

Form **990**
Department of the Treasury
Internal Revenue Service

Return of Organization Exempt From Income Tax

Under section 501(c), 527, or 4947(a)(1) of the Internal Revenue Code (except private foundations)

Do not enter social security numbers on this form as it may be made public

Go to www.irs.gov/Form990 for instructions and the latest information.

OMB No 1545-0047
2018
Open to Public Inspection

A For the 2019 calendar year, or tax year beginning 01-01-2018, and ending 12-31-2018

- B** Check if applicable
- Address change
 - Name change
 - Initial return
 - Final return/terminated
 - Amended return
 - Application pending

C Name of organization
NATIONAL CENTER FOR MANUFACTURING SCIENCES

Doing business as

Number and street (or P O box if mail is not delivered to street address) Room/suite
3025 Boardwalk

City or town, state or province, country, and ZIP or foreign postal code
Ann Arbor, MI 48108

D Employer identification number
38-2761126

E Telephone number
(734) 995-0300

G Gross receipts \$ 45,855,171

F Name and address of principal officer
Lisa Strama
3025 Boardwalk
Ann Arbor, MI 48108

H(a) Is this a group return for subordinates? Yes No

H(b) Are all subordinates included? Yes No
If "No," attach a list (see instructions)

H(c) Group exemption number ▶

I Tax-exempt status 501(c)(3) 501(c) () ◀(insert no) 4947(a)(1) or 527

J Website: ▶ www NCMS org

K Form of organization Corporation Trust Association Other ▶

L Year of formation 1986

M State of legal domicile DE

Part I Summary

1 Briefly describe the organization's mission or most significant activities
The NCMS mission is to lead the rapid development of cross-industry R&D programs to build the global competitiveness of its manufacturing partners

2 Check this box if the organization discontinued its operations or disposed of more than 25% of its net assets

3	Number of voting members of the governing body (Part VI, line 1a)	11
4	Number of independent voting members of the governing body (Part VI, line 1b)	11
5	Total number of individuals employed in calendar year 2018 (Part V, line 2a)	42
6	Total number of volunteers (estimate if necessary)	126
7a	Total unrelated business revenue from Part VIII, column (C), line 12	6,320
7b	Net unrelated business taxable income from Form 990-T, line 34	2,067

	Prior Year	Current Year
8	Contributions and grants (Part VIII, line 1h)	37,558,109
9	Program service revenue (Part VIII, line 2g)	0
10	Investment income (Part VIII, column (A), lines 3, 4, and 7d)	18,411
11	Other revenue (Part VIII, column (A), lines 5, 6d, 8c, 9c, 10c, and 11e)	633,093
12	Total revenue—add lines 8 through 11 (must equal Part VIII, column (A), line 12)	38,209,613
13	Grants and similar amounts paid (Part IX, column (A), lines 1-3)	0
14	Benefits paid to or for members (Part IX, column (A), line 4)	0
15	Salaries, other compensation, employee benefits (Part IX, column (A), lines 5-10)	3,960,984
16a	Professional fundraising fees (Part IX, column (A), line 11e)	0
b	Total fundraising expenses (Part IX, column (D), line 25) ▶750,746	
17	Other expenses (Part IX, column (A), lines 11a-11d, 11f-24e)	32,594,203
18	Total expenses Add lines 13-17 (must equal Part IX, column (A), line 25)	36,555,187
19	Revenue less expenses Subtract line 18 from line 12	1,654,426
20	Total assets (Part X, line 16)	18,703,560
21	Total liabilities (Part X, line 26)	9,696,287
22	Net assets or fund balances Subtract line 21 from line 20	9,007,273

Part II Signature Block

Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete Declaration of preparer (other than officer) is based on all information of which preparer has any knowledge

Sign Here

Signature of officer _____ Date 2019-11-15

Rachel ODonohue Treasurer
Type or print name and title

Paid Preparer Use Only

Print/Type preparer's name	Preparer's signature	Date	Check <input type="checkbox"/> if self-employed	PTIN
Firm's name ▶			Firm's EIN ▶	
Firm's address ▶			Phone no	

Part III Statement of Program Service Accomplishments

Check if Schedule O contains a response or note to any line in this Part III

1 Briefly describe the organization's mission

The mission is to lead the rapid development of cross-industry R&D programs to build the global competitiveness of its manufacturing partners

2 Did the organization undertake any significant program services during the year which were not listed on the prior Form 990 or 990-EZ? Yes No

If "Yes," describe these new services on Schedule O

3 Did the organization cease conducting, or make significant changes in how it conducts, any program services? Yes No

If "Yes," describe these changes on Schedule O

4 Describe the organization's program service accomplishments for each of its three largest program services, as measured by expenses. Section 501(c)(3) and 501(c)(4) organizations are required to report the amount of grants and allocations to others, the total expenses, and revenue, if any, for each program service reported

4a (Code) (Expenses \$ 39,990,729 including grants of \$) (Revenue \$ 44,830,701)
See Additional Data

4b (Code) (Expenses \$ including grants of \$) (Revenue \$)

4c (Code) (Expenses \$ including grants of \$) (Revenue \$)

4d Other program services (Describe in Schedule O)
(Expenses \$ 0 including grants of \$) (Revenue \$ 0)

4e Total program service expenses ▶ 39,990,729

Part IV Checklist of Required Schedules

Table with 3 columns: Question Number, Question Text, Yes, No. Rows include questions 1 through 22 regarding organizational requirements and financial reporting.

Part IV Checklist of Required Schedules (continued)

		Yes	No
23	Did the organization answer "Yes" to Part VII, Section A, line 3, 4, or 5 about compensation of the organization's current and former officers, directors, trustees, key employees, and highest compensated employees? <i>If "Yes," complete Schedule J</i>	23	Yes
24a	Did the organization have a tax-exempt bond issue with an outstanding principal amount of more than \$100,000 as of the last day of the year, that was issued after December 31, 2002? <i>If "Yes," answer lines 24b through 24d and complete Schedule K. If "No," go to line 25a</i>	24a	No
b	Did the organization invest any proceeds of tax-exempt bonds beyond a temporary period exception?	24b	
c	Did the organization maintain an escrow account other than a refunding escrow at any time during the year to defease any tax-exempt bonds?	24c	
d	Did the organization act as an "on behalf of" issuer for bonds outstanding at any time during the year?	24d	
25a	Section 501(c)(3), 501(c)(4), and 501(c)(29) organizations. Did the organization engage in an excess benefit transaction with a disqualified person during the year? <i>If "Yes," complete Schedule L, Part I</i>	25a	No
b	Is the organization aware that it engaged in an excess benefit transaction with a disqualified person in a prior year, and that the transaction has not been reported on any of the organization's prior Forms 990 or 990-EZ? <i>If "Yes," complete Schedule L, Part I</i>	25b	No
26	Did the organization report any amount on Part X, line 5, 6, or 22 for receivables from or payables to any current or former officers, directors, trustees, key employees, highest compensated employees, or disqualified persons? <i>If "Yes," complete Schedule L, Part II</i>	26	No
27	Did the organization provide a grant or other assistance to an officer, director, trustee, key employee, substantial contributor or employee thereof, a grant selection committee member, or to a 35% controlled entity or family member of any of these persons? <i>If "Yes," complete Schedule L, Part III</i>	27	No
28	Was the organization a party to a business transaction with one of the following parties (see Schedule L, Part IV instructions for applicable filing thresholds, conditions, and exceptions)		
a	A current or former officer, director, trustee, or key employee? <i>If "Yes," complete Schedule L, Part IV</i>	28a	No
b	A family member of a current or former officer, director, trustee, or key employee? <i>If "Yes," complete Schedule L, Part IV</i>	28b	No
c	An entity of which a current or former officer, director, trustee, or key employee (or a family member thereof) was an officer, director, trustee, or direct or indirect owner? <i>If "Yes," complete Schedule L, Part IV</i>	28c	No
29	Did the organization receive more than \$25,000 in non-cash contributions? <i>If "Yes," complete Schedule M</i>	29	No
30	Did the organization receive contributions of art, historical treasures, or other similar assets, or qualified conservation contributions? <i>If "Yes," complete Schedule M</i>	30	No
31	Did the organization liquidate, terminate, or dissolve and cease operations? <i>If "Yes," complete Schedule N, Part I</i>	31	No
32	Did the organization sell, exchange, dispose of, or transfer more than 25% of its net assets? <i>If "Yes," complete Schedule N, Part II</i>	32	No
33	Did the organization own 100% of an entity disregarded as separate from the organization under Regulations sections 301.7701-2 and 301.7701-3? <i>If "Yes," complete Schedule R, Part I</i>	33	No
34	Was the organization related to any tax-exempt or taxable entity? <i>If "Yes," complete Schedule R, Part II, III, or IV, and Part V, line 1</i>	34	Yes
35a	Did the organization have a controlled entity within the meaning of section 512(b)(13)?	35a	No
b	If "Yes" to line 35a, did the organization receive any payment from or engage in any transaction with a controlled entity within the meaning of section 512(b)(13)? <i>If "Yes," complete Schedule R, Part V, line 2</i>	35b	
36	Section 501(c)(3) organizations. Did the organization make any transfers to an exempt non-charitable related organization? <i>If "Yes," complete Schedule R, Part V, line 2</i>	36	No
37	Did the organization conduct more than 5% of its activities through an entity that is not a related organization and that is treated as a partnership for federal income tax purposes? <i>If "Yes," complete Schedule R, Part VI</i>	37	No
38	Did the organization complete Schedule O and provide explanations in Schedule O for Part VI, lines 11b and 19? Note. All Form 990 filers are required to complete Schedule O	38	Yes

Part V Statements Regarding Other IRS Filings and Tax Compliance

Check if Schedule O contains a response or note to any line in this Part V

		Yes	No
1a	Enter the number reported in Box 3 of Form 1096. Enter -0- if not applicable	1a	40
b	Enter the number of Forms W-2G included in line 1a. Enter -0- if not applicable	1b	0
c	Did the organization comply with backup withholding rules for reportable payments to vendors and reportable gaming (gambling) winnings to prize winners?	1c	Yes

2a Enter the number of employees reported on Form W-3, Transmittal of Wage and Tax Statements, filed for the calendar year ending with or within the year covered by this return		2a	42		
b If at least one is reported on line 2a, did the organization file all required federal employment tax returns? Note. If the sum of lines 1a and 2a is greater than 250, you may be required to e-file (see instructions)		2b		Yes	
3a Did the organization have unrelated business gross income of \$1,000 or more during the year?		3a		Yes	
b If "Yes," has it filed a Form 990-T for this year? If "No" to line 3b, provide an explanation in Schedule O		3b		Yes	
4a At any time during the calendar year, did the organization have an interest in, or a signature or other authority over, a financial account in a foreign country (such as a bank account, securities account, or other financial account)?		4a			No
b If "Yes," enter the name of the foreign country ▶ _____ See instructions for filing requirements for FinCEN Form 114, Report of Foreign Bank and Financial Accounts (FBAR)					
5a Was the organization a party to a prohibited tax shelter transaction at any time during the tax year?		5a			No
b Did any taxable party notify the organization that it was or is a party to a prohibited tax shelter transaction?		5b			No
c If "Yes," to line 5a or 5b, did the organization file Form 8886-T?		5c			
6a Does the organization have annual gross receipts that are normally greater than \$100,000, and did the organization solicit any contributions that were not tax deductible as charitable contributions?		6a			No
b If "Yes," did the organization include with every solicitation an express statement that such contributions or gifts were not tax deductible?		6b			
7 Organizations that may receive deductible contributions under section 170(c).					
a Did the organization receive a payment in excess of \$75 made partly as a contribution and partly for goods and services provided to the payor?		7a			
b If "Yes," did the organization notify the donor of the value of the goods or services provided?		7b			
c Did the organization sell, exchange, or otherwise dispose of tangible personal property for which it was required to file Form 8282?		7c			
d If "Yes," indicate the number of Forms 8282 filed during the year		7d			
e Did the organization receive any funds, directly or indirectly, to pay premiums on a personal benefit contract?		7e			
f Did the organization, during the year, pay premiums, directly or indirectly, on a personal benefit contract?		7f			
g If the organization received a contribution of qualified intellectual property, did the organization file Form 8899 as required?		7g			
h If the organization received a contribution of cars, boats, airplanes, or other vehicles, did the organization file a Form 1098-C?		7h			
8 Sponsoring organizations maintaining donor advised funds. Did a donor advised fund maintained by the sponsoring organization have excess business holdings at any time during the year?		8			
9a Did the sponsoring organization make any taxable distributions under section 4966?		9a			
b Did the sponsoring organization make a distribution to a donor, donor advisor, or related person?		9b			
10 Section 501(c)(7) organizations. Enter					
a Initiation fees and capital contributions included on Part VIII, line 12		10a			
b Gross receipts, included on Form 990, Part VIII, line 12, for public use of club facilities		10b			
11 Section 501(c)(12) organizations. Enter					
a Gross income from members or shareholders		11a			
b Gross income from other sources (Do not net amounts due or paid to other sources against amounts due or received from them)		11b			
12a Section 4947(a)(1) non-exempt charitable trusts. Is the organization filing Form 990 in lieu of Form 1041?		12a			
b If "Yes," enter the amount of tax-exempt interest received or accrued during the year		12b			
13 Section 501(c)(29) qualified nonprofit health insurance issuers.					
a Is the organization licensed to issue qualified health plans in more than one state? Note. See the instructions for additional information the organization must report on Schedule O		13a			
b Enter the amount of reserves the organization is required to maintain by the states in which the organization is licensed to issue qualified health plans		13b			
c Enter the amount of reserves on hand		13c			
14a Did the organization receive any payments for indoor tanning services during the tax year?		14a			No
b If "Yes," has it filed a Form 720 to report these payments? If "No," provide an explanation in Schedule O		14b			
15 Is the organization subject to the section 4960 tax on payment(s) of more than \$1,000,000 in remuneration or excess parachute payment(s) during the year? If "Yes," see instructions and file Form 4720, Schedule N		15			No
16 Is the organization an educational institution subject to the section 4968 excise tax on net investment income? If "Yes," complete Form 4720, Schedule O		16			No

Part VI Governance, Management, and Disclosure For each "Yes" response to lines 2 through 7b below, and for a "No" response to lines 8a, 8b, or 10b below, describe the circumstances, processes, or changes in Schedule O See instructions Check if Schedule O contains a response or note to any line in this Part VI



Section A. Governing Body and Management

Table with 3 columns: Question, Yes, No. Rows include: 1a Enter the number of voting members of the governing body at the end of the tax year; 1b Enter the number of voting members included in line 1a, above, who are independent; 2 Did any officer, director, trustee, or key employee have a family relationship or a business relationship with any other officer, director, trustee, or key employee?; 3 Did the organization delegate control over management duties customarily performed by or under the direct supervision of officers, directors or trustees, or key employees to a management company or other person?; 4 Did the organization make any significant changes to its governing documents since the prior Form 990 was filed?; 5 Did the organization become aware during the year of a significant diversion of the organization's assets?; 6 Did the organization have members or stockholders?; 7a Did the organization have members, stockholders, or other persons who had the power to elect or appoint one or more members of the governing body?; 7b Are any governance decisions of the organization reserved to (or subject to approval by) members, stockholders, or persons other than the governing body?; 8 Did the organization contemporaneously document the meetings held or written actions undertaken during the year by the following; 8a The governing body?; 8b Each committee with authority to act on behalf of the governing body?; 9 Is there any officer, director, trustee, or key employee listed in Part VII, Section A, who cannot be reached at the organization's mailing address? If "Yes," provide the names and addresses in Schedule O.

Section B. Policies (This Section B requests information about policies not required by the Internal Revenue Code.)

Table with 3 columns: Question, Yes, No. Rows include: 10a Did the organization have local chapters, branches, or affiliates?; 10b If "Yes," did the organization have written policies and procedures governing the activities of such chapters, affiliates, and branches to ensure their operations are consistent with the organization's exempt purposes?; 11a Has the organization provided a complete copy of this Form 990 to all members of its governing body before filing the form?; 11b Describe in Schedule O the process, if any, used by the organization to review this Form 990; 12a Did the organization have a written conflict of interest policy? If "No," go to line 13; 12b Were officers, directors, or trustees, and key employees required to disclose annually interests that could give rise to conflicts?; 12c Did the organization regularly and consistently monitor and enforce compliance with the policy? If "Yes," describe in Schedule O how this was done; 13 Did the organization have a written whistleblower policy?; 14 Did the organization have a written document retention and destruction policy?; 15 Did the process for determining compensation of the following persons include a review and approval by independent persons, comparability data, and contemporaneous substantiation of the deliberation and decision?; 15a The organization's CEO, Executive Director, or top management official; 15b Other officers or key employees of the organization; 16a Did the organization invest in, contribute assets to, or participate in a joint venture or similar arrangement with a taxable entity during the year?; 16b If "Yes," did the organization follow a written policy or procedure requiring the organization to evaluate its participation in joint venture arrangements under applicable federal tax law, and take steps to safeguard the organization's exempt status with respect to such arrangements?

Section C. Disclosure

Table with 2 columns: Question, Answer. Rows include: 17 List the States with which a copy of this Form 990 is required to be filed; 18 Section 6104 requires an organization to make its Form 1023 (or 1024-A if applicable), 990, and 990-T (501(c)(3)s only) available for public inspection. Indicate how you made these available. Check all that apply; 19 Describe in Schedule O whether (and if so, how) the organization made its governing documents, conflict of interest policy, and financial statements available to the public during the tax year; 20 State the name, address, and telephone number of the person who possesses the organization's books and records.

Part VII Compensation of Officers, Directors, Trustees, Key Employees, Highest Compensated Employees, and Independent Contractors

Check if Schedule O contains a response or note to any line in this Part VII

Section A. Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees

1a Complete this table for all persons required to be listed. Report compensation for the calendar year ending with or within the organization's tax year.

- List all of the organization's **current** officers, directors, trustees (whether individuals or organizations), regardless of amount of compensation. Enter -0- in columns (D), (E), and (F) if no compensation was paid.
- List all of the organization's **current** key employees, if any. See instructions for definition of "key employee."
- List the organization's five **current** highest compensated employees (other than an officer, director, trustee or key employee) who received reportable compensation (Box 5 of Form W-2 and/or Box 7 of Form 1099-MISC) of more than \$100,000 from the organization and any related organizations.
- List all of the organization's **former** officers, key employees, or highest compensated employees who received more than \$100,000 of reportable compensation from the organization and any related organizations.
- List all of the organization's **former directors or trustees** that received, in the capacity as a former director or trustee of the organization, more than \$10,000 of reportable compensation from the organization and any related organizations.

List persons in the following order: individual trustees or directors; institutional trustees; officers; key employees; highest compensated employees; and former such persons.

Check this box if neither the organization nor any related organization compensated any current officer, director, or trustee

(A) Name and Title	(B) Average hours per week (list any hours for related organizations below dotted line)	(C) Position (do not check more than one box, unless person is both an officer and a director/trustee)						(D) Reportable compensation from the organization (W-2/1099-MISC)	(E) Reportable compensation from related organizations (W-2/1099-MISC)	(F) Estimated amount of other compensation from the organization and related organizations
		Individual trustee or director	Institutional Trustee	Officer	Key employee	Highest compensated employee	Former			
(1) Courtney J Hill Chairman	1 0	X						0	0	0
(2) Dawn R White Vice-Chairman	1 0	X						0	0	0
(3) Ricky L Martin Class A Director	1 0	X						0	0	0
(4) Neil J Orringer Class B Director	1 0	X						0	0	0
(5) Dr C Alan Ferguson Class A Director	1 0	X						0	0	0
(6) A Donald Steinmane Class B Director	1 0	X						0	0	0
(7) Dr Thomas R Kurfess Class A Director	1 0	X						0	0	0
(8) J Clarke Orzalli USN ret Class B Director	1 0	X						0	0	0
(9) William Saathoff Class A Director	1 0	X						0	0	0
(10) Ann M Tinker Class B Director	1 0	X						0	0	0
(11) Lisa Strama CEO and President	40 0			X				93,934	0	11,505
(12) Richard Jarman CEO and President	40 0			X				330,707	0	49,026
(13) Rebecca Taylor Vice President	40 0			X				206,655	0	35,519
(14) Jon Riley Vice President	40 0			X				190,454	0	35,088
(15) Rachel O'Donohue Treasurer Vice President	40 0			X				127,534	0	25,170
(16) Beth Bolog Corporate Secretary	40 0			X				102,423	0	25,377
(17) Pamela Hurt Director, Membership and Communications	40 0					X		146,765	0	24,599

Part VII Section A. Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees (continued)

(A) Name and Title	(B) Average hours per week (list any hours for related organizations below dotted line)	(C) Position (do not check more than one box, unless person is both an officer and a director/trustee)						(D) Reportable compensation from the organization (W-2/1099-MISC)	(E) Reportable compensation from related organizations (W-2/1099-MISC)	(F) Estimated amount of other compensation from the organization and related organizations
		Individual trustee or director	Institutional Trustee	Officer	Key employee	Highest compensated employee	Former			
(18) Debra Lulu Program Director	40					X		128,609	0	31,889
(19) Elizabeth Stobierski Senior Program Manager	40					X		123,103	0	21,101
(20) Dana Ellis Program Manager	40					X		119,884	0	14,221
(21) Phillip Callihan IT Director	40					X		110,030	0	23,694
1b Sub-Total										
1c Total from continuation sheets to Part VII, Section A										
1d Total (add lines 1b and 1c)								1,680,098	0	297,189

2 Total number of individuals (including but not limited to those listed above) who received more than \$100,000 of reportable compensation from the organization ▶ 10

	Yes	No
3 Did the organization list any former officer, director or trustee, key employee, or highest compensated employee on line 1a? <i>If "Yes," complete Schedule J for such individual</i>		No
4 For any individual listed on line 1a, is the sum of reportable compensation and other compensation from the organization and related organizations greater than \$150,000? <i>If "Yes," complete Schedule J for such individual</i>	Yes	
5 Did any person listed on line 1a receive or accrue compensation from any unrelated organization or individual for services rendered to the organization? <i>If "Yes," complete Schedule J for such person</i>		No

Section B. Independent Contractors

1 Complete this table for your five highest compensated independent contractors that received more than \$100,000 of compensation from the organization Report compensation for the calendar year ending with or within the organization's tax year

(A) Name and business address	(B) Description of services	(C) Compensation
Kalo LLC 7902 Tysons One Place Tysons Corner, VA 22102	Contract Services	352,034

2 Total number of independent contractors (including but not limited to those listed above) who received more than \$100,000 of compensation from the organization ▶ 1

Part VIII Statement of Revenue

Check if Schedule O contains a response or note to any line in this Part VIII

			(A) Total revenue	(B) Related or exempt function revenue	(C) Unrelated business revenue	(D) Revenue excluded from tax under sections 512 - 514
Contributions, Gifts, Grants and Other Similar Amounts	1a Federated campaigns	1a	0			
	b Membership dues	1b	353,941			
	c Fundraising events	1c	0			
	d Related organizations	1d	0			
	e Government grants (contributions)	1e	44,830,701			
	f All other contributions, gifts, grants, and similar amounts not included above	1f	0			
	g Noncash contributions included in lines 1a - 1f \$ _____		0			
	h Total. Add lines 1a-1f			45,184,642		

Program Service Revenue			Business Code				
	2a _____						
	b _____						
	c _____						
	d _____						
	e _____						
	f All other program service revenue			0	0	0	0
9 Total. Add lines 2a-2f			0				

Other Revenue	3 Investment income (including dividends, interest, and other similar amounts)		41,412	0	0	41,412	
	4 Income from investment of tax-exempt bond proceeds		0	0	0	0	
	5 Royalties		0	0	0	0	
	6a Gross rents	(i) Real	(ii) Personal				
		352,144	0				
		b Less rental expenses	247,702	0			
		c Rental income or (loss)	104,442	0			
	d Net rental income or (loss)		104,442	104,442	0	0	
	7a Gross amount from sales of assets other than inventory	(i) Securities	(ii) Other				
		0	0				
		b Less cost or other basis and sales expenses	0	0			
		c Gain or (loss)	0	0			
	d Net gain or (loss)		0	0	0	0	
	8a Gross income from fundraising events (not including \$ _____ of contributions reported on line 1c) See Part IV, line 18	a		0			
		b Less direct expenses	b	0			
		c Net income or (loss) from fundraising events		0		0	0
	9a Gross income from gaming activities See Part IV, line 19	a		0			
		b Less direct expenses	b	0			
		c Net income or (loss) from gaming activities		0	0	0	0
	10a Gross sales of inventory, less returns and allowances	a		0			
b Less cost of goods sold		b	0				
c Net income or (loss) from sales of inventory			0	0	0	0	
Miscellaneous Revenue		Business Code					
11a Project Management Services		541900	140,535	140,535	0	0	
b Conferences and Workshops		541900	62,825	62,825	0	0	
c Publication		519130	4,313	4,313	0	0	
d All other revenue			69,300	62,980	6,320	0	
e Total. Add lines 11a-11d			276,973				
12 Total revenue. See Instructions			45,607,469	375,095	6,320	41,412	

Part IX Statement of Functional Expenses

Section 501(c)(3) and 501(c)(4) organizations must complete all columns. All other organizations must complete column (A).

Check if Schedule O contains a response or note to any line in this Part IX

	(A) Total expenses	(B) Program service expenses	(C) Management and general expenses	(D) Fundraising expenses
Do not include amounts reported on lines 6b, 7b, 8b, 9b, and 10b of Part VIII.				
1 Grants and other assistance to domestic organizations and domestic governments See Part IV, line 21	0	0		
2 Grants and other assistance to domestic individuals See Part IV, line 22	0	0		
3 Grants and other assistance to foreign organizations, foreign governments, and foreign individuals See Part IV, line 15 and 16	0	0		
4 Benefits paid to or for members	0	0		
5 Compensation of current officers, directors, trustees, and key employees	976,320	362,631	424,231	189,458
6 Compensation not included above, to disqualified persons (as defined under section 4958(f)(1)) and persons described in section 4958(c)(3)(B)	0	0	0	0
7 Other salaries and wages	2,036,852	1,077,881	807,496	151,475
8 Pension plan accruals and contributions (include section 401 (k) and 403(b) employer contributions)	248,403	101,854	123,462	23,087
9 Other employee benefits	767,671	314,770	381,553	71,348
10 Payroll taxes	233,661	97,163	114,781	21,717
11 Fees for services (non-employees)				
a Management	0	0	0	0
b Legal	36,065	0	36,065	0
c Accounting	60,182	0	60,182	0
d Lobbying	0	0	0	0
e Professional fundraising services See Part IV, line 17	0			0
f Investment management fees	0	0	0	0
g Other (If line 11g amount exceeds 10% of line 25, column (A) amount, list line 11g expenses on Schedule O)	496,556	496,556	0	0
12 Advertising and promotion	15,356	0	0	15,356
13 Office expenses	398,558	106,990	264,958	26,610
14 Information technology	1,268	0	647	621
15 Royalties	0	0	0	0
16 Occupancy	89,693	96,982	-83,999	76,710
17 Travel	235,172	148,123	54,978	32,071
18 Payments of travel or entertainment expenses for any federal, state, or local public officials	0	0	0	0
19 Conferences, conventions, and meetings	85,203	72,962	-103,039	115,280
20 Interest	0	0	0	0
21 Payments to affiliates	0	0	0	0
22 Depreciation, depletion, and amortization	242,526	77,890	143,826	20,810
23 Insurance	50,954	3,253	46,832	869
24 Other expenses Itemize expenses not covered above (List miscellaneous expenses in line 24e. If line 24e amount exceeds 10% of line 25, column (A) amount, list line 24e expenses on Schedule O.)				
a Contract Services	37,459,554	37,030,871	428,323	360
b Small Equipment Purchases	100,076	2,803	96,524	749
c Dues and Membership	6,586	0	2,361	4,225
d				
e All other expenses	0	0	0	0
25 Total functional expenses. Add lines 1 through 24e	43,540,656	39,990,729	2,799,181	750,746
26 Joint costs. Complete this line only if the organization reported in column (B) joint costs from a combined educational campaign and fundraising solicitation. Check here <input type="checkbox"/> if following SOP 98-2 (ASC 958-720)				

Part X Balance Sheet

Check if Schedule O contains a response or note to any line in this Part IX

		(A) Beginning of year		(B) End of year	
Assets	1 Cash—non-interest-bearing	13,655	1	1,092	
	2 Savings and temporary cash investments	5,285,464	2	30,822,393	
	3 Pledges and grants receivable, net	10,653,299	3	2,852,280	
	4 Accounts receivable, net		4		
	5 Loans and other receivables from current and former officers, directors, trustees, key employees, and highest compensated employees Complete Part II of Schedule L		5		
	6 Loans and other receivables from other disqualified persons (as defined under section 4958(f)(1)), persons described in section 4958(c)(3)(B), and contributing employers and sponsoring organizations of section 501(c)(9) voluntary employees' beneficiary organizations (see instructions) Complete Part II of Schedule L		6		
	7 Notes and loans receivable, net		7		
	8 Inventories for sale or use		8		
	9 Prepaid expenses and deferred charges	100,073	9	34,845	
	10a Land, buildings, and equipment cost or other basis Complete Part VI of Schedule D	8,978,738			
	b Less accumulated depreciation	7,057,624	2,076,484	10c	1,921,114
	11 Investments—publicly traded securities	0	11	0	
	12 Investments—other securities See Part IV, line 11	0	12	0	
	13 Investments—program-related See Part IV, line 11	0	13	0	
	14 Intangible assets	0	14	0	
	15 Other assets See Part IV, line 11	574,585	15	621,325	
16 Total assets. Add lines 1 through 15 (must equal line 34)	18,703,560	16	36,253,049		
Liabilities	17 Accounts payable and accrued expenses	8,561,348	17	9,882,704	
	18 Grants payable	0	18	0	
	19 Deferred revenue	1,134,939	19	15,296,259	
	20 Tax-exempt bond liabilities	0	20	0	
	21 Escrow or custodial account liability Complete Part IV of Schedule D	0	21	0	
	22 Loans and other payables to current and former officers, directors, trustees, key employees, highest compensated employees, and disqualified persons Complete Part II of Schedule L	0	22	0	
	23 Secured mortgages and notes payable to unrelated third parties	0	23	0	
	24 Unsecured notes and loans payable to unrelated third parties	0	24	0	
	25 Other liabilities (including federal income tax, payables to related third parties, and other liabilities not included on lines 17 - 24) Complete Part X of Schedule D		25		
	26 Total liabilities. Add lines 17 through 25	9,696,287	26	25,178,963	
Net Assets or Fund Balances	Organizations that follow SFAS 117 (ASC 958), check here <input checked="" type="checkbox"/> and complete lines 27 through 29, and lines 33 and 34.				
	27 Unrestricted net assets	9,007,273	27	11,074,086	
	28 Temporarily restricted net assets	0	28	0	
	29 Permanently restricted net assets	0	29	0	
	Organizations that do not follow SFAS 117 (ASC 958), check here <input type="checkbox"/> and complete lines 30 through 34.				
	30 Capital stock or trust principal, or current funds		30		
	31 Paid-in or capital surplus, or land, building or equipment fund		31		
	32 Retained earnings, endowment, accumulated income, or other funds		32		
33 Total net assets or fund balances	9,007,273	33	11,074,086		
34 Total liabilities and net assets/fund balances	18,703,560	34	36,253,049		

Part XI Reconciliation of Net Assets

Check if Schedule O contains a response or note to any line in this Part XI

1	Total revenue (must equal Part VIII, column (A), line 12)	1	45,607,469
2	Total expenses (must equal Part IX, column (A), line 25)	2	43,540,656
3	Revenue less expenses Subtract line 2 from line 1	3	2,066,813
4	Net assets or fund balances at beginning of year (must equal Part X, line 33, column (A))	4	9,007,273
5	Net unrealized gains (losses) on investments	5	0
6	Donated services and use of facilities	6	0
7	Investment expenses	7	0
8	Prior period adjustments	8	0
9	Other changes in net assets or fund balances (explain in Schedule O)	9	0
10	Net assets or fund balances at end of year Combine lines 3 through 9 (must equal Part X, line 33, column (B))	10	11,074,086

Part XII Financial Statements and Reporting

Check if Schedule O contains a response or note to any line in this Part XII

- 1** Accounting method used to prepare the Form 990 Cash Accrual Other _____
 If the organization changed its method of accounting from a prior year or checked "Other," explain in Schedule O
- 2a** Were the organization's financial statements compiled or reviewed by an independent accountant?
 If 'Yes,' check a box below to indicate whether the financial statements for the year were compiled or reviewed on a separate basis, consolidated basis, or both
 Separate basis Consolidated basis Both consolidated and separate basis
- b** Were the organization's financial statements audited by an independent accountant?
 If 'Yes,' check a box below to indicate whether the financial statements for the year were audited on a separate basis, consolidated basis, or both
 Separate basis Consolidated basis Both consolidated and separate basis
- c** If "Yes," to line 2a or 2b, does the organization have a committee that assumes responsibility for oversight of the audit, review, or compilation of its financial statements and selection of an independent accountant?
 If the organization changed either its oversight process or selection process during the tax year, explain in Schedule O
- 3a** As a result of a federal award, was the organization required to undergo an audit or audits as set forth in the Single Audit Act and OMB Circular A-133?
- b** If "Yes," did the organization undergo the required audit or audits? If the organization did not undergo the required audit or audits, explain why in Schedule O and describe any steps taken to undergo such audits

	Yes	No
2a	Yes	
2b	Yes	
2c	Yes	
3a	Yes	
3b	Yes	

Additional Data

Software ID: 18007995

Software Version: v1.00

EIN: 38-2761126

Name: NATIONAL CENTER FOR MANUFACTURING SCIENCES

Form 990 (2018)

Form 990, Part III, Line 4a:

Engineering and Technology Research Managed collaborative research and development projects and performed services which address the manufacturing needs of North American Industry in global economy

SCHEDULE A
(Form 990 or 990-EZ)

Public Charity Status and Public Support

Complete if the organization is a section 501(c)(3) organization or a section 4947(a)(1) nonexempt charitable trust.
 Attach to Form 990 or Form 990-EZ.
 Go to www.irs.gov/Form990 for the latest information.

2018

Open to Public Inspection

Department of the Treasury
Internal Revenue Service

Name of the organization

NATIONAL CENTER FOR MANUFACTURING SCIENCES

Employer identification number

38-2761126

Part I Reason for Public Charity Status (All organizations must complete this part.) See instructions.

The organization is not a private foundation because it is (For lines 1 through 12, check only one box.)

- 1 A church, convention of churches, or association of churches described in **section 170(b)(1)(A)(i).**
- 2 A school described in **section 170(b)(1)(A)(ii).** (Attach Schedule E (Form 990 or 990-EZ))
- 3 A hospital or a cooperative hospital service organization described in **section 170(b)(1)(A)(iii).**
- 4 A medical research organization operated in conjunction with a hospital described in **section 170(b)(1)(A)(iii).** Enter the hospital's name, city, and state _____
- 5 An organization operated for the benefit of a college or university owned or operated by a governmental unit described in **section 170(b)(1)(A)(iv).** (Complete Part II)
- 6 A federal, state, or local government or governmental unit described in **section 170(b)(1)(A)(v).**
- 7 An organization that normally receives a substantial part of its support from a governmental unit or from the general public described in **section 170(b)(1)(A)(vi).** (Complete Part II)
- 8 A community trust described in **section 170(b)(1)(A)(vi)** (Complete Part II)
- 9 An agricultural research organization described in **170(b)(1)(A)(ix)** operated in conjunction with a land-grant college or university or a non-land grant college of agriculture See instructions Enter the name, city, and state of the college or university _____
- 10 An organization that normally receives (1) more than 33 1/3% of its support from contributions, membership fees, and gross receipts from activities related to its exempt functions—subject to certain exceptions, and (2) no more than 33 1/3% of its support from gross investment income and unrelated business taxable income (less section 511 tax) from businesses acquired by the organization after June 30, 1975 See **section 509(a)(2).** (Complete Part III)
- 11 An organization organized and operated exclusively to test for public safety See **section 509(a)(4).**
- 12 An organization organized and operated exclusively for the benefit of, to perform the functions of, or to carry out the purposes of one or more publicly supported organizations described in **section 509(a)(1)** or **section 509(a)(2).** See **section 509(a)(3).** Check the box in lines 12a through 12d that describes the type of supporting organization and complete lines 12e, 12f, and 12g
 - a **Type I.** A supporting organization operated, supervised, or controlled by its supported organization(s), typically by giving the supported organization(s) the power to regularly appoint or elect a majority of the directors or trustees of the supporting organization **You must complete Part IV, Sections A and B.**
 - b **Type II.** A supporting organization supervised or controlled in connection with its supported organization(s), by having control or management of the supporting organization vested in the same persons that control or manage the supported organization(s) **You must complete Part IV, Sections A and C.**
 - c **Type III functionally integrated.** A supporting organization operated in connection with, and functionally integrated with, its supported organization(s) (see instructions) **You must complete Part IV, Sections A, D, and E.**
 - d **Type III non-functionally integrated.** A supporting organization operated in connection with its supported organization(s) that is not functionally integrated The organization generally must satisfy a distribution requirement and an attentiveness requirement (see instructions) **You must complete Part IV, Sections A and D, and Part V.**
 - e Check this box if the organization received a written determination from the IRS that it is a Type I, Type II, Type III functionally integrated, or Type III non-functionally integrated supporting organization
 - f Enter the number of supported organizations _____
 - g Provide the following information about the supported organization(s)

(i) Name of supported organization	(ii) EIN	(iii) Type of organization (described on lines 1- 10 above (see instructions))	(iv) Is the organization listed in your governing document?		(v) Amount of monetary support (see instructions)	(vi) Amount of other support (see instructions)
			Yes	No		
Total						

Part II Support Schedule for Organizations Described in Sections 170(b)(1)(A)(iv), 170(b)(1)(A)(vi), and 170(b)(1)(A)(ix)

(Complete only if you checked the box on line 5, 7, 8, or 9 of Part I or if the organization failed to qualify under Part III. If the organization fails to qualify under the tests listed below, please complete Part III.)

Section A. Public Support

Calendar year (or fiscal year beginning in) ▶	(a) 2014	(b) 2015	(c) 2016	(d) 2017	(e) 2018	(f) Total
1 Gifts, grants, contributions, and membership fees received (Do not include any "unusual grant.")	16,677,008	15,054,306	23,802,778	37,558,108	45,184,642	138,276,842
2 Tax revenues levied for the organization's benefit and either paid to or expended on its behalf	0	0	0	0	0	0
3 The value of services or facilities furnished by a governmental unit to the organization without charge	0	0	0	0	0	0
4 Total. Add lines 1 through 3	16,677,008	15,054,306	23,802,778	37,558,108	45,184,642	138,276,842
5 The portion of total contributions by each person (other than a governmental unit or publicly supported organization) included on line 1 that exceeds 2% of the amount shown on line 11, column (f)						0
6 Public support. Subtract line 5 from line 4						138,276,842

Section B. Total Support

Calendar year (or fiscal year beginning in) ▶	(a) 2014	(b) 2015	(c) 2016	(d) 2017	(e) 2018	(f) Total
7 Amounts from line 4	16,677,008	15,054,306	23,802,778	37,558,108	45,184,642	138,276,842
8 Gross income from interest, dividends, payments received on securities loans, rents, royalties and income from similar sources	14,682	21,540	-21,248	24,311	145,853	185,138
9 Net income from unrelated business activities, whether or not the business is regularly carried on	175,107	0	0	0	2,067	177,174
10 Other income Do not include gain or loss from the sale of capital assets (Explain in Part VI.)	0	0	0	0	0	0
11 Total support. Add lines 7 through 10						138,639,154

12 Gross receipts from related activities, etc (see instructions) **12** 207,823

13 First five years. If the Form 990 is for the organization's first, second, third, fourth, or fifth tax year as a section 501(c)(3) organization, check this box and **stop here**

Section C. Computation of Public Support Percentage

14 Public support percentage for 2018 (line 6, column (f) divided by line 11, column (f))	14	99.739%
15 Public support percentage for 2017 Schedule A, Part II, line 14	15	99.668%

16a 33 1/3% support test—2018. If the organization did not check the box on line 13, and line 14 is 33 1/3% or more, check this box and **stop here.** The organization qualifies as a publicly supported organization

b 33 1/3% support test—2017. If the organization did not check a box on line 13 or 16a, and line 15 is 33 1/3% or more, check this box and **stop here.** The organization qualifies as a publicly supported organization

17a 10%-facts-and-circumstances test—2018. If the organization did not check a box on line 13, 16a, or 16b, and line 14 is 10% or more, and if the organization meets the "facts-and-circumstances" test, check this box and **stop here.** Explain in Part VI how the organization meets the "facts-and-circumstances" test. The organization qualifies as a publicly supported organization

b 10%-facts-and-circumstances test—2017. If the organization did not check a box on line 13, 16a, 16b, or 17a, and line 15 is 10% or more, and if the organization meets the "facts-and-circumstances" test, check this box and **stop here.** Explain in Part VI how the organization meets the "facts-and-circumstances" test. The organization qualifies as a publicly supported organization

18 Private foundation. If the organization did not check a box on line 13, 16a, 16b, 17a, or 17b, check this box and see instructions

Part III Support Schedule for Organizations Described in Section 509(a)(2)

(Complete only if you checked the box on line 10 of Part I or if the organization failed to qualify under Part II. If the organization fails to qualify under the tests listed below, please complete Part II.)

Section A. Public Support

Calendar year (or fiscal year beginning in) ►		(a) 2014	(b) 2015	(c) 2016	(d) 2017	(e) 2018	(f) Total
1	Gifts, grants, contributions, and membership fees received (Do not include any "unusual grants.")						
2	Gross receipts from admissions, merchandise sold or services performed, or facilities furnished in any activity that is related to the organization's tax-exempt purpose						
3	Gross receipts from activities that are not an unrelated trade or business under section 513						
4	Tax revenues levied for the organization's benefit and either paid to or expended on its behalf						
5	The value of services or facilities furnished by a governmental unit to the organization without charge						
6	Total. Add lines 1 through 5						
7a	Amounts included on lines 1, 2, and 3 received from disqualified persons						
b	Amounts included on lines 2 and 3 received from other than disqualified persons that exceed the greater of \$5,000 or 1% of the amount on line 13 for the year						
c	Add lines 7a and 7b						
8	Public support. (Subtract line 7c from line 6)						

Section B. Total Support

Calendar year (or fiscal year beginning in) ►		(a) 2014	(b) 2015	(c) 2016	(d) 2017	(e) 2018	(f) Total
9	Amounts from line 6						
10a	Gross income from interest, dividends, payments received on securities loans, rents, royalties and income from similar sources						
b	Unrelated business taxable income (less section 511 taxes) from businesses acquired after June 30, 1975						
c	Add lines 10a and 10b						
11	Net income from unrelated business activities not included in line 10b, whether or not the business is regularly carried on						
12	Other income. Do not include gain or loss from the sale of capital assets (Explain in Part VI.)						
13	Total support. (Add lines 9, 10c, 11, and 12.)						

14 First five years. If the Form 990 is for the organization's first, second, third, fourth, or fifth tax year as a section 501(c)(3) organization, check this box and **stop here** ►

Section C. Computation of Public Support Percentage

15	Public support percentage for 2018 (line 8, column (f) divided by line 13, column (f))	15	
16	Public support percentage from 2017 Schedule A, Part III, line 15	16	

Section D. Computation of Investment Income Percentage

17	Investment income percentage for 2018 (line 10c, column (f) divided by line 13, column (f))	17	
18	Investment income percentage from 2017 Schedule A, Part III, line 17	18	

19a 33 1/3% support tests—2018. If the organization did not check the box on line 14, and line 15 is more than 33 1/3%, and line 17 is not more than 33 1/3%, check this box and **stop here.** The organization qualifies as a publicly supported organization ►

b 33 1/3% support tests—2017. If the organization did not check a box on line 14 or line 19a, and line 16 is more than 33 1/3% and line 18 is not more than 33 1/3%, check this box and **stop here.** The organization qualifies as a publicly supported organization ►

20 Private foundation. If the organization did not check a box on line 14, 19a, or 19b, check this box and see instructions ►

Part IV Supporting Organizations

(Complete only if you checked a box on line 12 of Part I. If you checked 12a of Part I, complete Sections A and B. If you checked 12b of Part I, complete Sections A and C. If you checked 12c of Part I, complete Sections A, D, and E. If you checked 12d of Part I, complete Sections A and D, and complete Part V.)

Section A. All Supporting Organizations

		Yes	No
1	Are all of the organization's supported organizations listed by name in the organization's governing documents? If "No," describe in Part VI how the supported organizations are designated. If designated by class or purpose, describe the designation. If historic and continuing relationship, explain.		
	1		
2	Did the organization have any supported organization that does not have an IRS determination of status under section 509(a)(1) or (2)? If "Yes," explain in Part VI how the organization determined that the supported organization was described in section 509(a)(1) or (2).		
	2		
3a	Did the organization have a supported organization described in section 501(c)(4), (5), or (6)? If "Yes," answer (b) and (c) below.		
	3a		
b	Did the organization confirm that each supported organization qualified under section 501(c)(4), (5), or (6) and satisfied the public support tests under section 509(a)(2)? If "Yes," describe in Part VI when and how the organization made the determination.		
	3b		
c	Did the organization ensure that all support to such organizations was used exclusively for section 170(c)(2)(B) purposes? If "Yes," explain in Part VI what controls the organization put in place to ensure such use.		
	3c		
4a	Was any supported organization not organized in the United States ("foreign supported organization")? If "Yes" and if you checked 12a or 12b in Part I, answer (b) and (c) below.		
	4a		
b	Did the organization have ultimate control and discretion in deciding whether to make grants to the foreign supported organization? If "Yes," describe in Part VI how the organization had such control and discretion despite being controlled or supervised by or in connection with its supported organizations.		
	4b		
c	Did the organization support any foreign supported organization that does not have an IRS determination under sections 501(c)(3) and 509(a)(1) or (2)? If "Yes," explain in Part VI what controls the organization used to ensure that all support to the foreign supported organization was used exclusively for section 170(c)(2)(B) purposes.		
	4c		
5a	Did the organization add, substitute, or remove any supported organizations during the tax year? If "Yes," answer (b) and (c) below (if applicable). Also, provide detail in Part VI , including (i) the names and EIN numbers of the supported organizations added, substituted, or removed, (ii) the reasons for each such action, (iii) the authority under the organization's organizing document authorizing such action, and (iv) how the action was accomplished (such as by amendment to the organizing document).		
	5a		
b	Type I or Type II only. Was any added or substituted supported organization part of a class already designated in the organization's organizing document?		
	5b		
c	Substitutions only. Was the substitution the result of an event beyond the organization's control?		
	5c		
6	Did the organization provide support (whether in the form of grants or the provision of services or facilities) to anyone other than (i) its supported organizations, (ii) individuals that are part of the charitable class benefited by one or more of its supported organizations, or (iii) other supporting organizations that also support or benefit one or more of the filing organization's supported organizations? If "Yes," provide detail in Part VI .		
	6		
7	Did the organization provide a grant, loan, compensation, or other similar payment to a substantial contributor (defined in section 4958(c)(3)(C)), a family member of a substantial contributor, or a 35% controlled entity with regard to a substantial contributor? If "Yes," complete Part I of Schedule L (Form 990 or 990-EZ).		
	7		
8	Did the organization make a loan to a disqualified person (as defined in section 4958) not described in line 7? If "Yes," complete Part I of Schedule L (Form 990 or 990-EZ).		
	8		
9a	Was the organization controlled directly or indirectly at any time during the tax year by one or more disqualified persons as defined in section 4946 (other than foundation managers and organizations described in section 509(a)(1) or (2))? If "Yes," provide detail in Part VI .		
	9a		
b	Did one or more disqualified persons (as defined in line 9a) hold a controlling interest in any entity in which the supporting organization had an interest? If "Yes," provide detail in Part VI .		
	9b		
c	Did a disqualified person (as defined in line 9a) have an ownership interest in, or derive any personal benefit from, assets in which the supporting organization also had an interest? If "Yes," provide detail in Part VI .		
	9c		
10a	Was the organization subject to the excess business holdings rules of section 4943 because of section 4943(f) (regarding certain Type II supporting organizations, and all Type III non-functionally integrated supporting organizations)? If "Yes," answer line 10b below.		
	10a		
b	Did the organization have any excess business holdings in the tax year? (Use Schedule C, Form 4720, to determine whether the organization had excess business holdings.)		
	10b		

Part IV Supporting Organizations (continued)

		Yes	No
11	Has the organization accepted a gift or contribution from any of the following persons?		
a	A person who directly or indirectly controls, either alone or together with persons described in (b) and (c) below, the governing body of a supported organization?		
b	A family member of a person described in (a) above?		
c	A 35% controlled entity of a person described in (a) or (b) above? <i>If "Yes" to a, b, or c, provide detail in Part VI</i>		

Section B. Type I Supporting Organizations

		Yes	No
1	Did the directors, trustees, or membership of one or more supported organizations have the power to regularly appoint or elect at least a majority of the organization's directors or trustees at all times during the tax year? <i>If "No," describe in Part VI how the supported organization(s) effectively operated, supervised, or controlled the organization's activities. If the organization had more than one supported organization, describe how the powers to appoint and/or remove directors or trustees were allocated among the supported organizations and what conditions or restrictions, if any, applied to such powers during the tax year.</i>		
2	Did the organization operate for the benefit of any supported organization other than the supported organization(s) that operated, supervised, or controlled the supporting organization? <i>If "Yes," explain in Part VI how providing such benefit carried out the purposes of the supported organization(s) that operated, supervised or controlled the supporting organization.</i>		

Section C. Type II Supporting Organizations

		Yes	No
1	Were a majority of the organization's directors or trustees during the tax year also a majority of the directors or trustees of each of the organization's supported organization(s)? <i>If "No," describe in Part VI how control or management of the supporting organization was vested in the same persons that controlled or managed the supported organization(s).</i>		

Section D. All Type III Supporting Organizations

		Yes	No
1	Did the organization provide to each of its supported organizations, by the last day of the fifth month of the organization's tax year, (i) a written notice describing the type and amount of support provided during the prior tax year, (ii) a copy of the Form 990 that was most recently filed as of the date of notification, and (iii) copies of the organization's governing documents in effect on the date of notification, to the extent not previously provided?		
2	Were any of the organization's officers, directors, or trustees either (i) appointed or elected by the supported organization (s) or (ii) serving on the governing body of a supported organization? <i>If "No," explain in Part VI how the organization maintained a close and continuous working relationship with the supported organization(s).</i>		
3	By reason of the relationship described in (2), did the organization's supported organizations have a significant voice in the organization's investment policies and in directing the use of the organization's income or assets at all times during the tax year? <i>If "Yes," describe in Part VI the role the organization's supported organizations played in this regard.</i>		

Section E. Type III Functionally-Integrated Supporting Organizations

1	Check the box next to the method that the organization used to satisfy the Integral Part Test during the year (see instructions)		
a	<input type="checkbox"/> The organization satisfied the Activities Test. Complete line 2 below.		
b	<input type="checkbox"/> The organization is the parent of each of its supported organizations. Complete line 3 below.		
c	<input type="checkbox"/> The organization supported a governmental entity. Describe in Part VI how you supported a government entity (see instructions).		
2	Activities Test Answer (a) and (b) below.		
a	Did substantially all of the organization's activities during the tax year directly further the exempt purposes of the supported organization(s) to which the organization was responsive? <i>If "Yes," then in Part VI identify those supported organizations and explain how these activities directly furthered their exempt purposes, how the organization was responsive to those supported organizations, and how the organization determined that these activities constituted substantially all of its activities.</i>	Yes	No
b	Did the activities described in (a) constitute activities that, but for the organization's involvement, one or more of the organization's supported organization(s) would have been engaged in? <i>If "Yes," explain in Part VI the reasons for the organization's position that its supported organization(s) would have engaged in these activities but for the organization's involvement.</i>		
3	Parent of Supported Organizations Answer (a) and (b) below.		
a	Did the organization have the power to regularly appoint or elect a majority of the officers, directors, or trustees of each of the supported organizations? <i>Provide details in Part VI.</i>		
b	Did the organization exercise a substantial degree of direction over the policies, programs and activities of each of its supported organizations? <i>If "Yes," describe in Part VI the role played by the organization in this regard.</i>		

Part V Type III Non-Functionally Integrated 509(a)(3) Supporting Organizations

- Check here if the organization satisfied the Integral Part Test as a qualifying trust on Nov. 20, 1970 (explain in Part VI). **See instructions.** All other Type III non-functionally integrated supporting organizations must complete Sections A through E.

Section A - Adjusted Net Income		(A) Prior Year	(B) Current Year (optional)
1	Net short-term capital gain	1	
2	Recoveries of prior-year distributions	2	
3	Other gross income (see instructions)	3	
4	Add lines 1 through 3	4	
5	Depreciation and depletion	5	
6	Portion of operating expenses paid or incurred for production or collection of gross income or for management, conservation, or maintenance of property held for production of income (see instructions)	6	
7	Other expenses (see instructions)	7	
8	Adjusted Net Income (subtract lines 5, 6 and 7 from line 4)	8	
Section B - Minimum Asset Amount		(A) Prior Year	(B) Current Year (optional)
1	Aggregate fair market value of all non-exempt-use assets (see instructions for short tax year or assets held for part of year)	1	
a	Average monthly value of securities	1a	
b	Average monthly cash balances	1b	
c	Fair market value of other non-exempt-use assets	1c	
d	Total (add lines 1a, 1b, and 1c)	1d	
e	Discount claimed for blockage or other factors (explain in detail in Part VI)		
2	Acquisition indebtedness applicable to non-exempt use assets	2	
3	Subtract line 2 from line 1d	3	
4	Cash deemed held for exempt use. Enter 1-1/2% of line 3 (for greater amount, see instructions)	4	
5	Net value of non-exempt-use assets (subtract line 4 from line 3)	5	
6	Multiply line 5 by .035	6	
7	Recoveries of prior-year distributions	7	
8	Minimum Asset Amount (add line 7 to line 6)	8	
Section C - Distributable Amount			Current Year
1	Adjusted net income for prior year (from Section A, line 8, Column A)	1	
2	Enter 85% of line 1	2	
3	Minimum asset amount for prior year (from Section B, line 8, Column A)	3	
4	Enter greater of line 2 or line 3	4	
5	Income tax imposed in prior year	5	
6	Distributable Amount. Subtract line 5 from line 4, unless subject to emergency temporary reduction (see instructions)	6	
7	<input type="checkbox"/> Check here if the current year is the organization's first as a non-functionally-integrated Type III supporting organization (see instructions)		

Part V Type III Non-Functionally Integrated 509(a)(3) Supporting Organizations (continued)

Section D - Distributions	Current Year
1 Amounts paid to supported organizations to accomplish exempt purposes	
2 Amounts paid to perform activity that directly furthers exempt purposes of supported organizations, in excess of income from activity	
3 Administrative expenses paid to accomplish exempt purposes of supported organizations	
4 Amounts paid to acquire exempt-use assets	
5 Qualified set-aside amounts (prior IRS approval required)	
6 Other distributions (describe in Part VI) See instructions	
7 Total annual distributions. Add lines 1 through 6	
8 Distributions to attentive supported organizations to which the organization is responsive (provide details in Part VI) See instructions	
9 Distributable amount for 2018 from Section C, line 6	
10 Line 8 amount divided by Line 9 amount	

Section E - Distribution Allocations (see instructions)	(i) Excess Distributions	(ii) Underdistributions Pre-2018	(iii) Distributable Amount for 2018
1 Distributable amount for 2018 from Section C, line 6			
2 Underdistributions, if any, for years prior to 2018 (reasonable cause required-- explain in Part VI) See instructions			
3 Excess distributions carryover, if any, to 2018			
a From 2013.			
b From 2014.			
c From 2015.			
d From 2016.			
e From 2017.			
f Total of lines 3a through e			
g Applied to underdistributions of prior years			
h Applied to 2018 distributable amount			
i Carryover from 2013 not applied (see instructions)			
j Remainder Subtract lines 3g, 3h, and 3i from 3f			
4 Distributions for 2018 from Section D, line 7 \$			
a Applied to underdistributions of prior years			
b Applied to 2018 distributable amount			
c Remainder Subtract lines 4a and 4b from 4			
5 Remaining underdistributions for years prior to 2018, if any Subtract lines 3g and 4a from line 2 If the amount is greater than zero, explain in Part VI See instructions			
6 Remaining underdistributions for 2018 Subtract lines 3h and 4b from line 1 If the amount is greater than zero, explain in Part VI See instructions			
7 Excess distributions carryover to 2019. Add lines 3j and 4c			
8 Breakdown of line 7			
a Excess from 2014.			
b Excess from 2015.			
c Excess from 2016.			
d Excess from 2017.			
e Excess from 2018.			

Additional Data

Software ID: 18007995

Software Version: v1.00

EIN: 38-2761126

Name: NATIONAL CENTER FOR MANUFACTURING SCIENCES

Part VI **Supplemental Information.** Provide the explanations required by Part II, line 10, Part II, line 17a or 17b, Part III, line 12, Part IV, Section A, lines 1, 2, 3b, 3c, 4b, 4c, 5a, 6, 9a, 9b, 9c, 11a, 11b, and 11c, Part IV, Section B, lines 1 and 2, Part IV, Section C, line 1, Part IV, Section D, lines 2 and 3, Part IV, Section E, lines 1c, 2a, 2b, 3a and 3b, Part V, line 1, Part V, Section B, line 1e, Part V Section D, lines 5, 6, and 8, and Part V, Section E, lines 2, 5, and 6 Also complete this part for any additional information (See instructions)

Facts And Circumstances Test

SCHEDULE C
(Form 990 or 990-EZ)

Department of the Treasury
Internal Revenue Service

Political Campaign and Lobbying Activities
For Organizations Exempt From Income Tax Under section 501(c) and section 527

▶Complete if the organization is described below. ▶Attach to Form 990 or Form 990-EZ.
▶Go to www.irs.gov/Form990 for instructions and the latest information.

OMB No 1545-0047

2018

Open to Public Inspection

If the organization answered "Yes" on Form 990, Part IV, Line 3, or Form 990-EZ, Part V, line 46 (Political Campaign Activities), then

- Section 501(c)(3) organizations Complete Parts I-A and B Do not complete Part I-C
- Section 501(c) (other than section 501(c)(3)) organizations Complete Parts I-A and C below Do not complete Part I-B
- Section 527 organizations Complete Part I-A only

If the organization answered "Yes" on Form 990, Part IV, Line 4, or Form 990-EZ, Part VI, line 47 (Lobbying Activities), then

- Section 501(c)(3) organizations that have filed Form 5768 (election under section 501(h)) Complete Part II-A Do not complete Part II-B
- Section 501(c)(3) organizations that have NOT filed Form 5768 (election under section 501(h)) Complete Part II-B Do not complete Part II-A

If the organization answered "Yes" on Form 990, Part IV, Line 5 (Proxy Tax) (see separate instructions) or Form 990-EZ, Part V, line 35c (Proxy Tax) (see separate instructions), then

- Section 501(c)(4), (5), or (6) organizations Complete Part III

Name of the organization NATIONAL CENTER FOR MANUFACTURING SCIENCES	Employer identification number 38-2761126
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Part I-A Complete if the organization is exempt under section 501(c) or is a section 527 organization.

- 1 Provide a description of the organization's direct and indirect political campaign activities in Part IV (see instructions for definition of "political campaign activities")
- 2 Political campaign activity expenditures (see instructions) ▶ \$ _____
- 3 Volunteer hours for political campaign activities (see instructions) _____

Part I-B Complete if the organization is exempt under section 501(c)(3).

- 1 Enter the amount of any excise tax incurred by the organization under section 4955 ▶ \$ _____
- 2 Enter the amount of any excise tax incurred by organization managers under section 4955 ▶ \$ _____
- 3 If the organization incurred a section 4955 tax, did it file Form 4720 for this year? Yes No
- 4a Was a correction made? Yes No
- b If "Yes," describe in Part IV

Part I-C Complete if the organization is exempt under section 501(c), except section 501(c)(3).

- 1 Enter the amount directly expended by the filing organization for section 527 exempt function activities ▶ \$ _____
- 2 Enter the amount of the filing organization's funds contributed to other organizations for section 527 exempt function activities ▶ \$ _____
- 3 Total exempt function expenditures Add lines 1 and 2 Enter here and on Form 1120-POL, line 17b ▶ \$ _____
- 4 Did the filing organization file **Form 1120-POL** for this year? Yes No
- 5 Enter the names, addresses and employer identification number (EIN) of all section 527 political organizations to which the filing organization made payments For each organization listed, enter the amount paid from the filing organization's funds Also enter the amount of political contributions received that were promptly and directly delivered to a separate political organization, such as a separate segregated fund or a political action committee (PAC) If additional space is needed, provide information in Part IV

(a) Name	(b) Address	(c) EIN	(d) Amount paid from filing organization's funds If none, enter -0-	(e) Amount of political contributions received and promptly and directly delivered to a separate political organization If none, enter -0-
1				
2				
3				
4				
5				
6				

Part II-A Complete if the organization is exempt under section 501(c)(3) and filed Form 5768 (election under section 501(h)).

- A** Check if the filing organization belongs to an affiliated group (and list in Part IV each affiliated group member's name, address, EIN, expenses, and share of excess lobbying expenditures)
- B** Check if the filing organization checked box A and "limited control" provisions apply

Limits on Lobbying Expenditures (The term "expenditures" means amounts paid or incurred.)		(a) Filing organization's totals	(b) Affiliated group totals												
1a	Total lobbying expenditures to influence public opinion (grass roots lobbying)	0													
b	Total lobbying expenditures to influence a legislative body (direct lobbying)	0													
c	Total lobbying expenditures (add lines 1a and 1b)	0													
d	Other exempt purpose expenditures	49,375,251													
e	Total exempt purpose expenditures (add lines 1c and 1d)	49,375,251													
f	Lobbying nontaxable amount Enter the amount from the following table in both columns	1,000,000													
<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%;">If the amount on line 1e, column (a) or (b) is:</th> <th style="width: 50%;">The lobbying nontaxable amount is:</th> </tr> </thead> <tbody> <tr> <td>Not over \$500,000</td> <td>20% of the amount on line 1e</td> </tr> <tr> <td>Over \$500,000 but not over \$1,000,000</td> <td>\$100,000 plus 15% of the excess over \$500,000</td> </tr> <tr> <td>Over \$1,000,000 but not over \$1,500,000</td> <td>\$175,000 plus 10% of the excess over \$1,000,000</td> </tr> <tr> <td>Over \$1,500,000 but not over \$17,000,000</td> <td>\$225,000 plus 5% of the excess over \$1,500,000</td> </tr> <tr> <td>Over \$17,000,000</td> <td>\$1,000,000</td> </tr> </tbody> </table>		If the amount on line 1e, column (a) or (b) is:	The lobbying nontaxable amount is:	Not over \$500,000	20% of the amount on line 1e	Over \$500,000 but not over \$1,000,000	\$100,000 plus 15% of the excess over \$500,000	Over \$1,000,000 but not over \$1,500,000	\$175,000 plus 10% of the excess over \$1,000,000	Over \$1,500,000 but not over \$17,000,000	\$225,000 plus 5% of the excess over \$1,500,000	Over \$17,000,000	\$1,000,000		
If the amount on line 1e, column (a) or (b) is:	The lobbying nontaxable amount is:														
Not over \$500,000	20% of the amount on line 1e														
Over \$500,000 but not over \$1,000,000	\$100,000 plus 15% of the excess over \$500,000														
Over \$1,000,000 but not over \$1,500,000	\$175,000 plus 10% of the excess over \$1,000,000														
Over \$1,500,000 but not over \$17,000,000	\$225,000 plus 5% of the excess over \$1,500,000														
Over \$17,000,000	\$1,000,000														
g	Grassroots nontaxable amount (enter 25% of line 1f)	250,000													
h	Subtract line 1g from line 1a If zero or less, enter -0-	0													
i	Subtract line 1f from line 1c If zero or less, enter -0-	0													
j	If there is an amount other than zero on either line 1h or line 1i, did the organization file Form 4720 reporting section 4911 tax for this year?	<input type="checkbox"/> Yes <input type="checkbox"/> No													

4-Year Averaging Period Under section 501(h)
(Some organizations that made a section 501(h) election do not have to complete all of the five columns below. See the separate instructions for lines 2a through 2f.)

Lobbying Expenditures During 4-Year Averaging Period					
Calendar year (or fiscal year beginning in)	(a) 2015	(b) 2016	(c) 2017	(d) 2018	(e) Total
2a Lobbying nontaxable amount	1,000,000	1,000,000	1,000,000	1,000,000	4,000,000
b Lobbying ceiling amount (150% of line 2a, column(e))					6,000,000
c Total lobbying expenditures	0	82,154	0	0	82,154
d Grassroots nontaxable amount	250,000	250,000	250,000	250,000	1,000,000
e Grassroots ceiling amount (150% of line 2d, column (e))					1,500,000
f Grassroots lobbying expenditures	0	0	0	0	0

Part II-B Complete if the organization is exempt under section 501(c)(3) and has NOT filed Form 5768 (election under section 501(h)).

For each "Yes" response on lines 1a through 1i below, provide in Part IV a detailed description of the lobbying activity

	(a)		(b)
	Yes	No	Amount
1 During the year, did the filing organization attempt to influence foreign, national, state or local legislation, including any attempt to influence public opinion on a legislative matter or referendum, through the use of			
a Volunteers?			
b Paid staff or management (include compensation in expenses reported on lines 1c through 1i)?			
c Media advertisements?			
d Mailings to members, legislators, or the public?			
e Publications, or published or broadcast statements?			
f Grants to other organizations for lobbying purposes?			
g Direct contact with legislators, their staffs, government officials, or a legislative body?			
h Rallies, demonstrations, seminars, conventions, speeches, lectures, or any similar means?			
i Other activities?			
j Total Add lines 1c through 1i			
2a Did the activities in line 1 cause the organization to be not described in section 501(c)(3)?			
b If "Yes," enter the amount of any tax incurred under section 4912			
c If "Yes," enter the amount of any tax incurred by organization managers under section 4912			
d If the filing organization incurred a section 4912 tax, did it file Form 4720 for this year?			

Part III-A Complete if the organization is exempt under section 501(c)(4), section 501(c)(5), or section 501(c)(6).

	Yes	No
1 Were substantially all (90% or more) dues received nondeductible by members?	1	
2 Did the organization make only in-house lobbying expenditures of \$2,000 or less?	2	
3 Did the organization agree to carry over lobbying and political expenditures from the prior year?	3	

Part III-B Complete if the organization is exempt under section 501(c)(4), section 501(c)(5), or section 501(c)(6) and if either (a) BOTH Part III-A, lines 1 and 2, are answered "No" OR (b) Part III-A, line 3, is answered "Yes."

1 Dues, assessments and similar amounts from members	1	
2 Section 162(e) nondeductible lobbying and political expenditures (do not include amounts of political expenses for which the section 527(f) tax was paid).	2a	
a Current year	2b	
b Carryover from last year	2c	
c Total	3	
3 Aggregate amount reported in section 6033(e)(1)(A) notices of nondeductible section 162(e) dues	4	
4 If notices were sent and the amount on line 2c exceeds the amount on line 3, what portion of the excess does the organization agree to carryover to the reasonable estimate of nondeductible lobbying and political expenditure next year?	5	
5 Taxable amount of lobbying and political expenditures (see instructions)		

Part IV Supplemental Information

Provide the descriptions required for Part I-A, line 1, Part I-B, line 4, Part I-C, line 5, Part II-A (affiliated group list), Part II-A, lines 1 and 2 (see instructions), and Part II-B, line 1 Also, complete this part for any additional information

Return Reference	Explanation
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SCHEDULE D
(Form 990)

Department of the Treasury
Internal Revenue Service

Supplemental Financial Statements
► Complete if the organization answered "Yes," on Form 990, Part IV, line 6, 7, 8, 9, 10, 11a, 11b, 11c, 11d, 11e, 11f, 12a, or 12b.
► Attach to Form 990.
► Go to www.irs.gov/Form990 for the latest information.

OMB No 1545-0047
2018
Open to Public Inspection

Name of the organization
NATIONAL CENTER FOR MANUFACTURING SCIENCES

Employer identification number
38-2761126

Part I Organizations Maintaining Donor Advised Funds or Other Similar Funds or Accounts.
Complete if the organization answered "Yes" on Form 990, Part IV, line 6.

	(a) Donor advised funds	(b) Funds and other accounts
1 Total number at end of year		
2 Aggregate value of contributions to (during year)		
3 Aggregate value of grants from (during year)		
4 Aggregate value at end of year		
5 Did the organization inform all donors and donor advisors in writing that the assets held in donor advised funds are the organization's property, subject to the organization's exclusive legal control?		<input type="checkbox"/> Yes <input type="checkbox"/> No
6 Did the organization inform all grantees, donors, and donor advisors in writing that grant funds can be used only for charitable purposes and not for the benefit of the donor or donor advisor, or for any other purpose conferring impermissible private benefit?		<input type="checkbox"/> Yes <input type="checkbox"/> No

Part II Conservation Easements. Complete if the organization answered "Yes" on Form 990, Part IV, line 7.

1 Purpose(s) of conservation easements held by the organization (check all that apply)

Preservation of land for public use (e g , recreation or education) Preservation of an historically important land area

Protection of natural habitat Preservation of a certified historic structure

Preservation of open space

2 Complete lines 2a through 2d if the organization held a qualified conservation contribution in the form of a conservation easement on the last day of the tax year

	Held at the End of the Year	
a Total number of conservation easements	2a	
b Total acreage restricted by conservation easements	2b	
c Number of conservation easements on a certified historic structure included in (a)	2c	
d Number of conservation easements included in (c) acquired after 7/25/06, and not on a historic structure listed in the National Register	2d	

3 Number of conservation easements modified, transferred, released, extinguished, or terminated by the organization during the tax year ► _____

4 Number of states where property subject to conservation easement is located ► _____

5 Does the organization have a written policy regarding the periodic monitoring, inspection, handling of violations, and enforcement of the conservation easements it holds? Yes No

6 Staff and volunteer hours devoted to monitoring, inspecting, handling of violations, and enforcing conservation easements during the year ► _____

7 Amount of expenses incurred in monitoring, inspecting, handling of violations, and enforcing conservation easements during the year ► \$ _____

8 Does each conservation easement reported on line 2(d) above satisfy the requirements of section 170(h)(4)(B)(i) and section 170(h)(4)(B)(ii)? Yes No

9 In Part XIII, describe how the organization reports conservation easements in its revenue and expense statement, and balance sheet, and include, if applicable, the text of the footnote to the organization's financial statements that describes the organization's accounting for conservation easements

Part III Organizations Maintaining Collections of Art, Historical Treasures, or Other Similar Assets.
Complete if the organization answered "Yes" on Form 990, Part IV, line 8.

1a If the organization elected, as permitted under SFAS 116 (ASC 958), not to report in its revenue statement and balance sheet works of art, historical treasures, or other similar assets held for public exhibition, education, or research in furtherance of public service, provide, in Part XIII, the text of the footnote to its financial statements that describes these items

b If the organization elected, as permitted under SFAS 116 (ASC 958), to report in its revenue statement and balance sheet works of art, historical treasures, or other similar assets held for public exhibition, education, or research in furtherance of public service, provide the following amounts relating to these items

(i) Revenue included on Form 990, Part VIII, line 1 ► \$ _____

(ii) Assets included in Form 990, Part X ► \$ _____

2 If the organization received or held works of art, historical treasures, or other similar assets for financial gain, provide the following amounts required to be reported under SFAS 116 (ASC 958) relating to these items

a Revenue included on Form 990, Part VIII, line 1 ► \$ _____

b Assets included in Form 990, Part X ► \$ _____

Part III Organizations Maintaining Collections of Art, Historical Treasures, or Other Similar Assets (continued)

- 3** Using the organization's acquisition, accession, and other records, check any of the following that are a significant use of its collection items (check all that apply)
- a** Public exhibition
 - b** Scholarly research
 - c** Preservation for future generations
 - d** Loan or exchange programs
 - e** Other
- 4** Provide a description of the organization's collections and explain how they further the organization's exempt purpose in Part XIII
- 5** During the year, did the organization solicit or receive donations of art, historical treasures or other similar assets to be sold to raise funds rather than to be maintained as part of the organization's collection? Yes No

Part IV Escrow and Custodial Arrangements.

Complete if the organization answered "Yes" on Form 990, Part IV, line 9, or reported an amount on Form 990, Part X, line 21.

- 1a** Is the organization an agent, trustee, custodian or other intermediary for contributions or other assets not included on Form 990, Part X? Yes No
- b** If "Yes," explain the arrangement in Part XIII and complete the following table
- | | Amount |
|--|--------|
| c Beginning balance | |
| d Additions during the year | |
| e Distributions during the year | |
| f Ending balance | |
- 2a** Did the organization include an amount on Form 990, Part X, line 21, for escrow or custodial account liability? . . . Yes No
- b** If "Yes," explain the arrangement in Part XIII Check here if the explanation has been provided in Part XIII

Part V Endowment Funds. Complete if the organization answered "Yes" on Form 990, Part IV, line 10.

	(a) Current year	(b) Prior year	(c) Two years back	(d) Three years back	(e) Four years back
1a Beginning of year balance					
b Contributions					
c Net investment earnings, gains, and losses					
d Grants or scholarships					
e Other expenditures for facilities and programs					
f Administrative expenses					
g End of year balance					

- 2** Provide the estimated percentage of the current year end balance (line 1g, column (a)) held as
- a** Board designated or quasi-endowment ▶
 - b** Permanent endowment ▶
 - c** Temporarily restricted endowment ▶
- The percentages on lines 2a, 2b, and 2c should equal 100%
- 3a** Are there endowment funds not in the possession of the organization that are held and administered for the organization by
- | | | |
|--|-----|----|
| (i) unrelated organizations | Yes | No |
| (ii) related organizations | | |
| b If "Yes" on 3a(ii), are the related organizations listed as required on Schedule R? | | |
- 4** Describe in Part XIII the intended uses of the organization's endowment funds

Part VI Land, Buildings, and Equipment.

Complete if the organization answered "Yes" on Form 990, Part IV, line 11a. See Form 990, Part X, line 10.

Description of property	(a) Cost or other basis (investment)	(b) Cost or other basis (other)	(c) Accumulated depreciation	(d) Book value
1a Land	231,211	0		231,211
b Buildings	5,821,395	0	4,643,293	1,178,102
c Leasehold improvements	1,982,780	0	1,540,637	442,143
d Equipment	943,352	0	873,694	69,658
e Other	0	0	0	0
Total. Add lines 1a through 1e (Column (d) must equal Form 990, Part X, column (B), line 10(c)) . . . ▶				1,921,114

Part VII Investments—Other Securities. Complete if the organization answered "Yes" on Form 990, Part IV, line 11b. See Form 990, Part X, line 12.

(a) Description of security or category (including name of security)	(b) Book value	(c) Method of valuation Cost or end-of-year market value
(1) Financial derivatives		
(2) Closely-held equity interests		
(3) Other _____		
(A)		
(B)		
(C)		
(D)		
(E)		
(F)		
(G)		
(H)		
Total. (Column (b) must equal Form 990, Part X, col (B) line 12)	▶	

Part VIII Investments—Program Related. Complete if the organization answered "Yes" on Form 990, Part IV, line 11c. See Form 990, Part X, line 13.

(a) Description of investment	(b) Book value	(c) Method of valuation Cost or end-of-year market value
(1)		
(2)		
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
Total. (Column (b) must equal Form 990, Part X, col (B) line 13)	▶	

Part IX Other Assets. Complete if the organization answered "Yes" on Form 990, Part IV, line 11d. See Form 990, Part X, line 15

(a) Description	(b) Book value
(1)	
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
Total. (Column (b) must equal Form 990, Part X, col (B) line 15)	▶

Part X Other Liabilities. Complete if the organization answered "Yes" on Form 990, Part IV, line 11e or 11f. See Form 990, Part X, line 25.

1. (a) Description of liability	(b) Book value
(1) Federal income taxes	
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
Total. (Column (b) must equal Form 990, Part X, col (B) line 25)	▶

2. Liability for uncertain tax positions In Part XIII, provide the text of the footnote to the organization's financial statements that reports the organization's liability for uncertain tax positions under FIN 48 (ASC 740) Check here if the text of the footnote has been provided in Part XIII

Part XI Reconciliation of Revenue per Audited Financial Statements With Revenue per Return

Complete if the organization answered 'Yes' on Form 990, Part IV, line 12a.

1	Total revenue, gains, and other support per audited financial statements		1	
2	Amounts included on line 1 but not on Form 990, Part VIII, line 12			
a	Net unrealized gains (losses) on investments	2a		
b	Donated services and use of facilities	2b		
c	Recoveries of prior year grants	2c		
d	Other (Describe in Part XIII)	2d		
e	Add lines 2a through 2d		2e	
3	Subtract line 2e from line 1		3	
4	Amounts included on Form 990, Part VIII, line 12, but not on line 1			
a	Investment expenses not included on Form 990, Part VIII, line 7b	4a		
b	Other (Describe in Part XIII)	4b		
c	Add lines 4a and 4b		4c	
5	Total revenue Add lines 3 and 4c . (This must equal Form 990, Part I, line 12)		5	

Part XII Reconciliation of Expenses per Audited Financial Statements With Expenses per Return.

Complete if the organization answered 'Yes' on Form 990, Part IV, line 12a.

1	Total expenses and losses per audited financial statements		1	
2	Amounts included on line 1 but not on Form 990, Part IX, line 25			
a	Donated services and use of facilities	2a		
b	Prior year adjustments	2b		
c	Other losses	2c		
d	Other (Describe in Part XIII)	2d		
e	Add lines 2a through 2d		2e	
3	Subtract line 2e from line 1		3	
4	Amounts included on Form 990, Part IX, line 25, but not on line 1 :			
a	Investment expenses not included on Form 990, Part VIII, line 7b	4a		
b	Other (Describe in Part XIII)	4b		
c	Add lines 4a and 4b		4c	
5	Total expenses Add lines 3 and 4c . (This must equal Form 990, Part I, line 18)		5	

Part XIII Supplemental Information

Provide the descriptions required for Part II, lines 3, 5, and 9, Part III, lines 1a and 4, Part IV, lines 1b and 2b, Part V, line 4, Part X, line 2, Part XI, lines 2d and 4b, and Part XII, lines 2d and 4b Also complete this part to provide any additional information

Return Reference	Explanation	
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Part XIII **Supplemental Information (continued)**

Return Reference	Explanation
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Schedule J
(Form 990)

Department of the Treasury
Internal Revenue Service

Compensation Information

For certain Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees

▶ **Complete if the organization answered "Yes" on Form 990, Part IV, line 23.**
▶ **Attach to Form 990.**
▶ **Go to www.irs.gov/Form990 for instructions and the latest information.**

OMB No 1545-0047

2018

Open to Public Inspection

Name of the organization
NATIONAL CENTER FOR MANUFACTURING SCIENCES

Employer identification number
38-2761126

Part I Questions Regarding Compensation

		Yes	No								
<p>1a Check the appropriate box(es) if the organization provided any of the following to or for a person listed on Form 990, Part VII, Section A, line 1a. Complete Part III to provide any relevant information regarding these items</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><input type="checkbox"/> First-class or charter travel</td> <td style="width: 50%; border: none;"><input type="checkbox"/> Housing allowance or residence for personal use</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Travel for companions</td> <td style="border: none;"><input type="checkbox"/> Payments for business use of personal residence</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Tax indemnification and gross-up payments</td> <td style="border: none;"><input type="checkbox"/> Health or social club dues or initiation fees</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Discretionary spending account</td> <td style="border: none;"><input type="checkbox"/> Personal services (e.g., maid, chauffeur, chef)</td> </tr> </table>	<input type="checkbox"/> First-class or charter travel	<input type="checkbox"/> Housing allowance or residence for personal use	<input type="checkbox"/> Travel for companions	<input type="checkbox"/> Payments for business use of personal residence	<input type="checkbox"/> Tax indemnification and gross-up payments	<input type="checkbox"/> Health or social club dues or initiation fees	<input type="checkbox"/> Discretionary spending account	<input type="checkbox"/> Personal services (e.g., maid, chauffeur, chef)			
<input type="checkbox"/> First-class or charter travel	<input type="checkbox"/> Housing allowance or residence for personal use										
<input type="checkbox"/> Travel for companions	<input type="checkbox"/> Payments for business use of personal residence										
<input type="checkbox"/> Tax indemnification and gross-up payments	<input type="checkbox"/> Health or social club dues or initiation fees										
<input type="checkbox"/> Discretionary spending account	<input type="checkbox"/> Personal services (e.g., maid, chauffeur, chef)										
<p>b If any of the boxes in line 1a are checked, did the organization follow a written policy regarding payment or reimbursement or provision of all of the expenses described above? If "No," complete Part III to explain</p>	1b										
<p>2 Did the organization require substantiation prior to reimbursing or allowing expenses incurred by all directors, trustees, officers, including the CEO/Executive Director, regarding the items checked in line 1a?</p>	2										
<p>3 Indicate which, if any, of the following the filing organization used to establish the compensation of the organization's CEO/Executive Director. Check all that apply. Do not check any boxes for methods used by a related organization to establish compensation of the CEO/Executive Director, but explain in Part III</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><input checked="" type="checkbox"/> Compensation committee</td> <td style="width: 50%; border: none;"><input type="checkbox"/> Written employment contract</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Independent compensation consultant</td> <td style="border: none;"><input type="checkbox"/> Compensation survey or study</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Form 990 of other organizations</td> <td style="border: none;"><input type="checkbox"/> Approval by the board or compensation committee</td> </tr> </table>	<input checked="" type="checkbox"/> Compensation committee	<input type="checkbox"/> Written employment contract	<input type="checkbox"/> Independent compensation consultant	<input type="checkbox"/> Compensation survey or study	<input type="checkbox"/> Form 990 of other organizations	<input type="checkbox"/> Approval by the board or compensation committee					
<input checked="" type="checkbox"/> Compensation committee	<input type="checkbox"/> Written employment contract										
<input type="checkbox"/> Independent compensation consultant	<input type="checkbox"/> Compensation survey or study										
<input type="checkbox"/> Form 990 of other organizations	<input type="checkbox"/> Approval by the board or compensation committee										
<p>4 During the year, did any person listed on Form 990, Part VII, Section A, line 1a, with respect to the filing organization or a related organization</p>											
<p>a Receive a severance payment or change-of-control payment?</p>	4a		No								
<p>b Participate in, or receive payment from, a supplemental nonqualified retirement plan?</p>	4b		No								
<p>c Participate in, or receive payment from, an equity-based compensation arrangement? If "Yes" to any of lines 4a-c, list the persons and provide the applicable amounts for each item in Part III</p>	4c		No								
<p>Only 501(c)(3), 501(c)(4), and 501(c)(29) organizations must complete lines 5-9.</p>											
<p>5 For persons listed on Form 990, Part VII, Section A, line 1a, did the organization pay or accrue any compensation contingent on the revenues of</p>											
<p>a The organization?</p>	5a		No								
<p>b Any related organization? If "Yes," on line 5a or 5b, describe in Part III</p>	5b		No								
<p>6 For persons listed on Form 990, Part VII, Section A, line 1a, did the organization pay or accrue any compensation contingent on the net earnings of</p>											
<p>a The organization?</p>	6a		No								
<p>b Any related organization? If "Yes," on line 6a or 6b, describe in Part III</p>	6b		No								
<p>7 For persons listed on Form 990, Part VII, Section A, line 1a, did the organization provide any nonfixed payments not described in lines 5 and 6? If "Yes," describe in Part III</p>	7		No								
<p>8 Were any amounts reported on Form 990, Part VII, paid or accrued pursuant to a contract that was subject to the initial contract exception described in Regulations section 53.4958-4(a)(3)? If "Yes," describe in Part III</p>	8		No								
<p>9 If "Yes" on line 8, did the organization also follow the rebuttable presumption procedure described in Regulations section 53.4958-6(c)?</p>	9										

Part II Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees. Use duplicate copies if additional space is needed.

For each individual whose compensation must be reported on Schedule J, report compensation from the organization on row (i) and from related organizations, described in the instructions, on row (ii). Do not list any individuals that are not listed on Form 990, Part VII.

Note. The sum of columns (B)(i)-(iii) for each listed individual must equal the total amount of Form 990, Part VII, Section A, line 1a, applicable column (D) and (E) amounts for that individual.

(A) Name and Title		(B) Breakdown of W-2 and/or 1099-MISC compensation			(C) Retirement and other deferred compensation	(D) Nontaxable benefits	(E) Total of columns (B)(i)-(D)	(F) Compensation in column (B) reported as deferred on prior Form 990
		(i) Base compensation	(ii) Bonus & incentive compensation	(iii) Other reportable compensation				
1 Richard Jarman Former CEO and President	(i)	270,707	60,000	0	27,500	21,526	379,733	335,883
	(ii)	0	0	0	0	0	0	0
2 Rebecca Taylor Vice President	(i)	199,155	7,500	0	19,092	16,427	242,174	229,864
	(ii)	0	0	0	0	0	0	0
3 Jon Riley Vice President	(i)	180,454	10,000	0	17,716	17,372	225,542	206,712
	(ii)	0	0	0	0	0	0	0
4 Pamela Hurt Director, Membership and Communications	(i)	141,765	1,500	0	14,747	9,852	167,864	158,938
	(ii)	0	0	0	0	0	0	0
5 Debra Lulu Program Director	(i)	122,609	6,000	0	13,204	18,685	160,498	0
	(ii)	0	0	0	0	0	0	0
6 Rachel O'Donohue Treasurer Vice President	(i)	117,534	10,000	0	9,310	15,860	152,704	0
	(ii)	0	0	0	0	0	0	0

Part III **Supplemental Information**

Provide the information, explanation, or descriptions required for Part I, lines 1a, 1b, 3, 4a, 4b, 4c, 5a, 5b, 6a, 6b, 7, and 8, and for Part II. Also complete this part for any additional information.

SCHEDULE O
(Form 990 or 990-EZ)**Supplemental Information to Form 990 or 990-EZ**

Complete to provide information for responses to specific questions on Form 990 or 990-EZ or to provide any additional information.

▶ Attach to Form 990 or 990-EZ.

▶ Go to www.irs.gov/Form990 for the latest information.

OMB No 1545-0047

2018**Open to Public Inspection**

Department of the Treasury

Name of the organization

NATIONAL CENTER FOR MANUFACTURING SCIENCES

Employer identification number

38-2761126

990 Schedule O, Supplemental Information

Return Reference	Explanation
Form 990, Part VI, Section A, Line 6	Any legally constituted entity shall be eligible to be a member of NCMS, if in determination of the Board of Directors, such entity is committed to improving manufacturing competitiveness in the United States, Canada, and Mexico, and has goals and objectives compatible with those set forth by the NCMS bylaws

990 Schedule O, Supplemental Information

Return Reference	Explanation
Form 990, Part VI, Section A, Line 7a	Board of Directors are elected at an annual meeting of members through written ballot

990 Schedule O, Supplemental Information

Return Reference	Explanation
Form 990, Part VI, Section B, Line 11b	The 990 is reviewed by the BoD Treasurer for submission to the IRS

990 Schedule O, Supplemental Information

Return Reference	Explanation
Form 990, Part VI, Section B, Line 12c	Annually, employees are required to review, report any conflicts and sign the Conflict of Interest Statement. These signed statements are maintained by Human Resources.

990 Schedule O, Supplemental Information

Return Reference	Explanation
Form 990, Part VI, Section B, Line 15	Compensation of CEO and other officers are reviewed annually through industry data and surveys CEO compensation is approved by the Executive Committee Board of Directors

990 Schedule O, Supplemental Information

Return Reference	Explanation
Form 990, Part VI, Section C, Line 19	Upon request, NCMS makes it's governing documents, 990, 990-T, Conflict of Interest Policy and financial statements available to the public through email or US mail

**SCHEDULE R
(Form 990)**

Related Organizations and Unrelated Partnerships

OMB No 1545-0047

2018

**Open to Public
Inspection**

▶ **Complete if the organization answered "Yes" on Form 990, Part IV, line 33, 34, 35b, 36, or 37.**
▶ **Attach to Form 990.**
▶ **Go to www.irs.gov/Form990 for instructions and the latest information.**

Department of the Treasury
Internal Revenue Service

Name of the organization
NATIONAL CENTER FOR MANUFACTURING SCIENCES

Employer identification number
38-2761126

Part I Identification of Disregarded Entities Complete if the organization answered "Yes" on Form 990, Part IV, line 33.

(a) Name, address, and EIN (if applicable) of disregarded entity	(b) Primary activity	(c) Legal domicile (state or foreign country)	(d) Total income	(e) End-of-year assets	(f) Direct controlling entity

Part II Identification of Related Tax-Exempt Organizations Complete if the organization answered "Yes" on Form 990, Part IV, line 34 because it had one or more related tax-exempt organizations during the tax year.

(a) Name, address, and EIN of related organization	(b) Primary activity	(c) Legal domicile (state or foreign country)	(d) Exempt Code section	(e) Public charity status (if section 501(c)(3))	(f) Direct controlling entity	(g) Section 512(b)(13) controlled entity?	
						Yes	No
(1) National Advanced Mobility Consortium 3025 Boardwalk Ann Arbor, MI 48108 26-2571197	Consortium Management	DE	501(c)(3)	7	N/A		No

Part III Identification of Related Organizations Taxable as a Partnership Complete if the organization answered "Yes" on Form 990, Part IV, line 34 because it had one or more related organizations treated as a partnership during the tax year.

(a) Name, address, and EIN of related organization	(b) Primary activity	(c) Legal domicile (state or foreign country)	(d) Direct controlling entity	(e) Predominant income(related, unrelated, excluded from tax under sections 512- 514)	(f) Share of total income	(g) Share of end-of-year assets	(h) Disproportionate allocations?		(i) Code V-UBI amount in box 20 of Schedule K-1 (Form 1065)	(j) General or managing partner?		(k) Percentage ownership
							Yes	No		Yes	No	

Part IV Identification of Related Organizations Taxable as a Corporation or Trust Complete if the organization answered "Yes" on Form 990, Part IV, line 34 because it had one or more related organizations treated as a corporation or trust during the tax year.

(a) Name, address, and EIN of related organization	(b) Primary activity	(c) Legal domicile (state or foreign country)	(d) Direct controlling entity	(e) Type of entity (C corp, S corp, or trust)	(f) Share of total income	(g) Share of end-of- year assets	(h) Percentage ownership	(i) Section 512(b) (13) controlled entity?	
								Yes	No
(1) Technologies Research Corporation 3025 Boardwalk Ann Arbor, MI 48108 38-3296434	Program Management	DE	National Center for Manufacturing Sciences	C	0	0	100 %		No

Part V Transactions With Related Organizations Complete if the organization answered "Yes" on Form 990, Part IV, line 34, 35b, or 36.

Note. Complete line 1 if any entity is listed in Parts II, III, or IV of this schedule

	Yes	No
1 During the tax year, did the organization engage in any of the following transactions with one or more related organizations listed in Parts II-IV?		
a Receipt of (i) interest, (ii) annuities, (iii) royalties, or (iv) rent from a controlled entity	1a	No
b Gift, grant, or capital contribution to related organization(s)	1b	No
c Gift, grant, or capital contribution from related organization(s)	1c	No
d Loans or loan guarantees to or for related organization(s)	1d	No
e Loans or loan guarantees by related organization(s)	1e	No
f Dividends from related organization(s)	1f	No
g Sale of assets to related organization(s)	1g	No
h Purchase of assets from related organization(s)	1h	No
i Exchange of assets with related organization(s)	1i	No
j Lease of facilities, equipment, or other assets to related organization(s)	1j	No
k Lease of facilities, equipment, or other assets from related organization(s)	1k	No
l Performance of services or membership or fundraising solicitations for related organization(s)	1l	No
m Performance of services or membership or fundraising solicitations by related organization(s)	1m	No
n Sharing of facilities, equipment, mailing lists, or other assets with related organization(s)	1n	No
o Sharing of paid employees with related organization(s)	1o	No
p Reimbursement paid to related organization(s) for expenses	1p	No
q Reimbursement paid by related organization(s) for expenses	1q	Yes
r Other transfer of cash or property to related organization(s)	1r	No
s Other transfer of cash or property from related organization(s)	1s	No

2 If the answer to any of the above is "Yes," see the instructions for information on who must complete this line, including covered relationships and transaction thresholds

(a) Name of related organization	(b) Transaction type (a-s)	(c) Amount involved	(d) Method of determining amount involved
(1) National Advanced Mobility Consortium	q	821,935	Amount equals to total NCMS invoice NAMC for the calendar year 2018 for services provided to NAMC

Part VI Unrelated Organizations Taxable as a Partnership Complete if the organization answered "Yes" on Form 990, Part IV, line 37.

Provide the following information for each entity taxed as a partnership through which the organization conducted more than five percent of its activities (measured by total assets or gross revenue) that was not a related organization. See instructions regarding exclusion for certain investment partnerships.

(a) Name, address, and EIN of entity	(b) Primary activity	(c) Legal domicile (state or foreign country)	(d) Predominant income (related, unrelated, excluded from tax under sections 512-514)	(e) Are all partners section 501(c)(3) organizations?		(f) Share of total income	(g) Share of end-of-year assets	(h) Disproportionate allocations?		(i) Code V-UBI amount in box 20 of Schedule K-1 (Form 1065)	(j) General or managing partner?		(k) Percentage ownership
				Yes	No			Yes	No		Yes	No	

Part VII **Supplemental Information**

Provide additional information for responses to questions on Schedule R (see instructions)

Return Reference	Explanation