPECTRA INC	22.6	23.7		22.6	23.7
TIMOTHY HAAHS & ASSOCIATES, INC	6.6			0.0	
PRESSURE TECHNOLOGY	0.8			0.0	
AUGUSTINE DIE & MOLD INC		110.7			0.0
FEDEGARI TECHNOLOGIES INC	2.9	1.2		2.9	1.2
RG STEEL CORP	3.9			3.9	
GFS HOLDING CORP & SUBSIDIARIES		15.8			0.0
SHOWCLIX INC		7.8			0.0
ROBINSON FANS, INC	8.1			0.0	
DELSERRO ENGINEERING SOLUTIONS INC	3.3	1.4		3.3	1.4
JAVAN ENGINEERING INC	250.7	58.3		0.0	0.0
SHEA & LATONE INC	3.6	4.4		0.0	0.0
EDGEMATE, INC	20.3			0.0	
CREEHAN & COMPANY CORPORATION		28.8			0.0
MONTGOMERY BROS PLUMBING & HEATING, LLC	8.2			0.0	
AUGUSTINE PLASTICS INC		40.3			15.4
KEYSTONE ABRASIVES CO	0.2	0.4		0.2	0.4
TARGET PRECISION, LLC	25.4			8.5	
MILLENNIUM MANUFACTURING INC	28.5	8.6		28.5	0.0
3FX INC	29.7	9.3		29.7	0.0

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
RB DISTRIBUTION, INC	9.8			9.8	
PRECISION MEDICAL PRODUCTS, INC	24.5			0.0	
ABUWALA & COMPANY, LLC	22.4			22.4	
TECHNOTECTS, INC		2.0			2.0
SPECIALTY COATED PRODUCTS INC	7.9	2.7		0.0	0.0
J R PETERS INC	14.3	14.9		14.3	14.9
SENTINEL HOLDING INC		3.2			1.5
WEB TALENT LLC		7.4			7.4
JUDCO MANAGEMENT INC		8.3			0.0
LEVIS BUILDING COMPONENTS LLC		3.0			3.1
SECURESTRUX LIMITED, LLC	8.7			8.7	
EDWARD MARC BRANDS, INC	4.3			4.3	
BOYESEN, INC	1.1			1.1	
WARFEL CONSTRUCTION COMPANY		10.8			0.0
BURKHARDT SHEET METAL COMPANY INC	17.2	35.5		5.5	35.5
POLYMER PRODUCTS COMPANY, INC	1.3			1.3	
PASCO TOOL & PLASTICS INC		3.4			0.0
ACCESS SECURITY CORP	17.7	2.5		11.0	0.0
OKNA WINDOWS CORP	86.7			86.7	
ATOMIC DESIGN INC	35.3	45.5		35.3	45.5
HENNECKE, INC	62.9			8.8	
PENDU MANUFACTURING INC	95.5	28.1		95.5	28.1
IRENE'S BAKERY & GOURMET KITCHEN, INC	18.2			18.2	
EMINENCE ENTERTAINMENT ENTERPRISES LLC	9.6	9.1		0.0	0.0
CURRY SUPPLY CO	24.6			24.6	
UNIVERSAL ELECTRIC CORPORATION	26.3			26.2	
LIGHT TOOL & MACHINE, INC	25.0			25.0	
MILLER WELDING & MACHINE CO	19.7	6.4		19.6	6.4
MAGUIRE PRODUCTS, INC	27.3			0.0	
BURNS ENGINEERING INC		91.0			0.0
NEU DYNAMICS CORP	3.7	0.8		3.7	0.8
CHANT ENGINEERING CO INC	4.7	2.0		4.7	0.0
STARLITE DIVERSIFIED INC		5.6			5.6
ARROW INTERNATIONAL INC	52.3	41.5		52.3	41.5
VELOCITYNET COMMUNICATIONS, INC	8.8			8.8	
MCADOO & ALLEN INC	6.2	1.6		6.2	1.6
LEISTERS FURNITURE, INC	1.5			0.0	
TALBAR INC	21.0	3.4		0.0	0.0
MARTINS FAMOUS PASTRY SHOPPE INC		13.2			13.2
BULK CHEMICALS, INC	6.0			6.0	
JIG, INC	29.9			0.0	
ANRO, INC	1.2			1.2	
BOOSE AT CORNWALL INC	5.8	2.9		0.0	0.0
RJP CONSULTING GROUP, LLC	54.0			0.0	
NOVELTY MANUFACTURING CO	10.4			10.4	
JARUS TECHNOLOGIES INCORPORATED	15.2			1.2	
NATIONAL GLASS AND METAL CO, INC	1.0			1.0	
DOUBLE H PLASTICS INC		11.9			0.0
MH EBY, INC	12.9			12.9	
HIGHPOINT TOOL AND MACHINE, INC	32.1			0.0	

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
VOIPSTREET, INC	28.0			0.0	
HEETER PRINTING COMPANY	3.8			3.8	
WAYNE AUTOMATION CORPORATION		9.3			9.3
MATRIX TOOL, INC	5.2			5.2	
GRAYBILLS TOOL & DIE INC	73.3	31.2		73.3	3.2
BLATEK, INC	6.7			6.7	
GLENN O HAWBAKER INC		0.3			0.3
GATTER & DIEHL INC		5.5			5.5
ERIE AVIATION INC	25.4	41.3		0.0	31.8
MISCO PRODUCTS CORPORATION		0.9			0.0
KOPPERS INC		12.2			0.0
KONGSBERG PROTECH SYSTEMS USA CORP	2.0	4.0		2.0	4.0
WINTER GARDENS QUALITY FOODS, INC	2.3			0.0	
HYDROSPRAY WASH SYSTEMS, INC	14.4			0.0	
INTEGRATED MANAGEMENT SOLUTIONS, INC	11.5			0.0	
FILMTRONICS, INC	7.8			0.0	
MIRIA SYSTEMS, INC	5.9			0.0	
GERG TOOL AND DIE, INC	27.8			0.0	
WTW ARCHITECTS, INC	9.3			0.0	
R & D COATINGS, INC	22.6	22.8		0.0	0.0
CHEMCUT HOLDINGS, LLC	10.1			0.0	
INVERSE PARADOX, LLC	19.4			19.4	
T M INDUSTRIAL SUPPLY INC		0.1			0.0
AUTO SOFT INC	98.0	80.5		98.0	80.5
AMUNEAL MANUFACTURING CORP	33.2	47.3		33.1	0.0
VISTA METALS INC		3.5			0.0
MECO CONSTRUCTORS, INC	10.6			0.0	
HYDRO PAC INC	134.5	9.7		134.5	0.0
ABEC, INC	9.6			0.0	
EFE LABORATORIES, INC	60.1			60.1	
PENN METAL STAMPING INC	18.0	29.5		0.0	0.0
ZEPHYR ALUMINUM, LLC	12.4			0.0	
MAXX ORTHOPEDICS INC	0.9	4.4		0.9	4.4
R M PALMER COMPANY	18.6	20.0		18.6	0.0
ACTUATED MEDICAL INC	0.5	0.7		0.5	0.0
IMPERIAL CARBIDE INC	2.5	2.6		2.5	2.6
TELEOSOFT, INC	32.4			0.0	
A & H SPORTSWEAR CO INC	12.1	1.2		12.1	1.2
QUAKER MAID MEATS, INC	15.1			0.0	
PROCESS COMBUSTION CORP	133.9	130.8		0.0	57.5
AMPLIFIER RESEARCH CORP	18.1	9.1		0.0	0.0
C & J INDUSTRIES, INC	27.9			0.0	
ACADEMYONE, INC	59.9			42.6	
GIORGIO FOODS, INC	0.3			0.0	
LUTRON ELECTRONICS CO, INC	140.0			140.0	
IMMUNOME INC	61.3	91.0		0.0	0.0
NOVOTECH CONSTRUCTION, INC	1.9			1.9	
HUSTON INC	7.6	0.5		7.6	0.5
CARDINAL SYSTEMS, INC	0.1			0.0	
GOLDEN PROPORTIONS MARKETING, INC	3.4			0.0	

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	2018	2019	2020	2018	2019
LIFESTYLE FOODS INC	2.6	5.4		0.0	5.4
BLAIR COMPANIES		0.8			0.0
PLASTEK INDUSTRIES INC	35.9	129.0		35.9	129.0
BOSCH REXROTH CORPORATION	31.6	17.9		31.6	17.9
DEMPSEY UNIFORM & LINEN SUPPLY, INC	7.8			0.0	
AUTOMATED FINANCIAL SYSTEMS, INC	45.3	31.6		45.3	0.0
TRIGON HOLDING, INC	8.5			0.0	
BETTWY ELECTRIC, INC	5.4			5.4	
OHM LABS, INC	10.9			10.9	
CONTROLS SERVICE & ENGINEERING COMPANY		46.2			35.6
THE ADEPT CORPORATION	8.1			0.0	
VULCAN SPRING & MFG CO		1.5			0.0
LF LAMBERT SPAWN COMPANY, INC	1.4			0.0	
ACOPIAN TECHNICAL COMPANY	3.5			3.5	
SIGMAPHARM LABORATORIES LLC	42.4	85.6		42.4	0.0
BLUE RIDGE PRESSURE CASTINGS, INC	5.3			5.3	
MICHAEL BAKER INTERNATIONAL, INC	21.4			21.4	
CIRCADIANCE LLC		0.5			0.0
INDUSTRIAL RESOLUTION, LLC	22.3			22.3	
PRETZEL PETE INC	0.2	1.0		0.2	0.0
IMPULSE TECHNOLOGY	4.8	8.7		0.0	8.7
SCIENCE APPLICATIONS INTERNATIONAL CORP	7.9			7.9	
ALTOONA ROOFING & SHEET METAL, INC	5.3			5.3	
PHOENIX TECHNICAL SOLUTIONS, INC	25.7			25.7	
WALL CO INC		7.7			0.0
TRINITY PLASTICS, INC	1.5			1.5	
ZSX MEDICAL, LLC	60.3			60.3	
BAE SYSTEMS LAND & ARMAMENTS, LP	315.9			0.0	
SOPHIA 1, INC	65.9	35.2		56.4	35.2
IMG MIDSTREAM, LLC	1.0			0.0	
FORGE LIFE SCIENCES, LLC	43.7			0.0	
JETPACK WORKFLOW INC		49.2			49.2
CLOUD CHEMISTRY, LLC	9.6			0.0	
MYACCLAIM, LLC	3.0			0.0	
PHL COLLECTIVE LLC	25.7	37.0		12.2	10.7
CENTRAL HYDRAULICS INC		0.5			0.0
FIBER-LINE INVESTMENT LLC	2.2	13.8		0.0	0.0
OPTIMIZED MARKETS INC		3.4			3.4
AEVI GENOMIC MEDICINE, INC	135.6	25.5		135.6	0.0
COATINGTECH, LLC	1.3	0.3		1.3	0.3
LIVEGENIC, INC	34.1			34.1	
DENTAL IMAGING TECHNOLOGIES CORP	45.1			34.9	
PETERSON CARTRIDGE CO	7.4	5.9		7.4	0.0
INCYTE CORPORATION	1,156.6			1,156.6	
DVCC, INC AND SUBSIDIARIES	4.6			0.0	
BRIGHTBYTES, INC		2.5			2.5
WFE HOLDINGS, LLC	11.9			11.9	
ADIAON LLC		3.7			0.0
ELLINGSON DRAINAGE, INC	3.2			0.0	
3GTMS, INC	109.7	2.8		109.7	0.0

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	2018	2019	2020	2018	2019
PRIMETALS TECHNOLOGIES USA LLC	86.2	115.7		86.2	115.7
VERYAPT, INC	24.0			24.0	
BLAIR TOOL AND PLASTICS COMPANY LLC		1.6			0.0
FOXHOLE TECHNOLOGY, INC	6.2			6.2	
CELERO COMMERCIAL SOLUTIONS, LLC	3.6			3.6	
WOODWARD MCOACH, INC	6.3			0.0	
OCTECH, LLC	7.1	7.2		0.0	0.0
INNOVAGE, LLC	9.0			0.0	
G-P PANEL PRODUCTS LLC		22.8			0.0
TREATSPACE INC		1.2			0.0
I2R NANOWAVE INC	27.7	21.9		0.0	0.0
SAVAGE VISUAL EFFECTS, LLC	30.1			0.0	
PHOTOSONIX MEDICAL, INC	10.5			10.5	
TELEFACTOR ROBOTICS, LLC	14.3			0.0	
TRAFFICCAST INTERNATIONAL INC	10.0	20.9		0.0	0.0
RINOVUM WOMEN'S HEALTH, LLC		4.0			0.0
CLOUDSHADOW, LLC	18.6	5.8		0.0	0.0
SMARTYPAL, INC	17.7			17.7	
EVOLVENT HEALTH, INC	10.9			0.0	
TROY GROUP, INC	0.7			0.0	
GSI HEALTH, LLC	117.7	7.7		0.0	0.0
PROFESSIONAL STAFFING SOLUTIONS, LLC	44.4			0.0	
I I-VI OPTOELECTRONIC DEVICES INC		23.7			0.0
IDENTIFIED TECHNOLOGIES CORPORATION	50.8			50.8	
MCM ELEMENTS LLC		3.8			0.0
ZYNERBA PHARMACEUTICALS INC	27.7	44.9		0.0	0.0
VIRONIKA LLC		4.5			0.0
FLEXSYS AMERICA, LP	7.3			0.0	
ENVIRONMENTAL CONTROL SERVICES II INC	24.8	7.2		12.9	0.0
CLEAN EARTH, INC	6.6			6.6	
ITRCO LP	18.4	10.8		0.0	10.8
J K TOOL, INC	7.3			0.0	
TRAVELWITS LLC	5.6	4.9		5.6	0.0
COMMERCE SERVICES, LLC	0.2			0.2	
BALD EAGLE PRECISION, LLC	6.6			0.0	
JLS AUTOMATION, LLC	6.2			0.0	
GULDEN OPHTHALMICS, INC	1.8			0.0	
IOP HOLDINGS LLC	6.2	10.1		0.0	0.0
SWITCHEROO, LLC	0.4			0.0	
PITTMOSS, LLC	2.0			0.0	
AES ASSET ACQUISITION CORPORATION	4.1	1.5		4.1	0.1
LYCERA CORP	37.7	23.1		0.0	0.0
OAT FOUNDRY, LLC	11.8			11.8	
PRACTICEMATCH CORPORATION	11.4	1.7		11.4	1.7
PROJECT VIVE LLC		2.5			0.0
R&B LABORATORY, INC	6.5			6.5	
SENTINEL CAMERA SYSTEMS, LLC	0.1			0.0	
TIGHT ROCK SOLUTIONS, LLC		34.5			0.0
EVOL SCIENCE LLC	4.5	7.0		0.0	0.0
ADRIK, LLC	4.1	7.4		4.1	7.4

PENNSYLVANIA RESEARCH & DEVELOPMENT TAX CREDIT - 2021 REPORT

APPENDIX A - TAXPAYERS RECEIVING CREDIT IN EITHER DECEMBER 2018, 2019, OR 2020

NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
HUMAN MOTION TECHNOLOGIES, LLC	30.6			0.0	
BPI HOLDING GROUP, LLC		81.7			0.0
DESTINATION KNOWN		1.1			0.0
ACROBATIOQ, INC	5.7			5.7	
DIEHL CO, LLC	8.2			0.0	
TRADEMARK VISION USA LLC	27.4	86.6		0.0	0.0
OPTIMUS TECHNOLOGIES INC	20.1	7.1		20.1	7.1
VELOCITY ROBOTICS, INC		4.4			0.0
INTERPHASE MATERIALS, INC	0.4			0.0	
ONLINE STORES, LLC	0.4			0.0	
CIVIC MAPPER LLC	2.6	2.6		0.0	2.6
HEAVYWATER, INC	41.3			41.3	
MIGHTY HOLDINGS, INC	0.7			0.0	
LOST TAVERN BREWING, LLC	1.2	0.5		0.0	0.0
SENSOR NETWORKS INC	12.4	100.6		12.4	11.9
WISE TELEMETRY LLC	4.4	1.6		4.4	1.6
PLAN A, INC	6.9			0.0	
INSTITUTE ON HEALTHCARE DIRECTIVES	2.9	1.0		0.0	0.0
LOOP SOFTWARE, LLC	9.9			0.0	
CURAVI, INC	56.9	22.2		56.9	0.0
COME READY FOODS LLC	12.9	10.9		0.0	0.0
ENGAGED PROSPECT, LLC	3.4			0.0	
MEBIAS DISCOVERY, LLC	29.4			0.0	
MODERN WALL SYSTEMS, LP	20.1			20.1	
SPARK CURES, LLC	2.0			2.0	
SPARKS MARKETING CORP	34.5			34.5	
WESTERN ONCOLYTICS, LTD	35.3			0.0	
NEATCAP MEDICAL, LLC	0.5			0.0	
TRIGON PLASTICS, LLC	5.4			0.0	
CASUAL LIVING UNLIMITED LLC	5.6	10.9		0.0	0.0
MEDCRYPT INC		12.5			0.0
NIVO1, LLC		23.5			0.0
INSECTARIUM & BUTTERFLY PAVILION	17.6			0.0	
A I LABS, LLC	135.9			135.9	
RAILROAD CITY BREWING COMPANY	0.4			0.0	
G ADASAVAGE, LLC	18.4			18.4	
ADVANCED CONSTRUCTION ROBOTICS, INC	17.4			0.0	
X MATERIAL PROCESSING, LLC	2.5			2.5	
CIVI BIOPHARMA INC		34.5			0.0
THE RAINMAKER GROUP VENTURES, LLC	16.1			0.0	
DENTAL MARKETING INSIGHTS, LLC	9.9			0.0	
VINCENT PAYMENT SOLUTIONS, INC		69.3			0.0
STRADOS LABS LLC	5.3	4.1		0.0	4.1
RENERVA		5.9			0.0
LEANFM TECHNOLOGIES, INC		11.2			0.0
AUTOMAP, LLC	34.1			0.0	
PIANO SOFTWARE INC		11.4			0.0
MUSIC EVERYWHERE, INC		3.6			0.0
JDV ROBOTICS, INC	0.2			0.0	
INTERSTACKS, INC	0.2			0.0	

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NAME	AWARDS (\$K)			UTILIZATIONS (\$K)	
	2018	2019	2020	2018	2019
REDLAND QUARRIES NY INC		1.6			1.6
COMPOSER, LLC	16.4	9.7		0.0	9.7
SIG MEDICAL CORP	2.9	9.6		0.0	0.0
RED QUEEN GAMING LLC	7.9	8.5		0.0	0.0
TAMINCO CORPORATION	2.4			2.4	
NOVASEPAMERICASINC	9.9	2.0		0.5	0.0
YNOT DISTRIBUTING LLC		1.1			0.0
GLOBIN SOLUTIONS INC		34.5			34.5
PXO HOLDINGS III CORP		8.3			0.0
NELSON	3.3	2.5		0.0	0.0
DARYL G STANLEY	1.4			0.0	
ADVANCED ALLOY PROCESSING CORPORATION		1.9			1.9
MICHELE LUCIEW	2.4			0.0	
STRONG INDUSTRIES, INC		73.8			0.0
GROVARA, LLC		3.0			0.0
SEA PHARMACEUTICALS, LLC	11.3	3.1		0.0	0.0
CARNEGIE SPEECH		4.2			0.0
NORIA TECHNOLOGIES, LLC	22.9			0.0	
CITIZENDEVELOPERCOM, LLC	55.0			0.0	
BEHAVIOR LLC		2.5			0.0
	55,000.0	55,000.0	55,000.0	36,395.1	26,593.0