

American Institute of Chemical Engineers  
Financial Statements  
(Together with Independent Auditors' Report)  
Years Ended December 31, 2018 and 2017

**MARKS PANETH**

ACCOUNTANTS & ADVISORS

AMERICAN INSTITUTE OF CHEMICAL ENGINEERS

FINANCIAL STATEMENTS  
(Together with Independent Auditors' Report)

YEARS ENDED DECEMBER 31, 2018 AND 2017

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AMERICAN INSTITUTE OF CHEMICAL ENGINEERS  
 STATEMENTS OF ACTIVITIES  
 FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

	<u>Without Donor Restrictions</u>	<u>With Donor Restrictions</u>	<u>Total 2018</u>	<u>Total 2017</u>	<u>Without Donor Restrictions</u>	<u>With Donor Restrictions</u>
<b>OPERATING ACTIVITY:</b>						
<b>REVENUE AND SUPPORT:</b>						
Dues and other membership revenue (Note 2H)	\$ 3,122,547	\$ -	\$ 3,122,547	\$ 3,203,040	\$ 3,203,040	\$ -
Publications sales and subscriptions	3,191,478	-	3,191,478	3,141,830	3,141,830	-

AMERICAN INSTITUTE OF CHEMICAL ENGINEERS  
STATEMENT OF FUNCTIONAL EXPENSES  
FOR THE YEAR ENDED DECEMBER 31, 2018  
(WITH COMPARATIVE TOTALS FOR DECEMBER 31, 2017)

	Program Services											
	Membership	Publications	Industry Technology Group	Meetings and Technical Programming	Education Services	Other Program Expenses	Total Program Services	General and Administration	Fundraising	Total Supporting Services	Total 2018	Total 2017
Salaries	\$ 1,276,001	\$ 1,128,879	\$ 3,968,839	\$ 1,434,253	\$ 1,085,238	\$ 296,500	\$ 9,189,710	\$ 2,224,493	\$ 622,924	\$ 2,847,417	\$ 12,037,127	\$ 10,928,591
Payroll taxes and employee benefits (Note 7)	414,325	366,553	1,288,705	465,710	352,383	96,275	2,983,951	475,866	157,067	632,933	3,616,884	3,219,776
<b>Total Salaries and Related Costs</b>	<u>1,690,326</u>	<u>1,495,432</u>	<u>5,257,544</u>	<u>1,899,963</u>	<u>1,437,621</u>	<u>392,775</u>	<u>12,173,661</u>	<u>2,700,359</u>	<u>779,991</u>	<u>3,480,350</u>	<u>15,654,011</u>	<u>14,148,367</u>



AMERICAN INSTITUTE OF CHEMICAL ENGINEERS  
STATEMENTS OF CASH FLOWS  
FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

	2018	2017
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Change in net assets	\$ 600,525	\$ 3,623,535
Adjustments to reconcile change in net assets to net cash provided by (used in) operating activities:		
Realized and unrealized loss (gain) on investments	2,143,271	(2,908,499)
Depreciation and amortization	777,920	688,849
Bad debt expense (recapture)	120,970	(56,413)
Subtotal	3,642,686	1,347,472
Changes in operating assets and liabilities:		
(Increase) or decrease in assets:		
Accounts receivable	(3,384,726)	(2,554,195)
Prepaid expenses and other	(141,002)	(5,617)
Contributions receivable	(1,425,273)	170,702
(Decrease) or increase in liabilities:		
Accounts payable	(618,961)	(10,653)
Accounts payable to subrecipients	3,086,144	1,591,784
Deferred revenue	40,832	(315,729)
Accrued expenses:		
Employee vacation and other benefits	28,422	(16,595)
Pension and other postretirement benefit costs	143,425	(292,515)
Other	101,868	(195,394)
Net Cash Provided by (Used in) Operating Activities	1,473,415	(280,740)
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Purchases of investments	(3,116,789)	(3,489,798)
Proceeds from the sale of investments	2,078,906	4,534,927
Purchases of property and equipment	(886,745)	(801,140)
Net Cash (Used in) Provided by Investing Activities	(1,924,628)	243,989
<b>NET DECREASE IN CASH AND CASH EQUIVALENTS</b>	(451,213)	(36,751)
Cash and cash equivalents - beginning of year	2,219,313	2,256,064
<b>CASH AND CASH EQUIVALENTS - END OF YEAR</b>	\$ 1,768,100	\$ 2,219,313

The accompanying notes are an integral part of these financial statements.



AMERICAN INSTITUTE OF CHEMICAL ENGINEERS  
NOTES TO FINANCIAL STATEMENTS  
DECEMBER 31, 2018 AND 2017

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NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)



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NOTE 4 – INVESTMENTS AND FAIR VALUE MEASUREMENTS

Investments consisted of the following at December 31 and were classified as Level 1 in the fair value hierarchy (as defined below):

	<u>2018</u>	<u>2017</u>
Mutual Funds		
U.S. Large Cap/Mid Cap	\$ 5,923,755	\$ 6,777,448
U.S. Small Cap	1,196,224	1,549,940
Diversified Foreign Equity	7,010,189	7,614,064
U.S. Core Bonds	8,256,637	8,505,140
Global Bonds	3,066,340	2,591,658
Money Market Mutual Funds	<u>840,134</u>	<u>336,745</u>
Total mutual funds	26,293,279	27,374,995
Equity securities – domestic	<u>5,713</u>	<u>29,385</u>
Total investments	<u>\$ 26,298,992</u>	<u>\$ 27,404,380</u>

Investments are subject to market volatility that could change their carrying value in the near term.

Investment activity consisted of the following for the years ended December 31:

	<u>2018</u>	<u>2017</u>
Interest and dividends	\$ 686,821	\$ 600,057
Realized and unrealized (losses)/gains	(2,143,271)	2,908,499
Investment fees	<u>(72,410)</u>	<u>(69,719)</u>
	<u>\$ (1,528,860)</u>	<u>\$ 3,438,837</u>

The fair value hierarchy defines three levels as follows:

Level 1: Valuations based on quoted prices (unadjusted) in an active market that are accessible at the measurement date for identical assets or liabilities. The fair value hierarchy gives the highest priority to Level 1 inputs. Level 1 valuations are obtained from real-time quotes for transactions in active exchange markets involving identical assets.

Level 2: Valuations based on observable inputs other than

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NOTE 5 – CONTRIBUTIONS RECEIVABLE

Contributions receivable consisted of the following as of December 31:

	2018	2017
Amounts due in:		
Less than one year	\$ 1,492,291	\$ 992,795
One to five years	2,489,862	1,564,087
Gross contributions receivable	3,982,153	2,556,882
Less: allowance for uncollectible accounts	(82,243)	(51,138)
Less: discount to present value at 3%	(138,903)	(81,266)
	\$ 3,761,007	\$ 2,424,478

NOTE 6 – PROPERTY AND EQUIPMENT

Property and equipment consisted of the following as of December 31:

	2018	2017	Estimated Useful Lives
Furniture and fixtures	\$ 464,033	\$ 449,996	3-5 Years
Computer and office equipment	5,015,440	4,163,603	3-10 Years
Leasehold improvements	158,822	137,951	15 Years
Total cost	5,638,295	4,751,550	
Less: accumulated depreciation/amortization	(2,999,850)	(2,221,930)	
Net book value	\$ 2,638,445	\$ 2,529,620	

Depreciation and amortization expense amounted to \$777,920 and \$688,849 for the years ended December 31, 2018 and 2017, respectively.

NOTE 7 – PENSION PLANS

Through December 31, 2005, AIChE had an active noncontributory, defined benefit pension plan covering all full-time employees, unless the employee was covered by another retirement plan, via a collective bargaining agreement. As of December 31, 2005, AIChE froze this plan. AIChE continues to maintain this plan for all plan participants; however, further benefits and new participants have not been provided since December 31, 2005. The benefits are based on years of service through December 31, 2005 and the employee's average pay. Average pay is defined as the highest average of basic annual pay including any overall incentive program compensation during any 36 consecutive months within the 120-month period prior to December 31, 2005. AIChE's funding policy is to contribute such amounts as are necessary on an actuarial basis to provide the plan with assets sufficient to provide benefits to plan participants.

This calculation below reflects a settlement as of December 31, 2018 resulting from the lump sum payments distributed during the year. There are no other calculations that have been made regarding certain events under FASB Accounting Standards Codification ("ASC") Subtopic 715-30.

AIChE also maintains a qualified contributory defined contribution retirement plan pursuant to IRS Section 403(b) for its employees. Employees are eligible to participate after 500 hours of service in a 6-month period and upon attaining the age of 21. Under the terms of the plan, employees are entitled to defer a portion of their annual compensation within limitations established by the IRC. AIChE matches each employee's contribution, up to a maximum of 3% of annual compensation. Contributions are deemed to be vested upon completion of two years of employment. AIChE's contributions under the plan amounted to \$256,635 and \$213,845 for the years ended December 31, 2018 and 2017, respectively.



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NOTE 7 – PENSION PLANS (Continued)

The weighted-average assumptions used to determine the benefit obligation and net periodic benefit cost for the pension plan as of and for the years ended December 31 were as follows:

	<u>2018</u>	<u>2017</u>
Discount rate used for net periodic benefit cost	4.75%	4.25%
Discount rate used for pension obligation	4.75%	4.25%
Expected return on plan assets	6.80%	7.00%

The defined benefit plan's expected rate of return on plan assets is determined by the plan assets' historical long-term investment performance, current asset allocation, and estimates of future long-term returns by asset class.

AIChE expects to contribute \$118,000 to its pension plan in 2019.

The following schedule of benefit payments for the pension plan, which reflec

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NOTE 7 – PENSION PLANS (Continued)

The composition of AIChE’s plan assets is a target asset mix allocated 54%/46% between equity and fixed-income securities. Since the primary purpose of the plan is to provide benefits at normal retirement age, the primary goal of the investment of funds in the plan is to provide a long-term annualized investment return equivalent or superior to the plan’s current discount rate, and consistently above the median performance of an appropriate peer manager universe.

In pursuing these objectives, the risk tolerance of the plan should be viewed as moderate. Volatility of annual returns, including losses in value, may be tolerated provided they are consistent with current benchmark volatility and there are reasonable expectations the plan can achieve its long-term objectives. Volatility will be reduced by assuring that the plan assets are at all times diversified by asset class, economic sector, and industry and/or market capitalization. The target asset mix is developed and periodically reviewed based on rolling three and five-year strategic investment horizons. In order to effectively maintain the benefits of diversification, actual allocation percentages are rebalanced back to the current asset target mix on a quarterly basis.

NOTE 8 – POSTRETIREMENT OTHER THAN PENSIONS

AIChE has a contributory postretirement medical and life insurance plan for all eligible employees. As of February 1, 2007, each participant was eligible to receive benefits at age 55 with the completion of five years of service, or attainment of age 62 or age 60 in the case of a position elimination. Prior to February 1, 2007, each participant was eligible to receive benefits at age 55 and 10 years of service, or age 62 or age 60 if the position was eliminated. Employees hired after February 1, 2007 were eligible to purchase coverage under the postretirement medical plan, but were not eligible for any subsidy from AIChE. In addition, employees hired after February 1, 2007 were not eligible to receive postretirement life insurance benefits. Coverage for both the retiree and the spouse continued for their lifetimes, so long as required contributions were made. AIChE contributed an amount equal to the difference between the medical plan cost and the retiree’s contributions for medical coverage, up to a limit of two times AIChE’s contribution paid in 1995 for such coverage.

Effective December 1, 2016, the postretirement medical plan was amended to change coverage for current retirees to a Health Reimbursement Account (“HRA”) funded by annual contributions from AIChE. Such change decreased the benefit obligation by approximately \$336,000 in 2016.

During 2017, AIChE further reduced the benefit obligation by providing future retirees with a one-time payment of \$10,000 into a second HRA account. Upon retirement, AIChE will fund the HRA for future retirees with a Normal Retirement Date (NRD) between December 1, 2016 and December 1, 2023. As of December 31, 2018, the accumulated postretirement benefit obligation related to the HRAs was \$176,366.

The funded status of the plan as of December 31 was as follows:

	<u>2018</u>	<u>2017</u>
Change in benefit obligation:		
Benefit obligation at beginning of year	\$ 723,284	\$ 966,243
Service cost	1,250	4,321
Interest cost	31,184	40,718
Plan amendments	-	(202,671)
Actuarial gain	(19,122)	(46,552)
Benefits paid	<u>(39,625)</u>	<u>(38,775)</u>
Benefit obligation at end of year	<u>696,971</u>	<u>723,284</u>
Funded status	<u>\$ (696,971)</u>	<u>\$ (723,284)</u>



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NOTE 8 – POSTRETIREMENT OTHER THAN PENSIONS (Continued)

Amounts recognized in unrestricted net assets for the plan consisted of the following as of December 31:

	<u>2018</u>	<u>2017</u>
Prior service credit	\$ 362,654	\$ 481,746
Gain	<u>338,100</u>	<u>355,961</u>
	<u>\$ 700,754</u>	<u>\$ 837,707</u>

The components of net periodic benefit (income) cost for the years ended December 31 were as follows:

	<u>2018</u>	<u>2017</u>
Service cost	\$ 1,250	\$ 4,321
Interest cost	31,184	40,718
Amortization of prior service credit	(119,092)	(56,942)
Amortization of net gain	<u>(36,983)</u>	<u>(29,838)</u>
Net periodic benefit (income) cost	<u>\$ (123,641)</u>	<u>\$ (41,741)</u>

Other changes in plan assets and benefit obligations recognized in the change in unrestricted net assets for the years ended December 31 were as follows:

	<u>2018</u>	<u>2017</u>
Actuarial gain	\$ (19,122)	\$ (46,552)
Prior service credit	-	(202,671)
Amortization of prior service credit	119,092	56,942
Amortization of net gain	<u>36,983</u>	<u>29,838</u>
Total recognized in change in unrestricted net assets	<u>\$ 136,953</u>	<u>\$ (162,443)</u>
Total recognized in net periodic pension cost and change in unrestricted net assets	<u>\$ 13,312</u>	<u>\$ (204,184)</u>

The estimated net gain, transition obligation and prior service credit for the plan that will be amortized from the net asset without restrictions balance into net periodic benefit cost over the next fiscal year is \$49,000, \$0 and \$119,000, respectively.

The weighted-average assumptions to determine the benefit obligation and net periodic benefit cost as of and for the years ended December 31 were as follows:

	<u>2018</u>	<u>2017</u>
Discount rate used for net periodic benefit cost	4.75%	4.25%
Discount rate used for benefit obligations	4.75%	4.25%

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NOTE 8 – POSTRETIREMENT OTHER THAN PENSIONS (Continued)

The following schedule of benefit payments (net of expected participant contributions), which reflects expected future services, as appropriate, are expected to be paid in each of the next five year

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NOTE 10 – COMMITMENTS AND CONTINGENCIES (Continued)

**D. *Uncertainty in Income Taxes***

AIChE believes it had no uncertain tax positions as of December 31, 2018 and 2017 in accordance with ASC Topic 740, "Income Taxes," which provides standards for establishing and classifying any tax provisions for uncertain tax positions.

NOTE 11 – OTHER PROGRAM EXPENSES

Other program expenses reflect the decision by the Board of Directors that certain operations should be supported from surpluses from self-supporting operations, other operating revenues, and a portion of investment return. Certain other amounts, as approved by the Board of Directors, are also available for operating purposes. The supported programs include the following for the years ended December 31:

	<u>2018</u>	<u>2017</u>
Subsidized activities include the governance of AIChE, public and governmental outreach programs, and support for the chemical engineering profession	\$ 1,319,460	\$ 1,405,912
Financial services	<u>235,321</u>	<u>193,534</u>
	<u>\$ 1,554,781</u>	<u>\$ 1,599,446</u>

NOTE 12 – CHARITABLE REMAINDER TRUSTS

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NOTE 13 – PUBLISHING AGREEMENTS (Continued)

B. In February 2005, AIChE entered into a four–y

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NOTE 14 – ENDOWMENTS (Continued)

Changes in endowments for the years ended December 31 were as follows:

	2018	2017
Activity:		
Investment activity:		
Interest and dividends	\$ 56,932	\$ 38,303
Realized/unrealized (losses)/gains	<u>(177,658)</u>	<u>185,655</u>
Total investment activity	(120,726)	223,958
Contributions	420,837	547,614
Amount appropriated for expenditure	<u>(76,368)</u>	<u>(66,190)</u>
Total activity	223,743	705,382
Endowment net assets, beginning of year	<u>2,539,396</u>	<u>1,834,014</u>
Endowment net assets, end of year	<u>\$ 2,763,139</u>	<u>\$ 2,539,396</u>

Endowment net assets of \$2,763,139 and \$2,539,396 as of December 31, 2018 and 2017, respectively, are included with investments in the accompanying statements of financial position.

NOTE 15 – CONCENTRATION OF CREDIT RISK

Cash and cash equivalents that potentially subject AIChE to a concentration of credit risk include cash accounts with financial institutions that exceed the Federal Deposit Insurance Corporation (“FDIC”) insurance limits. The FDIC provides deposit insurance coverage of up to \$250,000 per depositor. As of December 31, 2018 and 2017, there was approximately \$1,976,000 and \$2,387,000, respectively, of cash and cash equivalents, held by one financial institution that exceeded FDIC limits and which represents a concentration of credit risk. On behalf of the Board of AIChE, the Finance Committee has evaluated the credit risk

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NOTE 16 – REVENUE AND SUPPORT (Continued)

2. Technical Entities (TEs) are individual communities of chemical engineers and other professionals, who address certain societal grand challenges such as health and nutrition, energy, environment and sustainability, water and safety. These entities keep AIChE at the forefront of new technologies available to chemical engineers. Their goal is to expand AIChE’s reach to engineers and scientists who are working in fields beyond core chemical engineering competencies and who are concentrating on these challenges. AIChE’s Institute for Sustainability (IfS) and Society for Biological Engineering (SBE) were founded nearly 15 years ago, and have subsequently expanded their reach and technical content through workshops, conferences, credentialing and educational offerings. Since then, additional technical entities such as the Center for Energy Initiatives (CEI), the International Metabolic Engineering Society (IMES), the International Society for Water Solutions (ISWS), the Center for Innovation and Entrepreneurship Excellence (CIEE) and the Regenerative Engineering Society (RE Society) have been created. Additionally, the Design Institute for Emergency Relief Systems (DIERS) reorganized to become a technical entity, enabling it to develop an individual membership structure. Revenues from TEs are mainly from conference registrations, sponsorships and exhibits. All “entities” described above are not separately incorporated, but rather operating under “Doing Business As” or D/B/A’s.

ITG revenue consists of the following for the years ended December 31:

	2018	2017
Industry Technology Groups (ITG)		
REVENUE AND SUPPORT:		
Federal Government grants	\$ 10,015,699	4,767,096

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NOTE 17 – RAPID MANUFACTURING INSTITUTE

On October 24, 2016, AIChE was selected by the U.S. Department of Energy to establish a manufacturing institute on *Modular Chemical Process Intensification*. The Rapid Manufacturing Institute (“RAPID” – Rapid Advancement in Process Intensification Deployment) is part of a federal government initiative on advanced manufacturing, established to enhance the competitiveness of U.S. manufacturing, while improving energy efficiency of the sector as a whole. AIChE will receive \$70 million for RAPID over five years with a minimum of 1:1 matching funds from its members in industry, academia, national labs, and other non-profits. AIChE has met its matching requirements for the year ended December 31, 2018.

RAPID’s focus is on the application of modular chemical process intensification in manufacturing processes as a means of lowering costs, improving energy and resource efficiency, increasing overall productivity and maintaining manufacturing jobs within the United States of America (the “U.S.”). One of the primary goals of RAPID and the other institutes is to enable manufacturing within the U.S. to expand and grow.

RAPID leverages AIChE’s relationships with industry and academia, along with its close ties to the Clean Energy Smart Manufacturing Innovation Institute. AIChE brings its substantial educational resources and infrastructure to bear to train students and professionals in the dissemination and application of new module process intensification tools. AIChE capitalizes on the expertise of its global network of industrial and academic professionals and its long-standing experience of managing subsidiary technical centers such as the Center for Chemical Process Safety, the Design Institute for Physical Properties, and the Chinese Hamster Ovary Genomic