

American Institute of Chemical Engineers

Financial Statements (Together with Independent Auditors' Report)

Years Ended December 31, 2017 and 2016



ACCOUNTANTS & ADVISORS

### **AMERICAN INSTITUTE OF CHEMICAL ENGINEERS**

### FINANCIAL STATEMENTS (Together with Independent Auditors' Report)

### YEARS ENDED DECEMBER 31, 2017 AND 2016

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#### INDEPENDENT AUDITORS' REPORT

To The Board of Directors of American Institute of Chemical Engineers

We have audited the accompanying financial statements of American Institute of Chemical Engineers ("AIChE"), which comprise the statements of financial position as of December 31, 2017 and 2016, and the related statements of activities and cash flows for the years then ended, and the related notes to the financial statements.

### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of AIChE as of December 31, 2017 and 2016, and the changes in its net assets and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

New York, NY April 30, 2018

Marks Paneth UP



### AMERICAN INSTITUTE OF CHEMICAL ENGINEERS STATEMENTS OF FINANCIAL POSITION AS OF DECEMBER 31, 2017 AND 2016

		2017		2016
ASSETS				
Cash and cash equivalents (Notes 2D and 14)	\$	2,219,313	\$	2,256,064
Investments, at fair value (Notes 2E, 3, 9A and 9C)		27,404,380		25,541,010
Accounts receivable, net (Note 2F and 16)		4,932,298		2,408,112
Pledges receivable, net (Notes 2C and 4)		2,424,478		2,508,758
Prepaid expense and other (Note 11)		321,076		315,459
Property and equipment, net (Notes 2G and 5)	-	2,529,620		2,417,329
TOTAL ASSETS	\$	39,831,165	<u>\$</u>	35,446,732
LIABILITIES				
Accounts payable	\$	2,017,041	\$	2,027,694
Accounts payable to subrecipients (Note 16)		1,591,784		-
Deferred revenue - dues, subscriptions, and other (Note 2H)		3,847,794		4,163,523
Accrued expenses:				
Employee vacation and other benefits		538,437		555,032
Pension and other postretirement benefit costs (Notes 6 and 7)		3,028,311		3,320,826
Other (Notes 2I and 9A)		1,573,197		1,768,591
TOTAL LIABILITIES		12,596,564		11,835,666
COMMITMENTS AND CONTINGENCIES (Note 9)				
NET ASSETS (Note 2B)				
Unrestricted		20,937,756		18,081,674
Temporarily restricted (Notes 8 and 13)		3,993,643		3,773,804
Permanently restricted (Notes 8 and 13)		2,303,202		1,755,588
TOTAL NET ASSETS		27,234,601		23,611,066
TOTAL LIABILITIES AND NET ASSETS	\$	39,831,165	\$	35,446,732

### AMERICAN INSTITUTE OF CHEMICAL ENGINEERS STATEMENTS OF ACTIVITIES FOR THE YEARS ENDED DECEMBER 31, 2017 AND 2016

	For the Year Ended December 31, 2017			Fo	For the Year Ended December 31, 2016			
		Temporarily	Permanently	Total	Total		Temporarily	Permanently
	Unrestricted	Restricted	Restricted	2017	2016	Unrestricted	Restricted	Restricted
OPERATING ACTIVITY:								
REVENUE AND SUPPORT:								
Dues and other membership revenue (Note 2H)	\$ 3,203,040	\$ -	\$ -	\$ 3,203,040	\$ 3,522,432	\$ 3,522,432	\$ -	\$ -
Publications sales and subscriptions	3,141,830	-	-	3,141,830	6,924,428	6,924,428	-	-
Industry technology groups (Notes 1 and 15)	13,484,536	-	-	13,484,536	9,180,816	9,180,816	-	-
Meetings and technical programming	6,186,167	-	-	6,186,167	6,635,899	6,635,899	-	-
Education services (Note 15)	2,677,034	-	-	2,677,034	2,732,793	2,732,793	-	-
AIChE Foundation - contributions (Note 1)	1,492,266	1,376,468	547,614	3,416,348	4,598,941	1,366,478	2,985,304	247,159
Other revenue	929,293	-	-	929,293	1,062,480	1,062,480	-	-
Net assets released from restrictions (Note 8)	1,397,517	(1,397,517)				1,069,660	(1,069,660)	<del>-</del>
TOTAL OPERATING REVENUE AND SUPPORT	32,511,683	(21,049)	547,614	33,038,248	34,657,789	32,494,986	1,915,644	247,159
EXPENSES:								
Program Related:								
Membership	3,045,696	-	-	3,045,696	3,289,434	3,289,434	-	-
Publications	2,581,440	-	-	2,581,440	2,752,542	2,752,542	-	-
Industry technology groups	11,814,990	-	-	11,814,990	9,351,790	9,351,790	-	-
Meetings and technical programming	3,661,044	-	-	3,661,044	3,563,060	3,563,060	-	-
Education services	2,960,915	-	-	2,960,915	2,904,599	2,904,599	-	-
Other program expenses (Note 10)	1,599,446			1,599,446	1,564,683	1,564,683		
	25,663,531	-	-	25,663,531	23,426,108	23,426,108	-	-
Supporting Services:								
General and administration	4,287,202	_	_	4,287,202	4,270,289	4,270,289	-	_
Fundraising	3,239,819	-	-	3,239,819	2,868,308	2,868,308	-	-
v	7,527,021			7,527,021	7,138,597	7,138,597		-
TOTAL OPERATING EXPENSES	33,190,552			33,190,552	30,564,705	30,564,705		
Change In Net Assets From Operations	(678,869)	(21,049)	547,614	(152,304)	4,093,084	1,930,281	1,915,644	247,159
NON-OPERATING ACTIVITY:								
Investment activity, net (Notes 3 and 13)	3,197,949	240,888	-	3,438,837	1,631,493	1,528,438	103,055	-
Pension related changes other than net periodic pension cost (Note 6)	174,559	· -	-	174,559	283,913	283,913	· -	-
Postretirement related changes other than net periodic postretirement cost (Note 7)	162,443			162,443	633,178	633,178		
TOTAL NON-OPERATING ACTIVITY	3,534,951	240,888		3,775,839	2,548,584	2,445,529	103,055	
CHANGE IN NET ASSETS	2,856,082	219,839	547,614	3,623,535	6,641,668	4,375,810	2,018,699	247,159
Net assets - beginning of year	18,081,674	3,773,804	1,755,588	23,611,066	16,969,398	13,705,864	1,755,105	1,508,429
NET ASSETS - END OF YEAR	\$ 20,937,756	\$ 3,993,643	\$ 2,303,202	\$ 27,234,601	\$ 23,611,066	\$ 18,081,674	\$ 3,773,804	\$ 1,755,588

# AMERICAN INSTITUTE OF CHEMICAL ENGINEERS STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED DECEMBER 31, 2017 AND 2016

		2017		2016
CASH FLOWS FROM OPERATING ACTIVITIES:				
Change in net assets	\$	3,623,535	\$	6,641,668
Adjustments to reconcile change in net assets to				
net cash (used in) provided by operating activities:				
Realized and unrealized gain on investments		(2,908,499)		(1,144,354)
Depreciation and amortization		688,849		568,342
Bad debt (recapture) expense	_	(56,413)	_	262,823
Subtotal		1,347,472		6,328,479
Changes in operating assets and liabilities:				
Changes in operating assets and liabilities:  (Increase) or decrease in assets:				
Accounts receivable		(2,554,195)		(722,448)
Prepaid expenses and other		(5,617)		280,482
Pledges receivable		170,702		(1,430,556)
		-, -		( ,,,
Increase or (decrease) in liabilities:				
Accounts payable		(10,653)		382,792
Accounts payable to subrecipients		1,591,784		-
Deferred revenue		(315,729)		(193,654)
Accrued expenses:				
Employee vacation and other benefits		(16,595)		59,845
Pension and other postretirement benefit costs		(292,515)		(730,193)
Other		(195,394)		490,431
Net Cash (Used in) Provided by Operating Activities	_	(280,740)		4,465,178
CASH FLOWS FROM INVESTING ACTIVITIES:				
Purchases of investments		(3,489,798)		(4,641,982)
Proceeds from the sale of investments		4,534,927		555,003
Purchases of property and equipment		(801,140)		(795,754)
Net Cash Provided by (Used in) Investing Activities	_	243,989		(4,882,733)
NET DECREASE IN CASH AND CASH EQUIVALENTS		(36,751)		(417,555)
Cash and cash equivalents - beginning of the year		2,256,064	_	2,673,619
CASH AND CASH EQUIVALENTS - END OF YEAR	\$	2,219,313	<u>\$</u>	2,256,064

### **NOTE 1 – ORGANIZATION AND NATURE OF ACTIVITIES**

American Institute of Chemical Engineers ("AIChE") is a tax-exempt organization under Section 501(c)(3) of the Internal Revenue Code. AIChE serves chemical engineers throughout the world. AIChE fosters and disseminates chemical engineering knowledge, supports professional and personal growth of its members, and applies the expertise of its members to address societal needs throughout the world. AIChE offers its members publications, meetings and technical programming. These products and services promote excellence in chemical engineering education and global practice, advance the development and exchange of relevant knowledge, and enhance the lifelong career development of chemical engineers. Through its industry technology groups, AIChE stimulates collaborative efforts among industry, universities, government and professional societies.

The AIChE Foundation is not a separate entity. It seeks to solicit additional financial support for AIChE's programs.

### NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### A. Basis of Accounting and Use of Estimates

The accompanying financial statements have been prepared on the accrual basis of accounting. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

### B. Net Assets - Basis of Presentation

AIChE maintains its net assets under the following three classes:

- Unrestricted represents resources available for support of AIChE's operations over which the Board of Directors has discretionary control.
- Temporarily restricted represents assets that are subject to donor-imposed stipulations. When a restriction expires (that is, when a stipulated time restriction ends or purpose restriction is accomplished) temporarily restricted net assets are reclassified to unrestricted net assets and reported in the statement of activities as net assets released from restrictions. All unappropriated earnings on donor-restricted endowment funds (that are otherwise not restricted by the donor) are reflected as temporarily restricted until appropriated (see Note 13).
- Permanently restricted represents assets that must remain intact in perpetuity.

#### C. Contributions and Pledges Receivable

Unconditional promises to give that are expected to be collected within one year are recorded at net realizable value. Unconditional promises to give that are expected to be collected in future years are recorded at the present value of their estimated future cash flows, less a 2% reserve allowance for bad debt as of December 31, 2017 and 2016, respectively. The discounts on those amounts are computed using risk-adjusted interest rates applicable to the years in which the promises are received. Amortization of the discounts is included in contribution revenue. Conditional promises to give are not included as support until the conditions are substantially met.

### NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

### D. Cash Equivalents

AIChE considers highly liquid debt instruments with a maturity of three months or less when acquired to be cash equivalents, with the exception of cash and those short-term investments managed by AIChE's investment managers for long-term investment purposes.

#### E. Investments and Fair Value Measurements

Investments are reported at fair value based upon quoted market value. Securities transactions are recorded on a trade-date basis. Realized gains and losses on sales of investments are determined on a specific identification basis and are included in investment activity in the statements of activities. Interest income is recognized when earned and dividends are recorded on the ex-dividend date.

Fair value measurements are based on the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In order to increase consistency and comparability in fair value measurements, a fair value hierarchy prioritizes observable and unobservable inputs used to measure fair value into three levels, as described in Note 3.

#### F. Allowance for Uncollectible Accounts Receivable

As of December 31, 2017 and 2016, AIChE determined that an allowance of approximately \$55,000 and \$157,000, respectively, should be provided for accounts receivable. Such estimates are based on management's assessment of the aged basis of its funding sources, funding sources and customers, current economic conditions and historical information.

### G. Property and Equipment

Property and equipment is stated at cost and depreciated using the straight-line basis over their estimated useful lives. Leasehold improvements are amortized over the lesser of their useful lives or the term of the lease. AIChE capitalizes all assets with a cost of \$5,000 or more and a useful life of more than one year.

### H. Revenue Recognition

Dues and subscriptions are billed in the year prior to which they apply. Dues and subscriptions collected in the year of billing represents revenue for the following year and therefore are recorded as deferred revenue. Accounts receivable for dues and subscriptions are not recorded until the year in which they become due. Dues payments collected in the year subsequent to billing are recognized as revenue in that specific year.

### I. Straight-Lining of Rent Expense

Rent expense is recognized using the straight-line method over the term of the leases. The difference between rent expense incurred and the amount paid, which is attributable to scheduled rent increases, is reported as a liability in the accompanying statements of financial position.

#### J. Functional Allocation of Expenses

The costs of providing the various programs and other activities have been summarized on a functional basis. Accordingly, certain costs have been allocated among the programs and supporting services benefited.

#### K. Reclassification

Certain line items in the December 31, 2016 financial statements have been reclassified to conform to the December 31, 2017 presentation.

### NOTE 3 – INVESTMENTS AND FAIR VALUE MEASUREMENTS

Investments consisted of the following at December 31, 2017 and 2016 and were classified as Level 1 in the fair value hierarchy (as defined below):

	 2017	 2016
Mutual Funds		
U.S. Large Cap/Mid Cap	\$ 6,777,448	\$ 5,497,615
U.S. Small Cap	1,549,940	1,360,456
Diversified Foreign Equity	7,614,064	6,147,224
U.S. Core Bonds	8,505,140	8,242,327
Global Bonds	2,591,658	2,857,281
Money Market Mutual Funds	 336,745	 1,420,464
Total mutual funds	27,374,995	25,525,367
Equity securities – domestic	 29,385	 15,643
Total investments	\$ 27,404,380	\$ 25,541,010

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, 2017 and 2016:

	2017	2016
Interest and dividends Realized and unrealized gains Investment fees	\$ 600,057 2,908,499 (69,719)	\$ 549,859 1,144,354 (62,720)
	<u>\$ 3,438,837</u>	<u>\$ 1,631,493</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 Level 1 prices such as quoted prices for similar assets or liabilities; quoted prices in inactive markets; or model-derived valuations in which all significant inputs are observable or can be derived principally from or corroborated with observable market data.

Level 3: Valuations based on unobservable inputs are used when little or no market data is available. The fair value hierarchy gives lowest priority to Level 3 inputs.

In determining fair value, AIChE utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible in its assessment of fair value.

AIChE's policy is to recognize transfers in and transfers out between fair value levels as of the beginning of the period in which the transfer takes place. During the years ended December 31, 2017 and 2016, no such transfers between fair value levels occurred.

#### **NOTE 4 – PLEDGES RECEIVABLE**

Pledges receivable consisted of the following as of December 31, 2017 and 2016:

	2017	2016
Amounts due in: Less than one year One to five years Due more than five years	\$ 992,795 1,564,087	\$ 261,100 2,399,877 66,606
Gross pledges receivable Less: allowance for uncollectible Less: discount to present value at 3%	2,556,882 (51,138) (81,266) \$ 2,424,478	2,727,583 (54,551) (164,274) \$ 2.508,758

#### **NOTE 5 – PROPERTY AND EQUIPMENT**

Property and equipment consisted of the following as of December 31, 2017 and 2016:

	 2017	 <u> 2016</u>	Estimated <u>Useful Lives</u>
Furniture and fixtures	\$ 449,996	\$ 449,996	3-5 Years
Computer and office equipment	4,163,603	3,381,613	3-10 Years
Leasehold improvements	 137,951	 118,801	15 Years
Total cost	4,751,550	3,950,410	
Less: accumulated depreciation/amortization	 (2,221,930)	 (1,533,081)	
Net book value	\$ 2,529,620	\$ 2,417,329	

Depreciation and amortization expense amounted to \$688,849 and \$568,342 for the years ended December 31, 2017 and 2016, respectively. During the year ended December 31, 2016, AIChE disposed of fully depreciated property and equipment in the amount of \$71,898. There were no disposals during the year ended December 31, 2017.

### **NOTE 6 – PENSION PLANS**

Through December 31, 2005, AlChE 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, AlChE froze this plan. AlChE 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. AlChE'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.

AIChE also maintains a qualified contributory defined contribution retirement plan pursuant to Internal Revenue Code 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 Internal Revenue Code ("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 \$213,845 and \$218,840 for the years ended December 31, 2017 and 2016, respectively.

### **NOTE 6 – PENSION PLANS (Continued)**

As a substitute for the defined benefit plan, which was frozen on December 31, 2005, AIChE added, effective January 1, 2006, a noncontributory element to the defined contribution retirement plan, whereby AIChE contributes an amount based on the employee's total compensation. AIChE's discretionary contributions to the 403(b) plan amounted to \$759,629 and \$741,995 for the years ended December 31, 2017 and 2016, respectively.

AIChE also offers a deferred compensation arrangement under Section 457(b) of the IRC for key employees. AIChE does not make any contributions to the 457(b) plan as the 457(b) plan is entirely funded by employee contributions. AIChE had no liability relating to the 457(b) plan as of December 31, 2017 and 2016, respectively.

The funded status of the defined benefit plan as of December 31, 2017 and 2016 was as follows:

	2017	2016
Change in benefit obligation:		
Benefit obligation at beginning of year	\$ 10,844,255	\$ 10,499,146
Interest cost	471,910	471,431
Actuarial loss	796,591	142,401
Benefits paid	(368,428)	(268,723)
Benefit obligation at end of year	11,744,328	10,844,255
Fair value of plan assets	9,439,301	8,489,672
Funded status	\$ (2,305,027)	\$ (2,354,583)

Amounts recognized in unrestricted net assets for the pension plan consisted of the following as of December 31, 2017 and 2016:

	2017	2016
Net loss	\$ (2,915,403)	\$ (3,089,962)

The components of net periodic benefit cost for the pension plan for the years ended December 31, 2017 and 2016 were as follows:

	 2017	 2016
Interest cost Expected return on plan assets Amortization of net loss	\$ 471,910 (582,881) 305,387	\$ 471,431 (559,575) 297,243
	\$ 194,416	\$ 209,099

Other changes in plan assets and benefit obligations recognized in the change in unrestricted net assets for the years ended December 31, 2017 and 2016 were as follows:

		2017	 2016
Net loss Amortization of net loss	\$	130,828 (305,387)	\$ 13,330 (297,243)
Total recognized in change in unrestricted net assets	_\$	(174,559)	\$ (283,913)
Total recognized in net periodic pension cost and change in unrestricted net assets	\$	19.857	\$ (74 814)

### NOTE 6 - 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, 2017 and 2016 were as follows:

	<u>2017</u>	2016
Discount rate used for net periodic benefit cost	4.25%	4.50%
Discount rate used for pension obligation	4.25%	4.50%
Expected return on plan assets	7.00%	7.25%

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 \$49,740 to its pension plan in 2018.

The following schedule of benefit payments for the pension plan, which reflects expected future services, as appropriate, are expected to be paid in each of the next five years and in the aggregate for the five years thereafter:

2018	\$ 752,721
2019	457,518
2020	649,921
2021	1,115,514
2022	1,070,838
5 years thereafter	3,585,019

The assets (expressed in percentages) for the pension plan consisted of the following as of December 31, 2017 and 2016:

	2017	2016
Equity securities Debt securities Cash equivalents	56% 43% 1%	56% 43% 1%
	100%	100%

The fair value hierarchy defines three levels, as further described in Note 3. Pension assets carried at fair value at December 31, 2017 and 2016 are classified in the table as Level 1 as follows:

	 2017	 2016
Investments:		
Mutual Funds		
U.S. Large Cap/Mid Cap	\$ 2,107,776	\$ 2,011,186
U.S. Small Cap	561,038	591,642
Diversified Foreign Equity	2,575,493	2,132,613
U.S. Core Bonds	2,763,688	2,606,785
Global Bonds	1,282,627	1,069,022
Money Market Mutual Funds	 148,679	78,424
Total assets at fair value	\$ 9,439,301	\$ 8,489,672

### NOTE 6 – PENSION PLANS (Continued)

The composition of AIChE's plan assets is a target asset mix allocated 56%/44% 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 7 – POSTRETIREMENT OTHER THAN PENSIONS

AlChE has a contributory postretirement medical and life insurance plan for all eligible employees. As of February 1, 2007, each participant is 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 were eliminated. Employees hired after February 1, 2007 are eligible to purchase coverage under the postretirement medical plan but are not eligible for any subsidy from AlChE. In addition, employees hired after February 1, 2007 are not eligible to receive postretirement life insurance benefits. Coverage for both the retiree and the spouse continues for their lifetimes, so long as required contributions are made. AlChE contributes 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 AlChE'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, 2017, the accumulated postretirement benefit obligation related to the HRAs was \$172,707.

The funded status of the plan as of December 31, 2017 and 2016 was as follows:

	 2017		<u>2016</u>
Change in benefit obligation:			
Benefit obligation at beginning of year	\$ 966,243	\$	1,621,622
Service cost	4,321		7,684
Interest cost	40,718		58,220
Plan amendments	(202,671)		(336,017)
Plan participants' contributions	-		28,970
Actuarial gain	(46,552)		(347,200)
Benefits paid	 (38,775)	_	(67,036)
Benefit obligation at end of year	 723,284	_	966,243
Funded status	\$ (723,284)	\$_	(966,243)

### NOTE 7 - POSTRETIREMENT OTHER THAN PENSIONS (Continued)

Amounts recognized in unrestricted net assets for the plan consisted of the following as of December 31, 2017 and 2016:

		2017	 2016
Prior service credit Gain	\$	481,746 355,961	\$ 336,017 339,247
	<u>\$</u>	837,707	\$ 675,264

The components of net periodic benefit (income) cost for the years ended December 31, 2017 and 2016 were as follows:

		2017	 2016
Service cost	\$	4,321	\$ 7,684
Interest cost		40,718	58,220
Amortization of prior service credit		(56,942)	(24,880)
Amortization of net gain		(29,838)	 (25,159)
Net periodic benefit (income) cost	<u>\$</u>	(41,741)	\$ 15,86 <u>5</u>

Other changes in plan assets and benefit obligations recognized in the change in unrestricted net assets for the years ended December 31, 2017 and 2016 were as follows:

	2017	2016
Actuarial gain Prior service credit Amortization of prior service credit Amortization of net gain	\$ (46,552) (202,671) 56,942 	\$ (347,200) (336,017) 24,880 
Total recognized in change in unrestricted net assets	<u>\$ (162,443)</u>	<u>\$ (633,178)</u>
Total recognized in net periodic pension cost and change in unrestricted net assets	<u>\$ (204,184)</u>	<u>\$ (617,313)</u>

The estimated net gain, transition obligation and prior service credit for the plan that will be amortized from the unrestricted net asset balance into net periodic benefit cost over the next fiscal year is \$34,000, \$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, 2017 and 2016 were as follows:

	2017	2016
Discount rate used for net periodic benefit cost	4.25%	4.50%
Discount rate used for benefit obligations	4.25%	4.50%

### NOTE 7 – 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 years and in the aggregate for the five years thereafter:

2018	\$ 80,953
2019	49,855
2020	48,606
2021	63,594
2022	47,540
5 years thereafter	204.964

The following table presents the health care cost trend rate assumed for next year, the ultimate trend rate, and the year in which the rate reaches the ultimate rate:

Health care cost trend rate assumed for next year	9.0%
Ultimate trend rate to which the cost trend rate is expected to decline	4.2%
Year that the rate reaches the ultimate trend rate	2085+

The health care cost trend rate assumption has an effect on the amounts reported for the plan. To illustrate, increasing the assumed health care cost trend rates by 1% would change the accumulated postretirement benefit obligations by \$0 as of December 31, 2017, and decrease the aggregate of the service and interest cost components of net periodic postretirement benefit cost for the year then ended by \$1,441. Decreasing the assumed health care cost trend rates by 1% would change the accumulated postretirement benefit obligations by \$0 as of December 31, 2017, and increase the aggregate of the service and interest cost components of net periodic postretirement benefit cost for the year then ended by \$836.

#### NOTE 8 - NET ASSETS

Temporarily restricted net assets as of December 31, 2017 and 2016 were available for the following purposes:

	_	2017	_	2016
Industry technology groups Other programs AIChE Foundation (not a separate entity) –	\$	215,460 110,855	\$	215,460 138,567
award programs and other Unappropriated earnings on permanently		3,431,134		3,341,351
restricted funds (see Note 13)		236,194		78,426
	\$	3,993,643	\$_	3,773,804

Permanently restricted net assets as of December 31, 2017 and 2016 were restricted to investments in perpetuity, the income from which is available for the following:

	 2017	_	2016
Award programs for scholastic achievement	\$ 911,912	\$	508,904
Educational and professional development Public and government outreach and other	 634,393 756,897	_	625,768 620,916
	\$ 2,303,202	\$_	1,755,588

### NOTE 8 - NET ASSETS (CONTINUED)

Net assets were released from donor restrictions by incurring expenses satisfying the restricted purposes or by the occurrence of other events specified by donors during the years ended December 31, 2017 and 2016 as follows:

	 2017	 2016
Award programs for scholastic achievements	\$ 72,490	\$ 20,366
Educational and professional development	1,266,513	953,481
Public and government outreach and other	 <u>58,514</u>	 95,813
	\$ 1,397,517	\$ 1,069,660

#### NOTE 9 – COMMITMENTS AND CONTINGENCIES

#### A. Lease Commitments

AIChE has a lease agreement for the rental of office space in New York City for a term of fifteen years that commenced in August 2013. There is a one-time renewal option to extend the term of the lease for an additional five years. The lease agreement also provides for a free rental period commencing on the commencement date. In addition, tax abatements reduce the base rents by approximately \$82,000 per year. In addition to the base monthly rent, AIChE is required to pay additional rent for its share of operating expense escalations.

As of December 31, 2017, AIChE substituted an irrevocable standby letter of credit in the amount of \$288,855 in lieu of a security deposit for its office lease in New York. The letter of credit expires in April 2029 and is secured by mutual funds and money market funds owned by AIChE and held at the financial institution that issued the letter of credit.

AIChE also has a lease agreement for the rental of office space in Connecticut which expires in October 2021 and has annual base rental charges of approximately \$35,000 over the lease term.

Rent credits and charges are accounted for on a straight-line basis over the life of the lease. Straight-lining of rent gives rise to a timing difference that is reflected as deferred rent in the accompanying statements of financial position. Included in other liabilities in the accompanying statements of financial position as of December 31, 2017 and 2016 is a liability of \$480,750 and \$444,635, respectively, related to deferred rent under the straight-line method of accounting.

Minimum future lease payments under the lease agreements for the years subsequent to December 31, 2017 are approximately as follows:

2018	\$ 530,000
2019	572,000
2020	589,000
2021	578,000
2022	554,000
Thereafter	 3,801,000
	\$ 6,624,000

Rent expense, including real estate taxes and porters' wage escalation (or de-escalation) charges, for the years ended December 31, 2017 and 2016 amounted to approximately \$599,000 and \$650,000, respectively.

### NOTE 9 - COMMITMENTS AND CONTINGENCIES (Continued)

### B. Meeting Commitments

In the ordinary course of business, AIChE has entered into contracts with hotels for meetings scheduled to occur beyond December 31, 2017 and 2016. In connection with the contracts, AIChE commits to a block of hotel rooms. AIChE is subject to cancellation penalties, which increase as the meeting dates approach. Cancellation penalties, due to catastrophic events, for meetings scheduled for the year following the statement of financial position date are covered under AIChE's insurance policies. In the very unlikely event AIChE had to cancel all the meetings scheduled beyond 2017 and 2016 that are under contract, it would incur approximately \$6.9 million and \$3.7 million, respectively in cancellation charges. AIChE is subject to negotiable penalties in the event meeting attendees do not utilize the rooms.

#### C. Line of Credit

AIChE has a line of credit with a financial institution. The line of credit has a maximum borrowing amount of \$1,500,000 and expires on September 30, 2018. Borrowings are secured by mutual funds and money market funds owned by AIChE and held at the same financial institution. Interest is at the one-month London Interbank Offered Rate ("LIBOR") plus 2%. This line of credit has no loan covenants attached to it. As of December 31, 2017 and 2016 and April 30, 2018, there were no borrowings.

### D. Uncertainty in Income Taxes

AlChE believes it had no uncertain tax positions as of December 31, 2017 and 2016 in accordance with Accounting Standards Codification ("ASC") Topic 740, "Income Taxes," which provides standards for establishing and classifying any tax provisions for uncertain tax positions.

### NOTE 10 - 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:

	 2017	 <u>2016</u>
Subsidized activities include the governance of AIChE, public and governmental outreach programs, and support for the chemical engineering profession Financial services	\$ 1,405,912 193,534	\$ 1,365,992 198,691
	\$ 1,599,446	\$ 1,564,683

### NOTE 11 - RECEIVABLE FROM CHARITABLE REMAINDER TRUSTS

AIChE is the beneficiary of remainder interests in certain charitable trusts. Upon the expiration of the trust terms (defined as the death of the surviving beneficiaries), AIChE shall receive the trusts' assets, which consists of certain fixed income and equity securities. As of December 31, 2017 and 2016, the value of the interest in the charitable remainder trusts was determined by estimating the future value of the trusts' assets as of the expiration of the trusts' terms and calculating the present value of those amounts at a discount rate of 3%, respectively, per annum. As of December 31, 2017 and 2016, the present value of AIChE's share of the trusts was \$129,019 and \$123,133, respectively, and is included in prepaid expenses and other assets in the accompanying financial statements. The fair value of the trusts' assets amounted to approximately \$237,000 and \$240,000, respectively, as of December 31, 2017 and 2016.

### **NOTE 12 – PUBLISHING AGREEMENTS**

- A. In May 2016, AIChE renewed its publishing agreement (the "Publishing Agreement") with Wiley, a commercial publisher (the "Publisher") with respect to the five journals (the "Journals") now currently owned by AIChE. The renewal occurred two years before the prior agreement was set to expire, and extends 12 years. Under the terms of the Publishing Agreement, the Publisher has the exclusive right and sole responsibility for the marketing, sales, print, and electronic distribution of the Journals. AIChE remains solely responsible for providing and paying editors and, in consultation with the Publisher, establishing editorial policy. Under the terms of the contract, AIChE has been guaranteed a minimum annual royalty plus increased additional royalties through 2021, with further increases in royalties from 2022 through the life of the contract, which escalate when the Publisher's gross revenues exceed certain predetermined levels.
- B. In February 2005, AIChE entered into a four—year book publishing agreement (the "Book Publishing Agreement") with the Publisher to co-develop approximately 8-15 new works each year. The Book Publishing Agreement is automatically renewed for additional three—year terms unless either party gives notice of intent to terminate the agreement at least six months prior to the expiration of the then current term. Under the terms of the Publishing Agreement, beginning in February 2005, the Publisher has the exclusive right and sole responsibility for the marketing, sales, print and electronic distribution of the works. AIChE remains solely responsible for providing and paying editors and, in consultation with the Publisher, establishing editorial policy. Under the terms of the contract, AIChE received a nonrefundable non-recoupable advance. In addition, AIChE has been guaranteed a minimum annual royalty plus additional royalties if the publisher's revenues exceed predetermined levels. The minimum annual royalty is paid at the beginning of each additional year of the term provided that at least six works were published in the preceding year.

In November 2010, the Book Publishing Agreement was amended, revising language on co-development of books to allow, when both parties agree, for the Publisher to enter into author agreements even when AIChE is the submitting party. A new royalty category was created for such titles.

### **NOTE 13 – ENDOWMENT NET ASSETS**

The Board of AIChE follows the New York State law called the New York Prudent Management of Institutional Funds Act ("NYPMIFA"). NYPMIFA includes a rebuttable presumption of imprudence if an organization appropriates more than 7% of a donor-restricted permanent endowment fund's fair value (averaged over a period of not less than the preceding five years) in any year. Any unappropriated earnings that would otherwise be considered unrestricted by the donor are reflected as temporarily restricted until appropriated.

AIChE's Board has interpreted NYPMIFA as allowing AIChE to appropriate for expenditure or accumulate so much of an endowment fund as AIChE determines is prudent for the uses, benefits, purposes and duration for which the endowment fund was established, subject to the intent of the donor as expressed in the gift instrument. Unless stated otherwise, the assets in a donor-restricted endowment fund shall be donor-restricted assets until appropriated for expenditure by the Board.

As a result of this interpretation, AIChE has not changed the way permanently restricted net assets are classified. The remaining portion of the donor-restricted endowment fund that is not classified as permanently restricted is classified as temporarily restricted net assets until those amounts are appropriated for expenditure in a manner consistent with the standard of prudence prescribed by NYPMIFA.

The policy for valuing AIChE's investments is described in Note 2E. In accordance with U.S. GAAP, any deterioration of the fair value of assets associated with donor-restricted endowment funds that falls below the level the donor requires AIChE to retain in perpetuity is to be reported in unrestricted net assets. The fair value of assets associated with individual donor-restricted endowment funds are all above historic dollar value as of December 31, 2017 and 2016.

### NOTE 13 – ENDOWMENT NET ASSETS (Continued)

AIChE's endowment investment policy is to invest 46% of assets into fixed-income mutual funds and cash equivalents, and 54% into equity mutual funds based on an asset allocation with the objective of capital appreciation.

Changes in endowment net assets for year ended December 31, 2017 were as follows:

		Temporarily Restricted		Permanently Restricted	 2017 Total
Activity:					
Investment activity:					
Interest and dividends	\$	38,303	\$	-	\$ 38,303
Realized/unrealized gains		185,65 <u>5</u>		-	185,65 <u>5</u>
Total investment activity		223,958		-	223,958
Contributions		-		547,614	547,614
Amount appropriated for expenditure		(66,190)			(66,190)
Total activity		157,768		547,614	705,382
Endowment net assets, beginning of year		78,426		1,755,588	 1,834,014
Endowment net assets, end of year	\$	236,194	\$	2,303,202	\$ 2,539,396
Changes in endowment net assets for year ended D	ecemb	oer 31, 2016 v	were a	as follows:	
	-	Temporarily	ı	Permanently	2016
		Restricted		Restricted	 Total
Activity:					
Investment activity:					
Interest and dividends	\$	31,599	\$	-	\$ 31,599
Realized/unrealized gains		65,763			 65,763
Total investment activity		97,362		-	97,362
Contributions		-		247,159	247,159
Amount appropriated for expenditure		(18,936)			 (18,936)
Total activity		78,426		247,159	325,585
Endowment net assets, beginning of year		<u>-</u>		1,508,429	 1,508,429
Endowment net assets, end of year	\$	78,426	\$	1,755,588	\$ 1,834,014

Endowment net assets of \$2,539,396 and \$1,834,014, respectively, as of December 31, 2017 and 2016 are included with investments in the accompanying statements of financial position.

### NOTE 14 – 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, 2017 and 2016, there was approximately \$2,387,000 and \$2,346,000, 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 and alternatives and have recommended maintaining the current position while continuing to monitor this financial institution.

#### **NOTE 15 – REVENUE AND SUPPORT**

AIChE's Industry Technology Groups ("ITGs") are comprised of two major categories:

1. <u>Industry Technology Alliances (ITAs)</u> are corporate membership organizations in which corporations pool their dues to work collectively on pre-competitive projects. The ITAs in AIChE are RAPID, CCPS and DIPPR.

Rapid Advancement in Process Intensification Deployment (RAPID) – see also Note 16. In December 2016, the U.S. Department of Energy established RAPID, AIChE's newest Industry Technology Alliance. RAPID 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. Revenues from RAPID are mainly from federal funds and dues from corporations and academia.

The Center for Chemical Process Safety (CCPS) is an organization that identifies and addresses process safety needs for a variety of facilities involved with handling, storing, using or processing and transporting hazardous materials. CCPS member companies, working in project subcommittees, define and develop useful, time-tested guidelines that have practicable applications within industry. Revenues from CCPS are mainly from corporate dues and conference related income.

The Design Institute for Physical Properties (DIPPR) is the world's best source of critically evaluated thermosphysical and environmental property data. The DIPPR® 801 database contains recommendations for 34 constant properties and 15 temperature-dependent properties for more than 2,200 compounds.

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 AlChE at the forefront of new technologies available to chemical engineers. Their goal is to expand AlChE's reach to engineers and scientists who are working in fields beyond core chemical engineering competencies and who are concentrating on these challenges. AlChE'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 Entrepreneuring 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, 2017 and 2016:

	 2017	 2016
Industry Technology Groups (ITG)		
REVENUE AND SUPPORT:		
Federal Government grants	\$ 4,767,096	\$ 236,608
Corporate membership dues	4,749,938	4,583,616
Meeting registrations, sponsorships and exhibits	2,621,428	3,205,690
Product data licensing	442,778	444,988
Other	 903,296	 709,914
TOTAL OPERATING REVENUE AND SUPPORT - ITG	\$ 13,484,536	\$ 9,180,816

### **NOTE 15 – REVENUE AND SUPPORT (Continued)**

AIChE's Education Services revenue result mostly from registration fees derived from the sale of Public and Incompany courses and online training.

Education services revenue consists of the following for the years ended December 31, 2017 and 2016:

	2017	2016
Education Services		
REVENUE AND SUPPORT:		
In-company courses	\$ 1,436,819	\$1,398,325
Public courses	770,424	813,042
Online training	435,426	487,432
Other	34,365	33,994
TOTAL REVENUE AND SUPPORT - EDUCATION SERVICES	\$ 2,677,034	\$2,732,793

#### **NOTE 16 – 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.

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 Systems Consortium.

RAPID operates within AIChE's 501(c)(3) umbrella, as an Industry Technology Group under the d/b/a RAPID Manufacturing Institute.

As of December 31, 2017, accounts receivable included approximately \$3,250,000 due from the U.S. Department of Energy and accounts payable included a balance due to subrecipients of approximately \$1,600,000.

#### **NOTE 17 – SUBSEQUENT EVENTS**

AIChE has evaluated, for potential recognition and disclosure, events subsequent to the date of the statement of financial position through April 30, 2018, the date the financial statements were available to be issued.