COMPLIANCE CERTIFICATE

$50,860,000
MASSACHUSETTS DEVELOPMENT FINANCE AGENCY
Revenue Bonds, Dana-Farber Cancer Institute Issue
Series M (2013) (Federally Taxable)

February 24, 2020

Pursuant to the Continuing Disclosure Agreement (the “Agreement”) dated August 7, 2013 among Dana-Farber Cancer Institute, Inc. (“DFCI”), Dana-Farber, Inc. (“DFI,” and together with DFCI, the “Institution”), and U.S. Bank National Association, as Dissemination Agent, the undersigned authorized officer of the Institution does hereby certify that the enclosed Annual Report for the fiscal year ended September 30, 2019, of the Institution, complies with the requirements of the Agreement.

[*Signature page immediately follows*]

IN WITNESS WHEREOF, I have hereunto set my hand as of the day first written above.

DANA-FARBER CANCER INSTITUTE, INC.

By: ______________________________
Name: Michael L. Reney
Title: Chief Financial Officer & Assistant Treasurer

DANA-FARBER, INC.

By: ______________________________
Name: Michael L. Reney
Title: Assistant Treasurer

COMPLIANCE CERTIFICATE

$233,195,000
MASSACHUSETTS DEVELOPMENT FINANCE AGENCY
Revenue Bonds, Dana-Farber Cancer Institute Issue
Series N (2016)

February 24, 2020

Pursuant to the Continuing Disclosure Agreement (the "Agreement") dated June 23, 2016 among Dana-Farber Cancer Institute, Inc. ("DFCI"), Dana-Farber, Inc. ("DFI," and together with DFCI, the "Institution"), and U.S. Bank National Association, as Dissemination Agent, the undersigned authorized officer of the Institution does hereby certify that the enclosed Annual Report for the fiscal year ended September 30, 2019, of the Institution, complies with the requirements of the Agreement.

[*Signature page immediately follows*]

IN WITNESS WHEREOF, I have hereunto set my hand as of the day first written above.

DANA-FARBER CANCER INSTITUTE, INC.

By: ______________________________
Name: Michael L. Reney
Title: Chief Financial Officer & Assistant Treasurer

DANA-FARBER, INC.

By: ______________________________
Name: Michael L. Reney
Title: Assistant Treasurer

COMPLIANCE CERTIFICATE

$51,130,000
MASSACHUSETTS DEVELOPMENT FINANCE AGENCY
Revenue Bonds, Dana-Farber Cancer Institute Issue
Series O (2019)

February 24, 2020

Pursuant to the Continuing Disclosure Agreement (the "Agreement") dated September 3, 2019 among Dana-Farber Cancer Institute, Inc. ("DFCI"), Dana-Farber, Inc. ("DFI," and together with DFCI, the "Institution"), and U.S. Bank National Association, as Dissemination Agent, the undersigned authorized officer of the Institution does hereby certify that the enclosed Annual Report for the fiscal year ended September 30, 2019, of the Institution, complies with the requirements of the Agreement.

[*Signature page immediately follows*]

IN WITNESS WHEREOF, I have hereunto set my hand as of the day first written above.

DANA-FARBER CANCER INSTITUTE, INC.

By: ______________________________
Name: Michael L. Reney
Title: Chief Financial Officer & Assistant Treasurer

DANA-FARBER, INC.

By: ______________________________
Name: Michael L. Reney
Title: Assistant Treasurer

450 Brookline Avenue,
Boston, MA 02215-5450
617.632.3000
617.632.5330 TDD

This document is dated as of February 24, 2020

SPECIAL NOTE CONCERNING FORWARD-LOOKING STATEMENTS. Certain of the discussions included in the following document may include certain "forward-looking statements" which involve known and unknown risks and uncertainties inherent in the operation of healthcare facilities. Actual actions or results may differ materially from those discussed below. Specific factors that might cause such differences include competition from other healthcare facilities in the service area of Dana-Farber Cancer Institute, federal and state regulations of healthcare providers, and reimbursement policies of the state and federal governments and managed care organizations. In particular, statements preceded by, followed by or that include the words "believes," "estimates," "expects," "anticipates," "plans," "intends," "scheduled" or other similar expressions are or may constitute forward-looking statements.

MANAGEMENT'S DISCUSSION AND ANALYSIS

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES*
Fiscal Year Ended September 30, 2019

Laurie H. Glimcher M.D., President and Chief Executive Officer
James G. Terwilliger, Executive Vice President and Chief Operating Officer
Michael L. Reney, Senior Vice President and Chief Financial Officer

***Dana-Farber Cancer Institute, Inc. is the parent corporation of Dana-Farber, Inc., Dana-Farber Trust, Inc. and Dana-Farber Cancer Care Network, Inc. Results for the fiscal year ended September 30, 2019 are presented on a condensed, consolidated basis.**
The Obligated Group is Dana-Farber Cancer Institute, Inc. and Dana-Farber, Inc.

SPECIAL NOTE CONCERNING ADOPTION OF NEW ACCOUNTING STANDARDS

On October 1, 2018, Dana-Farber Cancer Institute, Inc. ("DFCI") adopted ASC 606, *Revenues from Contracts with Customers*, ASU 2016-14, *Not for profit Entities (Topic 958): Presentation of Financial Statements* and ASU 2018-08, *Not-for-profit Entities (Topic 958): Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made* (collectively the "GAAP Changes"). Consistent with transition guidance in the GAAP Changes, DFCI's balance sheets for periods prior October 1, 2018 have not been retrospectively adjusted to reflect these changes. The comparative results for the fiscal years ending September 30, 2019 and September 30, 2018 presented in this Year End Report reflect the GAAP Changes. In addition, in order to provide users of this Year End Report with further information to understand the effect of the GAAP Changes, DFCI is providing a management-prepared (unaudited) presentation of the fiscal year ended September 30, 2018 Consolidated Statement of Operations and Changes in Net Assets reflecting the GAAP Changes. See "Adoption of New Accounting Standards" herein.

Dana-Farber Cancer Institute, Inc. and Subsidiaries
Management's Discussion and Analysis of Financial Condition and Operating Results

Fiscal Year Ended September 30, 2019

Dana-Farber Cancer Institute, Inc. (DFCI) is a comprehensive cancer center dedicated to basic and clinical cancer research and to treatment of children and adults with cancer. Dana-Farber, Inc. (DFI) is a wholly owned affiliate. References to years refer to DFCI's fiscal year unless otherwise indicated.

In August 2003, the Institute formed the Dana-Farber Trust, Inc. (the "Trust") for the purpose of acquiring, holding, developing, managing, maintaining or disposing of real and personal property for the benefit of DFCI and its affiliated organizations.

On July 1, 2014, DFCI acquired Commonwealth Hematology-Oncology (CHO), the largest community-based cancer care program in New England with eight physician practice sites located throughout eastern Massachusetts. Some of the former CHO sites now operate as Dana-Farber Cancer Care Network (DFCCN) physician practices.

Only DFCI and DFI are obligated on the revenue bonds issued by the Massachusetts Health and Educational Facilities Authority and the Massachusetts Development Finance Agency on behalf of DFCI (collectively, the "Bonds"). The Trust and DFCCN are not obligated on the Bonds. The capitalization, liquidity and debt service ratios in the attached schedules reflect only the activity of DFCI and DFI. For purposes of the following discussion, the condensed consolidated results include DFCI, DFI, DFCCN and the Trust and are jointly referred to as the "Institute." For the fiscal year ended September 30, 2019, DFCCN accounted for approximately 2 percent of the revenues and less than 1 percent of the total assets of the consolidated Institute; the Trust accounted for 0 percent of both the revenues and total assets of the consolidated Institute.

Overview of 2019 Results: In 2019, the Institute reported a consolidated excess of revenues over expenses of approximately $54.1 million compared to an excess of revenues over expenses of $106.7 million during 2018. For 2019 the gain from operations was $30.6 million compared to a gain from operations of $27.9 million in 2018. The condensed consolidated results for 2019 and 2018 are attached. The discussion that follows provides Management's analysis of 2019 results compared to 2018.

Operating Revenues: In fiscal year ("FY") 2019, Dana-Farber Cancer Institute, Inc. (DFCI) recorded total operating revenue of $1.96 billion, an increase of $226.7 million, or 13.1 percent, over the same period in FY 2018. Total patient service revenue grew by $136.4 million, or 11.7 percent, over the same period in FY 2018 due to growth in pharmacy and patient volume. Research revenues have increased by $84.8 million, or 18.5 percent, over the same period in FY 2018 due to growth in spending on federal grants, clinical trials, non-government grants and commercial agreements. Unrestricted gifts increased by $4.9 million, or 6.4 percent, over the same period in FY 2018, due to strong results in all areas including principal/major giving, planned/annual giving and events.

Operating Expenses: Operating expenses increased to $1.93 billion, an increase of $223.9 million, or 13.1 percent, over the same period in FY 2018. Total patient service expenses increased by $104.4 million, or 11.4 percent from the same period in FY 2018, primarily due to patient volume and pharmacy growth. Total research expenses increased by $69.8 million, or 15.2 percent, from the same period in FY 2018 in conjunction with the revenue trends noted above. Total general and administrative expenses increased by $49.7 million, or 14.8 percent, from the same period in FY 2018, due primarily to costs related to growth in personnel, consulting and legal costs related to patent litigation during 2019 (See "Other").

Non-operating gains/losses: Investment returns in FY 2019 were $30.4 million, or a return of 5.9 percent, as compared to $47.3 million, or a return of 10.0 percent in FY 2018. Investment returns include investment income and realized and unrealized gains or losses. DFCI's interest rate swap agreements decreased in value by $27.2 million, as compared to an increase of $11.8 million over the same period in FY 2018, primarily as a result of fluctuating Libor rates. This also impacted the swap-related interest expense. In accordance with the new accounting standards, royalty income in FY 2019 of $23.6 million was reported as non-operating revenue. FY 2018 included proceeds of $23.8 million related to the Institute's portion of the assignment by BCD Hospital Energy Collaborative, LLC, (BCD), to Longwood Energy Partners, LLC of its purchase and sale agreement for the acquisition of the Medical Area Total Energy Plant, (MATEP).

Balance Sheet: DFCI's total assets increased $227.9 million, or 8.0 percent, to $3.1 billion compared to FY 2018. Management attributes this increase primarily to growth in cash and investments due to positive operating results, improvement in market conditions and the receipt of $34.0 million in royalty monetization proceeds. Compared with FY 2018, net assets without donor restrictions increased $113.4 million, or 13.9 percent, to $930.5 million, primarily due to positive operating results. Net assets with donor restrictions increased $67.2 million, or 7.4 percent, to $975.7 million, primarily due to strong fund-raising revenue. Total net assets were impacted by the "Adoption of the New Accounting Standards" described below.

Cash and investments increased by $63.5 million, or 4.2 percent, compared to FY 2018. Days cash on hand increased by 3 days to 253 days, compared to FY 2018. Management attributes this increase to strong operating performance, positive investment returns and cash from royalty monetizations.

Net patient accounts receivable increased by $35.2 million, or 30.8 percent, compared to FY 2018, primarily due to increases in patient volume and revenue growth. Days in accounts receivable increased to 41 days as compared to 34 days in FY 2018 due to growth in international receivables, as well as growth in current receivables (less than 90 days).

Prepaid expenses and other current assets increased by $5.2 million, or 5.2 percent, from FY 2018 as a result of an increase in prepayments related to pharmacy inventories and certain non-patient receivables.

Contributions receivable (current and long-term) increased by $35.0 million, or 55.4 percent, compared to FY 2018 as a result of new pledges.

Research advances decreased by $5.9 million, or 4.7 percent, compared to FY 2018 due to typical research activity and the change in the accounting treatment for royalty revenues related to the adoption of ASC 606, (see "Adoption of New Accounting Standards").

Other liabilities increased $42.9 million, or 20.1 percent, compared to FY 2018 as a result of deferred revenue associated with royalty monetizations partially offset by a decrease in the interest rate swap valuation.

Other:

Adoption of New Accounting Standards

On October 1, 2018 the Institute adopted ASC 606, *Revenues from Contracts with Customers*. The cumulative effect of applying the new standard resulted in an increase to the opening balances of unrestricted net assets of $60.5 million and a corresponding reduction in research advances and temporarily restricted net assets of $30.4 million and

$30.1 million, respectively, on the Institute's consolidated balance sheet. In accordance with the new standard transition guidance, the FY18 consolidated balance sheet was not retrospectively adjusted to reflect these changes.

On October 1, 2018 the Institute adopted ASU 2016-14, *Not-for-profit entities (Topic 958): Presentation of Financial Statements,* resulting in a change in the presentation of the Institute's consolidated statement of operations and changes in net assets. The change resulted in a functional classification of revenues and expenses including depreciation and interest. For comparative purposes, the FY18 consolidated statement of operations and changes in net assets has been presented in accordance with the new guidance.

On October 1, 2018 the Institute adopted ASU 2018-08, *Not-for-profit entities (Topic 958): Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made.* The application of the new standard resulted in the recognition of $14.8 million in contribution revenue within temporarily restricted net assets on the consolidated statement of changes in net assets and a corresponding reduction in research advances on the consolidated balance sheet on October 1, 2018. In accordance with the new standard, the FY18 consolidated statement of changes in net assets and balance sheet were not retrospectively adjusted to reflect these changes.

Inventorship Patent Lawsuit

On May 17, 2019 the Institute prevailed in a correction of inventorship patent suit involving a series of patents currently embodied in several of the newest cancer immunotherapy drugs, including Opdivo and Keytruda, which treat melanoma and lung cancer, among other cancers. The U.S. District Court in Massachusetts ruled that a Dana-Farber Cancer Institute scientist and another scientist are co-inventors on 6 patents previously issued to a Japanese researcher and Japanese drug company and later licensed to Bristol-Myers Squibb (Opdivo). The case is currently under appeal. The Institute plans to pursue licensing the technology to companies seeking to develop PD-1 and PD-L1 antibody therapeutics for a wide range of cancers. On June 21, 2019, the Institute filed a second lawsuit against the defendants in the above-mentioned suit seeking equitable relief and damages to account for the defendants' unjust enrichment and unfair competition in exploiting patents co-owned by the Institute while holding themselves out to the Institute's potential licensees as the exclusive owners of the patents. This suit has been stayed pending the appeal in the first lawsuit.

Class Action Complaint

In June 2019, the Institute was served with a Class Action Complaint, Request for a Preliminary Injunction, and M.G.L. Chapter 93A demand letter, in a lawsuit filed in Massachusetts Superior Court alleging "systematic privacy violations" by the Institute as well as by co-defendants Massachusetts General Hospital, Brigham and Women's Hospital, and Partners HealthCare System. The complaint, since amended, alleges that each of the hospitals is tracking personally identifying information of patients and potential patients visiting its website and sharing this data with third parties in violation of assorted Massachusetts laws for (i) interception of wire and oral communications; (ii) invasion of privacy; and (iii) breach of fiduciary duty. In October 2019, the Defendants filed a Motion to Dismiss the Amended Complaint and are waiting for oral argument to be scheduled by the court. Also, in October 2019, the court heard oral argument on the Plaintiffs' Request for a Preliminary Injunction and the decision remains pending with the court. While it is premature to assess the materiality of this lawsuit at this stage, the Institute is pursuing a number of strong defenses and intends to vigorously defend the case. Regardless of merit, the Institute takes all privacy concerns with the utmost seriousness. The Institute is insured for the costs of this litigation and for any losses up to $10 million per claim with excess coverage of $5 million per claim.

Bond Issuance and Defeasement

On September 3, 2019, Dana-Farber Cancer Institute, Inc. and Dana-Farber, Inc. issued, through the Massachusetts Development Finance Agency, the $51,130,000 Massachusetts Development Finance Agency Revenue Bonds, Dana-Farber Cancer Institute Issue, Series O (2019) (the "Series O Bonds"). The proceeds of the Series O Bonds, along with certain trustee-held funds, were used to refund the $71,025,000 outstanding principal amount of the Massachusetts Health and Educational Authority Revenue Bonds, Dana-Farber Cancer Institute issue, Series K (2008) (the "Series K Bonds"), which Series K Bonds were defeased and paid on the date of issuance of the Series O Bonds.

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES
Consolidated Balance Sheets

(Dollars in thousands)	As Of September 30 2019	2018
ASSETS		
Current Assets		
Cash and cash equivalents	$ 165,479	$ 196,040
Patient accounts receivable, net	149,290	114,134
Contributions receivable, current portion	34,275	21,870
Royalty receivable	3,132	5,440
Assets whose use is limited, current portion	721	6,018
Research receivables	55,163	35,966
Prepaid expenses and other current assets	105,031	99,806
Total Current Assets	513,091	479,274
Investments	1,409,737	1,315,668
Assets whose use is limited by indenture agreement or other, less current portion	4,426	12,868
Property, plant and equipment, net	1,013,563	956,643
Contributions receivable, less current portion	63,858	41,269
Other assets	84,565	55,581
TOTAL ASSETS	$ 3,089,240	$ 2,861,303
LIABILITIES AND NET ASSETS		
Current Liabilities		
Accounts payable and accrued expenses	$ 160,409	$ 135,725
Amounts due to third party payors	49,158	53,458
Research advances **(Note 1)**	119,683	125,586
Current portion of long-term debt	6,102	5,741
Total Current Liabilities	335,352	320,510
Other Liabilities		
Long-term debt, less current portion	591,231	601,665
Other liabilities	256,452	213,580
Total Liabilities	1,183,035	1,135,755
Net Assets		
Net assets without donor restriction **(Note 1)**	930,472	817,039
Net assets with donor restriction **(Note 1)**	975,733	908,509
Total Net Assets	1,906,205	1,725,548
TOTAL LIABILITIES AND NET ASSETS	$ 3,089,240	$ 2,861,303

Note 1: See "Adoption of New Accounting Standards" on p.4.

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES
Consolidated Statement of Operations and Changes in Net Assets

(Dollars in thousands)	Year Ended September 30 2019	2018
Operating revenues:		
Net patient service revenues	$ 1,302,991	$ 1,166,614
Research revenues		
Direct grants and contracts	246,366	219,742
Gift related research revenue	195,783	148,954
Direct research revenues	442,149	368,696
Indirect grants/contracts/gifts	100,656	89,271
Unrestricted contributions and bequests	82,696	77,711
Other operating revenues	31,554	31,094
Total operating revenues	1,960,046	1,733,386
Operating expenses: **(Note 1)**		
Patient service		
Direct patient care	966,702	862,378
Depreciation and amortization	45,226	44,855
Interest	4,445	4,787
Total patient service expenses	1,016,373	912,020
Research		
Direct research/restricted gifts	446,932	373,255
Institute supported research	29,941	33,361
Depreciation and amortization	34,510	35,803
Interest	16,358	15,519
Total research expenses	527,741	457,938
General and administrative		
General and administrative	376,094	326,697
Depreciation and amortization	9,004	8,700
Interest	192	174
Total general and administrative expenses	385,290	335,571
Total expenses	1,929,404	1,705,529
Operating income	30,642	27,857
Investment income, net	30,591	47,250
Loss on extinguishment of long-term debt	(211)	-
Royalty income net of expenses **(Note 1)**	23,588	-
Interest rate swap agreements:		
Net interest paid	(3,328)	(3,973)
Change in fair value	(27,192)	11,797
Total interest rate swap agreement	(30,520)	7,824
Gain on sale	-	23,802
EXCESS OF REVENUES OVER EXPENSES	54,090	106,733
Other changes in net assets:		
Cumulative effect of changes in accounting principle **(Note 1)**	59,244	-
Net assets released from restriction for capital	2,366	2,252
Pension adjustment	(4,575)	2,605
Other	2,308	2,639
Increase in net assets without donor restrictions	113,433	114,229
Increase in net assets with donor restrictions **(Note 2)**	67,224	102,684
Increase in Net Assets	180,657	216,913
Net Assets at Beginning of Period	1,725,548	1,508,635
NET ASSETS AT END OF PERIOD	$ 1,906,205	$ 1,725,548

Note 1: See "Adoption of New Accounting Standards" on p.4.

Note 2: Includes the cumulative effect of the GAAP Changes on Temporarily Restricted Net Assets
ASC 606: YTD decrease of $30,048
ASU 2018-08: YTD increase of $12,798

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES
Consolidated Statements of Cash Flows

(Dollars in thousands)	As Of September 30 2019	2018
Operating activities		
Increase in net assets	$ 180,657	$ 216,913
Depreciation and amortization	88,740	89,358
Net realized and unrealized gains on investments	(79,881)	(126,485)
Pension adjustment	4,575	(2,605)
Restricted contributions and investment income, net of restriction releases for operations	(49,201)	(33,799)
Transfers to other institutions	1,262	6,152
Loss on extinguishment of long-term debt	(211)	—
Changes in other assets and liabilities	10,424	37,524
Changes in certain elements of working capital	(53,781)	(26,067)
Net cash provided by operating activities	102,584	160,991
Investing activities		
Additions to property, plant, and equipment, net	(127,969)	(81,729)
Purchases of investments	(187,836)	(330,679)
Proceeds from sales of investments	173,648	315,615
Changes in assets whose use is limited	13,739	2,909
Net cash used in investing activities	(128,418)	(93,884)
Financing activities		
Proceeds from issuance of long-term debt	60,255	—
Payments on extinguishment of long-term debt	(71,025)	—
Payments of bond issuance costs	(1,160)	—
Payments on long-term debt	(4,160)	(3,960)
Payments on capital lease obligations	(1,582)	(1,467)
Restricted contributions and investment income, net of restriction releases for operations	49,201	33,799
Change in contributions receivable	(34,994)	(18,666)
Transfers to other institutions	(1,262)	(6,152)
Net cash provided by financing activities	(4,727)	3,554
Increase (decrease) in cash and cash equivalents	(30,561)	70,661
Cash and cash equivalents at beginning of year	196,040	125,379
Cash and cash equivalents at end of year	$ 165,479	$ 196,040
Noncash financing activities		
Assets acquired pursuant to capital lease	$ 9,112	$ -
Noncash investing activities		
Construction in progress included in accounts payable and accrued expenses	$ 10,992	$ -

Asset Allocation Summary	As Of September 30	
(Dollars in Thousands)	2019	2018
U.S. Government Money Market Fund	$ 1,106	$ 7,721
U.S. Government Securities	98,700	92,860
U.S. Equity Securities	91,841	80,377
U.S. Equity Mutual Funds	170,369	161,398
International Equity Securities	41,390	41,301
International Equity Mutual Funds	270,886	278,592
Alternative Investments*	735,445	653,419
Total	$1,409,737	$ 1,315,668

* Alternative investments include investments in private equity funds, partnerships, limited liability companies and other funds, which generally have reduced liquidity.

Investment Performance Summary	As Of September 30	
	2019	2018
Dana-Farber Portfolio	5.9%	10.0%
Investment Committee Custom Benchmark*	3.4%	8.0%
S&P 500	4.3%	17.9%

* The custom benchmark is a weighted index return developed for the Institute at the request of the Investment Committee assuming Committee-determined target percentages in the different asset classes (e.g., U.S. equity, non-U.S. equity, fixed income, etc.) and the index return used for each asset class is a broad market benchmark selected by the Committee, (e.g. S&P 500 for U.S. Equities). The exact composition of the custom benchmark shifts over time as the Committee revises the target allocation percentages and selects different benchmarks for each asset class. It was adjusted in January 2016 and December 2018.

Liquidity

Represents balance sheet cash and unrestricted investments

	As Of September 30	
	2019	2018
1 month or less	71%	77%
1 year or less	29%	23%
Total Unrestricted	100%	100%
Total Unrestricted Dollars in Thousands	$ 815,310	$ 777,627

DANA-FARBER CANCER INSTITUTE, INC.
Capitalization for the Obligated Group

(Dollars in Thousands)	As Of September 30 2019	2018
Long-Term Debt		
Series K Bonds	$ -	$ 75,087
Series L Bonds	184,099	184,066
Series M Bonds	50,373	50,319
Series N Bonds	274,255	275,826
Series O Bonds	58,968	-
JPMorgan Line of Credit	60,000	-
South Shore lease obligation	22,715	14,529
Milford lease obligation	6,923	7,579
Total Long-Term Debt	657,333	607,406
Unrestricted Net Assets	968,783	846,458
Total Capitalization	$ 1,626,116	$ 1,453,864
Total Long-Term Debt as a Percent of Total Capitalization	40.4%	41.8%

DANA-FARBER CANCER INSTITUTE, INC.

Days Cash on Hand for the Obligated Group (Dollars in Thousands)	**As Of September 30 2019**	**2018**
Total Unrestricted Cash Position [1]	$ 1,244,436	$ 1,075,895
Average Daily Expenses [2]	4,912	4,311
Days Cash On-Hand	**253**	**250**

[1] These amounts are composed of unrestricted cash equivalents and marketable securities plus an amount equal to 200% of the donor restricted research funds that have been released from restriction and used for operating expenses during the relevant calculation period, plus temporarily restricted cash and marketable securities that are available for current use but excluding certain items permitted to be excluded under the Master Trust Indenture.

[2] These amounts are composed of total operating expenses less extraordinary items, infrequently occurring items or unusual items and the cumulative effect of changes in accounting principles, depreciation and amortization and other non-cash charges divided by the number of days in the period.

Actual and Maximum Debt Service for the Obligated Group (Dollars in Thousands)	**Year Ended September 30 2019**	**2018**
Income Available for Debt Service	197,087	185,772
Actual Historical Annual Debt Service	30,016	29,835
Actual Historical Debt Service Coverage Ratio	**6.57**	**6.23**
Income Available for Debt Service	197,087	185,772
Pro Forma Maximum Annual Debt Service [1]	36,080	36,977
Pro Forma Maximum Debt Service Coverage Ratio	**5.46**	**5.02**

The improvement in the debt service coverage ratios from September 30, 2018 to September 30, 2019 relates to growth in income available for debt service due to positive trends in operating performance in fiscal year 2019.

[1] Maximum Annual Debt Service represents the highest total debt service on all long-term indebtedness, which is projected to occur in the fiscal year ending September 30, 2027. The debt service requirement for $150,000 of long-term indebtedness that is covered by interest rate swap agreements is calculated in accordance with the terms of the Master Trust Indenture. The Assumed Rate used to calculate debt service for the Series L variable rate bonds is 2.98% and 2.43% for September 30, 2019 and 2018, respectively. The Assumed Rate used to calculate debt service for the variable rate capital lease that expires in 2030 is 5.54% and 5.35% for September 30, 2019 and 2018, respectively.

DANA-FARBER CANCER INSTITUTE, INC.
Operational Statistics for the Obligated Group

	Year Ended September 30	
	2019	**2018**
OUTPATIENT STATISTICS		
MD Clinic visits [1]	359,519	346,805
Infusion visits [1]	187,664	176,630
ANCILLARY STATISTICS		
(units of service)		
Laboratories	1,441,521	1,336,544
Blood Bank	78,807	70,367
Pharmacy [1][2]	533,230,825	463,717,720
PET Scans	5,798	5,445
Diagnostic Radiology	18,923	18,731
Ultrasound	1,178	1,494
Nuclear Medicine	2,743	2,587
MRI	8,304	7,449
CT Scans	33,153	32,233
Radiation Therapy	41,951	40,190
Respiratory Therapy/EKG (Treatments)	24,590	23,277
INPATIENT STATISTICS		
Licensed Beds	30	30
Total Admissions	1,568	1,304
ALOS	6.54	7.98
Total Patient Days	10,255	10,434
Occupancy Rate	93.9%	95.4%

Source: Institute Records

[1] Includes results of Dana Farber Cancer Care Network

[2] Cost of drugs administered

DANA-FARBER CANCER INSTITUTE, INC.
Operational Statistics for the Obligated Group

	Year Ended September 30			
	Inpatient		Outpatient	
Percentage Gross Revenues	**2019**	**2018**	**2019**	**2018**
Medicare	45%	35%	43%	43%
Medicaid	6%	10%	7%	7%
Other	28%	33%	27%	27%
Blue Cross	20%	22%	22%	22%
Self-Pay	1%	0%	1%	1%
Total	100%	100%	100%	100%

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES
Fund-Raising Contributions

(Dollars in thousands)	Year Ended September 30	
	2019	**2018**
Fundraising Contributions		
Unrestricted contributions and bequests	$ 82,696	$ 77,711
Gifts for current use	8,162	8,375
Temporarily restricted	166,707	137,063
Permanently restricted	11,140	12,288
Subtotal	268,705	235,437
Non-government Grants	73,707	44,096
Total Fundraising Contributions	$ 342,412	$ 279,533
Direct Fundraising Expenses	$ 40,535	$ 30,659
Direct Fundraising Expenses as Percent of Total Fundraising Contributions	12%	11%

Notes

Unrestricted contributions and restricted contributions, used on a current basis, are recorded as operating revenues. Other restricted contributions are recorded as additions to temporarily restricted or permanently restricted assets. Contributions include those received and pledged. Contributions pledged are reported at net present value.

Supplementary Information

See Annual Report filings for comparative annual consolidating financial statements contained in the Supplementary Information section of Audited Financial Statements.

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES
Consolidating Balance Sheet

As of September 30, 2019

(Dollars in thousands)	Obligated Group	Dana-Farber Cancer Care Network, Inc.	Eliminations and Reclassifications	Consolidated
ASSETS				
Current Assets				
Cash and cash equivalents	$ 165,435	$ 44	-	$ 165,479
Patient accounts receivable, net	145,253	4,037	-	149,290
Contributions receivable, current portion	34,275	-	-	34,275
Royalty receivable	3,132	-	-	3,132
Assets whose use is limited, current portion	721	-	-	721
Research receivables	55,163	-	-	55,163
Prepaid expenses and other current assets	147,204	1,045	(43,218)	105,031
Total Current Assets	551,183	5,126	(43,218)	513,091
Investments	1,409,737	-	-	1,409,737
Assets whose use is limited by indenture agreement or other, less current portion	4,426	-	-	4,426
Property, plant and equipment, net	1,013,328	235	-	1,013,563
Contributions receivable, less current portion	63,858	-	-	63,858
Other assets	84,565	-	-	84,565
TOTAL ASSETS	$ 3,127,097	$ 5,361	$ (43,218)	$ 3,089,240
LIABILITIES AND NET ASSETS				
Current Liabilities				
Accounts payable and accrued expenses	160,017	43,610	(43,218)	160,409
Amounts due to third party payors	49,158	-	-	49,158
Research advances **(Note 1)**	119,683	-	-	119,683
Current portion of long-term debt	6,102	-	-	6,102
Total Current Liabilities	334,960	43,610	(43,218)	335,352
Other Liabilities				
Long-term debt, less current portion	591,231	-	-	591,231
Other liabilities	256,452	-	-	256,452
Total Liabilities	847,683	-	-	847,683
Net Assets				
Net assets without donor restriction **(Note 1)**	968,783	(38,311)	-	930,472
Net assets with donor restriction **(Note 1)**	975,671	62	-	975,733
Total Net Assets	1,944,454	(38,249)	-	1,906,205
TOTAL LIABILITIES AND NET ASSETS	$ 3,127,097	$ 5,361	$ (43,218)	$ 3,089,240

Note 1: See "Adoption of New Accounting Standards" on p. 4.

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES
Consolidating Statement of Operations and Changes in Net Assets

Twelve Months Ended September 30, 2019

(Dollars in thousands)	Obligated Group	Dana-Farber Cancer Care Network, Inc.	Eliminations and Reclassifications	Consolidated
Operating revenues:				
Net patient service revenues	1,263,293	39,698	-	1,302,991
Research revenues				
Direct grants and contracts	246,366	-	-	246,366
Gift related research revenue	195,745	38	-	195,783
Direct research revenues	442,111	38	-	442,149
Indirect grants/contracts/gifts	100,656	-	-	100,656
Unrestricted contributions and bequests	82,696	-	-	82,696
Other operating revenues	31,554	-	-	31,554
Total operating revenues	1,920,310	39,736	-	1,960,046
Operating expenses: **(Note 1)**				
Patient service				
Direct patient care	920,373	46,329	-	966,702
Depreciation and amortization	45,226	-	-	45,226
Interest	4,445	-	-	4,445
Total patient service expense	970,044	46,329	-	1,016,373
Research				
Direct research/restricted gifts	446,894	38	-	446,932
Institute supported research	29,941	-	-	29,941
Depreciation and amortization	34,510	-	-	34,510
Interest	16,358	-	-	16,358
Total research expense	527,703	38	-	527,741
General and administrative				
General and administrative	374,811	1,283	-	376,094
Depreciation and amortization	8,026	978	-	9,004
Interest	192	-	-	192
Total general and administrative	383,029	2,261	-	385,290
Total expenses	1,880,776	48,628	-	1,929,404
Operating income (loss)	39,534	(8,892)	-	30,642
Investment income (loss), net	30,591	-	-	30,591
Loss on extinguishment of long-term debt	(211)	-	-	(211)
Royalty income net of expenses **(Note 1)**	23,588	-	-	23,588
Interest rate swap agreement				
Net interest paid	(3,328)	-	-	(3,328)
Change in fair value	(27,192)	-	-	(27,192)
Total interest rate swap agreement	(30,520)	-	-	(30,520)
Gain on sale	-	-	-	-
EXCESS (DEFICIT) OF REVENUES OVER EXPENSES	62,982	(8,892)	-	54,090
Other changes in net assets:				
Cumulative effect of changes in accounting principle **(Note 1)**	59,244	-	-	59,244
Net assets released from restriction for capital	2,366	-	-	2,366
Pension adjustment	(4,575)	-	-	(4,575)
Other	2,308	-	-	2,308
Increase in net assets without donor restrictions	122,325	(8,892)	-	113,433
Increase / (Decrease) in net assets with donor restrictions **(Note 2)**	67,258	(34)	-	67,224
Increase in Net Assets	189,583	(8,926)	-	180,657
Net Assets at Beginning of Period	1,754,872	(29,324)	-	1,725,548
NET ASSETS AT END OF PERIOD	$ 1,944,455	$ (38,250)	$ -	$ 1,906,205

Note 1: See "Adoption of New Accounting Standards" on p.4.

Note 2: Includes the cumulative effect of the GAAP Changes on Temporarily Restricted Net Assets
ASC 606: YTD decrease of $30,048
ASU 2018-08: YTD increase of $12,798

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES
Consolidating Balance Sheets

As Of September 30, 2018

(Dollars in thousands)	Obligated Group	Dana-Farber Cancer Care Network, Inc.	Eliminations and Reclassifications	Consolidated
ASSETS				
Current Assets				
Cash and cash equivalents	$ 195,981	$ 59		$ 196,040
Patient accounts receivable, net	111,210	2,924		114,134
Contributions receivable, current portion	21,870	-		21,870
Royalty receivable	5,440	-		5,440
Assets whose use is limited, current portion	6,018	-		6,018
Research receivables	35,966	-		35,966
Prepaid expenses and other current assets	133,146	1,566	(34,906)	99,806
Total Current Assets	509,631	4,549	(34,906)	479,274
Investments	1,315,668	-		1,315,668
Assets whose use is limited by indenture agreement or other, less current portion	12,868	-		12,868
Property, plant and equipment, net	955,689	954		956,643
Contributions receivable, less current portion	41,269	-		41,269
Other assets	55,581	-		55,581
TOTAL ASSETS	$ 2,890,706	$ 5,503	$ (34,906)	$ 2,861,303
LIABILITIES AND NET ASSETS				
Current Liabilities				
Accounts payable and accrued expenses	$ 135,804	$ 34,827	$ (34,906)	$ 135,725
Amounts due to third party payors	53,458	-		53,458
Research advances	125,586	-		125,586
Current portion of long-term debt	5,741	-		5,741
Total Current Liabilities	320,589	34,827	(34,906)	320,510
Other Liabilities				
Long-term debt, less current portion	601,665	-		601,665
Other liabilities	213,580	-		213,580
Total Liabilities	1,135,834	34,827	(34,906)	1,135,755
Net Assets				
Net assets without donor restriction	846,458	(29,419)		817,039
Net assets with donor restriction	908,414	95		908,509
Total Net Assets	1,754,872	(29,324)	-	1,725,548
TOTAL LIABILITIES AND NET ASSETS	$ 2,890,706	$ 5,503	$ (34,906)	$ 2,861,303

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES
Consolidating Statement of Operations and Changes in Net Assets

Twelve Months Ended September 30, 2018

(Dollars in thousands)	Obligated Group	Dana-Farber Cancer Care Network, Inc.	Eliminations and Reclassifications	Consolidated
Operating revenues:				
Net patient service revenues	1,130,077	36,537	-	1,166,614
Research revenues				
Direct grants and contracts	219,742	-	-	219,742
Gift related research revenue	148,899	55	-	148,954
Direct research revenues	368,641	55	-	368,696
Indirect grants/contracts/gifts	89,271	-	-	89,271
Unrestricted contributions and bequests	77,711	-	-	77,711
Other operating revenues	31,094	-	-	31,094
Total operating revenues	1,696,794	36,592	-	1,733,386
Operating expenses: **(Note 1)**				
Patient service				
Direct patient care	821,315	41,063	-	862,378
Depreciation and amortization	44,855	-	-	44,855
Interest	4,787	-	-	4,787
Total patient service expenses	870,957	41,063	-	912,020
Research				
Direct research/restricted gifts	373,200	55	-	373,255
Institute supported research	33,361	-	-	33,361
Depreciation and amortization	35,803	-	-	35,803
Interest	15,519	-	-	15,519
Total research expenses	457,883	55	-	457,938
General and administrative				
General and administrative	325,315	1,382	-	326,697
Depreciation and amortization	8,229	471	-	8,700
Interest	174	-	-	174
Total general and administrative expenses	333,718	1,853	-	335,571
Total expenses	1,662,558	42,971	-	1,705,529
Operating income/(loss)	34,236	(6,379)	-	27,857
Investment income, net	47,250	-	-	47,250
Royalty income net of expenses **(Note 1)**	-	-	-	-
Interest rate swap agreement				
Net interest paid	(3,974)	-	-	(3,974)
Change in fair value	11,798	-	-	11,798
Total interest rate swap agreement	7,824	-	-	7,824
Gain on sale	23,802	-	-	23,802
EXCESS OF REVENUES OVER EXPENSES	113,112	(6,379)	-	106,733
Other changes in net assets:				
Cumulative effect of changes in accounting principle **(Note 1)**	-	-	-	-
Net assets released from restriction for capital	2,252	-	-	2,252
Pension adjustment	2,605	-	-	2,605
Other	2,639	-	-	2,639
Increase in net assets without donor restrictions	120,608	(6,379)	-	114,229
Increase / (Decrease) in net assets with donor restrictions **(Note 2)**	102,734	(50)	-	102,684
Increase in Net Assets	223,342	(6,429)	-	216,913
Net Assets at Beginning of Period	1,531,530	(22,895)	-	1,508,635
NET ASSETS AT END OF PERIOD	$ 1,754,872	$ (29,324)	$ -	$ 1,725,548

Note 1: See "Adoption of New Accounting Standards" on p.4.

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES

Consolidated Financial Statements and
Supplementary Information

Years ended September 30, 2019 and 2018

(With Independent Auditors' Report Thereon)

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES

Consolidated Financial Statements and
Supplementary Information

Years ended September 30, 2019 and 2018

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KPMG LLP
Two Financial Center
60 South Street
Boston, MA 02111

Independent Auditors' Report

The Board of Trustees
Dana-Farber Cancer Institute, Inc. and Subsidiaries:

We have audited the accompanying consolidated financial statements of Dana-Farber Cancer Institute, Inc. and Subsidiaries, which comprise the consolidated balance sheets as of September 30, 2019 and 2018, and the related consolidated statements of operations and changes in net assets, and cash flows for the years then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Consolidated Financial Statements

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

Auditor's Responsibility

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

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

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

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Dana-Farber Cancer Institute, Inc. and Subsidiaries as of September 30, 2019 and 2018, and the results of their operations and changes in net assets, and their cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

Emphasis of Matters

As discussed in Note 2 to the consolidated financial statements, during the year ended September 30, 2019, Dana-Farber Cancer Institute, Inc. and Subsidiaries adopted Financial Accounting Standards Board Accounting Standards Update (ASU) No. 2014-09, *Revenue from Contracts with Customers* (Topic 606) as amended; ASU No. 2016-14, *Not-for-Profit Entities (Topic 958): Presentation of Financial Statements for Not-for-Profit Entities*; and ASU No. 2018-08, *Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made*. Our opinion is not modified with respect to these matters.

Other Matter – Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying consolidating balance sheets and consolidating statements of operations are presented for purposes of additional analysis and are not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States. In our opinion, the information is fairly stated, in all material respects, in relation to the consolidated financial statements as a whole.

KPMG LLP

Boston, Massachusetts
January 24, 2020

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES

Consolidated Balance Sheets

September 30, 2019 and 2018

(In thousands)

Assets		2019	2018
Current assets:			
Cash and cash equivalents	$	165,479	196,040
Patient accounts receivable, net		149,290	114,134
Contributions receivable, current portion		34,275	21,870
Research receivables		55,163	35,966
Prepaid expenses and other current assets		108,884	111,264
Total current assets		513,091	479,274
Investments		1,409,737	1,315,668
Property, plant, and equipment, net		1,013,563	956,643
Contributions receivable, less current portion		63,858	41,269
Other assets		88,991	68,449
Total assets	$	3,089,240	2,861,303
Liabilities and Net Assets			
Current liabilities:			
Accounts payable and accrued expenses	$	130,440	108,935
Accrued payroll, payroll taxes, and amounts withheld from employee compensation		29,969	26,790
Current portion of long-term debt and capital leases		6,102	5,741
Amounts due to third-party payors		49,158	53,458
Research advances		119,683	125,586
Total current liabilities		335,352	320,510
Other liabilities:			
Long-term debt and capital leases, less current portion		591,231	601,665
Other		256,452	213,580
Total liabilities		1,183,035	1,135,755
Net assets:			
Without donor restrictions		930,472	817,039
With donor restrictions		975,733	908,509
Total net assets		1,906,205	1,725,548
Total liabilities and net assets	$	3,089,240	2,861,303

See accompanying notes to consolidated financial statements.

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES

Consolidated Statements of Operations and Changes in Net Assets

Years ended September 30, 2019 and 2018

(In thousands)

	2019	2018
Operating revenues:		
Net patient service revenue	$ 1,302,991	1,166,614
Research revenues	542,805	457,967
Unrestricted contributions and bequests	82,696	77,711
Other operating revenues	31,554	31,094
Total operating revenues	1,960,046	1,733,386
Operating expenses:		
Patient Service		
Direct patient care	966,702	862,378
Depreciation and amortization	45,226	44,855
Interest	4,445	4,787
Total patient service expenses	1,016,373	912,020
Research		
Direct research/restricted gifts	446,932	373,255
Institute supported research	29,941	33,361
Depreciation and amortization	34,510	35,803
Interest	16,358	15,519
Total research expenses	527,741	457,938
General and administrative		
General and administrative	376,094	326,697
Depreciation and amortization	9,004	8,700
Interest	192	174
Total general and administrative expenses	385,290	335,571
Total operating expenses	1,929,404	1,705,529
Operating income	30,642	27,857
Non operating gains (losses):		
Investment gains, net	30,591	47,250
Loss on extinguishment of long-term debt (note 8)	(211)	—
Royalty income, net of expenses	23,588	—
Gain on sale (note 1)	—	23,802
Interest rate swap agreements:		
Net interest paid	(3,328)	(3,973)
Change in fair value	(27,192)	11,797
Total non operating gains	23,448	78,876
Excess of revenues over expenses	$ 54,090	106,733

(Continued)

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES

Consolidated Statements of Operations and Changes in Net Assets

Years ended September 30, 2019 and 2018

(In thousands)

	2019	2018
Net assets without donor restrictions:		
Excess of revenues over expenses	$ 54,090	106,733
Cumulative effect of changes in accounting principle	59,244	—
Net assets released from restrictions for capital	2,366	2,252
Pension adjustment	(4,575)	2,605
Other	2,308	2,639
Increase in net assets without donor restrictions	113,433	114,229
Net assets with donor restrictions:		
Contributions revenue, net	165,015	149,301
Cumulative effect of changes in accounting principle	(17,250)	—
Interest and dividend income, net	5,306	4,327
Realized and unrealized gains on investments, net	51,733	80,887
Net assets released from restrictions for capital	(2,366)	(2,252)
Net assets released from restrictions for operations	(133,952)	(123,427)
Transfers to other institutions	(1,262)	(6,152)
Increase in net assets with donor restrictions	67,224	102,684
Increase in net assets	180,657	216,913
Net assets at beginning of year	1,725,548	1,508,635
Net assets at end of year	$ 1,906,205	1,725,548

See accompanying notes to consolidated financial statements.

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES

Consolidated Statements of Cash Flows

Years ended September 30, 2019 and 2018

(In thousands)

		2019	2018
Operating activities:			
Increase in net assets	$	180,657	216,913
Adjustments to reconcile increase in net assets to net cash provided by operating activities:			
Depreciation and amortization		88,740	89,358
Net realized and unrealized gains on investments		(79,881)	(126,485)
Pension adjustment		4,575	(2,605)
Restricted contributions and investment income, net of restriction releases for operations		(49,201)	(33,799)
Transfers to other institutions		1,262	6,152
Loss on extinguishment of long-term debt		(211)	—
Changes in other assets and liabilities		10,424	37,524
Changes in certain elements of working capital:			
Patient accounts receivable, net		(35,156)	(14,138)
Research receivables and research advances		(25,100)	28,353
Prepaid expenses and other current assets		(2,917)	(43,922)
Accounts payable and accrued expenses, including employee compensation		13,692	(7,102)
Amounts due to third-party payors		(4,300)	10,742
Net cash provided by operating activities		102,584	160,991
Investing activities:			
Additions to property, plant, and equipment, net		(127,969)	(81,729)
Purchases of investments		(187,836)	(330,679)
Proceeds from sales of investments		173,648	315,615
Changes in assets whose use is limited		13,739	2,909
Net cash used in investing activities		(128,418)	(93,884)
Financing activities:			
Proceeds from issuance of long-term debt		60,255	—
Payments on extinguishment of long-term debt		(71,025)	—
Payments of bond issuance costs		(1,160)	—
Payments on long-term debt		(4,160)	(3,960)
Payments on capital lease obligations		(1,582)	(1,467)
Restricted contributions and investment income, net of restriction releases for operations		49,201	33,799
Change in contributions receivable		(34,994)	(18,666)
Transfers to other institutions		(1,262)	(6,152)
Net cash (used in) provided by financing activities		(4,727)	3,554
(Decrease) increase in cash and cash equivalents		(30,561)	70,661
Cash and cash equivalents at beginning of year		196,040	125,379
Cash and cash equivalents at end of year	$	165,479	196,040
Noncash financing activities:			
Assets acquired pursuant to capital lease (note 8)	$	9,112	—
Noncash investing activities:			
Construction in progress included in accounts payable and accrued expenses	$	10,992	—

See accompanying notes to consolidated financial statements.

(1) Corporate Organization

Dana-Farber Cancer Institute, Inc. (the Institute) is a comprehensive cancer center dedicated to basic and clinical cancer research and treatment. The Institute primarily serves patients in the New England region. Dana-Farber, Inc. is a controlled affiliate of the Institute, and is responsible for its investment management activities. In August 2003, the Institute formed the Dana-Farber Trust, Inc. for the purpose of acquiring, holding, developing, managing, maintaining, or disposing of real and personal property for the benefit of the Institute and its affiliated organizations. On July 1, 2014, the Institute acquired Commonwealth Hematology-Oncology (CHO) physician practice, the largest community-based cancer care program in New England with eight sites located throughout eastern Massachusetts. The CHO sites now operate as Dana-Farber Cancer Care Network, Inc. (DFCCN) physician practices.

The Institute's inpatient hospital is physically located within the Brigham & Women's Hospital, Inc. (BWH). The Institute reimburses BWH for related patient care expenses. Net patient service revenue related to the inpatient hospital was $46,655 and $48,727 in 2019 and 2018, respectively.

The Institute, BWH, The General Hospital Corporation (the General) and Partners HealthCare System, Inc. (Partners) have formed Dana-Farber/Partners CancerCare, Inc. (DF/PCC), a not-for-profit corporation. During the years ended September 30, 2019 and 2018, DF/PCC provided the Institute with $53,226 and $49,721, respectively, in research funding. Among its roles, DF/PCC is responsible for the management of cancer-related clinical trials at the Institute, BWH and the General. The Institute, BWH, and the General provide DF/PCC with funds to meet its annual operating and capital needs. At present, the Institute's portion of these funds is not material to the consolidated financial statements.

The Institute obtains electricity, steam and chilled water from the Medical Area Total Energy Plant (MATEP), which is located in the Longwood Medical and Academic Area of Boston and also provides utilities to a number of neighboring hospitals and medical institutions. In May 2017, the Institute together with two other MATEP customers, formed BCD Hospital Energy Collaborative, LLC (BCD), which obtained the rights to acquire MATEP. On March 30, 2018, BCD assigned its rights to acquire MATEP to an unrelated entity. The Institute's share of the proceeds amounted to $23,802, which is reflected as a nonoperating gain in the accompanying consolidated statement of operations and changes in net assets for the year ended September 30, 2018.

(2) Summary of Significant Accounting Policies

(a) Basis of Presentation

The consolidated financial statements include the accounts of Dana-Farber Cancer Institute, Inc.; Dana-Farber Cancer Care Network, Inc.; Dana-Farber, Inc.; and Dana-Farber Trust, Inc.(collectively, the Institute). Intercompany balances and transactions have been eliminated in consolidation. The consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles (GAAP) applied on a basis consistent with that of the 2018 audited consolidated financial statements of the Institute.

(b) Reclassifications

Certain amounts in the 2018 consolidated financial statements have been reclassified to conform with the 2019 presentation.

(c) New Accounting Pronouncements

Implemented

On October 1, 2018 the Institute adopted *Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers*, which replaces most existing revenue recognition guidance in U.S. GAAP and is intended to improve and converge with international standards the financial reporting requirements for recognizing revenue from contracts with customers. The core principle of ASU 2014-09 is that an entity should recognize revenue for the transfer of goods or services equal to the amount that it expects to be entitled to receive for those goods or services. ASU 2014-09 also requires additional disclosures about the nature, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgements and changes in judgments. See note 10. The Institute has elected to adopt the standard using a modified retrospective approach and has applied ASU 2014-09 to customer contracts that were not completed at the date of initial application, on the portfolio basis for assessing revenue recognition. In accordance with the transition guidance and the Institute's election, the 2018 consolidated balance sheet was not retrospectively adjusted to reflect these changes. Periods prior to adoption have been presented to conform to the net presentation of a single net patient service revenue total in the consolidated statements of operations and changes in net assets. Previously, the consolidated statement of operations and changes in net assets for the year ended September 30, 2018 presented separate lines for net patient service revenue prior to provision for bad debts of $1,178,151, provision for bad debts of $11,537, and net patient service revenue, less provision for bad debts of $1,166,614. The related presentation of "allowances for doubtful accounts" on the consolidated balance sheet has also been eliminated as a result of the adoption of the standard. The cumulative effect of applying ASU 2014-09 resulted in an increase to the opening balances of net assets without donor restrictions of $59.2 million and a corresponding reduction to research advances and net assets with donor restrictions of $29.2 million and $30.0 million, respectively, on the Institute's consolidated balance sheet.

On October 1, 2018, the Institute adopted *ASU 2018-08, Not-for-Profit Entities (Topic 958)*: *Clarifying the Scope and Accounting Guidance for Contributions Received and Contributions Made*, which amends the accounting guidance related to (1) evaluating whether transactions should be accounted for as contributions or exchange transactions, and (2) determining whether a contribution is conditional or unconditional. The cumulative effect of applying ASU 2018-08 resulted in an increase to the opening balances of net assets with donor restrictions on the consolidated statements of operations and changes in net assets and a reduction to research advances of $7.8 million, as well as a $5.0 million increase to contribution receivable on the Institute's consolidated balance sheet. In accordance with the transition requirements, the 2018 consolidated statement of operations and changes in net assets and consolidated balance sheet were not retrospectively adjusted to reflect these changes.

On October 1, 2018, the Institute adopted *ASU 2016-14, Not-for-Profit Entities (Topic 958): Presentation of Financial Statements of Not-for-Profit Entities*. The new guidance replaces the three classes of net assets with two classes (net assets with donor restrictions and net assets without donor restrictions), eliminates the requirement to present or disclose the indirect method reconciliation if using the direct method on the cash flows statement, and requires enhanced disclosures about governing board designations and appropriations, composition of net assets with donor restrictions, management of liquidity, expenses, methods of cost allocation, and underwater endowment funds. There were no material changes to the consolidated balance sheets, statements of operations and changes in net assets, or cash flows as a result of the adoption. Periods prior to adoption have been displayed to conform to the new presentation of a single classification of net assets with donor restrictions. Previously, the September 30, 2018 consolidated balance sheet displayed temporarily restricted net assets of $703,235 and permanently restricted net assets of $205,274.

(d) Use of Estimates

The preparation of the consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

(e) Cash Equivalents

The Institute considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents.

(f) Investments

Investments in equity securities with readily determinable fair values and all investments in debt securities are measured at fair value in the consolidated balance sheets. All of this portion of the portfolio is classified as trading with investment gain or loss (including realized and unrealized gains and losses on investments, interest, and dividends) included in the excess of revenues over expenses, unless restricted by donor or law.

Alternative investments consist of investments in limited partnerships and limited liability companies. Except for alternative investments held by the defined benefit pension plan, the Institute accounts for alternative investments (hedge funds, private equity funds, etc.) using the equity method of accounting or at fair value, using the net asset value of each fund as a practical expedient, and reports its share of the increase or decrease in the fund’s value as investment gain or loss. Alternative investments held by the defined benefit pension plan are held at fair value using net asset value as a practical expedient. These carrying values for alternative investments are determined based upon information from the funds’ General Partners. The General Partners’ estimates and assumptions of fair values of nonmarketable investments may differ significantly from the values that would have been used had a ready market existed, and may also differ significantly from the values at which such investments may be sold, and the differences could be material.

Unrestricted investment gains (losses) (including realized and unrealized gains and losses on investments, interest, and dividends from all other investments) is reported as nonoperating gains (losses), except for investment income equal to the Institute's spending policy, which is reported as operating income.

(g) Assets Whose Use is Limited

Assets whose use is limited represent proceeds from bonds and operations which are invested and restricted under bond indenture agreements for construction, debt repayment, an investment deposit requirement under a certain bond purchase agreement, and investments placed in trust for payment of self-insured claims.

(h) Contributions Receivable

Unconditional contributions receivable, received in writing in amounts of $1,000 or more and payable in regular installments, are recorded at net present value as direct additions to temporarily or permanently restricted net assets, net of any allowances for uncollectible amounts.

(i) Property, Plant, and Equipment

Property, plant, and equipment are stated at cost, less accumulated depreciation. Donated equipment is recorded at fair value, determined as of the date of donation. Depreciation is computed using the straight-line method at rates intended to amortize the costs of the related assets over their estimated useful lives. Amortization of assets recorded under capital leases is included in depreciation. Equipment purchased under the terms of research grants is charged as a direct research expenditure.

(j) Interest Rate Swap Agreements

The Institute utilizes interest rate swap agreements to reduce risks associated with changes in interest rates. The Institute is exposed to credit loss in the event of nonperformance by the counterparties to its interest rate swap agreements. The Institute is also exposed to the risk that the swap receipts may not offset its variable rate debt service. To the extent these variable interest swap receipts do not equal variable interest payments on the bonds, there will be a net loss or net benefit to the Institute.

The Institute recognizes all derivative instruments as either assets or liabilities in the consolidated balance sheets at their respective fair value with changes in fair value reflected in the consolidated statements of operations and changes in net assets as a component of non-operating gains (losses).

(k) Net Assets

Net assets are classified based on the existence or absence of donor-imposed restrictions. Accordingly, net assets and changes therein are classified and reported as follows:

Net assets without donor restrictions – net assets available for use in general operations and not subject to donor restrictions.

Net assets with donor restrictions – net assets subject to donor-imposed restrictions. Some donor-imposed restrictions are temporary in nature, such as those that will be met by the passage of time or other events specified by the donor. Other donor-imposed restrictions are perpetual in nature, where the donor stipulates that resources be maintained in perpetuity. Donor-imposed restrictions are released when a restriction expires, that is, when the stipulated time has elapsed, when the stipulated purpose for which the resource was restricted has been fulfilled, or both. When a donor restriction expires, net assets with donor restrictions are reclassified as net assets without donor restrictions and reported in the consolidated statements of operations and changes in net assets as revenues (for noncapital-related items), or as a direct increase to net assets without donor restrictions (for capital-related items).

Net assets with perpetual donor restrictions include assets with restrictions that require investment to provide a perpetual source of income to the Institute. Generally, donors of these assets require the Institute to maintain and invest the original contribution in perpetuity but permit the use of some or all investment returns for general or specific purposes. The Institute has interpreted state law as requiring realized and unrealized gains of these perpetual contributions to be retained in net assets with donor restrictions until appropriated by the board and expended. State law allows the board to appropriate so much of the net appreciation of perpetual contributions as is prudent considering the Institute's long and short-term needs, present and anticipated financial requirements, expected total return on its investments, price level trends, and general economic conditions. Annually, the board appropriates an amount based upon a spending policy as described in paragraph (m) below.

(l) Operating Revenues and Expenses

Operating income from operations includes revenues generated from direct patient care activities, research activities from grantors and donors, unrestricted contributions, royalties, trademark income, and sundry revenues related to the operation of the Institute's facilities, and all related expenses. The Institute has a spending policy allowing approximately 7.5% of the average market value of certain donor-restricted investments over the past nine quarters to be spent annually to fund operating and capital needs. Investment income equal to the annual spending policy amount on donor-restricted investments whose income is unrestricted is reported in other operating revenue.

(m) Net Patient Service Revenue

Net patient service revenues are recorded at the amounts that reflect the consideration to which the Institute expects to be entitled to in exchange for providing patient care. These amounts are due from patients, third-party payors, and others and include an estimate of variable consideration for retroactive revenue adjustments due to settlement of audits, reviews, and investigations. Generally, the Institute bills patients and third-party payors several days after the services are performed and/or the patient is discharged from the facility.

Revenue is recognized as performance obligations are satisfied. Performance obligations are determined based on the nature of the services provided by the Institute. Revenue for performance obligations satisfied over time is recognized based on actual charges incurred in relation to total expected (or actual) charges. The Institute believes that this method provides a reasonable representation of the transfer of services over the term of the performance obligation based on the inputs needed to satisfy the obligation. The Institute measures the performance obligation for inpatient services from admission into the hospital to the point when it is no longer required to provide services to that patient, which is generally at the time of discharge. The Institute's performance obligations related to outpatient services are generally satisfied over a period of one day or less. Revenue for performance obligations satisfied at a point in time is recognized when goods or services are provided, and the Institute does not believe it is required to provide any additional goods or services to the patient. Since all performance obligations relate to contracts with a duration of less than one year, the Institute has elected to apply the optional exemption in ASC 606-10-50-14(a) and, therefore, is not required to disclose the aggregate amount of the transaction price allocated to performance obligations that are unsatisfied or partially unsatisfied at the end of the reporting period. The performance obligations for these contracts will be satisfied when the patient is discharged from the hospital, which generally occurs within days or weeks of the end of the reporting period.

The Institute determines the transaction price based on standard charges for goods and services provided, reduced by contractual adjustments provided to third-party payors, discounts provided to uninsured patients in accordance with the Institute's policy, and/or implicit price concessions provided to uninsured patients. Estimates of contractual adjustments and discounts are based on contractual agreements, its discount policy (or policies), and historical experience. Estimates of implicit price concessions are based on historical collection experience with this class of patients. Any revision in estimates is recognized in the period in which the estimates are revised. Amounts are billed to patients and third-party payors after the performance obligation is satisfied and payment is expected within a reasonable period of time, though settlement may occur well after the healthcare service is provided. See note 11.

Consistent with the Institute's mission, care is provided to patients regardless of their ability to pay. The Institute has determined it has provided implicit price concessions to uninsured patients and patients with other uninsured balances (e.g. copays and deductibles). The implicit price concessions included in estimating the transaction price represent the difference between amounts billed to patients and the amounts the Institute expects to collect based on its collection history with those patients. Patients who meet the Institute's criteria for charity care are provided care without charge or at amounts less than established rates. The Institute has determined that it has provided sufficient implicit price concessions for these accounts. Price concessions, including charity care, are not reported as revenue.

(n) Research Revenue and Expense

Research revenues include research grants and contracts, license and royalty, and contribution-related income.

Direct and Indirect Research Revenue and Related Expenses:

Research revenues from grants and contracts are accounted for either as an exchange transaction or contribution.

Revenue related to exchange transactions is recognized as the costs are incurred for the purpose specified by the grantor or in accordance with the terms of the agreement. Amounts received related to exchange transactions in advance of incurring the related expenditures are recorded as research advances in the accompanying consolidated balance sheets.

Contributions are either conditional or unconditional based on the award terms. A contribution is considered conditional if the award contains both a specific barrier that must be overcome for the Institute to be entitled to the funds and a right of return of the grantors obligation to provide the promised funds. If both conditions are not present, the award is unconditional. Unconditional contributions are recognized as restricted revenue and released upon expenditure. Contracts that include both a barrier and a right of return (or right of release) are considered conditional contributions and revenue is recognized once the conditions are met.

Performance obligations related to research grants, contracts, gifts and contributions are satisfied over time and recognized using an input method for costs incurred as the research services are performed by the Institute. The transaction price for research revenues related to grants and contracts is based on the contracted award received from third-parties.

Indirect costs related to certain government grants and contracts are reimbursed at fixed rates negotiated with the government agencies.

Royalty and License Revenue:

Royalty and license revenue results from the development and commercialization of new technologies. For the year ended September 30, 2018, royalty and license revenue was initially recorded as research advances on the consolidated balance sheet until expended, when it was then recognized as royalty and license revenue.

Upon the adoption of ASU 2014-09 on October 1, 2018, royalty and license related revenues are recorded when the sales occur.

Performance obligations related to license and royalties are satisfied at a point in time when the Institute transfers the rights to the Institute's intellectual property and as associated variable consideration is no longer constrained. There were no unsatisfied performance obligations related to license and royalties as of September 30, 2019.

The transaction price for research revenues related to license and royalties is determined based on contractual prices negotiated with the commercial third-parties.

The Institute records milestone payments when performance obligation is satisfied.

In accordance with the Institute's policy, royalty and license revenue are distributed to the inventor, the laboratory, and department where the research was performed, and the Institute. The portion distributed to the inventor, laboratory, and department is recorded as research expense on the consolidated statements of operations and changes in net assets when expended. The portion distributed to the Institute is recorded on the consolidated statements of operations and changes in net assets as other operating revenues.

In accordance with ASC 958, *Presentation of Financial Statements for Not-for-Profit-Entities*, for income designated for future research expenses pursuant to the overall mission of the Institute, the Institute designates a portion of the revenues as board-designated net assets without donor restriction. The funds related to board designated net assets without donor restrictions are included in the non-operating gain (loss) section of the consolidated statements of operations and changes in net assets as royalty income and will be appropriated for expenses incurred related to research programs for innovative cancer treatment.

(o) Excess of Revenue over Expenses

The consolidated statements of operations and changes in net assets include the excess of revenues over expenses as the performance indicator. Changes in net assets without donor restrictions which are excluded from the excess of revenues over expenses include changes in net assets related to the pension adjustment, net assets released from restrictions for capital, and net unrealized gains or losses on endowment funds.

(p) Income Taxes

The Internal Revenue Service has ruled that the Institute and its subsidiaries qualify as tax exempt organizations under Section 501(c)(3) of the Internal Revenue Code, and are exempt from federal income taxes on related income. The Institute is considered a public charity, qualifying under IRC Section 170(b)(1)(A)(vi), which is an organization that receives substantial support from grants, governmental units, and the public. Dana-Farber Trust, Inc. and Dana-Farber, Inc. are not private foundations, but qualify for public charity status under IRC Section 509(a)(3), as Type I supporting organizations. Dana-Farber, Inc. has a nominal amount of unrelated business income that is not material to the consolidated financial statements. Dana-Farber Cancer Care Network, Inc. has been determined to be a public charity under IRC Section 509(a)(2). The Institute is considered a hospital facility as defined under the Affordable Care Act, because it is subject to hospital licensure requirements in Massachusetts. As a result, the Institute monitors its compliance with the new requirements under Section 501(r) of the Internal Revenue Code for tax-exempt hospitals, although it does not depend on IRC Section 170(b)(1)(a)(iii) for its public charity status but qualifies as a public charity under IRC Section 170(b)(1)(a)(vi) as a publicly supported organization.

(q) Subsequent Events

The Institute evaluates the impact of subsequent events, which are events that occur after the consolidated balance sheet date but before the consolidated financial statements are issued, for potential recognition in the consolidated financial statements as of the balance sheet date. For the year ended September 30, 2019, the Institute evaluated the impact of subsequent events through January 24, 2020, representing the date which the consolidated financial statements were issued. No events have occurred that require disclosure in or adjustment to the consolidated financial statements.

(Dollar amounts in thousands)

(3) Investments

Investments, which are reported at fair value or using the equity method, consisted of the following as of September 30:

		2019	2018
Donor-restricted for research and capital	$	548,057	535,670
Donor-restricted endowment corpus		211,849	198,411
Accumulated realized and unrealized appreciation on endowment funds		96,606	96,304
Board-designated for various purposes		553,225	485,283
	$	1,409,737	1,315,668
U.S. government money market funds	$	1,106	7,721
U.S. government securities		98,700	92,860
U.S. equity securities		91,841	80,377
U.S. equity mutual funds		170,369	161,398
International equity securities		41,390	41,301
International equity mutual funds		270,886	278,592
Alternative investments		735,445	653,419
	$	1,409,737	1,315,668

Investment income consisted of the following for the years ended September 30:

		2019	2018
Investment income, net	$	7,749	5,979
Realized and unrealized gains		79,881	126,485
	$	87,630	132,464

(Dollar amounts in thousands)

Investment return was reported as follows in the consolidated statements of operations and changes in net assets for the years ended September 30:

		2019	2018
Excess of revenues over expenses:			
Investment gains, net (nonoperating)	$	30,591	47,250
Changes in net assets with donor restrictions:			
Interest and dividend income, net and realized and unrealized gains, net		57,039	85,214
	$	87,630	132,464

(4) Liquidity and Availability of Resources

Financial assets available within one year of the balance sheet date for general expenditures such as operating expenses and construction costs not financed with debt are as follows:

		2019	2018
Cash and cash equivalents	$	165,479	196,040
Patient accounts receivable		149,290	114,134
Research receivables		55,163	54,108
	$	369,932	364,282

In addition, the Institute maintains unrestricted investments of $553,225 and $485,283 as of September 30, 2019 and 2018, respectively, that can be liquidated within one year if needed, subject to liquidity of underlying investments.

In the event of an unanticipated liquidity need, the Institute could also draw upon a $60,000 available line of credit.

(5) Fair Value Measurements

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

Level 1: Quoted prices (unadjusted) in active markets that are accessible at the measurement date for identical assets or liabilities. The fair value hierarchy gives the highest priority to Level 1 inputs.

Level 2: Observable inputs that are based on inputs not quoted in active markets, but corroborated by market data.

Level 3: Unobservable inputs are used when little or no market data is available. The fair value hierarchy gives the lowest priority to Level 3 inputs.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. In determining fair value, the Institute utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible. The Institute also considers counterparty credit risk in its assessment of fair value.

Financial assets and liabilities carried at fair value as of September 30, 2019, are classified in the table below in one of the three categories as described above:

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements

September 30, 2019 and 2018

(Dollar amounts in thousands)

	Level 1	Level 2	Level 3	Fair value investments	Equity method investments	Total
Investments:						
U.S. government money market funds	$ 1,106	—	—	1,106	—	1,106
U.S. government securities	98,700	—	—	98,700	—	98,700
U.S. equity securities	91,841	—	—	91,841	—	91,841
U.S. equity mutual funds	25,296	—	—	25,296	—	25,296
International equity securities	41,390	—	—	41,390	—	41,390
International equity mutual funds	45,014	—	—	45,014	—	45,014
Alternative investments	—	—	—	—	735,445	735,445
	$ 303,347	—	—	303,347	735,445	1,038,792
Investments at net asset value						370,945
Total investments						$ 1,409,737
Assets whose use is limited by indenture agreement or other (classified as other assets):						
U.S. government securities	$ 10	—	—	10	—	10
U.S. government money market funds	1,137	—	—	1,137	—	1,137
Bank deposit account	1,000	—	—	1,000	—	1,000
U.S. corporate bond mutual fund	3,000	—	—	3,000	—	3,000
	$ 5,147	—	—	5,147	—	5,147
Defined benefit plan assets:						
U.S. government money market fund	$ 1,492	—	—	1,492	—	1,492
U.S. government mutual funds	5,621	—	—	5,621	—	5,621
U.S. corporate bond mutual fund	2,226	—	—	2,226	—	2,226
U.S. equity mutual funds	277	—	—	277	—	277
International equity mutual funds	1,492	—	—	1,492	—	1,492
	$ 11,108	—	—	11,108	—	11,108
Investments at net asset value						24,247
Total defined benefit plan assets						$ 35,355
Liabilities:						
Interest rate swap agreements	$ —	61,650	—	61,650	—	$ 61,650

(Dollar amounts in thousands)

Financial assets and liabilities carried at fair value as of September 30, 2018, are classified in the table below in one of the three categories as described above:

	Level 1	Level 2	Level 3	Fair value investments	Equity method investments	Total
Investments:						
U.S. government money market funds	$ 7,721	—	—	7,721	—	7,721
U.S. government securities	92,860	—	—	92,860	—	92,860
U.S. equity securities	80,377	—	—	80,377	—	80,377
U.S. equity mutual funds	23,003	—	—	23,003	—	23,003
International equity securities	41,301	—	—	41,301	—	41,301
International equity mutual funds	52,485	—	—	52,485	—	52,485
Alternative investments	—	—	—	—	653,419	653,419
	$ 297,747	—	—	297,747	653,419	951,166
Investments at net asset value						364,502
Total investments						$ 1,315,668
Assets whose use is limited by indenture agreement or other (classified as other assets):						
U.S. government securities	$ 8,982	—	—	8,982	—	8,982
U.S. government money market funds	5,904	—	—	5,904	—	5,904
Bank deposit account	1,000	—	—	1,000	—	1,000
U.S. corporate bond mutual fund	3,000	—	—	3,000	—	3,000
	$ 18,886	—	—	18,886	—	18,886
Defined benefit plan assets:						
U.S. government money market fund	$ 331	—	—	331	—	331
U.S. government mutual funds	3,528	—	—	3,528	—	3,528
U.S. corporate bond mutual fund	3,029	—	—	3,029	—	3,029
U.S. equity mutual funds	266	—	—	266	—	266
International equity mutual funds	722	—	—	722	—	722
	$ 7,876	—	—	7,876	—	7,876
Investments at net asset value						27,942
Total defined benefit plan assets						$ 35,818
Liabilities:						
Interest rate swap agreements	$ 34,458	—	—	34,458	—	$ 34,458

(Dollar amounts in thousands)

The Institute's alternative investments, excluding alternative investments in the defined benefit plan, are reported using the equity method of accounting (see note 2).

The following is a description of the Institute's valuation methodologies for assets measured at fair value. Fair value for Level 1 is based upon quoted market prices. Fair value for Level 2 is based on quoted prices for similar instruments in active markets, quoted prices for identical, or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market, or can be corroborated by observable market data for substantially the full term of the assets. Inputs are obtained from various sources, including market participants, dealers, and brokers.

There were no significant transfers between Levels 1 and 2 during the years ended September 30, 2019 and 2018, respectively.

The following tables include a summary of fair values and redemption features related to investments (excluding split interest agreements) for which estimated fair value was based upon NAV for the years ended September 30, 2019 and 2018:

	2019		
	NAV	**Redemption frequency**	**Redemption notice periods**
International equity mutual funds	$ 225,872	Weekly, semi-monthly, monthly	7-60 days
U.S. equity mutual funds	139,542	Quarterly	60 days
	365,414		
Charitable gift annuities	5,531		
	$ 370,945		

	2018		
	NAV	**Redemption frequency**	**Redemption notice periods**
International equity mutual funds	$ 226,107	Weekly, semi-monthly, monthly	7-60 days
U.S. equity mutual funds	132,386	Quarterly	60 days
	358,493		
Charitable gift annuities	6,009		
	$ 364,502		

(Dollar amounts in thousands)

There were no unfunded commitments associated with investments for which fair value was based upon NAV.

(6) Property, Plant, and Equipment

Property, plant, and equipment consisted of the following as of September 30:

		2019	2018
Land	$	7,640	7,640
Buildings and improvements		1,401,200	1,320,606
Equipment		415,398	397,757
Construction-in-progress		101,842	53,891
		1,926,080	1,779,894
Less accumulated depreciation		912,517	823,251
	$	1,013,563	956,643

Included within the table above in buildings and improvements are assets recorded under capital leases of $45,859 and $36,748 as of September 30, 2019 and 2018, respectively, together with accumulated depreciation of $19,594 and $17,840 as of September 30, 2019 and 2018, respectively. During the years ended September 30, 2019 and 2018, retirements of fully depreciated equipment assets were undertaken, representing $635 and $639 of equipment cost and associated accumulated depreciation, respectively.

(7) Contributions

Unrestricted contributions and restricted contributions used on a current basis for research are recorded as operating revenues. Other restricted contributions are recorded as additions to net assets with donor restrictions. Contributions received and pledged (at net discounted value) were as follows for the years ended September 30:

		2019		
		Cash	Pledges	Total
Unrestricted contributions and bequests	$	82,696	—	82,696
Net assets with donor restrictions		81,783	83,232	165,015
Research gifts for current use		8,199	—	8,199
	$	172,678	83,232	255,910

(Dollar amounts in thousands)

		2018		
		Cash	**Pledges**	**Total**
Unrestricted contributions and bequests	$	77,711	—	77,711
Net assets with donor restrictions		76,252	73,049	149,301
Research gifts for current use		8,430	—	8,430
	$	162,393	73,049	235,442

Of the total contributions raised during the years ended September 30, 2019 and 2018, the Jimmy Fund raised $97,750 and $94,102, respectively, in restricted and unrestricted contributions.

In addition, the Institute was awarded a total of $73,706 and $44,096 in foundation grants for the years ended September 30, 2019 and 2018, respectively.

Gifts in kind totaling $1,315 and $1,553 were recorded by the Institute as both revenue and expense for the years ended September 30, 2019 and 2018, respectively.

Direct fundraising expenses were $40,535 and $36,143 for the years ended September 30, 2019 and 2018, respectively, and were included as a component of general, administrative, and plant expenses on the consolidated statements of operations and changes in net assets.

Contributions receivable as of September 30 were as follows:

		2019	**2018**
Amounts due in less than one year for use in operations	$	35,417	22,930
Amounts due in less than one year for capital use		1,358	1,440
Amounts due in one to five years		66,207	32,721
Amounts due in more than five years		50	10,967
		103,032	68,058
Less discount to net present value		2,399	2,419
Less allowance for uncollectible pledges		2,500	2,500
	$	98,133	63,139

(Dollar amounts in thousands)

(8) Long-Term Debt and Capital Lease Obligations

Long-term debt consisted of the following as of September 30:

	2019	2018
Massachusetts Health and Educational Facilities Authority (MHEFA) revenue bonds:		
Series K	$ —	75,185
Series L	185,000	185,000
Massachusetts Development Finance Agency (MDFA) revenue bonds:		
Series M	50,860	50,860
Series N	233,195	233,195
Series O	51,130	—
Capital lease obligations (note 9)	29,638	22,108
	549,823	566,348
Unamortized premium	52,365	45,597
Unamortized cost of issuance	(4,855)	(4,539)
	597,333	607,406
Less current portion	6,102	5,741
	$ 591,231	601,665

(a) Bonds Payable

On May 22, 2008, the Institute issued, through MHEFA, successor by merger to MDFA, $107,320 Revenue Bonds, Dana-Farber Cancer Institute Issue, Series K (2008). The Series K bonds are tax-exempt bonds. The proceeds of the bonds were used to: (i) pay bridge financing incurred by the Institute to refund the MHEFA Revenue Bonds, Dana-Farber Cancer Institute Issue, Periodic Auction Reset Securities Series H (2004), (ii) pay fees in connection with the termination of certain swap agreements, (iii) fund a required Debt Service Reserve Fund and (iv) pay an amount, together with funds provided by the Institute, to fund the cost of issuance of the Series K bonds. The Series K bonds bear interest at fixed rates ranging from 4.00% to 5.25%, and mature in varying annual amounts from 2008 to 2037. The bonds were issued at an original premium of $4,170, which is amortized over the related terms.

On May 22, 2008, the Institute issued, through MHEFA, $185,000 Variable Rate Revenue Bonds, Dana-Farber Cancer Institute Issue, Series L (2008) (Series L-1 and L-2). The Series L bonds are tax-exempt bonds. The proceeds of the bonds were used to: (i) pay bridge financing incurred by the Institute to refund the MHEFA Revenue Bonds, Dana-Farber Cancer Institute Issue, Periodic Auction

Reset Securities Series I (2007), and MHEFA Capital Asset Program Loans Series J, (ii) pay MHEFA Capital Asset Program Loans Pool M, and (iii) pay an amount, together with funds provided by the Institute, to fund the cost of issuance of the Series L bonds.

On June 1, 2012, the Institute served a notice of change in mode and mandatory tender to the holders of its Series L-2 bonds. On July 2, 2012, upon such mandatory tender and conversion, the Series L-2 bonds were reissued in two subseries comprised of $57,500 Series L-2A bonds and $35,000 Series L-2B bonds which were purchased by Century Subsidiary Investments, Inc. III and TD Bank, N.A., respectively. On July 1, 2015, the Institute served a notice of change in mode and mandatory tender to the holders of its Series L-1 bonds. On August 3, 2015, upon such mandatory tender and conversion, the Series L-1 bonds were purchased by DNT Asset Trust, a wholly owned subsidiary of JPMorgan Chase Bank, N.A.

The Series L bonds bear interest at an average variable rate (2.98% and 2.43% for the years ended September 30, 2019 and 2018, respectively), and mature in varying annual amounts from 2028 to 2046. The Series L-1 and L-2 bonds were collateralized by an irrevocable direct pay letter of credit issued by JPMorgan Chase Bank, N.A. that terminated on August 3, 2015 and July 2, 2012, respectively, upon completion of the mandatory tender. The reissued Series L bonds are not required to be collateralized by an irrevocable direct pay letter of credit when in the bank purchase mode.

On August 7, 2013, the Institute issued, through MDFA, $50,860 Revenue Bonds, Dana-Farber Cancer Institute Issue, Series M (2013). The Series M bonds are federally taxable bonds. The proceeds of the bonds were used to: (i) renovate and fit out approximately 154,100 rentable square feet of leased research space in the Longwood Center, which will be used for high-tech research laboratories, (ii) other corporate purposes, and (iii) pay an amount needed to fund the cost of issuance of the Series M Bonds. The Series M bonds bear interest at a fixed rate of 5.35% and mature December 1, 2028. The bonds were issued at par.

On June 23, 2016, the Institute issued, through MDFA, $233,195 Revenue Bonds, Dana-Farber Cancer Institute Issue, Series N (2016). The Series N bonds are tax-exempt bonds, and were used in July 2017 to: (i) finance the acquisition of approximately 203,000 square feet of research space in the Longwood Center, (ii) finance the partial fit-out of an additional 50,983 square feet of research space under a separate lease at the Longwood Center, (iii) replace a 20-year old HVAC system, (iv) relocate and reconstruct the Institute’s Cell Manipulation Core Facility, (v) payment of cost of issuance and interest during the purchase and construction periods and (vi) various other capital projects. The Series N bonds bear interest at fixed rates of 5.00%, and mature in varying annual amounts from 2029 to 2046. The bonds were issued at an original premium of $48,591, which is amortized over the related terms.

On September 3, 2019, the Institute issued, through MDFA, $51,130 Revenue Bonds, Dana-Farber Cancer Institute Issue, Series O (2019) bonds. The Series O bonds are tax-exempt bonds. The proceeds of the bonds were used to: (i) retire the Series K bonds along with funds released from the series K debt service reserve fund and (ii) payment of cost of issuance of the Series O bonds. The Series O bonds bear interest at a fixed rate of 5.0% and mature in varying annual amounts from 2019 to 2035. The bonds were issued at an original premium of $9,125, which is amortized over the related terms. The extinguishment of the Series K bonds resulted in a loss of $211.

(Dollar amounts in thousands)

The Series K, Series L, Series M, Series N, and Series O bonds are equally and ratably collateralized by a lien on the unrestricted gross receipts of the Institute, and a mortgage granted upon the Yawkey Center for Cancer Care, the Richard A. and Susan F. Smith Research Laboratories, the Dana Building, and the Louis B. Mayer Research Laboratories.

Effective September 1, 2015, the Institute entered into a bank credit agreement for a revolving line of credit commitment in the amount of $40,000 for working capital purposes. In 2019, the credit agreement was amended to increase the commitment to $60,000 and extend the expiration date to April 30, 2021. No amounts were outstanding under the current or previous credit agreements as of September 30, 2019 and 2018.

The Institute is required to comply with certain financial covenants under its long-term debt agreements.

Scheduled maturities and sinking fund requirements for the next five fiscal years are as follows:

2020	$	4,755
2021		4,295
2022		4,515
2023		4,745
2024		4,985

Interest cost on long-term debt and capital lease obligations totaled $23,073 and $22,238 for the years ended September 30, 2019 and 2018, respectively. Of this, $20,995 and $20,067 was reported as interest expense, and $2,079 and $2,171 was capitalized as part of construction-in-progress for the years ended September 30, 2019 and 2018, respectively. Cash paid for interest amounted to $26,108 and $23,489 for the years ended September 30, 2019 and 2018, respectively.

(b) Interest Rate Swaps

In connection with the issuance of the 2008 Series L bonds, the Institute amended two interest rate swap agreements of $75,000 each with Morgan Stanley Capital Services, Inc. Under these agreements, the Institute effectively converted this variable rate debt to a fixed rate basis of 3.84% for the term of the bonds.

The Institute reported the fair value of interest rate swap agreements as $61,650 and $34,458 in other liabilities on the consolidated balance sheets as of September 30, 2019 and 2018, respectively. The Institute reported the change in the fair value of the interest rate swap agreements as a nonoperating loss of $27,192 and a nonoperating gain of $11,797 in the accompanying consolidated statements of operations and changes in net assets for the years ended September 30, 2019 and 2018, respectively.

(Dollar amounts in thousands)

The valuation of the interest rate swaps is determined using widely accepted valuation techniques, including discounted cash flow analysis on the expected cash flows of each derivative. This analysis reflects the contractual terms of the derivatives, including the period to maturity, and uses observable market-based inputs, including interest rate curves and implied volatilities.

(c) Capital Lease Obligations

The Institute has two capital leases for certain leased spaces in outpatient satellite clinics. The capital lease that expires in 2030 bears interest at an average variable rate of 5.54% and 5.35% for the years ended September 30, 2019 and 2018, respectively. The capital lease that expires in 2028 bears interest at a fixed rate of 4.75%. Interest expense related to the capital leases was $1,130 and $1,193 for the years ended September 30, 2019 and 2018, respectively.

(9) Leases

The Institute has noncancelable capital and operating leases for certain buildings and equipment. Rent expense under these operating and other lease contracts approximated $54,000 in 2019 and $50,000 in 2018. Minimum future lease commitments under noncancelable leases are as follows:

	Capital leases	Operating leases
2020	$ 2,732	48,020
2021	2,865	45,998
2022	3,250	43,541
2023	3,306	41,326
2024	3,333	37,586
Thereafter	24,475	267,655
Total minimum lease payments	39,961	$ 484,126
Less amount representing interest	(10,323)	
Capital lease obligations	$ 29,638	

(Dollar amounts in thousands)

(10) Net Assets With Donor Restrictions

Net assets with donor restrictions are restricted for the following as of September 30:

		2019	2018
Subject to expenditure for specific purpose:			
Research	$	661,040	603,743
Capital		1,673	3,188
Realized and unrealized gains on perpetual gifts		96,606	96,304
		759,319	703,235
Endowments:			
Perpetual in nature			
Unrestricted as to use of income	$	7,596	7,596
Restricted as to use of income		208,818	197,678
		216,414	205,274
Total net assets with donor restrictions	$	975,733	908,509

During the years ended September 30, 2019 and 2018, net assets of $133,952 and $123,427, respectively, were released from donor restrictions to fund research. In addition, $756 and $785, respectively, were released to fund operating needs in accordance with the annual spending policy amount on donor-restricted investments described in note 2. These amounts are included in research revenues and other operating revenues, respectively.

For the years ended September 30, 2019 and 2018, the Institute transferred $1,262 and $6,152, respectively, to BWH, Harvard University and other institutions in accordance with the terms of certain gifts.

The Institute's endowments consist of numerous individual funds established for a variety of purposes. These endowments consist solely of donor-restricted endowment funds. As required by GAAP, net assets associated with endowment funds are classified and reported based on the existence or absence of donor-imposed restrictions.

The Institute requires the preservation of the fair value of the original gift as of the gift date of the donor-restricted endowment funds, absent explicit donor stipulations to the contrary. As a result of this interpretation, the Institute classifies as donor restricted endowment funds (a) the original value of gifts donated to the permanent endowment, (b) the original value of subsequent gifts to the permanent endowment, and (c) accumulations to the permanent endowment made in accordance with the direction of the applicable donor gift instrument at the time the accumulation is added to the fund. The Institute considers the following factors in making a determination to appropriate or accumulate donor-restricted endowment funds: (a) the duration and preservation of the fund, (b) the purpose of the Institute and the donor-restricted endowment fund, (c) general economic conditions, (d) the possible effect of inflation and deflation, (e) the expected total return from income and the appreciation of investments, (f) the investment policies of the Institute, and (g) other resources of the Institute.

(Dollar amounts in thousands)

Endowment net asset composition by type of fund as of September 30, 2019, consisted of the following:

		Purpose restricted	Perpetually restricted	Total
Donor-restricted endowment funds	$	96,606	216,414	313,020

For the year ended September 30, 2019, the Institute had the following endowment-related activities:

		Purpose restricted	Perpetually restricted	Total
Endowment net assets at October 1, 2018	$	96,304	205,274	301,578
Investment return:				
Investment income, net		3,252	—	3,252
Net realized and unrealized gains on investments		15,202	—	15,202
Total investment return		18,454	—	18,454
Contributions to perpetual endowment		—	11,140	11,140
Amounts appropriated for expenditure/transfer		(18,152)	—	(18,152)
Total change in endowment funds		302	11,140	11,442
Endowment net assets at September 30, 2019	$	96,606	216,414	313,020

Endowment net asset composition by type of fund as of September 30, 2018, consisted of the following:

		Purpose restricted	Perpetually restricted	Total
Donor-restricted endowment funds	$	96,304	205,274	301,578

(Dollar amounts in thousands)

For the year ended September 30, 2018, the Institute had the following endowment-related activities:

		Purpose restricted	Perpetually restricted	Total
Endowment net assets at October 1, 2017	$	83,262	192,986	276,248
Investment return:				
Investment income, net		1,120	—	1,120
Net realized and unrealized gains on investments		29,011	—	29,011
Total investment return		30,131	—	30,131
Contributions to perpetual endowment		—	12,288	12,288
Amounts appropriated for expenditure/transfer		(17,089)	—	(17,089)
Total change in endowment funds		13,042	12,288	25,330
Endowment net assets at September 30, 2018	$	96,304	205,274	301,578

The overall financial objectives of the Institute are to provide a sustainable and increasingly upward trend in the endowment distribution dollars to support the annual operating budget, to preserve and enhance the real (inflation-adjusted) purchasing power of the Institute, and to provide support for capital investment needs as they arise.

The long-term investment objectives of the Institute are to attain an inflation-adjusted or real total return (net of investment management fees) at least equal to the Institute's spending rate, as measured over a full market cycle (or rolling five- to seven-year periods); achieve annualized returns in excess of the strategic policy portfolio blended benchmark, as measured over a full market cycle; and outperform the median return of a pool of endowment funds with broadly similar investment objectives and policies.

From time to time, the fair value of assets associated with individual donor-restricted endowment funds may fall below the level that the donor requires the Institute to retain as a fund of perpetual duration. There are no deficiencies of this nature as of September 30, 2019 and 2018.

(11) Revenue Related to Contracts with Customers

Patient Service Revenue

The Institute has a reimbursement agreement with various Massachusetts Commercial insurance companies that provide for product-specific payment rates. The Institute also participates in the Medicare Program. This program provides outpatient reimbursement based on Ambulatory Payment Classifications. Cancer centers were granted a hold harmless exemption that allows for a final settlement based on a percentage of actual outpatient costs incurred. Inpatient reimbursement is limited to the lower of cost or a fixed target rate per discharge. The Institute also has an agreement with the Commonwealth of Massachusetts, under the Medicaid program, which provides a pre-determined reimbursement per inpatient discharge and a per encounter amount for outpatient services.

(Dollar amounts in thousands)

Laws and regulations governing the Medicare and Medicaid programs are complex and subject to interpretation. As a result, there is a possibility that recorded estimates will change by a material amount in the future. The Institute believes it is in compliance with all applicable laws and regulations and is not aware of any pending or threatened investigations involving allegations of potential wrongdoing. While no such regulatory inquiries have been made, compliance with such laws and regulations can be subject to future government review and interpretation, as well as significant regulatory action, including fines, penalties, and exclusion from the Medicare and Medicaid programs.

As described in note 2(m), the transaction price for the Institute's healthcare services is variable due to the existence of price concessions due to various adjustments with insurance, governmental payors, and self-pay patients. The Institute recorded changes in estimates related to prior year settlements and denials which increased net patient service revenue by $11,283 and $14,926 in 2019 and 2018, respectively.

The composition of net patient service revenues for the years ended September 30 are as follows:

	2019	2018
Medicare	31 %	31 %
Medicaid	5	6
Blue Cross	22	21
Harvard Pilgrim Health care	10	11
Commercial and other	31	30
Patients	1	1
	100 %	100 %

(Dollar amounts in thousands)

The Institute grants credit without collateral to its patients, most of whom are local residents and are insured under third party payor agreements. The mix of receivables from patients and third party payors was as follows as of September 30:

	2019	2018
Medicare	30 %	31 %
Medicaid	10	11
Blue Cross	18	18
Harvard Pilgrim Health care	5	6
Commercial and other	32	30
Patients	5	4
	100 %	100 %

Research Revenues

The composition of research revenues for the years ended September 30 are as follows:

		2019	2018
Federal grants and contracts revenue	$	180,696	174,006
Non federal grants and contracts revenue		155,876	127,123
License and royalty revenue		64,846	29,285
Gift revenue		141,387	127,553
Total research revenue	$	542,805	457,967

Unsatisfied performance obligations as of September 30, 2019 approximate $265,000.

(Dollar amounts in thousands)

Research receivables and research advances related to grants and contracts are comprised of the following balances as of September 30:

		2019	2018
Research receivables:			
Exchange transaction under 606	$	19,423	15,706
Conditional contributions under ASU 2018-08		35,740	38,402
Total research receivables	$	55,163	54,108
Research advances:			
Exchange transaction under 606	$	92,511	83,682
Conditional contributions under ASU 2018-08		27,172	29,643
Royalties		—	30,403
Total research advances	$	119,683	143,728

Other Operating Revenues

Other operating revenue includes among other things, management services, rent, royalty and other ancillary Institute services such as parking, cafeteria and gift shop.

Unrestricted Contributions and Bequests

Unrestricted contributions and bequests represent donations that are given to support the Institute's mission.

(12) Charity Care

(a) Community Benefit

The Institute provides a wide variety of services to the community in order to ensure access to appropriate care for populations in need. The Institute supports services which target not only the general population, but also particular populations with special health care needs, including the poor, the elderly, children, and minority populations. Supported services include various clinics, health screening programs, health education programs, and support area groups operated in the local area. The Institute works actively with other service providers to ensure the development of an effective community health network. The Institute also participates in activities designed to foster a vital local economic and civic environment.

(b) Uncompensated Care

The Commonwealth of Massachusetts operates a "health safety net" to reimburse hospitals for the cost of uncompensated care, defined as charity care, and bad debts associated with emergency services. Amounts are paid to the health safety net based on a percentage of assessed payor charges.

Payments from the health safety net are determined on a per visit or discharge basis according to Medicare reimbursement rates adjusted for overall shortfalls in the statewide funding for the health safety net.

(c) Charity Care

The Institute provides care without charge or at amounts less than established rates to patients who meet certain criteria under the Institute's charity care policies. Because the Institute does not pursue collection of amounts determined to qualify as charity care, they are not reported as revenue. During the years ended September 30, 2019 and 2018, the Institute provided $11,200 and $11,371, respectively, at standard charges of charity care. The cost of this charity care was $4,079 and $4,305. In addition, the Institute had net payments to the Commonwealth of Massachusetts "health safety net" of $17,559 and $19,017 for the years ended September 30, 2019 and 2018, respectively. The equivalent percentage of charity care patients to all patients served was approximately 1% in 2019 and 2018. Such amounts and percentages are determined using charges foregone based on established rates. The cost of charity care is estimated using the cost-to-charge ratio for the Institute.

(13) Pension Plans

(a) Defined Contribution Plan

Substantially all employees are covered by a defined contribution plan to which the Institute contributes a fixed percentage of employees' salaries. The amounts contributed for the years ended September 30, 2019 and 2018, were $32,441 and $30,356, respectively.

(b) Defined Benefit Pension Plan

(i) Obligations and Funded Status

The Institute has a defined benefit pension plan, which was frozen for years of service credited through June 30, 1992. The Board of Trustees of the Institute adopted a resolution to freeze the salary component of the defined benefit pension plan effective March 31, 2010. On September 30, 2010, as a result of this resolution, the plan liabilities were remeasured. The elimination of future salary increases was calculated as a prior service credit related to these employees of $3,295 and is being amortized over the future working lifetime of the current active population.

Unrecognized actuarial losses of $23,152 and $18,577 are included in net assets without restrictions as of September 30, 2019 and 2018, respectively. The actuarial loss included in net assets without restrictions and expected to be recognized in net periodic pension cost during the year ending September 30, 2020 is $746.

(Dollar amounts in thousands)

The following table summarizes information about the funded status of the plan as of September 30:

		2019	2018
Projected benefit obligation at beginning of year	$	38,008	41,313
Interest cost		1,452	1,402
Net benefit payments and transfers		(1,569)	(2,536)
Actuarial (gains) losses		4,081	(2,171)
Projected benefit obligation at end of year	$	41,972	38,008

		2019	2018
Fair value of plan assets at beginning of year	$	35,818	36,370
Actual return on plan assets		1,290	2,186
Net benefit payments and expenses		(1,753)	(2,738)
Fair value of plan assets at end of year		35,355	35,818
Funded status of the plan	$	(6,617)	(2,190)

The funded status of the plan is recorded within other liabilities on the consolidated balance sheets.

The measurement date for the Institute's fiscal 2019 consolidated financial statements is September 30, 2019.

The accumulated benefit obligation was $41,972 and $38,008 as of September 30, 2019 and 2018, respectively.

(c) Net Periodic Pension Income

Net periodic pension income consists of the following for the years ended September 30:

		2019	2018
Interest cost	$	1,452	1,402
Service cost		275	285
Expected return on plan assets		(2,456)	(2,496)
Net amortization and deferral		581	661
Net periodic pension income	$	(148)	(148)

(Dollar amounts in thousands)

(d) Assumptions

Assumptions used to measure the projected benefit obligation and net periodic pension cost include the following as of September 30:

	2019	2018
Discount rate (projected benefit obligation)	2.98 %	4.14 %
Discount rate (net periodic pension cost)	4.14	3.62
Expected long-term return on plan assets	7.40	7.40
Average increase in compensation levels	N/A	N/A

The expected rate of return on plan assets was determined based on the expected return of each asset class using a model that estimates returns over at least a 20-year period without regard to current market valuations.

(e) Plan Assets

The Institute's pension plan asset allocations as of September 30, by asset category, are as follows:

	2019	2018
U.S. government money market fund	4 %	1 %
U.S. government mutual funds	16	10
U.S. corporate bond mutual funds	7	8
U.S. equity mutual funds	34	32
International equity mutual funds	23	22
Alternative investments	16	27
	100 %	100 %

Pension plan assets are managed by outside managers with a long-term outlook. Long-term investment results are measured over rolling periods of three to five years. The investment objective for plan assets is to achieve a total annual return, net of fees, that meaningfully exceeds the returns possible in the index markets by investing passively in index funds.

Assets invested in the defined benefit pension plan are reported at fair value. Debt and equity securities with readily determinable values are carried at fair value as determined based on independent published sources. Alternative investments, as described in note 2, are stated at fair value using net asset value as a practical expedient.

(Dollar amounts in thousands)

(f) Contributions

The Institute did not make a contribution to its pension plan during the year ended September 30, 2019. It does not expect to contribute to its pension plan in 2020.

(g) Estimated Future Benefit Payments

Benefit payments are expected to approximate the following:

2020	$	2,554
2021		2,800
2022		2,699
2023		2,788
2024		2,747
2025–2029		11,872

(14) Concentrations of Credit Risk

Financial instruments that potentially subject the Institute to concentration of credit risk consist of cash and cash equivalents, patient accounts receivable, research receivables, contributions receivable, certain investments and interest rate swaps.

The Institute maintains its cash accounts at various financial institutions. As of September 30, 2019, the Institute had cash balances of $165,479 in uninsured accounts. The Institute has not experienced any losses in such accounts and evaluates the creditworthiness of the financial institutions with which it conducts business. Management believes the Institute is not exposed to any significant credit risk with respect to its cash balances.

Contributions receivable are due from multiple donors. The Institute assesses the credit risk for pledges based on history and the financial wherewithal of donors, most of whom are individuals or organizations well known to the Institute.

Investments, which include government and agency securities, stocks and corporate bonds, and private partnerships and other investments are not concentrated in any corporation or industry or with a single counterparty. The reported values of alternative investments may differ significantly from the values that would have been used had a ready market for those securities existed. These instruments may contain elements of both credit and market risk.

The Institute minimizes the credit risk it is exposed to under interest rate swap agreements by monitoring the counterparty credit rating on a monthly basis.

(15) Contingencies

(a) Medical Malpractice

The Institute insures its medical malpractice risks under a claims-made policy issued by a multiprovider captive insurance company, of which the Institute is a 10% owner. Premiums are accrued based on the captive insurance company's experience to date. The Institute provides reserves (in addition to those maintained by its affiliated insurance company) for claims incurred but not reported to the insurance company at the consolidated balance sheet date. These reserves have been estimated by consulting actuaries on a discounted basis using a discount rate of 3% as of September 30, 2019 and 2018. The discounted liability for unasserted claims as of September 30, 2019 and 2018, was $1,399 and $1,335, respectively. The Institute has recorded anticipated insurance recoveries and estimated liabilities for asserted medical malpractice claims of $10,306 and $9,839 as of September 30, 2019 and 2018, respectively and are reported on the consolidated balance sheet as other liabilities.

(b) Legal Matters

The Institute is subject to complaints, claims, and litigation, which have risen in the normal course of business. In addition, the healthcare industry as a whole is subject to numerous laws and regulations of federal, state, and local governments. Compliance with these laws and regulations can be subject to future government review and interpretation, as well as regulatory actions unknown or unasserted at the time. Government investigations and allegations concerning possible violations by healthcare providers of regulations could result in the imposition of significant fines and penalties, as well as significant repayments of previously billed and collected revenue from patient services.

(16) Royalty Monetizations

On July 29, 2016, the Institute executed a Royalty Purchase Agreement with the Canada Pension Plan Investment Board (CPPIB), whereby the Institute will distribute all future royalty payments under three license agreements to CPPIB in return for a $100,000 upfront payment (the payment). The payment was recorded as deferred revenue, a component of other liabilities on the consolidated balance sheet, and will be recognized as income by the Institute when royalty payments are received over the remaining five-year patent duration. Income of $20,206 and $7,024 was recognized during the years ended September 30, 2019 and 2018, respectively. There is $69,472 in deferred revenue as of September 30, 2019.

In 2018 the Institute entered into two monetizations. These were related to PD-L1 Europe and Rydapt. Income of $6,255, related to the Rydapt monetization, was recognized during the year end September 30, 2019. There is $34,000 related to the PD-L1 Europe transaction, and $17,600 related to the Rydapt transaction in deferred revenue as of September 30, 2019.

In 2019 the Institute entered into one monetization. This was related to PD-L1 Japan. There is $34,000 related to the PD-L1 Japan transaction in deferred revenue as of September 30, 2019.

(Dollar amounts in thousands)

Deferred revenue related to royalty monetizations is reported as a component of other liabilities on the consolidated balance sheets.

(17) Functional Expenses

The consolidated statements of operations presents expense by functional classification. The Institute also summarizes its expenses by natural classification. Salaries, supplies and other expenses are classified based on the type of service provided or performed. Fringe benefits are allocated based on salary expense. Depreciation and amortization is allocated based on services supported by the related assets. Interest is allocated by the assets supported by the related debt.

Expenses by both their nature and their function for the year ended September 30, 2019 are as follows:

	Patient Service	Research	General and Administrative	Total
Salaries	$ 199,222	216,686	125,221	541,129
Fringe Benefits	46,222	4,784	28,630	79,636
Supplies and Other	721,258	255,403	222,243	1,198,904
Depreciation and Amortization	45,226	34,510	9,004	88,740
Interest	4,445	16,358	192	20,995
	$ 1,016,373	527,741	385,290	1,929,404

Expenses by both their nature and their function for the year ended September 30, 2018 are as follows:

	Patient Service	Research	General and Administrative	Total
Salaries	$ 179,595	200,490	109,564	489,649
Fringe Benefits	42,135	4,559	25,356	72,050
Supplies and Other	640,648	201,567	191,777	1,033,992
Depreciation and Amortization	44,855	35,803	8,700	89,358
Interest	4,787	15,519	174	20,480
	$ 912,020	457,938	335,571	1,705,529

SUPPLEMENTARY INFORMATION

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES

Consolidating Balance Sheet

September 30, 2019

(In thousands)

Assets		Dana-Farber Cancer Institute, Inc.	Dana-Farber Cancer Care Network, Inc.	Eliminations and Reclassifications	Dana-Farber Cancer Institute, Inc. and Subsidiaries
Current assets:					
Cash and cash equivalents	$	165,435	44	—	165,479
Patient accounts receivable		145,253	4,037	—	149,290
Contributions receivable, current portion		34,275	—	—	34,275
Research receivables		55,163	—	—	55,163
Prepaid expenses and other current assets		151,057	1,045	(43,218)	108,884
Total current assets		551,183	5,126	(43,218)	513,091
Investments		1,409,737	—	—	1,409,737
Property, plant, and equipment, net		1,013,328	235	—	1,013,563
Contributions receivable, less current portion		63,858	—	—	63,858
Other assets		88,991	—	—	88,991
Total assets	$	3,127,097	5,361	(43,218)	3,089,240
Liabilities and Net Assets (Deficiency)					
Current liabilities:					
Accounts payable and accrued expenses	$	130,048	43,610	(43,218)	130,440
Accrued payroll, payroll taxes, and amounts withheld from employee compensation		29,969	—	—	29,969
Current portion of long-term debt and capital leases		6,102	—	—	6,102
Amounts due to third-party payors		49,158	—	—	49,158
Research advances		119,683	—	—	119,683
Total current liabilities		334,960	43,610	(43,218)	335,352
Other liabilities:					
Long-term debt and capital leases, less current portion		591,231	—	—	591,231
Other		256,452	—	—	256,452
Total liabilities		1,182,643	43,610	(43,218)	1,183,035
Net assets (deficiency):					
Without donor restrictions		968,783	(38,311)	—	930,472
With donor restrictions		975,671	62	—	975,733
Total net assets		1,944,454	(38,249)	—	1,906,205
Total liabilities and net assets (deficiency)	$	3,127,097	5,361	(43,218)	3,089,240

See accompanying independent auditors’ report.

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES

Consolidating Statement of Operations

Year ended September 30, 2019

(In thousands)

	Dana-Farber Cancer Institute, Inc.	Dana-Farber Cancer Care Network, Inc.	Eliminations and Reclassifications	Dana-Farber Cancer Institute, Inc. and Subsidiaries
Operating revenues:				
Net patient service revenue	$ 1,263,293	39,698	—	1,302,991
Research revenues	542,767	38	—	542,805
Unrestricted contributions and bequests	82,696	—	—	82,696
Other operating revenues	31,554	—	—	31,554
Total operating revenues	1,920,310	39,736	—	1,960,046
Operating expenses:				
Patient Service				
Direct patient care	920,373	46,329	—	966,702
Depreciation and amortization	45,226	—	—	45,226
Interest	4,445	—	—	4,445
Total patient service expenses	970,044	46,329	—	1,016,373
Research				
Direct research/restricted gifts	446,894	38	—	446,932
Institute supported research	29,941	—	—	29,941
Depreciation and amortization	34,510	—	—	34,510
Interest	16,358	—	—	16,358
Total research expenses	527,703	38	—	527,741
General and administrative				
General and administrative	374,811	1,283	—	376,094
Depreciation and amortization	8,026	978	—	9,004
Interest	192	—	—	192
Total general and administrative expenses	383,029	2,261	—	385,290
Total operating expenses	1,880,776	48,628	—	1,929,404
Operating income (loss)	39,534	(8,892)	—	30,642
Non operating gains/(losses):				
Investment gains, net	30,591	—	—	30,591
Loss on extinguishment of long-term debt	(211)			(211)
Royalty income, net of expenses	23,588			23,588
Interest rate swap agreement:				
Net interest paid	(3,328)	—	—	(3,328)
Change in fair value	(27,192)	—	—	(27,192)
Total non operating gains	23,448	—	—	23,448
Excess (deficit) of revenues over expenses	$ 62,982	(8,892)	—	54,090

See accompanying independent auditors' report.

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES

Consolidating Balance Sheet

September 30, 2018

(In thousands)

Assets		Dana-Farber Cancer Institute, Inc.	Dana-Farber Cancer Care Network, Inc.	Eliminations and Reclassifications	Dana-Farber Cancer Institute, Inc. and Subsidiaries
Current assets:					
Cash and cash equivalents	$	195,981	59	—	196,040
Patient accounts receivable		111,210	2,924	—	114,134
Contributions receivable, current portion		21,870	—	—	21,870
Research receivables		35,966	—	—	35,966
Prepaid expenses and other current assets		144,604	1,566	(34,906)	111,264
Total current assets		509,631	4,549	(34,906)	479,274
Investments		1,315,668	—	—	1,315,668
Property, plant, and equipment, net		955,689	954	—	956,643
Contributions receivable, less current portion		41,269	—	—	41,269
Other assets		68,449	—	—	68,449
Total assets	$	2,890,706	5,503	(34,906)	2,861,303
Liabilities and Net Assets (Deficiency)					
Current liabilities:					
Accounts payable and accrued expenses	$	109,014	34,827	(34,906)	108,935
Accrued payroll, payroll taxes, and amounts withheld from employee compensation		26,790	—	—	26,790
Current portion of long-term debt and capital leases		5,741	—	—	5,741
Amounts due to third-party payors		53,458	—	—	53,458
Research advances		125,586	—	—	125,586
Total current liabilities		320,589	34,827	(34,906)	320,510
Other liabilities:					
Long-term debt and capital leases, less current portion		601,665	—	—	601,665
Other		213,580	—	—	213,580
Total liabilities		1,135,834	34,827	(34,906)	1,135,755
Net assets (deficiency):					
Without donor restrictions		846,458	(29,419)	—	817,039
With donor restrictions:		908,414	95	—	908,509
Total net assets		1,754,872	(29,324)	—	1,725,548
Total liabilities and net assets (deficiency)	$	2,890,706	5,503	(34,906)	2,861,303

See accompanying independent auditors' report.

DANA-FARBER CANCER INSTITUTE, INC. AND SUBSIDIARIES

Consolidating Statement of Operations

Year ended September 30, 2018

(In thousands)

	Dana-Farber Cancer Institute, Inc.	Dana-Farber Cancer Care Network, Inc.	Eliminations and Reclassifications	Dana-Farber Cancer Institute, Inc. and Subsidiaries
Operating revenues:				
Net patient service revenue	$ 1,130,077	36,537	—	1,166,614
Research revenues	457,912	55	—	457,967
Unrestricted contributions and bequests	77,711	—	—	77,711
Other operating revenues	31,094	—	—	31,094
Total operating revenues	1,696,794	36,592	—	1,733,386
Operating expenses:				
Patient Service				
Direct patient care	821,315	41,063	—	862,378
Depreciation and amortization	44,855	—	—	44,855
Interest	4,787	—	—	4,787
Total patient service expenses	870,957	41,063	—	912,020
Research				
Direct research/restricted gifts	373,200	55	—	373,255
Institute supported research	33,361	—	—	33,361
Depreciation and amortization	35,803	—	—	35,803
Interest	15,519	—	—	15,519
Total research expenses	457,883	55	—	457,938
General and administrative				
General and administrative	325,315	1,382	—	326,697
Depreciation and amortization	8,229	471	—	8,700
Interest	174	—	—	174
Total general and administrative expenses	333,718	1,853	—	335,571
Total operating expenses	1,662,558	42,971	—	1,705,529
Operating loss	34,236	(6,379)	—	27,857
Non operating gains/(losses):				
Investment gains, net	47,250	—	—	47,250
Sale of BCD	23,802	—	—	23,802
Interest rate swap agreement:				
Net interest paid	(3,973)	—	—	(3,973)
Change in fair value	11,797	—	—	11,797
Total non operating gains	78,876	—	—	78,876
Excess (deficit) of revenues over expenses	$ 113,112	(6,379)	—	106,733

See accompanying independent auditors' report.