INSTRUCTURE INC
Form 10-Q
August 01, 2018

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended June 30, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission file number: 001-37629

Instructure, Inc.

(Exact name of registrant as specified in its charter)

Delaware	26-3505687
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

6330 South 3000 East, Suite 700

Salt Lake City, UT 84121

(Address of principal executive offices, including zip code)

(800) 203-6755

(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definition of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer		Accelerated filer
Non-accelerated filer	(Do not check if a smaller reporting company)	Smaller reporting company
Emerging growth company		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of July 26, 2018, there were 34,829,305 shares of the registrant's common stock outstanding.

Instructure, Inc.

Quarterly Report on Form 10-Q

For the Quarter Ended June 30, 2018

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In this Quarterly Report on Form 10-Q, “we,” “our,” “us,” “Instructure,” and the “Company” refer to Instructure, Inc. and its wholly-owned subsidiaries.

PART I. FINANCIAL INFORMATION

Item 1. Consolidated Financial Statements
INSTRUCTURE, INC.

Consolidated Balance Sheets

(in thousands)

(unaudited)

	June 30, 2018	December 31, 2017 *As Adjusted
Assets		
Current assets:		
Cash and cash equivalents	$67,951	$35,693
Short-term marketable securities	48,588	5,697
Accounts receivable—net of allowance of $387 and $318 at June 30, 2018 and December 31, 2017, respectively	93,841	34,312
Prepaid expenses	10,079	11,492
Deferred commissions	8,070	7,086
Other current assets	2,010	2,419
Total current assets	230,539	96,699
Property and equipment, net	27,547	23,926
Goodwill	12,354	12,354
Intangible assets, net	7,609	9,048
Noncurrent prepaid expenses	3,347	2,939
Deferred commissions, net of current portion	11,108	11,160
Other assets	537	497
Total assets	$293,041	$156,623
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$6,961	$2,892
Accrued liabilities	11,437	13,702
Deferred rent	1,330	936
Deferred revenue	129,860	99,773
Total current liabilities	149,588	117,303
Deferred revenue, net of current portion	2,666	1,889
Deferred rent, net of current portion	10,643	9,201
Other long-term liabilities	20	1,286
Total liabilities	162,917	129,679

Stockholders' equity:		
Common stock	3	3
Additional paid-in capital	378,485	250,899
Accumulated other comprehensive loss	(2)	(1)
Accumulated deficit	(248,362)	(223,957)
Total stockholders' equity	130,124	26,944
Total liabilities and stockholders' equity	$293,041	$156,623

* See Note 1 for a summary of adjustments

See accompanying notes.

INSTRUCTURE, INC.

Consolidated Statements of Operations

(in thousands, except per share amounts)

(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017 *As Adjusted	2018	2017 *As Adjusted
Revenue:				
Subscription and support	$45,104	$33,713	$88,304	$65,267
Professional services and other	4,959	4,832	9,750	7,750
Total revenue	50,063	38,545	98,054	73,017
Cost of revenue:				
Subscription and support	10,784	7,967	21,175	15,072
Professional services and other	3,814	3,088	7,408	5,663
Total cost of revenue	14,598	11,055	28,583	20,735
Gross profit	35,465	27,490	69,471	52,282
Operating expenses:				
Sales and marketing	24,841	18,972	48,029	37,199
Research and development	14,849	11,057	29,509	22,239
General and administrative	8,200	7,621	16,491	14,607
Total operating expenses	47,890	37,650	94,029	74,045
Loss from operations	(12,425)	(10,160)	(24,558)	(21,763)
Other income (expense):				
Interest income	529	39	767	115
Interest expense	(20)	(4)	(29)	(18)
Other income (expense), net	(529)	25	(353)	48
Total other income (expense), net	(20)	60	385	145
Loss before income taxes	(12,445)	(10,100)	(24,173)	(21,618)
Income tax expense	(93)	(168)	(232)	(251)
Net loss	$(12,538)	$(10,268)	$(24,405)	$(21,869)
Net loss per common share, basic and diluted	$(0.36)	$(0.35)	$(0.73)	$(0.76)
Weighted average common shares used in computing basic and diluted net loss per common share	34,491	29,090	33,444	28,909

*See Note 1 for a summary of adjustments

See accompanying notes.

INSTRUCTURE, INC.

Consolidated Statements of Comprehensive Loss

(in thousands)

(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017 *As Adjusted	2018	2017 *As Adjusted
Net loss	$(12,538)	$(10,268)	$(24,405)	$(21,869)
Other comprehensive gain (loss):				
Net change in unrealized gains (losses) on marketable securities	(2)	2	(1)	—
Comprehensive loss	$(12,540)	$(10,266)	$(24,406)	$(21,869)

*See Note 1 for a summary of adjustments

See accompanying notes.

INSTRUCTURE, INC.

Consolidated Statements of Cash Flows

(in thousands)

(unaudited)

	Six Months Ended June 30,	
	2018	2017 *As Adjusted
Operating activities:		
Net loss	$(24,405)	$(21,869)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation of property and equipment	4,118	2,693
Amortization of intangible assets	1,439	259
Amortization of deferred financing costs	10	16
Change in fair value of mark-to-market liabilities	(1,266)	83
Stock-based compensation	10,419	7,440
Other	(899)	(66)
Changes in assets and liabilities:		
Accounts receivable, net	(60,004)	(54,489)
Prepaid expenses and other assets	1,382	(2,035)
Deferred commissions	(932)	(3,101)
Accounts payable and accrued liabilities	3,010	2,198
Deferred revenue	30,864	29,639
Deferred rent	1,836	(414)
Net cash used in operating activities	(34,428)	(39,646)
Investing activities:		
Purchases of property and equipment	(7,390)	(6,955)
Purchases of intangible assets	—	(301)
Proceeds from sale of property and equipment	52	38
Purchases of marketable securities	(48,441)	—
Maturities of marketable securities	5,700	23,900
Net cash (used in) provided by investing activities	(50,079)	16,682
Financing activities:		
Proceeds from common stock offerings, net of offering costs	109,789	—
Proceeds from issuance of common stock from employee equity plans	7,249	4,316
Shares repurchased for tax withholdings on vesting of restricted stock	(255)	(123)
Payments for financing costs	(18)	(24)
Net cash provided by financing activities	116,765	4,169
Net increase (decrease) in cash and cash equivalents	32,258	(18,795)
Cash and cash equivalents, beginning of period	35,693	44,539
Cash and cash equivalents, end of period	$67,951	$25,744
Supplemental cash flow disclosure:		
Cash paid for taxes	$88	$175
Non-cash investing and financing activities:		

Capital expenditures incurred but not yet paid	$18	$210

*See Note 1 for a summary of adjustments
See accompanying notes.

INSTRUCTURE, INC.

Notes to Unaudited Consolidated Financial Statements

1. Description of Business and Basis of Presentation

Organization

Instructure provides innovative applications for learning, assessment and talent management. We enable organizations worldwide to develop, deliver, manage and track engaging academic and employee development programs. We offer our platform through a Software-as-a-Service, or SaaS, business model. We were incorporated in the State of Delaware in September 2008. We are headquartered in Salt Lake City, Utah, and have wholly-owned subsidiaries in the United Kingdom, Australia, the Netherlands, Hong Kong, Sweden, Brazil and Mexico.

Basis of Presentation

The accompanying unaudited interim consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States (“GAAP”) applicable to interim periods, under the rules and regulations of the United States Securities and Exchange Commission (“SEC”). In the opinion of management, we have prepared the accompanying unaudited financial statements on a basis substantially consistent with the audited consolidated financial statements of the Company as of and for the fiscal year ended December 31, 2017, and these financial statements include all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of the results of the interim periods presented. All intercompany balances and transactions have been eliminated in consolidation. The results of operations for the interim periods presented are not necessarily indicative of the results to be expected for any subsequent quarter or for the entire year ending December 31, 2018. The year-end balance sheet data was derived from audited financial statements, but this Form 10-Q does not include all disclosures required under GAAP. Certain information and note disclosures normally included in annual financial statements prepared in accordance with GAAP have been omitted under the rules and regulations of the SEC.

These interim financial statements should be read in conjunction with the audited consolidated financial statements and related notes contained in the Company’s Annual Report on Form 10-K filed with the SEC on February 15, 2018.

Effective January 1, 2018, we adopted the requirements of Accounting Standards Update (“ASU”) No. 2014-09, Revenue from Contracts with Customers as discussed in Note 1. All amounts and disclosures set forth in the Form 10-Q have been updated to comply with the new standard, as indicated by the “as adjusted” column heading.

Certain prior period amounts reported in our interim and annual consolidated financial statements and notes thereto have been reclassified to conform to current period presentation.

Use of Estimates

The preparation of the consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect reported amounts and disclosures. Accordingly, actual results could differ from those estimates. Such estimates, which we evaluate on an on-going basis, include allowances for doubtful accounts, useful lives for property and equipment and intangible assets, valuation of marketable securities, valuation allowances for net deferred income tax assets, valuation of stock-based compensation and common stock, standalone selling price (“SSP”) of performance obligations and the determination of the period of benefit for deferred commissions. We base our estimates on historical experience and on various other assumptions which we believe to be reasonable.

Segment Information

We operate in a single operating segment, cloud-based learning management systems. Operating segments are defined as components of an enterprise for which separate financial information is regularly evaluated by the chief operating decision makers, or CODMs, which are our chief executive officer and chief financial officer, in deciding how to allocate resources and assess performance. Our CODMs evaluate our financial information and resources and assess the performance of these resources on a consolidated basis. Since we operate in one operating segment, all required financial segment information can be found on the consolidated financial statements.

Summary of Significant Accounting Policies

Except for the accounting policies for revenue recognition, trade and other receivables, and deferred commissions that were updated as a result of adopting ASU No. 2014-09, there have been no changes to our significant accounting policies described in the Annual Report on Form 10-K as of and for the year ended December 31, 2017, filed with the SEC on February 15, 2018, that have had a material impact on our condensed consolidated financial statements and related notes.

Revenue Recognition

We generate revenue primarily from two main sources: (1) subscription and support revenue, which is comprised of SaaS fees from customers accessing our learning, assessment and talent management systems and from customers purchasing additional support beyond the standard support that is included in the basic SaaS fees; and (2) related professional services revenue, which is comprised of training, implementation services and other types of professional services. Revenues are recognized when control of these services is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those services.

We determined revenue recognition through the following steps:

- Identification of the contract, or contracts, with a customer
- Identification of the performance obligations in the contract
- Determination of the transaction price
- Allocation of the transaction price to the performance obligations in the contract
- Recognition of revenue when, or as, we satisfy a performance obligation

The following describes the nature of our primary types of revenue and the revenue recognition policies and significant payment terms as they pertain to the types of transactions we enter into with our customers.

Subscription and Support

Subscription and support revenue is derived from fees from customers to access our learning, assessment and talent management systems and support beyond the standard support that is included with all subscriptions. The terms of our subscriptions do not provide customers the right to take possession of the software. Subscription and support revenue is generally recognized on a ratable basis over the contract term. Payments from customers are primarily due annually in advance. Unearned subscription and support revenue is included in deferred revenue.

Professional Services and Other

Professional services revenue is derived from implementation, training, and consulting services. Our professional services are typically considered distinct from the related subscription services as the promise to transfer the subscription can be fulfilled independently from the promise to deliver the professional services (i.e., customer receives standalone functionality from the subscription and the customer obtains the intended benefit of the subscription without the professional services). Professional services revenue is typically recognized over time as the services are rendered, using an efforts-expended (labor hours) input method.

Contracts with Multiple Performance Obligations

Many of our contracts with customers contain multiple performance obligations. We account for individual performance obligations separately if they are distinct. The transaction price is allocated to the separate performance obligations on a relative standalone selling price basis. We determine the standalone selling prices based on our overall pricing objectives by reviewing our significant pricing practices, including discounting practices, the size and volume of our transactions, the customer type, price lists, our pricing strategy, and historical stand-alone sales. SSP is

analyzed on a periodic basis to identify if we have experienced significant changes in our selling prices.

Trade and Other Receivables

Accounts receivable, net is comprised of trade receivables that are recorded at the invoice amount, net of an allowance for doubtful accounts, and other receivables, which represents unbilled receivables related to subscription and professional services contracts. Unbilled receivable balances as of June 30, 2018 and December 31, 2017 were $6,258,000 and $4,177,000, respectively.

Standard payment terms to customers range from 30 to 90 days; however, payment terms and conditions in our customer contracts may vary. In some cases, customers prepay for products and services in advance of our delivery of the related products or services; in other cases, payment is due as services are performed or in arrears following the delivery of the related products or services. The unbilled receivable primarily relates to revenue recognized when transferred services are more than amounts billable to customers.

Deferred Commissions

Sales commissions earned by our sales force are considered incremental and recoverable costs of obtaining a contract with a customer. These costs are deferred and then amortized on a straight-line basis over a period of benefit that we have determined to be generally four years. We determined the period of benefit by taking into consideration our customer contracts, our technology and other factors. Amortization of deferred commissions is included in sales and marketing expenses in the accompanying consolidated statements of operations.

Recent Accounting Pronouncements

Adopted accounting pronouncements

In October 2016, the Financial Accounting Standards Board ("FASB") issued ASU 2016-16, "Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory". This standard requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs, rather than when the asset has been sold to an outside party. The new standard must be adopted using a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings in the period of adoption. This standard is effective for annual reporting periods beginning after December 15, 2017. We adopted the new standard as of January 1, 2018 and it did not have a material impact on our consolidated financial statements and related disclosures.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers ("Topic 606"). Topic 606 supersedes the revenue recognition requirements in Accounting Standards Codification ("ASC") Topic 605, Revenue Recognition ("Topic 605"), and requires the recognition of revenue as promised goods or services are transferred to customers in an amount that reflects the consideration which the entity expects to be entitled to in exchange for those goods or services. Topic 606 also includes Subtopic 340-40, Other Assets and Deferred Costs - Contracts with Customers, which requires the deferral of incremental costs of obtaining a contract with a customer. Collectively, we refer to Topic 606 and Subtopic 340-40 as the "new standard".

We adopted the new standard as of January 1, 2018, utilizing the full retrospective method of transition. As a result, we recognized the cumulative effect of initially applying the new standard as an adjustment to the opening balance of equity on January 1, 2016. We have changed our accounting policy for revenue recognition as detailed above. The details of the significant changes and quantitative impact of the changes are disclosed below.

We applied Topic 606 retrospectively using the following practical expedients in paragraph 606-10-65-1(f). We do not disclose the amount of consideration allocated to the remaining performance obligations or an explanation of when we expect to recognize that amount as revenue for all reporting periods presented before the date of the initial application – i.e. January 1, 2018. Further, we do not retrospectively restate contracts modified before the beginning of the earliest reporting period presented but reflect the aggregate effect of all modifications that occur before the beginning of the earliest period presented.

The primary impact of adopting the new standard related to the deferral of incremental commission costs to obtain customer contracts and the removal of the contingent revenue limitation. We previously expensed sales commission costs as incurred. Under the new standard, we capitalize and amortize these costs over a period of benefit that we have determined to be generally four years. We were also previously limiting the amount of revenue recognized for delivered elements to the amount that was not contingent on the future delivery of products or services, or subject to

our future performance. Under the new standard, there is no requirement to limit the allocated transaction price to non-contingent amounts, therefore, we record unbilled revenue when transferred services are more than amounts billable to customers.

Impacts on Financial Statements

The following tables summarize the impacts of Topic 606 adoption on our consolidated financial statements on the previously reported periods. Select consolidated balance sheet line items, which reflect the adoption of Topic 606, are as follows (in thousands):

	December 31, 2017		
	As previously reported	Adjustments	As adjusted
Assets			
Accounts receivable—net of allowance	$30,797	$ 3,515	$34,312
Deferred commissions	—	7,086	7,086
Deferred commissions, net of current portion	—	11,160	11,160
Other assets	1,045	(548)	497
Liabilities			
Deferred revenue	99,086	687	99,773
Deferred revenue, net of current portion	3,950	(2,061)	1,889

Select unaudited consolidated statement of operations line items, which reflect the adoption of Topic 606, are as follows (in thousands):

	Three months ended June 30, 2017		
	As previously reported	Adjustments	As adjusted
Revenue:			
Subscription and support	$32,650	$ 1,063	$33,713
Professional services and other	5,394	(562)	4,832
Total revenue	38,044	501	38,545
Cost of revenue:			
Professional services and other	3,026	62	3,088
Gross profit	27,051	439	27,490
Operating expenses:			
Sales and marketing	21,314	(2,342)	18,972
Loss before income taxes	(12,891)	2,791	(10,100)
Income tax expense	(105)	(63)	(168)
Net loss	(12,996)	2,728	(10,268)
Net loss per common share, basic and diluted	(0.45)	0.10	(0.35)

	Six months ended June 30, 2017		
	As previously reported	Adjustments	As adjusted
Revenue:			
Subscription and support	$63,163	$ 2,104	$65,267
Professional services and other	8,860	(1,110)	7,750
Total revenue	72,023	994	73,017
Cost of revenue:			
Professional services and other	5,537	126	5,663
Gross profit	51,414	868	52,282

Operating expenses:			
Sales and marketing	40,300	(3,101)	37,199
Loss before income taxes	(25,591)	3,973	(21,618)
Income tax expense	(136)	(115)	(251)
Net loss	(25,727)	3,858	(21,869)
Net loss per common share, basic and diluted	(0.89)	0.13	(0.76)

Select unaudited consolidated statement of cash flows line items, which reflect the adoption of Topic 606, are as follows (in thousands):

	Six months ended June 30, 2017		
	As previously reported	Adjustments	As Adjusted
Cash flows from operating activities:			
Net loss	$(25,727)	$ 3,858	$(21,869)
Accounts receivable, net	(55,105)	616	(54,489)
Prepaid expenses and other assets	(2,280)	245	(2,035)
Deferred commissions	—	(3,101)	(3,101)
Deferred revenue	31,257	(1,618)	29,639
Net cash used in operating activities	(39,646)	—	(39,646)

Issued accounting pronouncements

In February 2016, the FASB issued ASU No. 2016-02, Leases, requiring recognition of a right-of-use asset and a lease liability on the balance sheet for all leases with the exception of short-term leases. Long-term leases will continue to be classified as either operating or finance leases in the financial statements. Lessor accounting is similar to the current model but updated to align with certain changes to the lessee model. Lessors will continue to classify leases as operating, direct financing or sales-type leases. The new standard must be adopted using a modified retrospective transition and requires application of the new guidance at the beginning of the earliest comparative period presented. The updated standard is effective for us beginning in the first quarter of 2019. We are currently evaluating the effect that the updated standard will have on our consolidated financial statements and related disclosures.

2. Net Loss Per Share

Basic net loss per share is computed by dividing net loss by the weighted average number of common shares outstanding for the period. Diluted net loss per share is computed by giving effect to all potential dilutive common stock equivalents outstanding for the period. For purposes of the diluted net loss per share calculation, options to purchase common stock, common stock warrants and restricted stock units are considered to be common stock equivalents.

A reconciliation of the denominator used in the calculation of basic and diluted loss per share is as follows (in thousands, except per share amounts):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Numerator:				
Net loss	$(12,538)	$(10,268)	$(24,405)	$(21,869)
Denominator:				
Total weighted average common shares outstanding—basic	34,491	29,090	33,444	28,909
Dilutive effect of share equivalents resulting from stock	—	—	—	—

options, restricted stock units, common stock warrants and common stock subject to repurchase				
Weighted average common shares outstanding-diluted	34,491	29,090	33,444	28,909
Net loss per common share, basic and diluted	$(0.36)	$(0.35)	$(0.73)	$(0.76)

For all periods presented, we incurred net losses and, therefore, the effect of our outstanding stock options, restricted stock units and common stock warrants was not included in the calculation of diluted loss per share as the effect would be anti-dilutive. The following table contains share totals with a potentially dilutive impact (in thousands):

	As of June 30,	
	2018	2017
Options to purchase common stock	1,542	2,784
Common stock warrants	—	17
Restricted stock units	1,853	1,629
Total	3,395	4,430

3. Property and Equipment

Property and equipment consisted of the following (in thousands):

	June 30, 2018	December 31, 2017
Computer and office equipment	$5,918	$5,726
Purchased software	1,071	1,071
Capitalized software development costs	18,948	14,755
Furniture and fixtures	4,304	3,924
Leasehold improvements and other	15,247	13,379
Total property and equipment	45,488	38,855
Less accumulated depreciation and amortization	(17,941)	(14,929)
Total	$27,547	$23,926

Accumulated amortization for capitalized software development costs was $6,558,000 and $4,570,000 at June 30, 2018 and December 31, 2017, respectively. Amortization expense for capitalized software development costs was $1,048,000 and $521,000 for the three months ended June 30, 2018 and 2017, respectively, and $1,988,000 and $1,006,000 for the six months ended June 30, 2018 and 2017, respectively. Amortization expense for capitalized software development costs is recorded within cost of revenue on the consolidated statements of operations.

4. Goodwill and Intangible Assets

Goodwill was $12,354,000 as of June 30, 2018 and December 31, 2017.

Intangible assets consisted of the following (in thousands):

	Average Remaining Useful Life	June 30, 2018	December 31, 2017
Domain names	4 Months	$1,268	$ 1,268
Trademarks	0 Months	120	120
Software	13 Months	620	620
Capitalized learning content	40 Months	400	400
Trade names	29 Months	320	320
Developed technology	41 Months	5,320	5,320
Customer relationships	29 Months	2,910	2,910
Accumulated amortization		(3,349)	(1,910)
Total		$7,609	$ 9,048

Amortization expense for intangible assets was $676,000 and $117,000 for the three months ended June 30, 2018 and 2017, respectively, and $1,439,000 and $259,000 for the six months ended June 30, 2018 and 2017, respectively.

Based on the recorded intangible assets at June 30, 2018, estimated amortization expense is expected to be as follows (in thousands):

Years Ending December 31,	Amortization Expense
Remainder of 2018	$ 1,347
2019	2,626
2020	2,386
2021	1,250
2022	—
Total	$ 7,609

5. Revenue

Disaggregation of Revenue

Revenue by geographic region, based on the physical location of the customer, is (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017 *As Adjusted	2018	2017 *As Adjusted
United States	$40,489	$ 33,172	$79,796	$ 63,726
Foreign	9,574	5,373	18,258	9,291
Total revenue	$50,063	$ 38,545	$98,054	$ 73,017
Percentage of revenue generated outside of the United States	19 %	14 %	19 %	13 %

* See Note 1 for a summary of adjustments

Deferred Revenue and Performance Obligations

During the three months ended June 30, 2018, 80% to 90% of revenue recognized was included in our deferred revenue balance at the beginning of the period. During the six months ended June 30, 2018, 75% to 85% of revenue recognized was included in our deferred revenue balance at the beginning of the period.

Transaction Price Allocated to the Remaining Performance Obligations

As of June 30, 2018, approximately $448 million of revenue is expected to be recognized from remaining performance obligations. We expect to recognize revenue on approximately 69% of these remaining performance obligations over the next 24 months, with the balance recognized thereafter.

6. Deferred Commissions

Deferred commissions primarily consist of sales commissions that are capitalized as incremental contract origination costs and were $19,179,000 and $18,246,000 as of June 30, 2018 and December 31, 2017, respectively. For the three months ended June 30, 2018 and 2017, amortization expense for deferred commissions was $2,466,000 and $1,701,000, respectively, and there were no impairments of deferred commissions. For the six months ended June 30, 2018 and 2017, amortization expense for deferred commissions was $4,544,000 and $3,235,000, respectively, and there were no impairments of deferred commissions.

7. Marketable Securities

Our investment policy is consistent with the definition of available-for-sale securities. We do not buy and hold securities principally for the purpose of selling them in the near future nor do we intend to hold securities to maturity. Rather, our policy is focused on the preservation of capital, liquidity and return. From time to time, we may sell certain securities but the objectives are generally not to generate profits on short-term differences in price.

The following table summarizes, by major security type, our assets that are measured at fair value on a recurring basis (in thousands):

	June 30, 2018			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Corporate debt securities	$28,665	$ —	$ (3)	$ 28,662
Government treasury bills	19,925	1	—	19,926
	$48,590	$ 1	$ (3)	$ 48,588

	December 31, 2017			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Corporate debt securities	$5,698	$ —	$ (1)	$ 5,697
	$5,698	$ —	$ (1)	$ 5,697

There were no gross realized gains or losses from the sale or maturity of marketable securities during the six months ended June 30, 2018 and 2017.

During the six months ended June 30, 2018, we recognized gross interest income on securities of $267,000. Interest income was inclusive of accretion income of $181,000 and offset by amortization expense on securities of $16,000 during the six months ended June 30, 2018, and reported net within interest income on the consolidated statements of operations.

During the six months ended June 30, 2017, we recognized gross interest income on securities of $89,000. Interest income was offset by amortization expense on securities of $8,000 during the six months ended June 30, 2017, and reported net within interest income on the consolidated statements of operations.

The estimated fair value of investments by contractual maturity is as follows (in thousands):

	June 30, 2018	December 31, 2017
Due within one year	$48,588	$ 5,697
Total	$48,588	$ 5,697

8. Stockholders' Equity (Deficit) and Stock-Based Compensation

Common Stock

As of June 30, 2018 and December 31, 2017, there were 200,000,000 shares of common stock authorized. As of June 30, 2018 and December 31, 2017, there were 34,765,435 and 30,860,241 shares issued and outstanding, respectively. Each share of common stock has the right to one vote on all matters submitted to a vote of stockholders. The holders of common stock are also entitled to receive dividends whenever funds are legally available and if declared by the board of directors, subject to prior rights of holders of all classes of stock outstanding having priority rights as to dividends. No dividends have been declared or paid on the common stock through June 30, 2018.

On February 15, 2018, we entered into an underwriting agreement (the "Underwriting Agreement") with Morgan Stanley & Co. LLC and Credit Suisse Securities (USA) LLC (collectively, the "Underwriters"), relating to the issuance and sale (the "Offering") of 2,500,000 shares of our common stock, par value $0.0001 per share. The price to the public in the Offering was $39.50 per share, and the Underwriters have purchased the shares from us pursuant to the Underwriting Agreement at a price of $38.315 per share. In addition to the sale of 2,500,000 shares, the Underwriters exercised a 30-day option to purchase an additional 375,000 shares of our common stock. All of the shares in the offering were sold by us and the net proceeds to us from this Offering were $109.8 million, after deducting underwriting discounts and commissions and other offering expenses payable by us.

Employee Equity Plans

Our 2015 Equity Incentive Plan (the “2015 Plan”) serves as the successor to our 2010 Equity Incentive Plan (the “2010 Plan”). Accordingly, no shares are available for issuance under the 2010 Plan; however, any outstanding options granted under the 2010 Plan will remain outstanding and subject to the terms of that plan until exercised, terminated or expired by their terms. As of June 30, 2018, options to purchase 1,085,738 shares of common stock remained outstanding under the 2010 Plan. Pursuant to the terms of the 2015 Plan, the share reserve automatically increased by 1,388,709 shares in January 2018. As of June 30, 2018, we had 2,599,249 shares of common stock available for future grants under the 2015 Plan.

Additionally, as part of our acquisition of Practice XYZ, Inc. (“Practice”) we assumed Practice’s 2014 Equity Incentive Plan (the “2014 Plan”). No shares are available for issuance under the 2014 Plan; however, any outstanding options granted under the 2014 Plan will remain outstanding and subject to the terms of that plan until exercised, terminated or expired by their terms. As of June 30, 2018, options to purchase 1,093 shares of common stock remained outstanding under the 2014 Plan.

We also have a 2015 Employee Stock Purchase Plan (the “ESPP”). The ESPP allows eligible employees to purchase shares of our common stock at a discount through payroll deductions of up to 15% of their eligible compensation, subject to any plan limitations. Our board of directors approves the ESPP offerings. The offerings need not be identical, but each offering may not exceed 27 months and may specify one or more shorter purchase periods within the offering. Pursuant to the terms of the ESPP, the share reserve increased by 308,602 shares in January 2018. As of June 30, 2018, 556,089 shares of common stock were available for issuance under the ESPP.

The following two tables show stock-based compensation expense by award type and where the stock-based compensation expense was recorded in our consolidated statements of operations (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Options	$725	$966	$1,426	$2,184
Restricted stock units	4,431	2,632	7,931	4,297
Employee stock purchase plan	519	469	1,062	959
Total stock-based compensation	$5,675	$4,067	$10,419	$7,440

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Subscription and support cost of revenue	$307	$191	$536	$317
Professional services and other cost of revenue	246	156	439	261
Sales and marketing	1,671	1,195	3,019	2,150
Research and development	2,033	1,506	3,927	2,738
General and administrative	1,418	1,019	2,498	1,974
Total stock-based compensation	$5,675	$4,067	$10,419	$7,440

Stock Options

The following table summarizes stock option activity for the six months ended June 30, 2018 (in thousands, except per share data and years):

	Shares Underlying Options	Weighted-Average Exercise Price	Weighted-Average Remaining Life (in years)	Aggregate Intrinsic Value
Outstanding at December 31, 2017	2,010	$ 9.09	6.5	$ 48,266
Granted	243	34.72		
Exercised	(620)	6.81		
Forfeited or cancelled	(91)	21.06		
Outstanding at June 30, 2018	1,542	13.31	6.8	45,117
Vested and expected to vest—June 30, 2018	1,542	13.31	6.8	45,117
Exercisable at June 30, 2018	1,053	8.55	6.1	35,790

As of June 30, 2018, we had $5,812,000 of unrecognized stock-based compensation costs related to non-vested options that are expected to be recognized over a weighted average period of 2.9 years.

As of June 30, 2018, we had $1,138,000 of unrecognized stock-based compensation expense related to our ESPP that is expected to be recognized over the term of the offering period ending November 30, 2018.

Restricted Stock Units

The following table summarizes the activity of restricted stock units ("RSUs") for the six months ended June 30, 2018 (in thousands, except per share data):

	RSUs Outstanding	
	Shares	Weighted-Average Grant Date Fair Value Per Share
Unvested and outstanding at December 31, 2017	1,515	$ 22.88
Granted	837	41.70
Vested	(313)	22.95
Cancelled	(186)	25.96
Unvested and outstanding at June 30, 2018	1,853	31.06

As of June 30, 2018, we had $53,895,000 of unrecognized stock-based compensation costs related to outstanding RSUs that are expected to be recognized over a weighted average period of 3.1 years.

9. Income Taxes

Utilization of the net operating loss carryforwards and credits may be subject to substantial annual limitation due to the ownership change limitations provided by Section 382 of the Internal Revenue Code of 1986, as amended, and similar state provisions. The annual limitation may result in the expiration of net operating losses and credits before utilization.

We file tax returns in the United States, the United Kingdom, Australia, the Netherlands, Hong Kong, Sweden, Brazil, Mexico and various state jurisdictions. All of our tax years remain open to examination by major taxing jurisdictions to which we are subject, as carryforward attributes generated in past years may still be adjusted upon examination by the Internal Revenue Service or state and foreign tax authorities if they have or will be used in future periods.

We believe that we have provided adequate reserves for our income tax uncertainties in all open tax years. We do not expect our gross unrecognized tax benefits to change significantly in the next 12 months.

In connection with the Tax Act enacted in December 2017, we recorded a provisional amount for the remeasurement of deferred tax balances for the year ended December 31, 2017 with an offset to valuation allowance with no impact to the consolidated financial statements. In accordance with relevant SEC guidance of Staff Accounting Bulletin No. 118 (“SAB 118”), the effects of the Tax Act may be adjusted within a one-year measurement period from the enactment date for the items that were previously reported as provisional, or where a provisional estimate could not be made. The income tax provision for the three-months ended June 30, 2018 did not reflect any adjustments to the provisional amounts as of December 31, 2017. We will continue to assess forthcoming guidance and accounting interpretations on the effects of the Tax Act and expect to complete our analysis within the measurement period in accordance with the SEC guidance.

10. Fair Value of Financial Instruments

The fair value of a financial instrument is the amount that could be received upon the sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Financial assets are marked to bid prices and financial liabilities are marked to offer prices. Fair value measurements do not include transaction costs. The fair value hierarchy prioritizes the quality and reliability of the information used to determine fair values. Categorization within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement. The fair value hierarchy is defined into the following three categories:

Level 1: Quoted market prices in active markets for identical assets or liabilities.

Level 2: Observable market based inputs or unobservable inputs that are corroborated by market data.

Level 3: Unobservable inputs that are not corroborated by market data.

There were no transfers between Level 1 and Level 2 of the fair value measurement hierarchy during the six months ended June 30, 2018 and the year ended December 31, 2017. Assets and liabilities measured at fair value on a recurring basis as of June 30, 2018, were as follows (in thousands):

	June 30, 2018		
	Level 1	Level 2	Total

			Level 3	
Assets:				
Money market funds	$31,533	$—	$ —	$31,533
Corporate debt securities	—	28,726	—	28,726
Government treasury bills	19,926	—	—	19,926
Total assets	$51,459	$28,726	$ —	$80,185
Liabilities:				
Contingent liability	—	—	20	20
Total liabilities	$—	$—	$ 20	$20

Assets and liabilities measured at fair value on a recurring basis as of December 31, 2017, were as follows (in thousands):

	December 31, 2017			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$14,046	$—	$—	$14,046
Corporate debt securities	—	5,697	—	5,697
Total assets	$14,046	$5,697	$—	$19,743
Liabilities:				
Common stock warrant liability	—	—	122	122
Contingent liability	—	—	1,164	1,164
Total liabilities	$—	$—	$1,286	$1,286

The carrying amount of our cash, receivables and payables approximates fair value because of the short-term nature of these items.

The following table sets forth a summary of the change in fair value adjustments for liabilities that are required to be marked-to-market. The common stock warrants were cancelled during the period ended March 31, 2018, and the gain related to the extinguishment of the common stock warrant liability was recognized in other income (expense) on the consolidated statements of operations. The change in fair value of the contingent liability was recognized in general and administrative expense on the consolidated statements of operations. The following balance is measured at fair value on a recurring basis using significant unobservable inputs (Level 3) (in thousands):

	Change in Fair Value Adjustments
Balance at January 1, 2018	$ 1,286
Extinguishment of common stock warrants	(122)
Change in fair value of contingent liability	(1,144)
Balance at June 30, 2018	$ 20

We have classified our liability for contingent consideration relating to our acquisition of Practice XYZ, Inc., which we closed in November 2017, within Level 3 of the fair value hierarchy because the fair value is determined using the Monte Carlo simulation model and significant unobservable inputs including, forecasted net bookings attainment.

Fair value is a market-based measurement that should be determined based on the assumptions that market participants would use in pricing an asset or liability. The hierarchy level assigned to each security in our marketable securities portfolio and cash equivalents is based on our assessment of the transparency and reliability of the inputs used in the valuation of such instrument at the measurement date. The fair value of cash equivalents included in the Level 1 category is based on quoted prices that are readily and regularly available in an active market. The fair value of the marketable securities included in the Level 2 category is based on observable inputs, such as quoted prices for similar assets at the measurement date; quoted prices in markets that are not active; or other inputs that are observable, either directly or indirectly. These values were obtained from an independent pricing service and were evaluated using pricing models that vary by asset class and may incorporate available trade, bid and other market information and price quotes from well-established independent pricing vendors and broker-dealers. See Note 7—Marketable Securities for further information regarding the fair value of our investments.

11. Commitments and Contingencies

Litigation

We are involved in legal proceedings from time to time arising in the normal course of business. Management believes that the outcome of these proceedings will not have a material impact on our financial position, results of operations or liquidity.

Lease Commitments

We lease office space under non-cancelable operating leases that contain rent escalation clauses and renewal options. We recognize rent expense on a straight-line basis over the lease period and have accrued for rent expense incurred but not paid. We are also committed to pay a portion of the actual operating expenses under certain of these lease agreements.

Rent expense under operating leases was $1,866,000 and $1,332,000 for the three months ended June 30, 2018 and 2017, respectively, and $3,745,000 and $2,533,000 for the six months ended June 30, 2018 and 2017, respectively.

Item 2.Management's Discussion and Analysis of Financial Condition and Results of Operations.

Forward-Looking Statements

The following discussion of our financial condition and results of operations contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements are based on our management's beliefs and assumptions and on information currently available to our management. All statements other than statements of historical facts are "forward-looking statements" for purposes of these provisions, including those relating to future events or our future financial performance and financial guidance. In some cases, you can identify forward-looking statements by terminology such as "may," "might," "will," "should," "expect," "plan," "anticipate," "project," "believe," "estir "predict," "potential," "intend" or "continue," the negative of terms like these or other comparable terminology, and other words or terms of similar meaning in connection with any discussion of future operating or financial performance. These statements are only predictions. All forward-looking statements included in this Quarterly Report on Form 10-Q are based on information available to us on the date hereof, and we assume no obligation to update any such forward-looking statements. Any or all of our forward-looking statements in this document may turn out to be wrong. Actual events or results may differ materially. Our forward-looking statements can be affected by inaccurate assumptions we might make or by known or unknown risks, uncertainties and other factors. We discuss many of these risks, uncertainties and other factors in this Quarterly Report on Form 10-Q in greater detail under the heading "Item 1A—Risk Factors." We caution investors that our business and financial performance are subject to substantial risks and uncertainties. In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this Quarterly Report on Form 10-Q, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

You should read the following discussion and analysis together with the financial statements and the related notes to those statements included elsewhere in this report. This discussion contains forward-looking statements that involve risks and uncertainties. As a result of many factors, such as those set forth in the section of this report captioned "Risk Factors" and elsewhere in this report, our actual results may differ materially from those anticipated in these forward-looking statements.

Overview

Instructure provides innovative applications for learning, assessment and talent management. We enable organizations worldwide to develop, deliver, manage and track engaging academic and employee development programs. Our platform combines powerful, elegant and easy-to-use functionality with the reliability, security, scalability and support required by our customers.

We offer our platform through a Software-as-a-Service, or SaaS, business model. Customers can rapidly deploy our applications with minimal upfront implementation. They also benefit from regular software benefits and 99.9% uptime. Our SaaS business model reduces the cost, complexity and disruptions associated with implementations and upgrades of on-premise software.

We were founded in 2008, and in 2011, we launched Canvas, with the goal to make teaching and learning easier. Initially, we focused on the U.S. education market, targeting colleges and universities. In 2012, we expanded our focus to include the K-12 market in the United States. We opened our international headquarters in London, England in June 2014 and have offices in Sydney, Australia, Hong Kong and Sao Paulo, Brazil. To date, a substantial majority of our revenue has been derived from our sales of Canvas to the U.S. education market. While our initial efforts were focused on the education market, we discovered that companies also needed a cloud-based platform to enable them to

better train their employees. Our initial corporate customers licensed Canvas for this purpose. In February 2015, we launched Bridge to enable companies to further realize the benefits of our cloud-based platform with an application specifically designed to address their needs.

We sell our applications and services through a direct sales force. Our sales organization includes technical sales engineers who serve as experts in the technical aspects of our applications and customer implementations. Many of our sales efforts require us to respond to requests for proposals, particularly in the higher education space and to a lesser extent in K–12, and to a minimal extent in the corporate market. As we grow internationally, we may use reseller partnerships as needed to penetrate certain new markets.

As of June 30, 2018, we have grown to serve more than 4,000 customers, representing colleges, universities, K-12 school districts, and companies in more than 70 countries. Our customers range from a single school to large corporations and academic institutions and accordingly our total contract values range from thousands of dollars to several million dollars. We generally define a customer as an entity with a subscription contract as of the measurement date. In situations where there is a single contract that applies to entities with multiple subsidiaries or divisions, universities, or governmental organizations, only the entity that has contracted for our platform is counted as a customer. For example, a contracting school district is counted as a single customer even though the school district encompasses multiple schools. In 2017, and the six months ended June 30, 2018, no single customer represented more than 10% of our revenue.

Our subscription fee includes the use of our platform and our technical support and is based on the number of users. We also generate revenue from training, implementation services and other types of professional services. We have experienced net revenue retention rates of over 100% at each of June 30, 2018 and 2017. Our revenue was $50.1 million and $38.5 million for the three months ended June 30, 2018 and 2017, respectively, representing year-over-year growth of 30%, and $98.1 million and $73.0 million for the six months ended June 30, 2018 and 2017, respectively, representing year-over-year growth of 34%. Our net losses were $12.5 million and $10.2 million for the three months ended June 30, 2018 and 2017, respectively, and $24.4 and $21.8 for the six months ended June 30, 2018 and 2017, respectively.

In February 2018, we completed an underwritten public offering of 2,875,000 shares of common stock, which included 375,000 shares of common stock issued pursuant to the underwriters' exercise of their option to purchase additional shares. We received $109.8 million in net proceeds, after deducting underwriting discounts and commissions and offering expenses.

Key Factors Affecting Our Performance

Investment in Sales and Marketing Organization

We continue to invest in our sales and marketing organization to drive additional revenue and support the growth of our customer base. Any investments we make in our sales and marketing organization will occur in advance of experiencing any benefits from such investments, so it may be difficult for us to determine if we are efficiently allocating our resources in these areas. We plan to continue to expand sales and marketing to grow our customer base and increase sales to existing customers. This expansion is expected to include adding sales personnel and expanding our marketing activities to continue to generate additional sales opportunities and build brand awareness.

We intend to expand and continue to invest in our international sales and marketing organization, which we believe will be an important factor in our continued growth. As we grow internationally, we may use reseller partnerships as needed to penetrate new markets. During the three months ended June 30, 2018 and 2017, 19% and 14% of our revenue was derived from outside the United States, respectively. During the six months ended June 30, 2018 and 2017, 19% and 13% of our revenue was derived from outside the United States, respectively. Our international operations are relatively new and we have limited experience operating in international markets, which increases the risk that our international expansion efforts may not be successful.

Investment in Technology

We have aggressively invested, and intend to continue to invest, in developing technology to support our growth. We expect our research and development expenses to increase as we expand headcount. While we invest heavily in research and development, we have also built a foundation for innovation through our approach to the learning management system as a learning platform. However, our investments in research and development may result in enhancements or new applications that may not achieve market adoption, are more expensive to develop than anticipated, may take longer to generate revenue or may generate less revenue than we anticipate.

Net Revenue Retention Rate

We calculate our net revenue retention rate by dividing the total revenue obtained from a particular customer in a given month by the total revenue from that customer from the same month in the immediately preceding year. This calculation contemplates all changes to revenue for the designated customer, which includes customer terminations, changes in quantities of users, changes in pricing, additional applications purchased or applications no longer used. We calculate the net revenue retention for our entire customer base at a given point in time. We believe our net revenue retention rate is an important metric to measure the long-term value of customer agreements and our ability to retain our customers. Our net revenue retention rate was over 100% at each of June 30, 2018 and 2017.

Focus on Free Cash Flow

We define free cash flow as net cash provided by (used in) operating activities less purchases of property and equipment and intangible assets, net of proceeds from disposals of property and equipment. We consider free cash flow to be an important measure that we are focused on to run our business. For more information about free cash flow, see the section titled “Non-GAAP Financial Measures.”

Financial Operations Overview

Revenue

We generate revenue primarily from two main sources: (1) subscription and support revenue, which is comprised of SaaS fees from customers accessing our learning, assessment and talent management systems and from customers purchasing additional support beyond the standard support that is included in the basic SaaS fees; and (2) related professional services revenue, which is comprised of training, implementation services and other types of professional services. Revenues are recognized when control of these services is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those services.

Subscription and support revenue is derived from fees from customers to access our learning, assessment and talent management systems and support beyond the standard support that is included with all subscriptions. The terms of our subscriptions do not provide customers the right to take possession of the software. Subscription and support revenue is generally recognized on a ratable basis over the contract term. Payments from customers are primarily due annually in advance. Unearned subscription and support revenue is included in deferred revenue.

Professional services revenue is derived from implementation, training, and consulting services. Our professional services are typically considered distinct from the related subscription services as the promise to transfer the subscription can be fulfilled independently from the promise to deliver the professional services (i.e., customer receives standalone functionality from the subscription and the customer obtains the intended benefit of the subscription without the professional services). Professional services revenue is typically recognized over time as the services are rendered, using an efforts-expended (labor hours) input method.

Cost of Revenue

Cost of subscription and support revenue consists primarily of the costs of our managed hosting provider and other third-party service providers, employee-related costs including payroll, benefits and stock-based compensation expense for our operations and customer support teams, amortization of capitalized software development costs and acquired technology, and allocated overhead costs, which we define as rent, facilities and costs related to information technology, or IT.

Cost of professional services and other revenue consists primarily of personnel costs of our professional services organization, including salaries, benefits, travel, bonuses and stock-based compensation, as well as allocated overhead costs.

Operating Expenses

Sales and Marketing. Sales and marketing expenses consist primarily of personnel costs of our sales and marketing employees, including sales commissions and incentives, benefits and stock-based compensation expense, marketing programs, including lead generation, costs of our annual InstructureCon user conference and allocated overhead costs. We defer and amortize on a straight-line basis sales commission costs related to acquiring new customers and upsells from existing customers over a period of benefit that we have determined to be generally four years. We expect sales and marketing expenses will increase as a result of hiring net new quota-carrying sales representatives inside and

outside the United States, adding to the marketing staff and expanding our annual InstructureCon user conference and potentially adding other annual conferences. Over time, we expect sales and marketing expenses will decline as a percentage of total revenue.

Research and Development. Research and development expenses consist primarily of personnel costs of our development team, including payroll, benefits and stock-based compensation expense and allocated overhead costs. We capitalize certain software development costs that are attributable to developing new applications, features and adding incremental functionality to our platform and amortize such costs as costs of subscription revenue over the estimated life of the new application or incremental functionality, which is generally three years. We expect research and development expenses to increase in absolute dollars as we continue to increase the functionality of our software platform.

General and Administrative. General and administrative expenses consist of personnel costs and related expenses for executive, finance, legal, human resources, recruiting, employee-related information technology, administrative personnel, including payroll, benefits and stock-based compensation expense; professional fees for external legal, accounting and other consulting services; and allocated overhead costs. We expect that general and administrative expenses will increase on an absolute dollar basis but decrease as a percentage of total revenue as we focus on processes, systems and controls to enable our internal support functions to scale with the growth of our business.

Other Income (Expense)

Other income (expense) consists primarily of interest income, interest expense, the change in fair value of the warrant liability, which is subject to mark-to-market adjustments as of each reporting period, and the impact of foreign currency transaction gains and losses. We have historically had a minimal amount of debt outstanding on which we pay interest. As we have expanded our international operations, our exposure to fluctuations in foreign currencies has increased.

Income Tax Expense

We are subject to income taxes in the United States and foreign jurisdictions in which we do business. These foreign jurisdictions have statutory tax rates different from those in the United States. Accordingly, our effective tax rates will vary depending on the relative proportion of foreign to U.S. income and changes in tax laws. Income tax expense consists primarily of state income taxes in the United States and income taxes in certain foreign jurisdictions in which we conduct business.

Results of Operations

The following tables set forth our results of operations for the periods presented and as a percentage of our total revenue for those periods. The data has been derived from the unaudited consolidated financial statements contained in this Quarterly Report on Form 10-Q which include, in our opinion, all adjustments, consisting only of normal recurring adjustments, that we consider necessary for a fair presentation of the financial position and results of operations for the interim periods presented. The period-to-period comparison of financial results is not necessarily indicative of financial results to be achieved in future periods. Prior period adjustments have been made as a result of the adoption of Topic 606, see footnote 1 in the Notes to Consolidated Financial Statements for a summary of adjustments made.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017 As Adjusted	2018	2017 As Adjusted
	(in thousands)			
Revenue:				
Subscription and support	$45,104	$33,713	$88,304	$65,267
Professional services and other	4,959	4,832	9,750	7,750
Total revenue	50,063	38,545	98,054	73,017
Cost of revenue:				
Subscription and support(1)(2)(4)	10,784	7,967	21,175	15,072
Professional services and other(1)	3,814	3,088	7,408	5,663
Total cost of revenue	14,598	11,055	28,583	20,735
Gross profit	35,465	27,490	69,471	52,282

Operating expenses:				
Sales and marketing[1][2][4]	24,841	18,972	48,029	37,199
Research and development[1][4]	14,849	11,057	29,509	22,239
General and administrative[1][3][4]	8,200	7,621	16,491	14,607
Total operating expenses	47,890	37,650	94,029	74,045
Loss from operations	(12,425)	(10,160)	(24,558)	(21,763)
Other income (expense):				
Interest income	529	39	767	115
Interest expense	(20)	(4)	(29)	(18)
Other income (expense), net	(529)	25	(353)	48
Total other income (expense), net	(20)	60	385	145
Loss before income taxes	(12,445)	(10,100)	(24,173)	(21,618)
Income tax expense	(93)	(168)	(232)	(251)
Net loss	$(12,538)	$(10,268)	$(24,405)	$(21,869)

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(1) Includes stock-based compensation as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in thousands)			
Cost of revenue:				
Subscription and support	$307	$191	$536	$317
Professional services and other	246	156	439	261
Sales and marketing	1,671	1,195	3,019	2,150
Research and development	2,033	1,506	3,927	2,738
General and administrative	1,418	1,019	2,498	1,974
Total stock-based compensation	$5,675	$4,067	$10,419	$7,440

(2) Includes amortization of acquisition-related intangibles as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in thousands)			
Cost of revenue:				
Subscription and support	$333	$ —	$674	$ —
Sales and marketing	269	—	620	—
Total amortization of acquisition-related intangibles	$602	$ —	$1,294	$ —

(3) Includes the change in fair value of the contingent liability as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in thousands)			
General and administrative	$(755)	$ —	$(1,144)	$ —

(4) Includes reversal of tax expense on secondary stock purchase transactions due to the reduction of the estimated liability as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in thousands)			
Cost of revenue:				
Subscription and support	$(49)	$—	$(49)	$—

Sales and marketing	(430)	(256)	(430)	(256)
Research and development	(616)	(256)	(616)	(256)
General and administrative	(130)	(22)	(130)	(22)
Total payroll tax expense	$(1,225)	$(534)	$(1,225)	$(534)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017 As Adjusted	2018	2017 As Adjusted
	(as a percentage of total revenue)			
Revenue:				
Subscription and support	90 %	87 %	90 %	89 %
Professional services and other	10	13	10	11
Total revenue	100	100	100	100
Cost of revenue:				
Subscription and support	22	21	22	21
Professional services and other	8	8	8	8
Total cost of revenue	30	29	30	29
Gross profit	70	71	70	71
Operating expenses:				
Sales and marketing	50	49	49	51
Research and development	30	29	30	30
General and administrative	16	20	17	20
Total operating expenses	96	98	96	101
Loss from operations	(26)	(27)	(26)	(30)
Other income (expense):				
Interest income	1	0	1	0
Interest expense	(0)	(0)	(0)	(0)
Other income (expense), net	(1)	0	(0)	0
Total other income (expense), net	(0)	0	1	0
Loss before income taxes	(26)	(27)	(25)	(30)
Income tax expense	(0)	(0)	(0)	(0)
Net loss	(26)%	(27)%	(25)%	(30)%

Three and Six Months Ended June 30, 2018 Compared to the Three and Six Months Ended June 30, 2017

Revenue

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2018	2017	Amount	%	2018	2017	Amount	%
	(dollars in thousands)							
Subscription and support	$45,104	$33,713	$11,391	34%	$88,304	$65,267	$23,037	35%
Professional services and other	4,959	4,832	127	3	9,750	7,750	2,000	26
Total revenue	$50,063	$38,545	$11,518	30	$98,054	$73,017	$25,037	34

Three month and six month change

Subscription and support revenue increased $11.4 million and $23.0 million for the three and six months ended June 30, 2018, respectively, primarily due to an increase in the total number of customers, which has grown to over 4,000 as of June 30, 2018, net revenue retention in excess of 100% as of June 30, 2018 and continued growth in

international revenue, which contributed over 19% of total revenue for both the three and six months ended June 30, 2018.

Professional services and other revenue increased $0.1 million and $2.0 million for the three and six months ended June 30, 2018, respectively, primarily due to the increase in new customers discussed above.

Cost of Revenue and Gross Margin

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2018	2017	Amount	%	2018	2017	Amount	%
	(dollars in thousands)							
Cost of revenue:								
Subscription and support	$10,784	$7,967	$2,817	35%	$21,175	$15,072	$6,103	40%
Professional services and other	3,814	3,088	726	24	7,408	5,663	1,745	31
Total cost of revenue	$14,598	$11,055	$3,543	32	$28,583	$20,735	$7,848	38
Gross margin percentage:								
Subscription and support revenue	76 %	76 %			76 %	77 %		
Professional services and other	23	36			24	27		
Total gross margin	71	71			71	72		

Three month change

Total cost of revenue increased $3.5 million for the three months ended June 30, 2018 primarily due to an increase in employee-related costs, web hosting and third-party software license costs, amortization of developed technology and third-party contractor costs.

Subscription and support cost of revenue increased $2.8 million for the three months ended June 30, 2018 primarily due to an increase in web hosting and third-party software license costs, employee-related costs, amortization of developed technology and overhead allocations. Web hosting and third-party software license costs increased $0.8 million due to the increase in total customers. Employee-related costs increased $0.9 million as we continued to grow our customer support organization to support our customer growth and improve service levels and offerings, as well as an increase in allocated self-funded medical insurance claim costs. Amortization of capitalized software development costs increased $0.9 million due to the continued development of our software platform and amortization of developed technology. Allocated overhead expenses and other insignificant items increased $0.2 million primarily due to higher rent and communication expense.

Professional services and other cost of revenue increased $0.7 million for the three months ended June 30, 2018 primarily due to an increase in employee-related costs of $0.7 million, as we continued to grow our professional services organization to support our customer growth and improve service levels and offerings.

Six month change

Total cost of revenue increased $7.8 million for the six months ended June 30, 2018 primarily due to an increase in employee-related costs, web hosting costs and amortization of developed technology.

Subscription and support cost of revenue increased $6.1 million for the six months ended June 30, 2018 primarily due to an increase in web hosting and third-party software license costs, employee-related costs, amortization of developed technology and overhead allocations. Web hosting costs and third-party software license costs increased $1.9 million due to the increase in total customers. Employee-related costs increased $2.1 million as we continued to grow our customer support organization to support our customer growth and improve service levels and offerings, as well as an increase in allocated self-funded medical insurance claim costs. Amortization of capitalized software development costs increased $1.7 million due to the continued development of our software platform and amortization of developed technology. Allocated overhead expenses and other insignificant items increased $0.4 million primarily due to higher

rent and maintenance on our facilities.

Professional services and other cost of revenue increased $1.7 million for the six months ended June 30, 2018 primarily due to an increase in employee-related costs and allocated overhead expenses. Employee-related costs increased $1.6 million as we continue to grow our professional services organization to support our customer growth and improve service level offerings. Allocated overhead expenses and other insignificant items increased $0.3 million primarily due to higher rent and maintenance on our facilities. These increases were offset by outside services expenses which decreased $0.2 million as fewer third-party consultants were utilized to deliver implementation and solutions consulting services.

Operating Expenses

Sales and Marketing

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2018	2017	Amount	%	2018	2017	Amount	%
	(dollars in thousands)							
Sales and marketing	$24,841	$18,972	$5,869	31%	$48,029	$37,199	$10,830	29%

Three month change

Sales and marketing expenses increased $5.9 million for the three months ended June 30, 2018 primarily due to an increase in employee-related and sales commission costs, expansion of our marketing programs, information technology expenses and overhead allocations. Employee-related and sales commission costs increased $3.9 million as a result of hiring additional employees domestically and internationally, growth in our customer base as well as an increase in allocated self-funded medical insurance claim costs. Marketing program costs increased $1.0 million due to continued expansion into international and corporate markets. Information technology expenses increased $0.1 million as we continue to automate our internal systems. Allocated overhead expenses increased $0.5 million primarily due to higher rent and maintenance on our facilities. Amortization expense and other insignificant items increased $0.4 million due to increase in capital equipment and amortization of acquisition related identified intangible assets.

Six month change

Sales and marketing expenses increased $10.8 million for the six months ended June 30, 2018 primarily due to an increase in employee-related and sales commission costs, expansion of our marketing programs, information technology expenses and overhead allocations. Employee-related and sales commission costs increased $7.6 million as a result of hiring additional employees domestically and internationally, growth in our customer base and increase in allocated self-funded medical insurance claim costs. Marketing program costs increased $1.3 million due to continued expansion into international and corporate markets. Information technology expenses increased $0.2 million as we continue to automate our internal systems. Allocated overhead expenses increased $0.9 million primarily due to higher rent and maintenance on our facilities. Other items primarily related to amortization expense increased $0.8 million due to increase in capital equipment and amortization of acquisition related identified intangible assets.

Research and Development

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2018	2017	Amount	%	2018	2017	Amount	%
	(dollars in thousands)							
Research and development	$14,849	$11,057	$3,792	34%	$29,509	$22,239	$7,270	33%

Three month change

Research and development expenses increased $3.8 million for the three months ended June 30, 2018 due to an increase in employee-related costs, outside services, and allocated overhead expenses and were offset by decreases in information technology and travel-related costs. Employee-related costs increased $3.4 million as we continue to grow our engineering organization to develop new applications and continue to develop additional features for Canvas and Bridge. Third-party contractor costs increased $0.3 million due to increased use of third-party engineering contractors to assist with product development planning and international market research. Allocated overhead expenses increased $0.3 million primarily due to higher rent and maintenance on our facilities and allocated software licenses. Offsetting these increases was a decrease in travel and information technology costs of $0.2 million.

Six month change

Research and development expenses increased $7.3 million for the six months ended June 30, 2018 primarily due to an increase in employee-related costs, outside services and allocated overhead expenses. Employee-related costs increased $6.5 million as we continue to grow our engineering organization to develop new applications and continue to develop additional features for Canvas and Bridge. Third-party contractor costs increased $0.3 million due to increase use of third-party engineering contractors to assist with product development planning and international market research. Allocated overhead expenses increased $0.5 million primarily due to higher rent and maintenance on our facilities.

General and Administrative

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2018	2017	Amount	%	2018	2017	Amount	%
	(dollars in thousands)							
General and administrative	$8,200	$7,621	$579	8%	$16,491	$14,607	$1,884	13%

Three month change

General and administrative expenses increased $0.6 million for the three months ended June 30, 2018 primarily due to an increase in employee-related costs and information technology. Employee-related costs increased $1.2 million as a result of increased stock-based compensation expense, employee benefits primarily consisting of self-funded medical insurance claim costs, recruiting costs as a result of increased headcount domestically and internationally to support continued growth. Our information technology expenses increased $0.2 million as we continued to automate our internal systems. Offsetting these increases was a decrease in other general and administrative expenses of $0.6 million primarily related to the decrease in the estimated fair value of the contingent liability. Outside services and other insignificant items decreased $0.2 million primarily related to the decrease in third-party contractor services.

Six month change

General and administrative expenses increased $1.9 million for the six months ended June 30, 2018 primarily due to an increase in employee-related costs, information technology expenses, and third-party services. Employee-related costs increased $2.1 million as a result of increased stock compensation expense, employee benefits primarily consisting of self-funded medical insurance claim costs, recruiting costs as a result of increased headcount domestically and internationally to support continued growth. Our information technology expenses increased $0.5 million as we continued to automate our internal systems. Outside services increased $0.2 million primarily due to timing of accounting costs related to compliance. Offsetting these increases was a decrease in other general and administrative expenses of $0.9 million primarily related to the decrease in the estimated fair value of the contingent liability.

Other Income (Expense), Net

	Three Months Ended June 30,		Change		Six Months Ended June 30,		Change	
	2018	2017	Amount	%	2018	2017	Amount	%
	(dollars in thousands)							
Other income (expense), net	$(20)	$60	$(80)	(133)%	$385	$145	$240	166%

Three and six month change

Other income (expense), net includes interest income and expense, the change in fair value of warrant liability and the impact of foreign currency transaction gains and losses. Other income (expense), net decreased $0.1 million for the

three months ended June 30, 2018 as a result of fluctuations in foreign exchange rates during the period. Other income (expense), net increased $0.2 million for the six months ended June 30, 2018 primarily as a result of fluctuations in foreign exchange rates during the period and the change in the fair value of the warrant liability.

Liquidity and Capital Resources

As of June 30, 2018, we had $68.0 million of cash and cash equivalents and $48.6 million in short-term marketable securities. We believe our cash, cash equivalents, short-term marketable securities and cash flows from operations will be sufficient to support our planned operations for at least the next 12 months. Our future capital requirements will depend on many factors including our growth rate, net revenue retention rates, the timing and extent of spending to support the expansion of sales and marketing and research and development activities, the introduction of new and enhanced offerings, and the continuing market acceptance of our platform. We may in the future enter into arrangements to acquire or invest in complementary businesses, services and technologies, and intellectual property rights. We may be required to seek additional equity or debt financing. If additional financing is required from outside sources, we may not be able to raise it on terms acceptable to us or at all. If we are unable to raise additional capital when desired, our business, operating results and financial condition may be adversely affected.

In June 2018, we entered into an amended and restated loan and security agreement, or credit facility, with Silicon Valley Bank (“SVB”), which was amended on March 30, 2018 and June 28, 2018. The agreement provides for up to $5.0 million in revolving borrowings (subject to increase to $35.0 million in the lender’s sole discretion). Availability is subject to a formula based on our monthly recurring revenue. Advances under the credit facility accrue interest at a floating per year rate equal to the prime rate plus 0.5%. The credit facility terminates in June 2019, at which time the principal amount of all outstanding advances becomes due and payable. As of June 30, 2018, we did not have any outstanding borrowing under the credit facility.

To secure our obligations under the credit facility, we granted SVB a security interest in substantially all of our tangible and intangible assets, excluding intellectual property. The credit facility contains customary events of default, conditions to borrowing, and covenants, including restrictions on our ability to make acquisitions, make distributions and dividends to stockholders, and maintain certain amounts of cash or debt with other financial institutions. The agreement also includes a financial covenant to maintain a certain adjusted quick ratio, reported quarterly. In the event the accordion feature of the line is utilized the covenants convert to a recurring revenue measurement. During the continuance of an event of default, SVB may accelerate amounts outstanding, terminate the credit facility and foreclose on the collateral. As of June 30, 2018, we were in compliance with all covenants under the terms of the credit facility.

The following table shows our cash flows for the six months ended June 30, 2018 and 2017:

	Six Months Ended June 30,	
	2018	2017
	(in thousands)	
Net cash used in operating activities	$(34,428)	$(39,646)
Net cash (used in) provided by investing activities	(50,079)	16,682
Net cash provided by financing activities	116,765	4,169

Our cash flows are subject to seasonal fluctuations. A significant portion of our contracts have terms that coincide with our academic customers’ typical fiscal year-end of June 30. Historical experience has shown an increase in new and renewed contracts as well as anniversary billings, all of which immediately precede the beginning of our academic customers’ typical fiscal year-end. We typically invoice SaaS fees annually upfront with credit terms of net 30 or 60 days. In turn, our cash flows from operations are affected by this seasonality and are typically reflected in higher cash flow, accounts receivable and deferred revenue balances for the second and third quarter of each year.

Operating Activities

Net cash used in operating activities consists primarily of net loss adjusted for certain non-cash items, including stock-based compensation, depreciation and amortization and other non-cash charges, net.

Net cash used in operating activities during the six months ended June 30, 2018 was $34.4 million, which primarily reflected our net loss of $24.4 million and the change in fair value of mark-to-market liabilities and other insignificant items of $2.2 million. These items were offset by non-cash expenses that included $10.4 million of stock-based compensation and $5.6 million of depreciation and amortization. Working capital uses of cash included a net decrease of $29.1 million in deferred revenue and accounts receivable primarily due to the seasonality of our business where a significant number of customer agreements occur in the second and third quarter of each year, and a $0.9 million decrease in deferred commissions. Working capital uses of cash were offset by a $1.4 million increase in prepaids and other assets, a $3.0 million increase in accounts payable and accrued liabilities and a $1.8 million increase in deferred

rent.

Investing Activities

Our investing activities have consisted primarily of purchases of marketable securities, property and equipment purchases for computer-related equipment and capitalization of software development costs. Capitalized software development costs are related to new applications or improvements to our existing software platform that expand the functionality for our customers. As our business grows, we expect that we will continue to invest in the expansion of, and improvements to, our leased spaces, both domestically and internationally.

Net cash used in investing activities during the six months ended June 30, 2018 was $50.1 million, consisting primarily of purchases of marketable securities of $48.4 million, and purchases of property plant and equipment of $7.4 million. These were offset primarily by cash maturities from our marketable securities of $5.7 million.

Financing Activities

Our financing activities have consisted primarily of proceeds from the issuance of common stock from employee equity plans.

Net cash provided by financing activities for the six months ended June 30, 2018 was $116.8 million and consisted of $109.8 million in net proceeds received from a common stock offering, after deducting underwriting discounts and commissions and offering expenses, and $7.3 million in proceeds received from the issuance of common stock under employee equity plans, including the exercise of stock options and the purchase of common stock under our employee stock purchase plan, offset by $0.3 million in shares repurchased for tax withholdings on vesting of restricted stock and other insignificant items.

Contractual Obligations and Commitments

As of June 30, 2018, there were no material changes in our contractual obligations and commitments from those disclosed in the Annual Report on Form 10-K filed with the SEC on February 15, 2018 other than a new lease agreement that we entered into during the three months ended June 30, 2018 in Seattle, Washington. The lease commences October 1, 2018 for a term of ten years ending September 30, 2028, with one option to renew for an additional five-year period. The base annual rent payment is $0.7 million and is subject to an annual rent escalation of 2%.

As of June 30, 2018, we have no material commitments for capital expenditures.

Off-Balance Sheet Arrangements

Through June 30, 2018, we did not have any relationships with any entities or financial partnerships, such as structured finance or special purpose entities established for the purpose of facilitating off-balance sheet arrangements or other purposes.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses, and related disclosures. On an ongoing basis, we evaluate our estimates and assumptions. Our actual results may differ from these estimates under different assumptions or conditions.

Except for the accounting policies for revenue recognition and deferred commissions that were updated as a result of adopting ASU No. 2014-09 (see footnote 1 in the Notes to Consolidated Financial Statements), there have been no changes to our critical accounting policies and estimates described in the Annual Report on Form 10-K for the year ended December 31, 2017, filed with the Securities and Exchange Commission (“SEC”) on February 15, 2018, that have had a material impact on our consolidated financial statements and related notes.

Recent Accounting Pronouncement

For information on recent accounting pronouncements, see Recent Accounting Pronouncements in the notes to the consolidated financial statements appearing elsewhere in this Quarterly Report on Form 10-Q.

Non-GAAP Financial Measures

In addition to our results determined in accordance with GAAP, we believe the following non-GAAP measures are useful in evaluating our operating performance. We regularly review the measures set forth below as we evaluate our business.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in thousands)			
Other Financial Data:				
Non-GAAP operating loss [1]	(8,128)	(6,627)	(15,214)	(14,857)
Free cash flow [2]	(24,598)	(15,695)	(41,766)	(46,864)

(1) We define non-GAAP operating loss as operating loss before stock-based compensation, accrual and reversal of payroll tax expense on secondary stock purchase transactions, amortization of acquisition-related intangibles and the change in fair value of the contingent liability.

(2) We define free cash flow as net cash used in operating activities less purchases of property and equipment and intangible assets, net of proceeds from disposals of property and equipment.

We believe non-GAAP operating loss and free cash flow provide investors and other users of our financial information consistency and comparability with our past financial performance and facilitates period-to-period comparisons of operations and liquidity. We believe non-GAAP operating loss is useful in evaluating our operating performance compared to that of other companies in our industry, as this metric generally eliminates the effects of certain items that may vary for different companies for reasons unrelated to overall operating performance. We consider free cash flow to be an important measure because it measures the amount of cash we generate and reflects changes in working capital. We use non-GAAP operating loss and free cash flow in conjunction with traditional GAAP measures as part of our overall assessment of our performance, including the preparation of our annual operating budget and quarterly forecasts, to evaluate the effectiveness of our business strategies and to communicate with our board of directors concerning our financial performance and liquidity.

Our definitions may differ from the definitions used by other companies and therefore comparability may be limited. In addition, other companies may not publish these or similar metrics. Thus, our non-GAAP operating loss and free cash flow should be considered in addition to, not as substitutes for, or in isolation from, measures prepared in accordance with GAAP.

We compensate for these limitations by providing investors and other users of our financial information, reconciliations of non-GAAP operating loss to the related GAAP financial measure, loss from operations and reconciliations of free cash flow to the related GAAP financial measure of net cash used in operating activities. We encourage investors and others to review our financial information in its entirety, not to rely on any single financial measure and to view non-GAAP operating loss and free cash flow in conjunction with the related GAAP financial measure.

The following table provides a reconciliation of loss from operations to non-GAAP operating loss:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(in thousands)			
Loss from operations	$(12,425)	$(10,160)	$(24,558)	$(21,763)
Stock-based compensation	5,675	4,067	10,419	7,440
Reversal of payroll tax expense on secondary stock purchase transactions	(1,225)	(534)	(1,225)	(534)
Amortization of acquisition related intangibles	602	—	1,294	—
Change in fair value of contingent liability	(755)			