hms
2016 ANNUAL REPORT

William C. Lucia
Chairman and Chief Executive Officer

Dear Shareholder,

2016 was a year of solid growth in total revenue and earnings per share. Adjusted EBITDA also increased, overall profitability and margins improved, and operating cash flow remained strong. In addition, we achieved a key strategic objective for the year by acquiring a care management platform. Beyond our financial performance, we are proud to have saved billions of dollars for our customers. Those savings represent an important contribution to bending the ever-rising healthcare cost curve in this nation.

Our 2016 commercial health plan revenue exceeded our state government revenue for the first time and significant sales throughout last year form the foundation for strong commercial revenue growth we expect again in 2017. We added over 17 million new commercial lives, including a sale in the second quarter to a single customer for 15 million of their at-risk and ASO members, taking our commercial health plan lives over 100 million. We also sold additional products to existing health plan customers last year covering approximately 30 million of their members, compared to about 13 million in the prior year.

Full-year adjusted earnings per share were up 30% in 2016. Operating cash flow increased 22% and year-end cash of $176 million was 21% higher than the prior year-end, even after the $21 million purchase of Essette in the third quarter and $20 million of share repurchases (1.1 million shares) in the fourth quarter. Through year end we had purchased a total of 5.9 million shares at an average price of $11.95 per share pursuant to a buyback plan instituted by our Board in August of 2015. We also completed a tax project in the third quarter – identifying certain credits and deductions that reduced our annual effective tax rate by 300 bps to ~37%.

The Essette care management platform, acquired last fall, was the foundation for a new third business vertical, which was strengthened considerably by the acquisition of the Eliza Corporation consumer engagement platform completed in April of this year. Essette was designed and built from the ground up to serve as a "care traffic controller" – helping risk bearing entities identify and manage at-risk populations. Eliza is a cloud-based technology platform which provides comprehensive and personalized health engagement solutions designed to improve clinical outcomes and reduce costs by motivating members to adopt targeted behaviors. Eliza has developed sophisticated communication techniques - based on proprietary patented predictive analytics, behavioral science and digital design techniques - to effectively engage members and achieve better health outcomes. We see these Essette and Eliza capabilities as a natural extension of the cost containment solutions we have offered historically, an opportunity to further leverage our data assets, and a strategic response to the need for payers to improve health outcomes and reduce costs for their highest risk members. We believe there will be significant opportunities to cross-sell our new care management and member engagement solutions to our health plan and state government customers.

We presently operate in a very favorable macro environment, including rising healthcare expenditures, an aging population, growing numbers of individuals with chronic illness, employers focused on reducing their healthcare expenditures, providers taking on health plan risk and changing payment methodologies – which collectively create meaningful growth opportunities for our suite of cost containment solutions.

Studies of healthcare spending consistently show a steep upward trajectory over the next decade, with the CMS Office of the Actuary projecting growth at an average annual rate in excess of 5% and total spending of almost 20% of GDP by 2025. Within that spend, the top 5% of the population account for roughly 50% of healthcare expenditures. Appropriately managing the health of high utilizers is critical to any effort to reduce the rapid rise in healthcare spending, and we believe HMS is uniquely positioned to impact that trend – particularly with the addition of our newly acquired care management and member engagement capabilities.

We currently face some uncertainty as Congress and the Trump Administration consider various approaches to the repeal and replacement of the Affordable Care Act or ACA. Though a range of outcomes is possible and final legislative action could take several months, we currently believe potential legislative action could be positive for our business. If, for example, federal reimbursement to the states for Medicaid were to move away from the current funding mechanism and be replaced by block grants or a per capita reimbursement, we believe states would be even more focused on preserving the dollars they receive than they are today.

In 2017, our primary strategic objectives fall into four broad categories: managing big data, innovation, new product development and prudent capital deployment. We intend to utilize big data technology and process automation to create a more nimble operating environment and to identify additional revenue opportunities within our current service delivery model. Innovation is both a focus of our acquisition activity and an important internal priority, particularly with regard to product development. We consistently work collaboratively with customers to refine and expand our product suite and to develop new approaches to fit their cost containment needs.

And finally, maintaining a strong balance sheet and opportunistically pursuing acquisitions – our first priority for capital deployment – remain top objectives. We are continually evaluating a robust pipeline of companies to add to our core cost containment expertise, expand our data analytics capabilities, or augment the Essette and Eliza care management and member engagement product suite.

Beyond a good strategic plan, our ability to succeed in a competitive and ever-changing healthcare marketplace is highly dependent upon the hard work and ongoing dedication of the entire HMS workforce, combined with the advice and support we receive from our shareholders. I am extremely grateful to you, our owners, for your continued confidence in our executive team, strategic direction and ability to execute.

Sincerely,

William C. Lucia
Chairman and Chief Executive Officer
July 12, 2017

Safe Harbor: This letter contains certain "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. These statements reflect our current expectations, projections and assumptions about our business, the economy and future events or conditions; they do not relate strictly to historical or current facts. For a discussion identifying important factors that could cause actual results to differ from those stated or implied in our forward-looking statements, see the Company's filings with the SEC, including, but not limited to the "Cautionary Note Regarding Forward-Looking Statements," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the Form 10-K portion of this Annual Report. Additionally, this letter includes references to certain non-GAAP measures. These non-GAAP measures are not measurements of financial performance or liquidity under GAAP and should not be considered alternatives to the Company's other financial information determined under GAAP. For reconciliations of these non-GAAP measures, please refer to Appendix A.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2016

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 000-50194

hms

HMS HOLDINGS CORP.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	**11-3656261** (I.R.S. Employer Identification No.)
5615 High Point Drive, Irving, TX (Address of principal executive offices)	**75038** (Zip Code)

(Registrant's telephone number, including area code)

(214) 453-3000

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock $0.01 par value	**The NASDAQ Stock Market LLC (NASDAQ Global Select Market)**

Securities registered pursuant to section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

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 definitions 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 Act) Yes ☐ No ☒

The aggregate market value of the registrant's common stock held by non-affiliates as of June 30, 2016, the last business day of the registrant's most recently completed second quarter was $1.5 billion based on the last reported sale price of the registrant's common stock on the NASDAQ Global Select Market on that date. Solely for purposes of this disclosure, shares of common stock held by executive officers, directors and persons who hold 10% or more of the outstanding shares of common stock of the registrant as of such date have been excluded because such persons may be deemed to be affiliates. This determination is not necessarily a conclusive determination for any other purposes.

There were 83,909,845 shares of common stock outstanding as of May 31, 2017.

Documents Incorporated by Reference

None.

HMS HOLDINGS CORP. AND SUBSIDIARIES
ANNUAL REPORT ON FORM 10-K
TABLE OF CONTENTS

		Page
Glossary of Terms and Abbreviations		1
PART I		
Item 1.	Business	3
Item 1A.	Risk Factors	8
Item 1B.	Unresolved Staff Comments	24
Item 2.	Properties	24
Item 3.	Legal Proceedings	24
Item 4.	Mine Safety Disclosures	24
PART II		
Item 5.	Market for Registrant’s Common Equity, Related Shareholder Matters and Issuer Purchases of Equity Securities	25
Item 6.	Selected Financial Data	28
Item 7.	Management’s Discussion and Analysis of Financial Condition and Results of Operations	29
Item 7A.	Quantitative and Qualitative Disclosures About Market Risk	40
Item 8.	Consolidated Financial Statements and Supplementary Data	40
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	40
Item 9A.	Controls and Procedures	41
Item 9B.	Other Information	42
PART III		
Item 10.	Directors, Executive Officers and Corporate Governance	43
Item 11.	Executive Compensation	52
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Shareholder Matters	91
Item 13.	Certain Relationships and Related Transactions and Director Independence	93
Item 14.	Principal Accounting Fees and Services	94
PART IV		
Item 15.	Exhibits, Financial Statement Schedules	96
Item 16.	Form 10-K Summary	96

Glossary of Terms and Abbreviations

2016 Form 10-K	Company's Annual Report on Form 10-K for the year ended December 31, 2016
ACA	Patient Protections and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010
ACO	Accountable Care Organizations
ADR	Additional Documentation Request
ALJ	Administrative Law Judges
ASC	Accounting Standards Codification
ASO	Administrative Service Only
CHIP	Children's Health Insurance Program
CMS	Centers for Medicare & Medicaid Services
CMS NHE Projections	Centers for Medicare & Medicaid Services National Health Expenditures
COSO	Committee of Sponsoring Organizations of the Treadway Commission
DMD	Domestic Manufacturing Deduction
DRA	Deficit Reduction Act of 2005
DSO	Days Sales Outstanding
ERISA	Employment Retirement Income Security Act of 1974
Exchange Act	Securities Exchange Act of 1934, as amended
FASB	Financial Accounting Standards Board
FFS	Fee For Services
HIPAA	Health Insurance Portability and Accountability Act of 1996
HITECH	Health Information Technology for Economic and Clinical Health
IRS	U.S Internal Revenue Service
LIBOR	Intercontinental Exchange London Interbank Offered Rate
Medicare Advantage	Medicaid and Medicare managed care
MMIS	Medicaid Management Information Systems
PBM	Pharmacy Benefit Managers
PHI	Protected health information
PI	Payment Integrity
R&D Credits	Research and Development Tax Credits
RAC	Recovery Audit Contractor
RFI	Request for information
RFP	Request for proposals
SEC	U.S. Securities and Exchange Commission
Securities Act	Securities Act of 1933, as amended
Section 199 Deduction	U.S. Production activities deduction
SG&A	Selling, general and administrative expenses
TPL	Third-party liability
U.S. GAAP	United States Generally Accepted Accounting Principles
VHA	Veterans Health Administration
Credit Agreement	The Credit Agreement dated December 16, 2011 among HMS Holdings Corp., the Guarantor Party thereto, the Lenders party thereto and Citibank, N.A. as Administrative Agent, as amended and restated in its entirety by the Amended and Restated Credit Agreement dated as of May 3, 2013 among HMS Holdings Corp., the Guarantor Party thereto, the Lenders party thereto and Citibank, N. A. as Administrative Agent, as amended
2006 Stock Plan	HMS Holdings Corp. Fourth Amended and Restated 2006 Stock Plan
2011 HDI Plan	HDI Holdings, Inc. Amended 2011 Stock Option and Stock Issuance Plan
2016 Omnibus Plan	HMS Holdings Corp. 2016 Omnibus Incentive Plan
401(k) Plan	HMS Holdings Corp. 401(k) Plan

Cautionary Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K of HMS Holdings Corp. (together with its subsidiaries, “HMS,” the “Company,” “we,” “our” or “us”) contains “forward-looking statements” within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. From time to time, we also provide forward-looking statements in other materials we release to the public, as well as oral forward-looking statements. Such statements reflect our current expectations, projections and assumptions about our business, the economy and future events or conditions. They do not relate strictly to historical or current facts.

We have tried to identify forward-looking statements by using words such as “aim,” “anticipate,” “believe,” “estimate,” “expect,” “forecast,” “intend,” “likely,” “may,” “plan,” “project,” “seek,” “target,” “will,” “would,” “could,” “should,” and similar expressions and references to guidance, although some forward-looking statements may be expressed differently. These statements include, among other things, information concerning our possible future actions, business plans, objectives and prospects, our future operating or financial performance, sales efforts and results of current and anticipated services, the benefits and synergies to be obtained from completed and future acquisitions, the future performance of companies we have acquired, sufficiency of our appeals reserves, the future effect of different accounting determinations or remediation activities, our ability to successfully remediate material weaknesses in our internal control over financial reporting, our future expenses, interest rates and financial results, and the impact of changes to U.S. healthcare legislation or healthcare spending affecting Medicare, Medicaid or other publicly funded or subsidized health programs.

Forward-looking statements are not guarantees and involve risks, uncertainties and assumptions that are difficult to predict. Actual results may differ materially from past results and forward-looking statements if known or unknown risks or uncertainties materialize, or if underlying assumptions prove inaccurate. These risks and uncertainties include, among other things,

- *our ability to execute our business plans or growth strategy;*
- *our ability to innovate, develop or implement new or enhanced solutions or services;*
- *the nature of investment and acquisition opportunities we are pursuing, and the successful execution of such investments and acquisitions;*
- *our ability to successfully integrate acquired businesses and realize synergies;*
- *variations in our results of operations;*
- *our ability to accurately forecast the revenue under our contracts and solutions;*
- *our ability to protect our systems from damage, interruption or breach, and to maintain effective information and technology systems and networks;*
- *our ability to protect our intellectual property rights, proprietary technology, information processes, and know-how;*
- *significant competition for our solutions and services;*
- *our failure to maintain a high level of customer retention or the unexpected reduction in scope or termination of key contracts with major customers;*
- *customer dissatisfaction, our non-compliance with contractual provisions or regulatory requirements;*
- *our failure to meet performance standards triggering significant costs or liabilities under our contracts;*
- *our inability to manage our relationships with information and data sources and suppliers;*
- *reliance on sub-contractors and other third party providers and parties to perform services;*
- *our ability to continue to secure contracts and favorable contract terms through the competitive bidding process and to prevail in protests or challenges to contract awards;*
- *pending or threatened litigation;*
- *unfavorable outcomes in legal proceedings;*
- *our success in attracting qualified employees and members of our management team;*
- *our ability to generate sufficient cash to cover our interest and principal payments under our credit facility or to borrow or use credit;*
- *unexpected changes in our effective tax rates;*
- *unanticipated increases in the number or amount of claims for which we are self-insured;*
- *changes in the U.S. healthcare environment or healthcare financing system, including regulatory, budgetary or political actions that affect procurement practices and healthcare spending;*
- *our failure to comply with applicable laws and regulations governing individual privacy and information security or to protect such information from theft and misuse;*
- *negative results of government or customer reviews, audits or investigations;*

- *state or federal limitations related to outsourcing or certain government programs or functions;*
- *restrictions on bidding or performing certain work due to perceived conflicts of interests;*
- *the market price of our common stock and lack of dividend payments; and*
- *anti-takeover provisions in our corporate governance documents.*

These and other risks are discussed under the headings "Part I. Item 1. Business," "Part I. Item 1A, Risk Factors," "Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations," and "Part II, Item 7A. Quantitative and Qualitative Disclosures about Market Risk" of this 2016 Form 10-K and in other documents we file with the SEC.

Any forward-looking statements made by us in this 2016 Form 10-K speak only as of the date on which they are made. We undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by law. We caution readers not to place undue reliance upon any of these forward-looking statements. You are advised, however, to consult any further disclosures we make on related subjects in our Form 10-Q and Form 8-K reports and our other filings with the SEC.

Market and Industry Data

This 2016 Form 10-K contains market, industry and government data and forecasts that have been obtained from publicly available information, various industry publications and other published industry sources. We have not independently verified the information and cannot make any representation as to the accuracy or completeness of such information. None of the reports and other materials of third party sources referred to in this 2016 Form 10-K were prepared for use in, or in connection with, this report.

PART I

Item 1. Business

Founded in 1974, HMS is a leading provider of cost containment solutions in the U.S. healthcare marketplace. We use innovative technology, extensive data services and powerful analytics, to deliver coordination of benefits, payment integrity and health management and engagement solutions to help healthcare payers improve performance and outcomes. We provide coordination of benefits services to government and commercial healthcare payers and sponsors to ensure that the responsible party pays healthcare claims. Our payment integrity services ensure healthcare claims billed are accurate and appropriate; and our care management technology helps risk-bearing organizations manage the care delivered to their members. Together these various services help customers recover amounts from liable third parties; prevent future improper payments; reduce fraud, waste and abuse; better manage the care that members receive; and ensure regulatory compliance.

HMS began its operations as Health Management Systems, Inc., which became our wholly owned subsidiary in March 2003 when we assumed its business in connection with the adoption of a holding company structure. Since then HMS has grown both organically and through targeted acquisitions of businesses that helped expand our product suite, including IntegriGuard, LLC (2009), HealthDataInsights, Inc.("HDI") (2011), Essette, Inc. (2016), Eliza Holding Corp. (2017) and others.

We were originally incorporated in the State of New York in October 2002 and reincorporated in the State of Delaware in July 2013. Our principal executive offices are located 5615 High Point Drive, Irving, Texas 75038 and our telephone number is (214) 453-3000.

We operate as one business segment with a single management team that reports to the Chief Executive Officer.

Our Solutions

Our coordination of benefits services draw principally upon proprietary information management and data mining techniques designed to ensure that the correct party pays a healthcare claim. Our payment integrity services are designed to ensure that healthcare billings and/or payments are accurate and appropriate. As a result of these services, customers received billions of dollars in cash recoveries in 2016, and saved billions more through the prevention of erroneous payments. In addition, our care

management solutions help risk-bearing organizations manage the care delivered to their members with a focus on improving outcomes and patient engagement.

Our services are applicable to federal, state and commercial health plans and prevent and address errors across the payment continuum, from an individual's enrollment in a program before any medical service is rendered, to pre-payment review of a claim by a payer, through recovery where discovery of an improper payment is made via audit. Our services address a wide spectrum of payment errors, from eligibility and coordination of benefits errors, to the identification and investigation of potential fraud, and extend to most claim types. Our services also assist customers in managing quality, risk, cost and compliance across all lines of business.

Coordination of Benefits	Payment Integrity	Care Management and Member Analytics Technologies
Identify the responsible party to pay claims	**Determine if billed claims are paid accurately**	**Actionable intelligence for customers**
▪ *Prospective* cost avoidance ▪ *Retrospective* cost recoveries	▪ Proper Coding ▪ Correct setting ▪ Appropriate care ▪ Correct billed amount - consistent with customer payment policies and contracts	▪ Manage quality, risk, cost and compliance across all lines of business ▪ Focus on improved workflow, outcomes and patient engagement

In general, our range of services includes the following:

- *Coordination of benefits services*
  We provide cost avoidance services, which include providing validated insurance coverage information that is used by government-sponsored payers to coordinate benefits properly for future claims. With validated insurance information, Medicaid payers can avoid unnecessary costs by ensuring that they pay only after all other benefits available have been exhausted, thereby complying with federal regulations that require Medicaid to be the payer of last resort. Nevertheless, due to a variety of factors, some Medicaid claims are paid even when there is a known responsible third party. Our government-sponsored program customers rely on us to identify those claims that were paid in error and recover these payments from the liable third party. Further, we also provide services to assist customers in identifying other third-party insurance and recovering medical expenses where a member is involved in a casualty or tort incident. Lastly, for Medicaid agencies exclusively, we provide estate recovery services to identify and recover Medicaid expenditures from the estates of deceased Medicaid members in accordance with state policies. For the years ended December 31, 2016, 2015 and 2014, our coordination of benefits services represented 72.3%, 71.2% and 70.5% of our total revenue, respectively.

- *Payment integrity services*
  Our payment integrity services are applicable to all markets that HMS serves, including the federal and state governments, commercial health plans and other at-risk entities. Our solutions are designed to verify that medical services are utilized, billed and paid appropriately. Our services combine data analytics, clinical expertise and proprietary technology to identify improper payments on both a pre-payment and post-payment basis; identify and recover overpayments/underpayments; detect and prevent fraud, waste and abuse; and identify process improvements. For the years ended December 31, 2016, 2015 and 2014, our payment integrity services represented 24.3%, 24.5% and 24.5% of our total revenue, respectively.

- *Care management and member analytics technologies*
  We offer a web-based care management platform which helps risk-bearing healthcare organizations identify, engage, and manage at-risk patient populations to improve outcomes while managing costs.

Customers

For each of the years ended December 31, 2016, 2015 and 2014 no one individual Company customer accounted for more than 10% of our total revenue.

The composition of our 10 largest customers changes periodically. For the years ended December 31, 2016, 2015 and 2014, our 10 largest customers represented 40.6%, 44.0% and 40.1% of our total revenue, respectively. The current terms of our agreements with these customers have expiration dates ranging between 2017 and 2020. Several of our contracts, including those with some of our largest customers, may be terminated for convenience. The early termination of a contract with one of our significant customers may have an adverse effect on our financial condition, results of operations and cash flows.

We provide products and services under contracts (or sub-contracts) that contain various revenue structures, including contingent revenue and fixed-fee arrangements. Most of our contracts have terms ranging from three to five years, including renewal terms at the option of the customer. In many instances, we provide our services pursuant to agreements that are subject to periodic reprocurements. Because we provide our services pursuant to agreements that are open to competition from various businesses in the U.S. healthcare insurance benefit cost containment marketplace, we cannot provide assurance that our contracts, including those with our largest customers, will not be terminated for convenience, awarded to other parties, or renewed. Additionally, we cannot provide assurance that our contracts, if renewed, will have the same fee structures or otherwise be on satisfactory terms.

Industry Trends and Opportunities

U.S. healthcare expenditures continue to escalate and consume a large proportion of our GDP, presenting challenges for payers who wish to contain and reduce costs while also promoting quality healthcare outcomes. These aims are the same across all at-risk entities, including commercial health plans and government healthcare programs, such as Medicaid and Medicare.

Within the commercial market, health plans sell policies directly to individuals (on the open market or via health insurance exchanges), contract with employers to underwrite their employees' care, or contract with self-insured employers to oversee benefit administration to their employees. This market also includes a growing number of risk bearing provider-sponsored plans that operate and market health plan benefits. According to CMS NHE projections, private health insurance covered 195 million individuals in 2016 at a cost of $1.09 trillion.

Several commercial health plans also offer government-sponsored lines of business, including partnering with Medicare, Medicaid and CHIP to oversee care delivery for beneficiaries enrolled in those programs. Government managed care grew out of pressures to contain the growth of state and federal program spending and to address general concerns about healthcare access. Commercial health plan-related partnerships with government programs include the following:

- Within the Medicaid program, 38 states and the District of Columbia presently contract with managed care organizations to provide care to some or all of their Medicaid beneficiaries. In addition, many states have expanded the use of managed care organizations to new regions or to serve beneficiaries with more complex conditions. Of the 32 states and the District of Columbia that opted to expand Medicaid eligibility levels pursuant to the ACA, all except 5 use Medicaid managed care organizations. The majority of new lives that have entered the Medicaid program as a result of the ACA are enrolled in managed care plans. It is unclear at this time how, if at all, efforts in Congress to "repeal and replace" the ACA could affect any of the state expansions or future growth of Medicaid lives and expenditures.

- Similarly, managed care health plans also continue to assume risk for Medicare lives, with the Kaiser Family Foundation estimating that in 2016, nearly one-third of all Medicare recipients were enrolled in a Medicare Advantage plan.

HMS also continues to serve government-sponsored agencies' legacy fee-for-service programs at the state and federal level. These plans are generally reliant on and susceptible to the government appropriations process that determines their budget and governs the number of beneficiaries they serve.

According to the CMS NHE projections, Medicare programs in 2016 covered approximately 56 million people at a cost of approximately $681 billion and Medicaid/CHIP covered approximately 77 million people, costing approximately $593 billion. Altogether, it is projected that the government programs we serve covered approximately 130 million people at a total cost of approximately $1.3 trillion in 2016. Based on the CMS NHE Projections, Medicare spending is projected to grow 5.8% in 2017 over 2016, and CMS projects Medicaid enrollment will grow by 1.7% in 2017 over 2016. Total Medicaid spending is projected to increase at a rate of 4.8% in 2017 over 2016.

As commercial and government health plans continue to focus on strategies to contain costs across their different lines of business, we will continue to focus on serving them and meeting their evolving needs. Regardless of the program, coordinating benefits among a growing number of healthcare payers and ensuring that claims are paid appropriately represents an enormous challenge for our customers and an ongoing opportunity for us.

Regulatory Environment

The market for cost containment solutions is large and growing, driven by increasing healthcare costs and payment complexities. For 2017, Medicare and Medicaid are projected to pay approximately 45.9% of the nation's healthcare expenditures and serve over 130 million beneficiaries. Many of these beneficiaries are enrolled in managed care plans, which have the responsibility for both patient care and claim adjudications. Since 1985, we have provided state Medicaid agencies with services to identify third parties with primary liability for Medicaid claims, and since 2005, we have provided similar services to Medicaid managed care plans.

In 2006, Congress enacted the DRA and created the Medicaid Integrity Program under the Social Security Act to increase the government's capacity to prevent, detect and address fraud, waste and abuse in the Medicaid program. Later that year, Congress passed the Tax Relief and Health Care Act of 2006, which established the Medicare RAC program. HDI was awarded one of the first contracts under the program. In October 2016, CMS made a new round of awards and we again were awarded a region. These measures, at both the federal and state level, have strengthened our ability to identify and recover erroneous payments on behalf of our customers.

The ACA was signed into law in 2010. It included many provisions impacting healthcare delivery and payment programs, including employer-sponsored health coverage, expansion of the Medicaid program, health insurance exchanges with premium subsidies, and payment integrity efforts. Following the 2016 Presidential and Congressional elections, some or all of the ACA provisions may be revised or repealed, although the scope and timing of such Congressional efforts are yet to be defined. Options that have been discussed include issuing block grants or establishing per capita caps for state Medicaid populations, and looking at program design alternatives for future enrollment criteria. We will monitor ACA-related changes as they develop and assess their potential impact, as well as any opportunities they may present for our customers and for us.

Competition

The U.S. healthcare insurance benefit cost containment marketplace is a dynamic industry with a range of businesses currently able to offer cost containment services, both directly or indirectly (through sub-contracting), to some or all of the various healthcare payers. In addition, with improvements in technology and the growth in healthcare spending, new businesses are incentivized to enter this marketplace. Many healthcare payers also have the ability to perform some or all of these cost containment services themselves and choose to exercise that option. Competition is therefore robust as customers have many alternatives available to them in their effort to contain healthcare costs.

We compete based on a variety of factors, including our ability to perform a wide range of coordination of benefits and payment integrity related functions; proven results to maximize recoveries and cost avoidance; our in-depth government healthcare program experience; clinical staff expertise; extensive insurance eligibility database; proprietary systems and processes; existing relationships with various customer and other industry shareholders; and our ability to provide customers with actionable intelligence to improve outcomes and patient engagement.

Within our core coordination of benefits services, we compete primarily with large business outsourcing and technology firms, claims processors and PBMs, clearinghouses, healthcare consulting firms, smaller regional vendors and other TPL service providers. In addition, we frequently work with customers who may elect to perform some or all of their recovery and cost avoidance functions in-house. The competitive environment for payment integrity services includes some of the same companies that provide coordination of benefits services. Within the care management and risk analytics sector, we compete primarily with vendors who provide these and other population health management technology services. Companies with whom we compete across our product offerings include:

- ChangeHealthcare
- Cotiviti
- HP
- Optum, Inc.
- Xerox
- Experian Health
- IBM/Truven
- LexisNexis
- Performant Financial Corp.
- SCIO Health Analytics
- Verscend Technologies
- CaseNet
- MedHok
- Trizetto
- ZeOmega

Business Strategy

We believe that the steadily increasing enrollment and rising expenditures for Medicare and Medicaid, with most new enrollees entering managed care plans; an aging U.S. population with an increasing concentration of individuals with high cost chronic conditions; and the overall complexity of the healthcare claims payment system in the U.S. all combine to create substantial growth opportunities for the suite of cost containment solutions which we offer. We also believe that these factors similarly present growth opportunities for our care management solutions. We expect to grow our business over the course of 2017 and beyond, both organically and inorganically, by leveraging existing key assets (e.g., our data, analytics and in-house expertise, and distribution channel) and pursuing a number of strategic objectives or initiatives, including:

- *Expanding the scope of our relationship with existing customers* – by selling additional products and services.

- *Adding new customers* – by marketing to commercial health plans, including Medicaid managed care and Medicare Advantage plans, at-risk group and individual health lines of business and ASO; government healthcare payers, including Medicaid agencies, state employee health benefit plans and CHIP; at-risk provider organizations and ACOs; and commercial employers.

- *Introducing new "homegrown" products and services* – through internal development initiatives designed to enhance or expand our existing suite of cost containment products.

- *Utilizing big data* – to create a more nimble operating environment and to identify new revenue opportunities within our current service delivery models.

- *Promoting automation and innovation to improve the efficiency and effectiveness of our services* – by continuing to implement new technology and process improvements designed to increase recovery yields and increase customer satisfaction.

- *Building out our new health management and member engagement technology platform* – by establishing a broad foundation of technology and service solutions to help customers better manage quality, cost and compliance across all lines of business. Our first step in this strategy was the acquisition of Essette Inc., a care management platform, in September 2016. More recently, we acquired Eliza Holding Corp., which provides comprehensive and personalized outreach and health engagement solutions, in April 2017.

- *Continuing opportunistic growth via acquisition* – by selectively seeking assets to complement our core cost-containment expertise; build care management and care coordination adjacencies to complement the Essette and Eliza acquisitions; and expand our data analytics capabilities. Our focus is on acquisitions that have long-term growth potential; target high-growth areas; are accretive to earnings; and fill a strategic need in our business portfolio as we seek to provide increasingly comprehensive solutions to our customers.

Employees

As of December 31, 2016, we had 2,315 employees, of which 2,287 were full-time. Of our total employees, 253 support SG&A activities.

Intellectual Property

Our ability to develop and maintain the proprietary aspects of our technology and operate without infringing the proprietary rights of others are important to our business and competitive position. We establish and protect our proprietary technology and intellectual property through a combination of patents, patent applications, trademarks, copyrights, domain names, trade secrets, including know-how, confidentiality and invention assignment agreements, security measures, non-disclosure agreements with third parties, and other contractual rights. As a result of acquiring Eliza Holding Corp. on April 17, 2017, we now own a patent portfolio comprised of approximately 55 domestic and international patents and patent applications. We do not believe that any one individual technology is essential to our business.

Available Information

Additional information about HMS is available on our website at www.hms.com. The content on our website, or any website referred to in this Annual Report on Form 10-K, is not incorporated by reference into this Annual Report, unless expressly noted.

Copies of our recent Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and Proxy Statements, as well as amendments to these reports or statements, are available free of charge on our website through the Investor Relations page, as soon as reasonably practicable after we electronically file them with, or furnish them to, the SEC. These materials, as well as similar materials for SEC registrants, may be obtained directly from the SEC through their website at www.sec.gov. You may also read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330.

Item 1A. Risk Factors

Our business is subject to significant risks, including the risks and uncertainties described below. You should carefully consider these risks, as well as the other information in this 2016 Form 10-K, including our Consolidated Financial Statements and the related Notes. The occurrence of any of these risks could adversely affect our business, financial condition, results of operations, and cash flows in a material way.

Risks Relating to Our Company

Our ability to expand our business will be adversely affected if we fail to implement our growth strategy.

The size and the scope of our business operations have expanded over the past several years, and we currently intend to continue to grow and expand into new areas within the government and commercial healthcare space; however, such growth and expansion carries costs and risks that, if not properly managed, could adversely affect our business. Our future growth will depend, among other things, on our ability to successfully execute our business plans and continued efforts to improve our operations, all while remaining competitive. We must also be flexible and responsive to our customers' needs and to changes in the political, economic and regulatory environment in which we operate. The greater size and complexity of our expanding

business puts additional strain on our administrative, operational and financial resources and can make optimal resource allocation more difficult to determine. We may not be able to maintain or accelerate our growth. A failure to anticipate or properly address the demands and challenges that our growth strategy and potential diversification may have on our resources and existing infrastructure may result in unanticipated costs and inefficiencies and could negatively impact our ability to execute on our business plans and growth goals, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

If we fail to innovate and develop new or enhanced solutions and services, or if these solutions and services are not adopted by our customers, it could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Part of our growth strategy depends on our ability to respond to the evolving healthcare landscape with new and enhanced solutions and services that our existing and potential customers are willing to adopt. The development, marketing and implementation of these solutions and services may require that we make substantial financial and resource investments. We face risks that our new or modified solutions and services may not be responsive to customer preferences or industry changes, and that the solution and service development initiatives that we prioritize may not yield the gains that we anticipate, if any. If we are unable to predict market preferences or healthcare industry changes, or if we are unable to develop or adapt solutions and services that are responsive to existing and potential customers' needs, we may fail to expand our business, which could constrain our future revenue growth and materially adversely affect our business, financial condition, results of operations and cash flows.

Our acquisition strategy may subject us to considerable business and financial risk.

Historically, to achieve our strategic goals, we have made a significant number of acquisitions that have expanded the solutions and services we offer, provided a presence in complementary business lines, or expanded our geographic presence and/or customer base. For example, we acquired IntegriGuard, LLC in September 2009; Verify Solutions, Inc. in December 2009; Allied Management Group-Special Investigation Unit in June 2010; Chapman Kelly, Inc. in August 2010; HDI in December 2011; MedRecovery Management, LLC in December 2012; Essette, Inc. in September 2016; and Eliza Holding Corp. in April 2017.

We intend to pursue future acquisitions that will continue to expand and diversify our business and to periodically engage in discussions regarding such possible acquisitions. We are subject to risks and uncertainties relating to our ability to identify suitable potential acquisition candidates, to consummate additional acquisitions that will be advantageous to us, and to successfully integrate future acquisitions. Future and potential business acquisitions involve a number of risk factors that could affect our operations, including, but not limited to:

- diversion of management's attention and other resources;
- our ability to integrate operational, accounting and technology functions, policies, processes, systems and controls, and to implement these functions, policies, processes, systems and controls, without incurring substantial expenses, delays or other issues;
- our ability to integrate personnel and human resource systems as well as the cultures of the acquired business;
- our ability to retain or replace the key personnel of the acquired business;
- our ability to maintain relationships with the customers of the acquired business and further develop the acquired business;
- our ability to cross-sell our solutions and services and the solutions and services of the acquired business to our respective customers;
- customer dissatisfaction or performance problems with the acquired business;
- our ability to comply with regulatory requirements and avoid potential conflicts of interest in markets that we serve;
- the misuse of intellectual property by the personnel of the acquired business;
- our ability to successfully enter into unfamiliar markets;
- assumption of unanticipated legal or financial liabilities and/or negative publicity related to prior acts by the acquired business;

- we may become subject to litigation or other claims in connection with the acquired business, including claims from terminated employees, customers, former shareholders or third parties;
- we may become significantly leveraged as a result of incurring debt to finance an acquisition;
- we may encounter unanticipated operating, accounting or management difficulties in connection with the acquired business;
- the acquired business may not perform as projected which could negatively impact earnings or contingent consideration;
- we may suffer impairment of goodwill and other acquired intangible assets; and
- we may suffer dilution to our earnings per share.

If we fail to adequately address these risks, or to successfully integrate the businesses that we acquire, we may not realize cost efficiencies, synergies or other benefits that we anticipated when selecting our acquisition candidates, and our reputation, business, financial condition, results of operations and cash flows could be materially adversely affected.

You will not be able to rely on our operating results in any particular period as an indication of our future performance because they are subject to significant fluctuation which may cause the market price of our common stock to decrease significantly.

Our operating results may fail to match our past or projected performance. We have experienced significant variations in our revenue between reporting periods due to the timing of periodic revenue recovery projects, the timing and delays in third party payers' claim adjudication and ultimate payment to our customers where our revenue is contingent upon such collections and delays in receiving payment for our services. Our revenue and operating results have also been impacted from period to period as a result of a number of factors, some of which are outside of our control, including, but not limited to:

- fluctuations in sales activity given our sales cycle;
- the commencement, completion or termination of contracts during any particular quarter;
- expenses related to certain contracts which may be incurred in periods prior to revenue being recognized;
- the timing of government contract awards;
- the time required to resolve bid protests;
- contract renewal discussions, which result in delayed payments for services already performed;
- technological and operational issues affecting our customers, including delays in payment receipt for previously recognized revenue due to delays in certain customers processing our findings through their systems;
- adjustments to age/quality of receivables and accruals as a result of delays involving contract limitations and changes or sub-contractor performance deficiencies or internal managerial decision not to pursue identified claim revenue from customers; and
- regulatory changes or general economic conditions as they affect healthcare providers and payers.

Occasionally our state and federal customers are requested by third party payers to refund payments that we previously recovered for our customers. If our state and federal customers choose to refund money in response to these requests, regardless of whether an error actually occurred in connection with the payments, we may also be required to return contingent revenue which we were previously paid associated with such refunded payments. We also typically face a long implementation period with a new customer or a new contract with an existing customer and may not be able to estimate with certainty the period in which implementation may be completed.

We cannot predict the extent to which future variations could occur due to these or other factors. Although we have experienced some seasonal trends in our operational volume, we do not consider our operations to be seasonal to any material degree. Consequently, our operating results are subject to significant fluctuation for any particular quarter, fiscal year, or other period, and may not be indicative of future periods. Significant fluctuations in our operating results may cause the market price of our common stock to decrease significantly.

We face challenges associated with forecasting the revenue under our contracts and solutions, and any failure to accurately forecast such revenue could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We may not be able to accurately estimate the factors upon which we base our contract pricing, or the costs and timing for implementing and completing contracts. For a majority of our customer contracts, the payment of our fee is contingent upon the recoveries received by our customers. We also have cost-plus or time-and-material based contracts with the federal government where our revenue is recognized based on costs incurred plus an estimate of the negotiated fee earned. Our ability to earn a profit on these contracts requires that we accurately estimate the costs involved with these contracts and assess the probability of achieving certain outcomes or milestones within the contracted time period. In addition, we cannot predict with certainty the costs or the period in which implementation or contracts may be completed when we introduce new solutions or services into the marketplace. We may also face a long implementation period with a new customer or a new contract, making it difficult to reliably forecast revenue under those contracts. If we do not accurately estimate the costs and timing for completing projects, or if we encounter increased or unexpected costs, delays, failures, liabilities or risks, including those outside of our control, our contracts could prove unprofitable for us or yield lower profit margins than anticipated. Although we believe that we have recorded adequate provisions in our financial statements for losses on our fixed-price and cost-plus contracts where applicable, as required under U.S. GAAP, our contract loss provisions may not be adequate to cover all actual future losses.

System interruptions or failures could expose us to liability and harm our business.

Our data and operation centers are essential to our business and our operations depend on our ability to maintain and protect our information systems. We attempt to mitigate the potential adverse effects of a disruption, relocation or change in operating environment; however, the situations we plan for and the amount of insurance coverage that we maintain may not be adequate in every case. Despite systems redundancy and security measures, our systems and operations are vulnerable to damage or interruption from, among other sources:

- power loss, transmission cable cuts and telecommunications failures;
- damage or interruption caused by fire, earthquake and other natural disasters;
- software defects;
- cyber security breaches; and
- physical break-ins, sabotage, intentional acts of vandalism, terrorist attacks and other events beyond our control.

In addition, while there are backup systems in many of our operating facilities, an extended outage of utility or network services supplied by third party IT vendors or providers may delay or disrupt the delivery or performance of the solutions and services we provide for our customers. If we encounter a business interruption, or in the event our business continuity plans and business interruption insurance coverage are not adequate or fail to compensate us on a timely basis, we could suffer operational disruptions, disputes with customers, civil or criminal penalties, regulatory problems, increases in administrative expenses, loss of our ability to produce timely and accurate financial and other reports or other adverse consequences, any of which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Our systems and networks and those of third parties on which we rely may be subject to cyber security breaches and other disruptions that could compromise our information and harm our business.

In the ordinary course of our business, we rely heavily upon our technology systems and networks to input, maintain and communicate the confidential and proprietary data we receive on behalf of our customers, as well as third-party products and services. In addition, sub-contractors, teaming partners or other third-party vendors may receive or utilize this information on our behalf. The secure processing and maintenance of this information is critical to our operations and business strategy. Our security measures or those of third parties on which we rely could be compromised or breached as a result of computer hacking, acts of vandalism or theft, malware, computer viruses, employee error or malfeasance, catastrophes or other unforeseen events. As a result, our data, customers' data, information technology or infrastructure could be accessed improperly, made unavailable, improperly modified, or corrupted or we could suffer system disruptions, shutdowns and denials of service. The occurrence of

any of these events could cause our solutions and services to be perceived as vulnerable, cause our customers to lose confidence in our solutions and services, negatively affect our ability to attract new customers, cause existing customers to terminate or not renew our solutions and services and damage our reputation, all of which could reduce our revenue, increase our expenses and expose us to legal claims and regulatory actions. Similarly, we could be materially adversely affected by the loss of proprietary, trade secret or confidential technical and financial data if our internal networks are compromised. We may be unable to implement adequate preventive measures to protect against such compromises. We could also be forced to expend significant resources in response to a cyber-security breach, including repairing system damage, increasing cyber security protection costs by deploying additional personnel and protection technologies, paying regulatory fines and litigating and resolving legal claims and regulatory actions, all of which could increase our expenses, divert the attention of our management and key personnel away from our business operations and materially adversely affect our results of operations.

If we are unable to protect our proprietary technology, information, processes, know-how, and other intellectual property and intellectual property rights, or become subject to claims of infringing or misappropriating the intellectual property of third parties, the value of our solutions and services may be diminished and our business may be materially adversely affected.

Our success as a company depends in part upon our ability to protect our core technology and intellectual property. Our expanding operations and efforts to develop new solutions and services also make protection of our intellectual property more critical. We seek to protect trade secrets and other proprietary information through confidentiality agreements and invention assignment agreements with employees, consultants and other third parties, as well as through the terms of our agreements with customers and vendors, and other security measures. However, the steps we have taken to deter misappropriation of intellectual property may be insufficient to protect our proprietary information. Misappropriation of our intellectual property by third parties, or any disclosure or dissemination of our confidential and proprietary business intelligence, queries, algorithms and other similar information by any means, could undermine any competitive advantage we currently derive or may derive from that intellectual property. For example, our current or former employees, consultants or other third parties may unintentionally or willfully disclose our trade secrets, know-how or other confidential and proprietary information to competitors. Competitors have also attempted to use state open records and/or federal Freedom of Information Act laws to obtain our proposal responses and other documents we provide to our government customers. We cannot be certain that our efforts to protect the confidential and proprietary trade secret information or intellectual property in these proposals or other documents will always be successful, due to the many factors underlying the various state and federal decisions to release information in response to open records requests (even in spite of our objections and efforts to protection information). On the other hand, third parties may claim that we are infringing upon or misappropriating their intellectual property. Our exposure to risks related to the use of intellectual property may also increase as a result of acquisitions because third parties may make infringement and similar or related claims after we have acquired technology. Any of these situations could cause us to expend significant time and resources and to incur substantial costs associated with litigation or legal proceedings that may be necessary to defend ourselves or to enforce our intellectual property rights, in which we may not ultimately prevail, and could result in our being prevented from furnishing certain solutions and services. If the protection of our proprietary rights is inadequate to prevent unauthorized use or appropriation by third parties or our employees, the value of our brand and other intangible assets may be diminished and others may be able to more effectively compete with our business by offering solutions or concepts that are substantially similar to ours, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We face significant competition for our solutions and services and we expect competition to increase, which could materially adversely affect our business, financial condition, results of operations and cash flows.

The market for healthcare cost containment solutions and services is intensely competitive, driven by rapidly changing technologies, evolving industry standards and customer demands to become more efficient. Our competitors range in size from large, diversified national companies to small, specialized firms, and could include current or former sub-contractors or teaming partners seeking to establish direct relationships with our customers in order to perform similar services as the prime contractor, as well as current and prospective customers that elect to perform recovery and cost avoidance functions in-house or to develop in-house capacities for solutions and services that we provide or hope to provide. Consolidation among vendors and healthcare providers, as well as the merging of some of our competitors or formation of business alliances with other competitors, have

contributed to the increasingly competitive environment. For example, certain state customers have combined or "bundled" TPL services under large-scale IT procurements, allowing MMIS vendors to partner with less experienced TPL identification vendors based on preferred relationships or favorable pricing. In addition, companies that have invested in proprietary technology different from our own solution and service offerings, such as front-end analytics, have emerged as new competitors due to the rapidly evolving healthcare landscape. There is also increasing sophistication in the solutions and services that our competitors are developing that may become more efficient or appealing to our customers. In order to remain competitive, we may need to quickly develop and market new and enhanced solutions and services responsive to emerging technologies and changes in the healthcare industry, which may require that we make substantial financial and resource investments.

We may not be able to compete successfully against our existing or future competitors. Some of these competitors have significantly greater financial and technical resources and market recognition than we do. They may be able to (i) offer lower prices or negotiate fee reductions on our current solutions and services, (ii) respond more quickly than we can to new and emerging technologies and changing customer requirements, (iii) devote greater resources to the sale of their solutions and services and the development and implementation of new and improved systems, solutions and services for customers that we serve, and (iv) pursue various acquisitions that allow them to rapidly amass a wide array of capabilities. We may be forced to lower our pricing, unexpectedly increase or enhance our technological or data capabilities, or modify our solution or service offerings. Notwithstanding any changes we make in response to increased competition, the demand for our solutions and services may decrease as a result of increased competition. A failure to be responsive to our existing and potential customers' needs or the changing industry landscape could hinder our ability to maintain or expand our customer base, hire and retain new employees, pursue new business opportunities, complete future acquisitions and operate our business effectively. Any inability to compete effectively could materially adversely affect our business, financial condition, results of operations and cash flows.

Our business could be materially adversely affected if we fail to maintain a high level of customer retention, if our customers elect to reduce the scope of our contracts or terminate them before their scheduled expiration dates or if we fail to meet performance standards under our customer contracts.

We historically have derived and expect to continue to generate a significant portion of our revenue from a limited number of large customers at the federal and state level. Our contracts with these customers are subject to periodic renewal and some permit them to terminate their contracts on short notice, with or without cause. If a customer is dissatisfied with the quality of our work or if we fail to meet performance standards under our contracts, or if our solutions, technical infrastructure or services do not comply with the provisions of our contractual agreements or applicable regulatory requirements, customers might seek to reduce the scope of the services we perform or prematurely terminate their agreements with us, or we could incur additional costs that may impair the profitability of a contract and damage our ability to obtain additional work from that customer, or other current or prospective customers. For example, some of our contracts contain liquidated damages provisions and financial penalties related to performance failures, which if triggered, could materially adversely affect our reputation, business, financial condition, results of operations and cash flows. We also may be required to disclose such liquidated damages or other financial penalties assessed against us in connection with future bids for services with other customers.

In addition, government customers are subject to financial pressures or pressure from stakeholders that may cause them to terminate contracts for our services that may be regarded as non-essential or to redefine or reduce the scope of our contracts by, for example, significantly reducing the volume of data that we are permitted to audit. Despite our right to prompt and full payment under the terms of our contracts, we could face challenges in obtaining timely or full payments for our properly provided services from our customers. If there is a substantial reduction in the scope of our services under, or a termination of, any of our key contracts with our major customers, or if we are exposed to significant costs, liabilities or negative publicity, our ability to compete for new contracts with current or prospective customers could be damaged and our business, financial condition, reputation, results of operations and cash flows could be materially adversely affected.

Any failure to maintain effective information processing systems and the integrity of the data in, and operations of, those systems could materially adversely affect our business, financial condition, results of operations and cash flows.

Our ability to conduct our operations and accurately report our financial results depends on the integrity of the data in our information systems and the processes performed by those systems. These information systems and applications require continual maintenance, upgrading and enhancement to meet our operational needs, satisfy customer requests and handle our expansion and growth. Despite our testing and quality control measures, we cannot be certain that errors or system deficiencies will not be found and that remediation can be done in a timeframe that is acceptable to our customers, or that customer relationships will not be impaired by the occurrence of errors or the need for remediation. In addition, implementation of upgrades and enhancements may cost more, take longer or require more testing than originally expected. Given the large amount of data we collect and manage, it is possible that hardware failures or errors or technical deficiencies in our systems could result in data loss or corruption or cause the information that we collect, utilize or disseminate to be incomplete or contain inaccuracies that our customers regard as significant. Situations may also arise in which the accuracy of our data analysis or the content and quality of our work product is central to the disposition of claims, controversies or litigation between our customers and third parties that would require us to allocate significant resources to fulfilling our contractual obligations to provide our customers with full and complete access to records, analysis and back-up documentation of our work. Assuring our capacity to fulfill these obligations as well as actually fulfilling them could impose significant burdens on our infrastructure for data storage, maintenance and processing, and require us to incur increased costs to supplement our personnel, data storage and computing resources, which could materially and negatively impact other business operations.

We depend on many different entities to supply information and an inability to successfully manage our relationships with a number of these suppliers may harm the quality and availability of our solutions and services.

We obtain the data used in our solutions and services from many sources, including commercial health insurance plans, financial institutions, managed care organizations, government entities and non-government entities. From time to time, challenges arise in managing and maintaining our relationships with data sources that are not our customers and that furnish information to us pursuant to a combination of voluntary cooperation and legal obligations under laws and regulations that are often subject to differing interpretation. For example, data suppliers could seek to limit or end our access to and use of their data if they determine that certain uses of data for our customers are not permitted by our agreements, or such suppliers may make errors in compiling, transmitting or accurately characterizing data or have technological limitations that interfere with our receipt or use of the data we rely on them to provide. If a number of our information sources become unable or unwilling to provide us with certain data under terms of use that are acceptable to us and our customers, or if laws and regulations for use and protection of this data changes in a way that disincentivizes our suppliers, or imposes unacceptable or unreasonable conditions or risks on us, we may not be able to obtain new or favorable agreements with alternative data suppliers. In addition, our ability to normalize and fully utilize the information we have received from various data sources in order to enhance and improve current solutions for our customers is an important component of our growth strategy. Although we believe that we have the legal and contractual rights necessary to normalize and use the data we have obtained from these sources for potential or contemplated solution and service offerings, we cannot provide assurance that these entities will permit the use of their data for these purposes. If we lose a number of our data sources or access to certain data and are unable to identify and reach the requisite agreements with suitable alternative suppliers or fail to successfully integrate them into our solution and service offerings, or if there is a lack of integrity in the data that current or future suppliers provide, we could experience service disruptions, increased costs, reduced quality of our solutions and services, or performance penalties under our customer contracts, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We may rely on sub-contractors and other third party providers to provide customers with a single-source solution or service or we may serve as a sub-contractor to a third party prime contractor. If these parties fail to satisfy their obligations to us or if we are unable to maintain these relationships, our business, financial condition, results of operations and cash flows could be materially adversely affected.

In some areas of our business we may engage sub-contractors, teaming partners, vendors or other third party providers to provide our customers with a single-source solution or service for a broader range of service needs. These third parties include

software vendors, utility and network providers and other information technology service providers. Our ability to deliver and implement solutions and serve our customers effectively depends on our ability to obtain permissions from our customers, when necessary, to use these third party sub-contractors, or on these third parties meeting our service standards in both timeliness and quality. Similarly, we are and may in the future be engaged as a sub-contractor to a third party prime contractor. Sub-contracting arrangements where we are not the prime contractor pose unique risks to us because we do not have control over the customer relationship, and our ability to generate revenue under such sub-contracts is dependent on the prime contractor, its performance and relationship with the customer, and its relationship with us. While we believe that we perform appropriate due diligence on these parties and take adequate measures to ensure that they comply with the appropriate laws and regulations, we cannot guarantee that they will comply with the terms set forth in their agreements with us or in the case of a prime contractor, their agreement with the customer or that they will provide adequate and timely services, construe their contractual rights and obligations in a reasonable way, act appropriately in dealing with us or customers, and remain in compliance with the relevant laws, rules or regulations. As a result, we may have disputes with these parties arising from these or other matters. Performance deficiencies or misconduct by our prime contractors or sub-contractors may be perceived as inadequacies in our solutions or services or cause us to fail to fulfill our contractual obligations to our customers, which could materially adversely affect our customer relationships and reputation, result in termination of a customer contract or the sub-contractor or partner, and subject us to a dispute with our customer or such third party. In addition, if our third party service providers terminate or refuse to renew their relationships with us or offer their products to us in the future on less advantageous terms, we may not be able to perform or deliver solutions or services for existing customers as expected. Likewise, we could suffer losses in the event a prime contract, under which we serve as a sub-contractor, is terminated, whether for non-performance by the prime contractor or otherwise. Upon any such termination of the prime contract, our sub-contract will similarly terminate, and the resulting contract loss could materially adversely affect our business, financial condition, results of operations and cash flows.

We obtain a significant portion of our business through competitive bidding in response to government requests for proposals. Reprocurements and future contracts may not be awarded through this process on the same level or our contract awards may be challenged by interested parties which could materially adversely affect our business, financial condition, results of operations and cash flows.

In order to market our solutions and services and compete for contracts with existing and potential state and federal customers, we are often required to respond to government-issued RFPs. These RFP responses typically require us to assemble and submit a large volume of information within a rigid timetable, and to accurately estimate our cost structure for servicing the proposed contract, the time required to establish operations and the likely terms of any proposals submitted by our competitors. We may also be required to disclose the occurrence of any negative events suffered by our business, such as customer disputes, a government inquiry or an adverse judgment or settlement in litigation or a legal proceeding, which could impair our ability to win the contract at issue or have a material adverse effect on our reputation in the industry.

Even if we win these contracts, we may fail to secure favorable contract terms and conditions, or a government's determination to award us the contract may be challenged by an interested party. Under the state and federal laws and regulations governing procurements of goods and services, challenges and award protests may be filed even if there are no valid legal grounds on which to base the protest. The filing of such challenges could potentially delay the start or implementation of the contract if the government agency determines to withhold a contract award or suspend contract performance while the protest is being considered, or to take corrective action on its own, such as soliciting new bids or terminating the contract award or current procurement. In the event of irregularities, we perceive or learn of in the award or bidding process, we also may be forced to file protests in response to RFP awards to other bidders. Resolution of a protest, even in our favor, could force us to expend considerable funds in disputing the potential award or to incur additional expenses to maintain our ability to timely start implementation, which may cause our actual results to differ materially and adversely from those anticipated. In addition, if we are unable to win reprocurements or protests of particular contracts, we may be precluded from entering certain customer markets for the term of the contract awarded to another party. Any failure to continue to obtain contracts in response to government RFPs, to design proposals that result in profitable contracts, to win new contracts or re-procure current contracts after they expire or to prevail in protests or challenges of contract awards could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Adverse judgments or settlements in legal proceedings could materially harm our business, financial condition, operating results and cash flows.

We are subject and may be a party to lawsuits and other claims that arise from time to time in the ordinary course of our business, which may include those related to, for example, contracts, sub-contracts, teaming agreements, protection of confidential information or trade secrets, adversary proceedings arising from customer bankruptcies, employment of our workforce and immigration requirements or compliance with any of a wide array of state and federal statutes, rules and regulations that pertain to different aspects of our business. We may also be required to initiate expensive litigation or other proceedings to protect our business interests. There is a risk that we will not be successful or otherwise be able to satisfactorily resolve any pending or future litigation. In addition, litigation and other legal claims are subject to inherent uncertainties and management's view of currently pending legal matters may change in the future. Those uncertainties include, but are not limited to, litigation costs and attorneys' fees, unpredictable judicial or jury decisions and the differing laws and judicial proclivities regarding damage awards among the states in which we operate. Unexpected outcomes in such legal proceedings, or changes in management's evaluation or predictions of the likely outcomes of such proceedings (possibly resulting in changes in established reserves), could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We may not be able to deliver our solutions and services efficiently if we are unable to attract and retain qualified employees.

Our successful delivery of services and solutions is dependent upon our ability to recruit, employ, train and retain skilled personnel. Our ability to maintain our productivity and profitability is limited by our ability to attract and retain the skilled personnel necessary to sustain our business and operations. The success of recruitment and retention strategies depend on a number of factors, including the competitive demands for employees having the skills we need and the level of compensation required to hire and retain such employees. As our business expands and undergoes change, we may also find it difficult to preserve our corporate culture, which could reduce our ability to innovate and operate effectively or result in a loss of experienced personnel. In addition, our customers or competitors may hire away our qualified employees. We may not be able to recruit the appropriate personnel or maintain the personnel necessary to efficiently operate and support our business, and even if our recruitment and retention strategies are successful, our labor costs may increase significantly. Our inability to hire sufficient personnel on a timely basis without significantly increasing our labor costs could materially adversely affect our business, financial condition, results of operations and cash flows.

Our future success depends, in part, on the continued service of members of our management team.

Our ability to execute on our business plans and future success requires that we attract, develop, motivate and retain experienced and innovative executive officers and senior managers who have successfully managed, designed or implemented government services programs or information technology projects, or have relevant experience in other sectors of data management or the healthcare industry. These individuals are in great demand and are likely to remain a limited resource in our industry. The loss of services of one or more members of our management team could materially adversely affect our business, financial condition, results of operations and cash flows. In addition, to the extent we lose an executive officer or senior manager, we may incur increased expenses in connection with the hiring, promotion or replacement of these individuals and the transition of leadership and critical knowledge.

Our outstanding indebtedness could materially adversely affect our financial condition and our ability to operate our business, and we may not be able to generate sufficient cash flows to meet our debt service obligations.

As of December 31, 2016, the outstanding principal balance due under our Credit Agreement was $197.8 million. Our outstanding indebtedness and any additional indebtedness we incur may have important consequences for us, including, without limitation, that: (i) we may be required to use a substantial portion of our cash flow to pay the principal of and interest on our indebtedness; (ii) our indebtedness and leverage may increase our vulnerability to adverse changes in general economic and industry conditions, as well as to competitive pressures; (iii) our ability to obtain additional financing for working capital, capital

expenditures, acquisitions and for general corporate and other purposes may be limited; and (iv) our flexibility in planning for, or reacting to, changes in our business and our industry may be limited.

In addition, our ability to make payments of principal and interest on our outstanding revolving credit facility depends upon our future performance and our ability to generate cash flows. Under the terms of the Credit Agreement, we are required to comply with specified financial and operating covenants, which may limit our ability to operate our business as we otherwise might operate it. For example, our obligations may be accelerated upon the occurrence of an event of default, including, without limitation, payment defaults, failure to perform affirmative covenants, failure to refrain from actions or omissions prohibited by negative covenants, the inaccuracy of representations or warranties, cross-defaults, bankruptcy and insolvency related defaults, defaults relating to judgments, defaults due to certain ERISA related events and a change of control default. If not cured, an event of default would result in any amounts outstanding, including any accrued interest and unpaid fees, becoming immediately due and payable, which would require us to, among other things: seek additional financing in the debt or equity markets, refinance or restructure all or a portion of our indebtedness, sell selected assets, and/or reduce or delay planned capital or operating expenditures. Such measures might not be sufficient to enable us to service our debt, and any such financing or refinancing might not be available on economically favorable terms or at all. If we are not able to generate sufficient cash flows to meet our debt service obligations or are forced to take additional measures to be able to service our indebtedness, our business, financial condition and results of operations could be materially and adversely affected.

Changes in, or interpretations of, tax rules and regulations may materially adversely affect our effective tax rates.

We are a United States-based company subject to various federal, state and local tax laws and regulations in multiple U.S. jurisdictions that govern numerous aspects of our business. As we expand our business, we may perform services for new customers located outside of the United States or in a U.S. Territory, which may subject us to foreign tax laws and regulations that could increase our exposure to additional tax liabilities. Unanticipated changes in our tax rates could affect our future results of operations. Our future effective tax rates could be unfavorably affected by changes in the tax rates in jurisdictions where our income is earned and taxed, by changes in, or our interpretation of, tax rules and regulations in the jurisdictions in which we do business, by providing services in new jurisdictions, by increases in expenses not deductible for tax purposes including impairments of goodwill, by changes in U.S. GAAP or by changes in the valuation of our deferred tax assets and liabilities. Furthermore, the results of the 2016 elections create uncertainty regarding future potential tax law reform.

In addition, we are subject to the continual examination of our income tax returns by the IRS and other domestic tax authorities. We regularly assess the likelihood of outcomes resulting from these examinations to determine the adequacy of our provision for income taxes and have reserved for potential adjustments that may result. The final determination of any of these examinations could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Our health insurance coverage and self-insurance reserves may not cover future claims, which could materially adversely affect our business, financial condition, results of operations and cash flows.

We maintain various insurance policies for company employee health, workers' compensation, general liability and property damage. We are self-insured for our health plans, and have purchased a fully-insured stop loss policy to help offset our liability for both individual and aggregate claim costs. We are also responsible for losses up to a certain limit for workers' compensation, general liability and property damage insurance.

For policies under which we are responsible for losses, we record a liability that represents our estimated cost of claims incurred and unpaid as of the balance sheet date. Our estimated liability is not discounted and is based on a number of assumptions and factors, including historical trends, actuarial assumptions and economic conditions, and is closely monitored and adjusted when warranted by changing circumstances. Our prior growth could affect the accuracy of estimates based on historical experience. Should a greater amount of claims occur compared to what was estimated or medical costs increase beyond what was expected, our accrued liabilities might not be sufficient and we may be required to record additional expense. Unanticipated changes may also produce materially different amounts of expense than reported under these programs, which could materially adversely affect our business, financial condition, results of operations and cash flows.

We identified material weaknesses in our internal control over financial reporting, and if we fail to remedy them or other material weaknesses that we may identify in the future, our financial statements could be materially misstated.

Our management is responsible for establishing and maintaining adequate internal control over our financial reporting, as defined in Rule 13a-15(f) under the Exchange Act. As described in Part II, Item 9A of this Annual Report on Form 10-K, management identified material weaknesses in our internal control over financial reporting as of December 31, 2016 related to the calculation of the estimated liability for appeals balance in connection with our CMS reserve and the valuation of our accounts receivable allowance. These material weaknesses resulted in an immaterial reclassification error in revenue and selling, general and administrative expenses that was corrected prior to issuance of the consolidated financial statements. Until remediated, these material weaknesses could result in misstatements of account balances or disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that will not be prevented or detected on a timely basis.

We are actively revising and supplementing our control environment and our risk assessment process and the design of our process level controls in order to remediate these material weaknesses, including a set of compensating controls in the near term. We are enhancing and revising the design of controls and procedures to ensure the calculations of the CMS reserve and the accounts receivable allowance properly utilize historical information to derive the period-end balances. Additionally, management will be supplementing the review controls over the CMS reserve and the accounts receivable allowance, and controls over the completeness and accuracy of the data used to calculate the balances, with additional levels of review involving senior members of our accounting department and will assess the need for additional remediation steps.

We cannot predict the outcome of our assessment and that of our independent registered public accounting firm in future periods. If our remedial measures are insufficient to address the material weaknesses, or if additional material weaknesses or significant deficiencies in our internal controls are discovered or occur in the future, we may fail to meet our future reporting obligations on a timely basis, our financial statements may contain material misstatements, our operating results or financial condition may be negatively impacted, and we may be subject to litigation and regulatory actions, causing investor perceptions to be adversely affected and potentially resulting in a decline in the market price of our common stock.

Risks Relating to Our Industry

Our business could be materially adversely affected by changes in the U.S. healthcare environment or in laws relating to healthcare programs and policies, particularly as they relate to the ACA and the Medicare and Medicaid programs.

The healthcare industry in the United States is subject to changing political, economic and regulatory influences that may affect the procurement practices and operations of federal, state and commercial healthcare organizations and agencies. The ACA's emphasis on program integrity and cost containment, along with its expansion of Medicaid, created new opportunities to grow our business and our service offerings. However, due to a wide range of factors contributing to uncertainty of the healthcare landscape, including, among other factors, the results of the 2016 elections, Congressional activity to repeal the ACA, and the numerous, varying ACA replace measures that may encompass Medicaid, Medicare and commercial insurance, it is difficult to predict its full impact and influence on future changes to healthcare policy. Policies that fundamentally change the financial structure of the Medicaid program, currently funded jointly by the states and the U.S. Federal Government, could result in early termination or non-renewal of our contracts with certain state government customers. Federal changes may also reduce reimbursement rates to states, establish new payment models, increase or decrease government involvement in healthcare, decrease the Medicare RAC Program, or otherwise change the operating environment for our customers. Healthcare organizations may react to such changed circumstances and financial pressures by taking actions to ramp up, curtail or defer their retention of cost containment providers like us, which could impact the demand for our solutions and services. While certain changes may present new opportunities to us, our business, financial condition, results of operations and cash flows could be materially adversely affected if efforts to waive, modify or otherwise change the ACA, in whole or in part, are successful, if we are unable to adapt our solutions and services to meet changing requirements or expand service delivery into new areas, or if the demand for our solutions and services is reduced.

Healthcare spending fluctuations, simplification of the healthcare payment process or other aspects of the healthcare financing system, budgetary pressures and/or programmatic changes diminishing the scope of program benefits, or limiting payment integrity initiatives, could reduce the need for and the price of our solutions and services, which would have a material adverse effect on our business, financial condition, results of operations and cash flows.

Our projections and expectations are premised, in part, upon consistent growth rates in spending in the Medicare and Medicaid programs, the current healthcare financing system and the need for our solutions and services within that existing framework. Our success as a company is based on offering solutions and services that improve the ability of our customers to identify and recover revenue that would otherwise be lost often as a result of procedural inefficiencies and complexities in that system. However, the need for our solutions and services, the price customers are willing to pay for them or the scope and profitability of our contracts could be negatively affected by a number of factors, including a lower than projected growth in Medicare and Medicaid programs due to developments such as the possible repeal of or modification to the ACA, and any action taken to reduce eligibility or services, or reform Medicaid spending. The absence of near-term compliance deadlines effected by the ACA and other legislation could additionally cause our revenue to decline. There can be no certainty that additional incentives will be created in regard to our solutions and services, or that any legislation or regulations that may be adopted would favorably impact our business.

Modifications in provider billing behavior and habits, often in response to the success of our solutions and services or to changes that reduce healthcare spending, could also reduce the profitability of our contracts and reduce the need for our solutions and services. Compounding this are budgetary pressures that may drive changes at the state level. The demand for our solutions and services could also be impacted by other changes in government healthcare programs or in the level of government spending, such as:

- the simplification of the healthcare benefit and payment system through legislative or regulatory changes at the federal or state level (for example, legislative changes impacting the scope of mandatory audits; limiting or reducing the amount of reviewable claims and/or the look-back period for review in areas where we conduct audits);
- unanticipated reductions in the scope of program benefits (such as, for example, state decisions to eliminate coverage of optional Medicaid populations or services or shifting lives into managed care plans); or
- limits placed on ongoing program integrity initiatives.

For example, during 2014 and 2015, our recovery audit services under HDI's existing Medicare RAC contract were limited because of significant delays in procurement activities for the new Medicare RAC contract awards, resulting from, in part, the cancellation of the original and second procurements following the denial of pre-award protests and ongoing litigation regarding certain payment terms proposed by CMS as part of the new Medicare RAC proposals. In October 2016, CMS announced the new awards, including the award of RAC Region 4 to our wholly owned subsidiary. These new Medicare RAC contracts are currently being implemented and we currently expect that audits will begin in Q2 2017. Our existing Medicare RAC contract ends on January 31, 2018, and we are required to maintain certain reserves related to pending appeals for this contract through at least this date. In addition, CMS has shifted the responsibility for initial medical reviews of short inpatient stays from the Medicare RACs to Quality Improvement Organizations, further restricting the Medicare RACs review to a small subset of claims for potential payment inaccuracies. CMS has also implemented new ADR limits for inpatient providers that reduces the ADR requirement to 0.5% under the new contract, down from the 2.0% ADR requirement under the prior contract. This change significantly impacts the volumes of claims Medicare RACs are permitted to review for inpatient providers and reduces their ability to identify overpayments and underpayments under their Medicare RAC contracts. For the new contract, CMS has continued to maintain the previously established ADR limits for institutional providers, originally established in January 2016, which reduced the ADR requirement to 0.5%. In April 2016, CMS instituted a new policy adjusting ADR limits based on provider denial rate after three (3) 45-day ADR cycles. This change significantly impacts the volumes of claims Medicare RACs are permitted to review for inpatient providers, and reduces their ability to identify overpayments and underpayments under their Medicare RAC contracts in the near term, pending the adjustment of ADR limits based on provider denial rates established following the first three (3) cycles of RAC reviews.

Further, in August 2014, CMS announced it would settle with hospitals willing to withdraw inpatient status claims currently pending in the RAC appeals process by offering to pay hospitals 68% for all eligible claims they had billed to Medicare. In June 2015, CMS notified HDI that based on the initial lists of finalized settlements, HDI owed CMS approximately $28.6 million due to adjustments in contingency fees under our existing Medicare RAC contract. HDI previously advised CMS that it disagrees with CMS' interpretation of the contract and that CMS does not have the contractual right, among other things, to require repayment of fees already paid. The amount ultimately payable to CMS by HDI remains uncertain. In addition, in September 2016, CMS announced that it would extend an opportunity for another round of settlements for hospitals that were eligible for but did not choose to participate in the 2014 settlement, with CMS offering to pay 66% for all eligible claims they had billed to Medicare. We believe this settlement will be processed and evaluated by CMS over the course of 2017, and the number and amount of claims that will be subject to the 2016 settlement remains uncertain. There could be a material negative impact on our future revenue to the extent that (i) any final determination of amounts owed by us to CMS under the current Medicare RAC contract materially exceeds our accrued reserves for such appeals, (ii) we are required to increase or decrease our contractually required reserves with respect to pending appeals due to changes in appeal performance, changes in data provided to us from other entities in the RAC process, or other related factors, (iii) we are required to repay a portion of prior fees associated with the hospital settlement program, (iv) we are unable to obtain full payments for properly provided services, or (v) future fees payable to us by CMS are reduced. Although we do not anticipate our Medicare RAC contract will represent a significant portion of our business going forward, our Medicare RAC contract still represents a future business opportunity for us and any of these factors or other changes to the Medicare RAC program that materially reduce our revenue or profitability with such program could have a material adverse effect on our business, financial condition, results of operations and cash flows.

A failure to comply with the laws and regulations that apply to companies in our industry regarding individual privacy and information security could subject us to legal actions, fines and penalties and negatively impact our reputation and operations.

As a service provider, we often receive, process, transmit and store sensitive data, including PHI and personally identifiable information of individuals, as well as other financial, confidential and proprietary information belonging to our customers, subsidiaries, data supplies and other third parties from which we obtain information. The use and disclosure of that information is regulated at the federal, state, international and industry levels and we are also obligated by our contractual requirements with customers. For example, we are subject to federal regulation under HIPAA, as amended by the HITECH Act, the Final Omnibus Privacy, Security, Breach Notification, and Enforcement Rule, which modified and supplemented many of the standards and regulations under HIPAA and the HITECH Act, and various state laws. HIPAA also imposes standards and requirements on our business associates as defined under HIPAA.

Even though we take measures to comply with all applicable regulations and to ensure our business associates and sub-contractors comply with these laws, regulations and rules, we have less than complete control over our business associates' and sub-contractors' actions and practices. We may be exposed to data breach risk if there is unauthorized access to one of our or our sub-contractors' secure facilities or from lost or stolen laptops, other portable media from current or former employee theft of data containing PHI, from misdirected mailings containing PHI, or other forms of administrative or operational error. If we or our sub-contractors fail to comply with applicable laws; if unauthorized parties gain physical access to one of our facilities and steals or misuses confidential information; if we erroneously use or disclose data in a way that is inconsistent with our granted rights; or if such information is misdirected, lost or stolen during transmission or transport, we may suffer damage to our reputation, potential loss of existing customers and difficulty attracting new customers. We could also be exposed to, among other things, unfavorable publicity, governmental inquiry and oversight, allegations by our customers that we have not performed our contractual obligations, costs to provide notifications to affected individuals, or litigation by affected parties and possible financial obligations for damages or indemnification obligations related to the theft or misuse of such information, any of which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

In addition, laws, rules and regulations concerning the protection of personal information are subject to frequent change by legislation, regulatory issuances or administrative interpretation. As regulatory focus on privacy issues continues to increase and these laws and regulations continue to expand and become more complex, these potential risks to our business could intensify. Changes in laws or regulations associated with the enhanced protection of certain types of sensitive data, such as

healthcare data or other personally identifiable information, along with increased customer demands for enhanced data security infrastructure, could greatly increase our cost of providing our solutions and services.

We are subject to extensive government regulation, including government audits and investigations relating to our compliance with the laws and regulations applicable to companies in our industry, and a negative finding or other adverse determination could have a material adverse effect on our reputation, business, financial condition, results of operations and cash flows.

Much of our business is regulated by the federal government and the states in which we operate. The laws and regulations governing our operations are generally intended to benefit and protect individual citizens, including government program beneficiaries, health plan members and providers, rather than shareholders, and the government agencies administering these laws and regulations have broad latitude to enforce them. As such, we are subject, on an ongoing basis, to various governmental reviews, audits and investigations to verify our compliance with our contracts and applicable laws and regulations, as well as legal actions and enforcement proceedings. For example, because we receive payments from federal and state governmental agencies, we are subject to various laws, including the Federal Acquisition Regulations, the Foreign Corrupt Practices Act, federal and state employment, equal opportunity and affirmative action laws, federal and state prompt pay statutes. We are also subject to Federal False Claims Act and similar state statutes, which permit government law enforcement agencies to institute suits against us for violations and, in some cases, to seek double or treble damages, penalties and assessments. In addition, private citizens, acting as whistleblowers, can sue on behalf of the government under the "*qui tam*" provisions of the Federal False Claims Act and similar statutory provisions in many states.

The expansion of our operations into new solutions and services may further expose us to requirements and potential liabilities under additional statutes and legislative schemes that have previously not been relevant to our business, such as banking and credit reporting statutes, that may both increase demands on our resources for compliance activities and subject us to potential penalties for noncompliance with statutory and regulatory standards. Increased involvement in analytic or audit work that can have an impact on the eligibility of individuals for medical coverage or specific benefits, or payments made by our customers to providers, could increase the likelihood and incidence of our being subjected to scrutiny or legal actions by parties other than our customers, based on alleged mistakes or deficiencies in our work, with significant resulting costs and strain on our resources.

These laws and regulations, along with the terms of our government contracts, regulate how we do business, what solutions and services we offer and how we interact with our customers, providers, other healthcare payers and the public. If the government discovers improper or illegal activities in the course of audits or investigations, we may be subject to various civil and criminal penalties and administrative sanctions, which may include termination of contracts, forfeiture of profits, suspension of payments, fines and suspensions and debarment from doing business with the government. Similarly, if our customers assert that we have failed to properly perform or comply with our contractual obligations, or if the carriers to which we send billings assert that we have failed to properly comply with applicable federal or state billing rules and regulations, we may be required to provide refunds or make payments to resolve such issues. The risks to which we are subject, particularly under the Federal False Claims Act and similar state fraud statutes, have also increased in recent years due to legislative changes that have (among other amendments) expanded the definition of a false claim to include, potentially, any unreimbursed overpayment received from, or other monetary debt owed to, a government agency. This subjects us to potential liability for a false claim, for example, where we may be overcharged for services by a sub-contractor and may pass that charge on to a government customer, or where we may have a good faith disagreement with a government agency's view of whether an overpayment has occurred. If we are found to be in violation of any applicable law or regulation, or if we receive an adverse review, audit or investigation, any resulting negative publicity, penalties or sanctions could have an adverse effect on our reputation in the industry, impair our ability to compete for new contracts or bid in response to RFPs in one or more jurisdictions and have a material adverse effect on our business, financial condition, results of operations and cash flows.

Federal and state governments may limit or prohibit outsourcing of certain programs or functions, refuse to grant consents or waivers necessary to permit private entities to perform such work, or impose other limitations on outsourcing or certain vendors that may obstruct cost-effective performance of our contracts.

The federal government or a state could limit or prohibit private contractors like us from operating or performing elements of certain government functions or programs. State or local governments could be required to operate such programs with government employees as a condition of receiving federal funding. Moreover, under current law, in order to privatize certain functions of government programs, the federal government must grant a consent and/or waiver to the petitioning state or local agency. If the federal government does not grant a necessary consent or waiver, the state or local agency will be unable to outsource that function to a commercial entity. Such a situation could eliminate a contracting opportunity or reduce the value of an existing contract.

Similarly, other state or federal limitations on outsourcing certain types of work to vendors that supplement our own workforce could make it more difficult for us to fulfill our contracts in a cost-effective manner. Certain segments of our operations use or involve vendor or sub-contractor personnel located outside of the United States, who may (under carefully controlled circumstances) access certain PHI in the course of assisting us with various elements of the services we provide to our customers. There is, however, increasing pressure from an expanding number of sources to prohibit the use of off-shore labor, particularly on government contracts. The federal government and a number of states have considered laws or issued rules, regulations, and orders that would limit, restrict or wholly prohibit the use of off-shore labor in performance of government contracts, or impose sanctions for the use of such resources. Some of our customers have already chosen to contractually limit or restrict our ability to use off-shore resources. Intensified restrictions of this type or associated penalties could raise our costs of doing business, expose us to unexpected fines or penalties, increase the prices we must charge to customers to realize a profit and eliminate or significantly reduce the value of existing contracts or potential contract opportunities, any of which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We may be precluded from bidding on or performing certain work due to work we currently perform, which could materially adversely affect our business, financial condition, results of operations and cash flows.

Various laws, regulations and administrative policies prohibit companies from performing work for government agencies in capacities that might be viewed to create an actual or perceived conflict of interest. In particular, CMS has stringent conflict of interest rules, which can limit our bidding for specific work for CMS, or for other contracts that might conflict, or be perceived by CMS to conflict, with contractual work for CMS. State governments and managed care organizations also have conflict of interest restrictions that could limit our ability to bid for certain work and impede our overall sales strategy. As we continue to expand and diversify our business operations, the likelihood that customers or potential customers will perceive conflicts of interest between our various subsidiaries, solutions, services, activities and customer relationships may increase. Such conflicts, whether real or perceived, could result in a loss of contracts or additional internal structural barriers that delay operational efficiency, or may require that we divest ourselves of certain existing businesses or reorganize our current management and personnel structure, as well as our corporate organization and entity structure, in order to qualify for new contract awards or to appropriately mitigate conflicts and otherwise accommodate the needs as a company that is expanding in complexity. Our failure to devote sufficient care, attention and resources to managing these adjustments may result in technical or administrative errors that could expose us to potential liability or adverse regulatory action. In addition, conflict of interest rules and standards change frequently, and are subject to varying interpretations and varying degrees and consistency of enforcement at the federal, state and municipal levels, and we may not be successful in navigating these restrictions. If we are prevented from expanding our business or are unable to effectively implement our strategic initiatives due to real or perceived conflicts of interest, our business, financial condition, results of operations and cash flows could be materially adversely affected.

Risks Related to Our Common Stock

The market price of our common stock may be volatile, and fluctuations in the price of our common stock may materially adversely affect our business, financial condition, results of operations and cash flows and materially adversely affect our shareholders.

The market price of our common stock has fluctuated widely and may continue to do so. During the 52-week period ended May 31, 2017, the closing price of our common stock on the NASDAQ Global Select market ranged from a high of $23.46 per share, to a low of $16.18 per share. Our stock price is subject to fluctuation as a result of a variety of factors, including factors beyond our control including the risk factors described above and those which are related to:

- changes in estimates of our performance or recommendations by securities analysts and operating and stock price performance of other companies that investors deem comparable to our company;
- news reports relating to trends, concerns and other issues in the healthcare industry, including perceptions in the marketplace regarding us and our competitors;
- the financial projections we publicly provide and any changes in or failure to meet those projections;
- future sales of shares of common stock in the public market by our executive officers or directors;
- any other changes in the amount of our outstanding shares, including as a result of share repurchases;
- the public's response to our press releases, or other public announcements, including our filings with the SEC;
- securities class actions, shareholder lawsuits or other litigation; and
- market conditions in the industry and the economy as a whole.

In addition, the stock market often experiences significant price and volume fluctuations. These fluctuations are often unrelated to the operating performance of particular companies. These broad market fluctuations may materially adversely affect the market price of our common stock. When the market price of a company's stock drops significantly, shareholders may institute securities class action litigation against that company. Any litigation against us could cause us to incur substantial costs, divert the time and attention of our management and other resources or otherwise harm our business.

Because we do not intend to pay dividends, you will benefit from an investment in our common stock only if it appreciates in value.

We have paid no cash dividends on any of our capital stock to date and currently intend to retain our future earnings, if any, to fund the development and growth of our business. As a result, we do not expect to pay any cash dividends in the foreseeable future. The success of your investment in our common stock will likely depend entirely upon any future appreciation. There is no guarantee that our common stock will appreciate in value or even maintain the price at which you purchased your shares.

Certain provisions of our certificate of incorporation and bylaws could discourage unsolicited takeover attempts, which could depress the market price of our common stock.

Our certificate of incorporation authorizes the issuance of up to 5,000,000 shares of "blank check" preferred stock with such designations, rights and preferences as may be determined by our Board of Directors. Accordingly, our Board of Directors is empowered, without shareholder approval, to issue preferred stock with dividend, liquidation, conversion, voting or other rights, that could adversely affect the voting power or other rights of holders of our common stock. In the event of issuance, preferred stock could be utilized, under certain circumstances, as a method of discouraging, delaying, or preventing a change in control. Although we have no present intention to issue any shares of preferred stock, it is possible that we will do so in the future. In addition, our bylaws provide for a classified Board of Directors, require advance notice of shareholder proposals for business to be conducted at meetings of our shareholders and for nominations of candidates for election to our Board of Directors and provide for Delaware as an exclusive forum for certain disputes with our shareholders, all of which could also have the effect of discouraging a change of control.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Location	Approximate Square Footage	Owned/Leased
Irving, TX	242,260	Owned
Las Vegas, NV	64,736	Leased
Westerville, OH	25,212	Leased
Irvine, CA	23,790	Leased
New York City, NY	22,500	Leased
Charlestown, MA	13,628	Leased
All Other Locations	77,914	Leased

As of December 31, 2016, we leased approximately 78,000 square feet of office space in 21 other locations throughout the United States, the leases for which have expiration dates starting late 2017 through 2024. See Note 12 - "Commitments and Contingencies" in our Notes to the Consolidated Financial Statements in Item 8. Consolidated Financial Statements and Supplementary Data for additional information regarding our lease commitments. In general, we believe our facilities are suitable to meet our current and reasonably anticipated future needs.

Item 3. Legal Proceedings

The information set forth under the caption "Litigation" in Note 12 of the Notes to the Consolidated Financial Statements included in Part II, Item 8. Consolidated Financial Statements and Supplementary Data is incorporated herein by reference.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Shareholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock is included in the NASDAQ Global Select Market, under the symbol HMSY. The table below summarizes the high and low sales prices per share for our common stock for the periods indicated, as reported on the NASDAQ Global Select Market.

Quarter Ended	March 31,	June 30,	September 30,	December 31,
Fiscal Year 2016				
High	$ 14.42	$ 18.38	$ 23.46	$ 22.03
Low	$ 10.22	$ 13.67	$ 17.44	$ 16.18
Fiscal Year 2015				
High	$ 21.73	$ 18.18	$ 17.10	$ 13.05
Low	$ 15.32	$ 15.44	$ 8.24	$ 8.64

Repurchases of Shares of Common Stock

See Note 8 – Equity, in our Notes to the Consolidated Financial Statements under Item 8. Consolidated Financial Statements and Supplementary Data for additional information regarding share repurchases. The following are our monthly stock repurchases for the fourth quarter of fiscal year 2016, all of which were made as part of publicly announced plans or programs:

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Program(1)	Maximum Approximate Dollar Value of Shares That May Yet Be Purchased Under the Program
October 1, 2016 to October 31, 2016	—	$ —	—	$ —
November 1, 2016 to November 30, 2016	570,717	17.61	570,717	15,000,000
December 1, 2016 to December 31, 2016	569,615	18.25	569,615	5,000,000
October 1, 2016 to December 31, 2016	**1,140,332**	**$ 17.93**	**1,140,332**	**$ 5,000,000**

(1) On July 30, 2015, the Company's Board of Directors approved a share repurchase program authorizing the repurchase of up to $75 million of the Company's common stock from time to time on the open market or in privately negotiated transactions, and the Company publicly announced the program in August 2015. The repurchase program is authorized through July 30, 2017, and may be suspended or discontinued at any time. Repurchases may also be made under a Rule 10b5-1 plan. All repurchases for the periods presented were made under the program and using cash resources.

Holders

As of the close of business on May 31, 2017, there were 262 holders of record of our common stock.

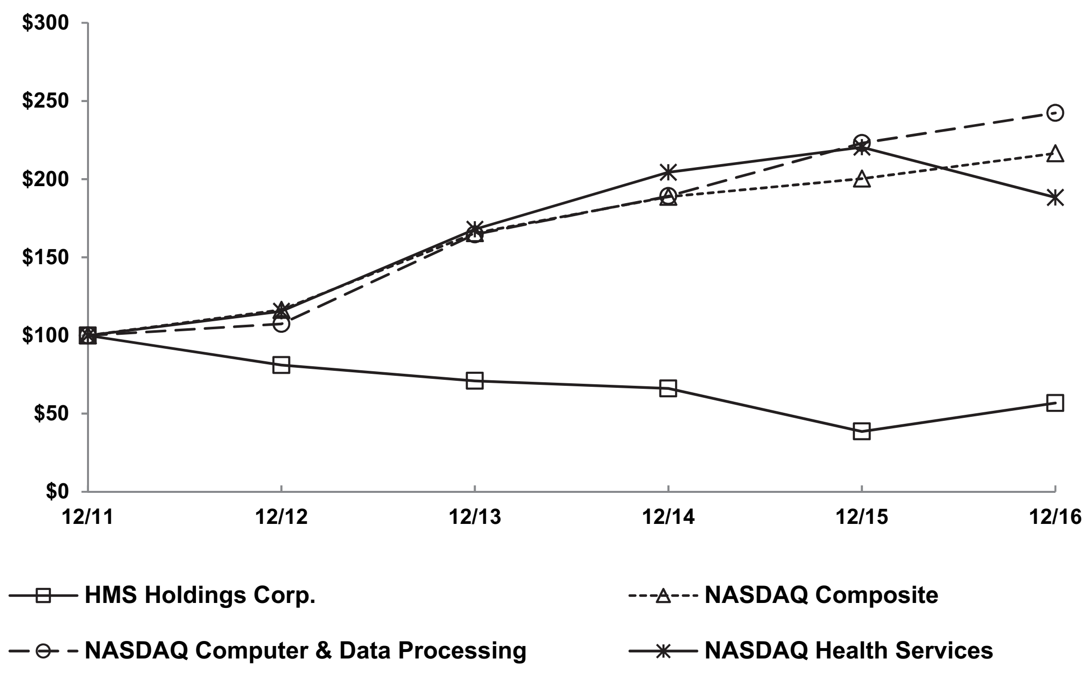
Dividends

We have not paid any cash dividends on our common stock and do not anticipate paying cash dividends in the foreseeable future. Our current intention is to retain earnings to support the future growth of our business.

In addition, our Credit Agreement restricts our ability to make certain payments or distributions with respect to our capital stock, including cash dividends to our shareholders. These restrictions are described in more detail in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, under "Liquidity and Capital Resources" and in Note 7 – "Credit Agreement", in our Notes to the Consolidated Financial Statements under Item 8. Consolidated Financial Statements and Supplementary Data.

Comparative Stock Performance Graph

The graph below compares the cumulative total shareholder return on our common stock with the cumulative total shareholder returns of the NASDAQ Composite Index, the NASDAQ Computer & Data Processing Index and the NASDAQ Health Services Index assuming an investment of $100 on December 31, 2011 and the reinvestment of dividends through the year ended December 31, 2016.



	12/31/11	12/31/12	12/31/13	12/31/14	12/31/15	12/31/16
HMS Holdings Corp.	$ 100.00	$ 81.05	$ 70.98	$ 66.10	$ 38.59	$ 56.79
NASDAQ Composite	$ 100.00	$ 116.41	$ 165.47	$ 188.69	$ 200.32	$ 216.54
NASDAQ Computer & Data Processing	$ 100.00	$ 107.40	$ 164.63	$ 189.15	$ 223.06	$ 242.34
NASDAQ Health Services	$ 100.00	$ 115.47	$ 167.94	$ 204.39	$ 220.44	$ 188.28

Notwithstanding anything to the contrary set forth in any of our previous or future filings under the Securities Act or the Exchange Act that might incorporate by reference this Annual Report on Form 10-K or future filings made by us under those statutes, the Comparative Stock Performance Graph is not deemed filed with the SEC, is not deemed soliciting material and shall not be deemed incorporated by reference into any of those prior filings or into any future filings we make under those statutes, except to the extent that we specifically incorporate such information by reference into a previous or future filing, or specifically request that such information be treated as soliciting material, in each case under those statutes.

Item 6. Selected Financial Data

The following table sets forth selected consolidated financial amounts at and for each of the five fiscal years in the period ended December 31, 2016. It should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations, included in Item 7 of this Annual Report on Form 10-K and the Consolidated Financial Statements and Supplementary Data thereto, included in Item 8 of this Annual Report.

Statement of Operations Data

	Years ended December 31,				
(in thousands, except per share amounts)	**2016**	**2015**	**2014**	**2013**	**2012**
Revenue	$ 489,720	$ 474,216	$ 443,225	$ 491,762	$ 473,696
Total operating expenses	432,051	426,644	409,021	414,584	374,184
Operating income	57,669	47,572	34,204	77,178	99,512
Interest expense	(8,519)	(7,812)	(7,931)	(12,460)	(16,561)
Interest income	321	49	57	71	12
Other income, net	—	—	—	801	382
Income before income taxes	49,471	39,809	26,330	65,590	83,345
Income taxes	11,835	15,282	12,383	25,593	32,829
Net income	$ 37,636	$ 24,527	$ 13,947	$ 39,997	$ 50,516
Net Income Per Common Share					
Basic income per common share:					
Net income per common share - basic	$ 0.45	$ 0.28	$ 0.16	$ 0.46	$ 0.59
Diluted income per common share:					
Net income per common share - diluted	$ 0.43	$ 0.28	$ 0.16	$ 0.45	$ 0.57
Weighted average shares:					
Basic	84,221	87,881	87,673	87,598	86,204
Diluted	86,987	88,361	88,164	88,344	88,365

Balance Sheet Data

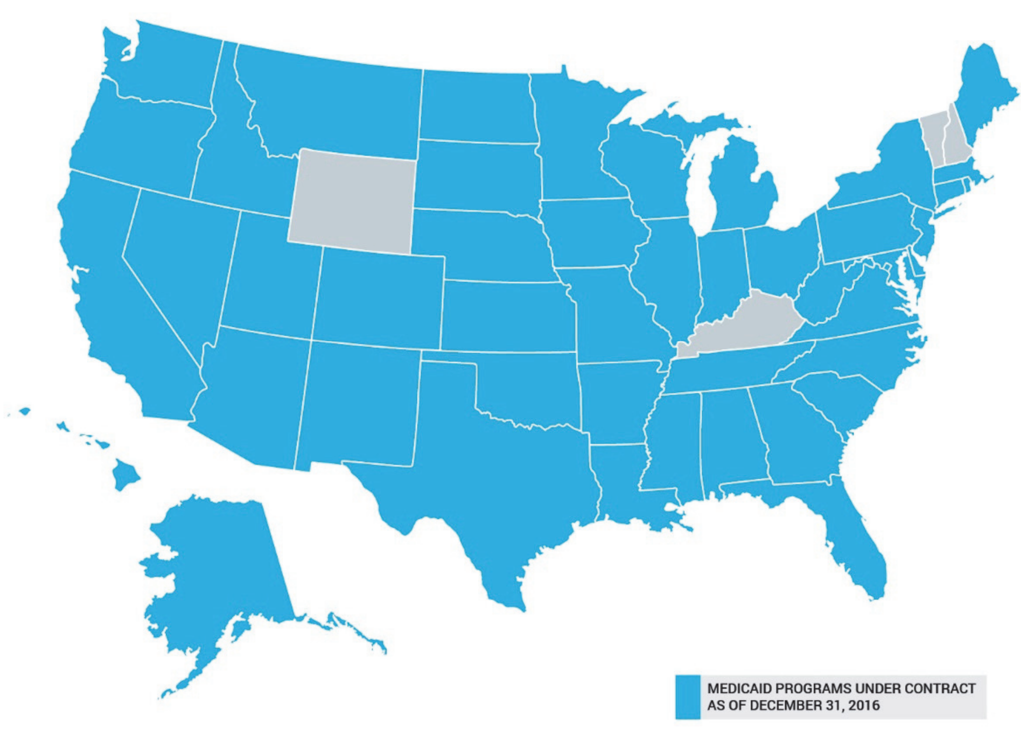
	Years ended December 31,				
(in thousands)	**2016**	**2015**	**2014**	**2013**	**2012**
Cash and cash equivalents	$ 175,999	$ 145,610	$ 133,116	$ 93,366	$ 135,227
Working capital	$ 277,478	$ 240,456	$ 226,271	$ 199,069	$ 205,537
Total assets	$ 882,755	$ 850,597	$ 880,988	$ 878,602	$ 926,052
Revolving credit facility	$ 197,796	$ 197,796	$ 197,796	$ 232,796	$ -
Term loan, less current portion	$ -	$ -	$ -	$ -	$ 297,500
Total shareholders' equity	$ 556,610	$ 524,702	$ 533,090	$ 502,439	$ 462,874

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following Management's Discussion and Analysis is intended to help the reader understand the results of operations and financial condition of HMS Holdings Corp. You should read this discussion and analysis in conjunction with the other sections of this Annual Report on Form 10-K, including the Cautionary Note Regarding Forward-Looking statements appearing prior to Part I, the Risk Factors appearing in Part I, Item 1A, and the Consolidated Financial Statements and Supplemental Data thereto appearing in Part II, Item 8. The historical results set forth in Part II, Item 6, Item 7, and Item 8 of this Annual Report should not be taken as necessarily indicative of our future operations.

Business Overview

HMS is a leading provider of cost containment solutions in the U.S. healthcare marketplace. Using innovative technology as well as extensive data services and powerful analytics, we deliver coordination of benefits, payment integrity and health management and engagement solutions through our operating subsidiaries to help healthcare payers improve performance and outcomes. We are managed and operate as one business segment with a single management team that reports to the Chief Executive Officer. We serve state Medicaid programs, commercial health plans, federal government health agencies, government and private employers, child support agencies, and other healthcare payers and sponsors. Together our various services help our customers recover improper payments; prevent future improper payments; reduce fraud, waste and abuse; better manage the care that members receive; and ensure regulatory compliance.



As of December 31, 2016:

- We serve 46 state Medicaid programs and the District of Columbia, CMS and the VHA;
- We provide services to approximately 255 health plans in support of their multiple lines of business, including Medicaid managed care, Medicare Advantage and group and individual health; and
- We also serve as a sub-contractor for certain business outsourcing and technology firms.

2016 Highlights

- Revenue increased $15.5 million, or 3.3% to $489.7 million
- Operating income increased $10.1 million, or 21.2% to $57.7 million
- Net income increased $13.1 million, or 53.5% to $37.6 million
- Diluted earnings per share increased $0.15 or 53.6% to $0.43 per share
- Shareholders' equity increased $31.9 million, or 6.1% to $556.6 million
- Cash flow from operations increased $16.7 million, or 23.1% to $89.0 million

Outlook

To date, we have grown our business organically through internal innovation and the development of new products and services, as well as by acquisition of businesses whose core services strengthen our overall mission to help our customers contain healthcare costs. Our largest growth during 2016 was with commercial health plan customers and we expect this marketplace to present the greatest opportunity for growth in the year ahead, particularly with the factors related to the macro healthcare environment including:

- Growth of Medicare enrollment, particularly Medicare Advantage plans;
- An aging U.S. population with a growing concentration of individuals with chronic conditions; and
- The continued dominance of employee sponsored health insurance for a majority of working individuals and the demand by large self-insured employers for cost savings.

We plan to drive our future growth by leveraging our expertise to expand product offerings, attracting new customers and broadening our relationships with current customers through the introduction of new services, audit strategies and claim types. Our goal is to develop and build on existing partnerships with our state, federal and commercial health plan customers to provide services that better address their business needs and promote customer satisfaction in the constantly evolving healthcare marketplace, particularly as potentially significant changes to the ACA are considered by Congress. We also expect to continue increasing recovery yields from our current products by enhancing our operating and organizational efficiency and by implementing new technology that will improve the quality and effectiveness of our service offerings.

Critical Accounting Policies

Our consolidated financial statements are prepared in accordance with U.S. GAAP. 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. We evaluate our estimates and assumptions on an ongoing basis. Our estimates are based on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Our actual results could differ from these estimates.

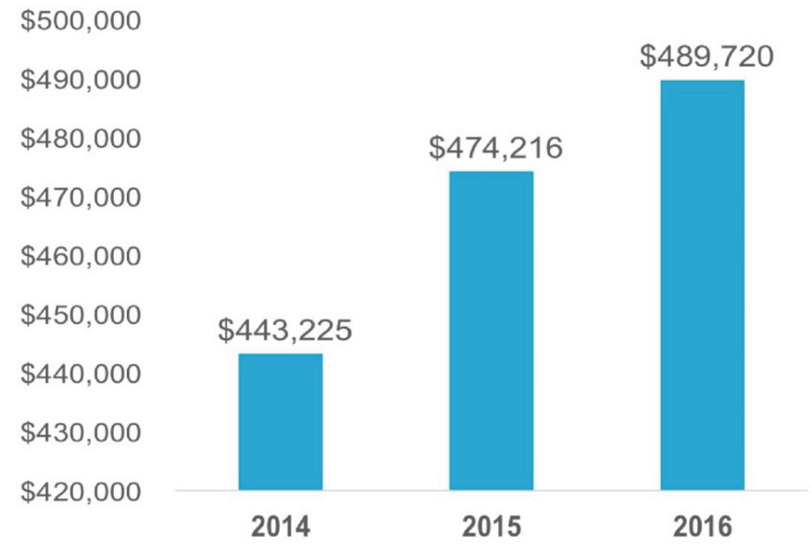
An accounting policy is deemed to be critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made, if different estimates reasonably could have been used, or if changes in the estimate that are reasonably possible could materially impact the financial statements. We believe that the assumptions and estimates associated with revenue recognition, estimated liability for appeals, income taxes, share-based compensation, loss contingencies, and goodwill and intangible assets have the greatest potential impact on our consolidated financial statements. Therefore, we consider these to be our critical accounting policies and estimates. For further information on these critical accounting policies and all other significant accounting policies refer to Note 1 – "Business and Summary of Significant Accounting Policies" in our Notes to the Consolidated Financial Statements under Item 8. Consolidated Financial Statements and Supplementary Data.

Results of Operations

Comparison of 2016 to 2015 and 2015 to 2014

	% of Revenue		
Years Ended December 31,	**2016**	**2015**	**2014**
Revenue	100%	100%	100%
Cost of Services:			
Compensation	38.6	37.6	40.9
Data processing	7.6	8.6	8.9
Occupancy	2.9	3.3	3.8
Direct project expenses	9.4	10.9	8.3
Other operating expenses	5.7	6.1	5.6
Amortization of acquisition related software and intangible assets	5.7	5.9	6.5
Total cost of services	70.0	72.4	74.0
Selling, general and administrative expenses	18.3	17.6	18.3
Total operating expenses	88.2	90.0	92.3
Operating income	11.8	10.0	7.7
Interest expense	(1.7)	(1.6)	(1.8)
Interest income	0.1	0.0	0.0
Income before income taxes	10.1	8.4	5.9
Income taxes	2.5	3.2	2.8
Net income	7.6%	5.2%	3.1%

(in thousands)

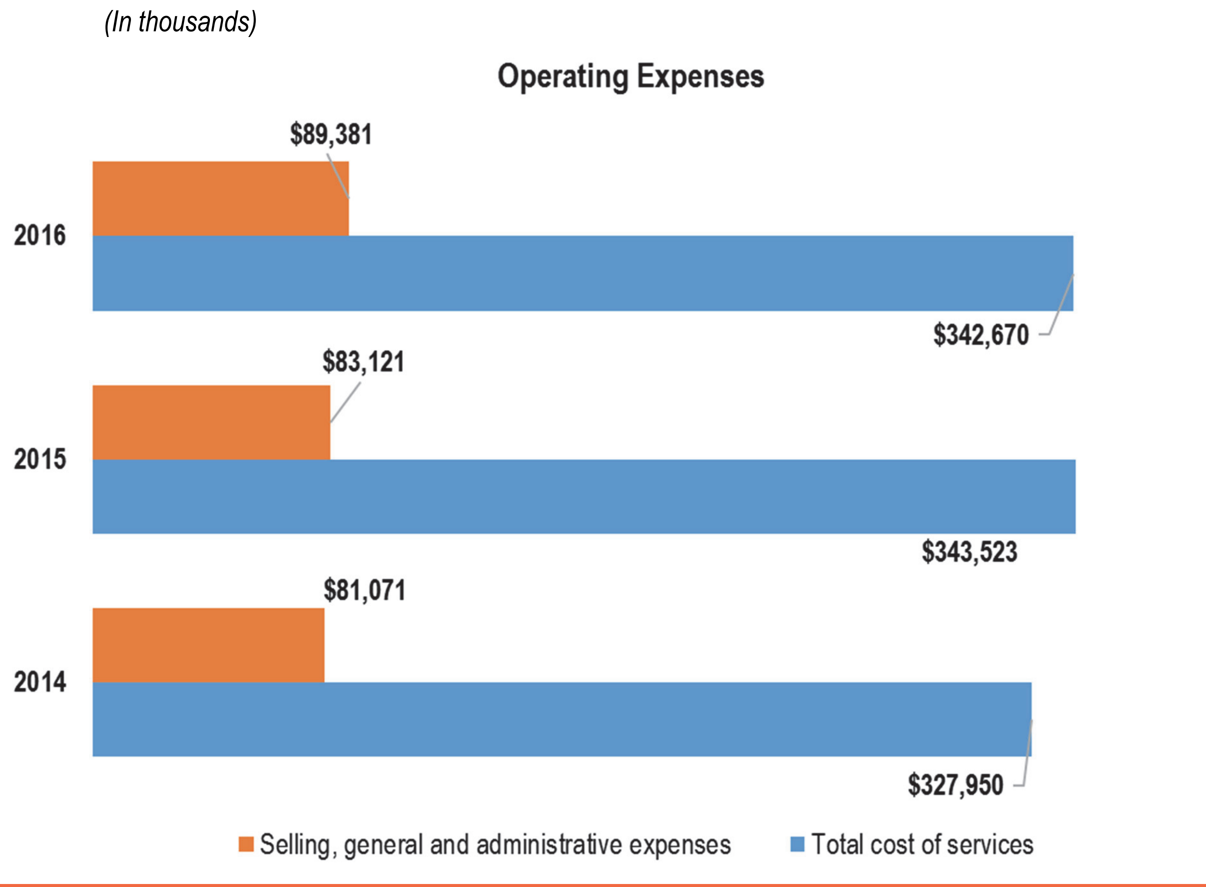


Revenue

2016 vs. 2015
During the year ended December 31, 2016, revenue was $489.7 million, an increase of $15.5 million or 3.3% compared to prior year revenue of $474.2 million. The increase was primarily due to commercial health plan revenue growth of $27.2 million or 13.4% partially offset by decreases in both state government revenue of $7.0 million or 3.1%, and federal government revenue of $4.5 million or 11.7%. The reduction in federal government revenue includes a $3.4 million decrease related to the reduction of Medicare RAC activity.

2015 vs. 2014
During the year ended December 31, 2015, revenue was $474.2 million, an increase of $31.0 million, or 7.0%, compared to prior year revenue of $443.2 million. This increase was primarily due to commercial health plan revenue growth of $32.2 million or 18.8% partially offset by a decrease in federal government revenue of $1.2 million or 3.1%, primarily related to the reduction of Medicare RAC activity.

(In thousands)



Total Cost of Services

Total cost of services consists of compensation, data processing, occupancy, direct project expenses, other operating expenses, and amortization of acquisition related software and intangible assets.

2016 vs. 2015
During the year ended December 31, 2016, total cost of services as a percentage of revenue was 70.0% compared to 72.4% for the year ended December 31, 2015. Total cost of services for the year ended December 31, 2016 was $342.7 million, a decrease of $0.8 million compared to $343.5 million for the year ended December 31, 2015. This change resulted primarily from

decreases in direct project costs, data processing costs, occupancy costs and other operating expenses. These decreases were partially offset by increases in compensation expense.

2015 vs. 2014
During the year ended December 31, 2015, total cost of services as a percentage of revenue was 72.4% compared to 74.0% for the year ended December 31, 2014. Total cost of services for the year ended December 31, 2015 was $343.5 million, an increase of $15.5 million compared to $328.0 million for the year ended December 31, 2014. This change resulted primarily from increases in direct project costs and other operating expenses. These increases were partially offset by decreases in compensation expense.

Compensation

Compensation expense is primarily composed of salaries and wages, which include overtime, health benefits, stock option expense, performance awards, commissions, employers share of FICA and fringe benefits.

2016 vs. 2015
During the year ended December 31, 2016, compensation expense as a percentage of revenue was 38.7% compared to 37.6% for the year ended December 31, 2015. Compensation expense for the year ended December 31, 2016 was $189.3 million, an increase of $11.0 million compared to $178.3 million for the year ended December 31, 2015. This change resulted from a $13.1 million total increase in salaries, variable compensation expense, and fringe benefit expense, partially offset by a $2.1 million decrease in stock-based compensation expense. For the year ended December 31, 2016, we averaged 2,030 employees, a 1.1% increase from the year ended December 31, 2015, during which we averaged 2,007 employees.

2015 vs. 2014
During the year ended December 31, 2015, compensation expense as a percentage of revenue was 37.6% compared to 40.9% for the year ended December 31, 2014. Compensation expense for the year ended December 31, 2015 was $178.3 million, a decrease of $3.0 million compared to $181.3 million for the year ended December 31, 2014. This change resulted primarily from a $4.9 million decrease in salary, severance and overtime expense partially offset by a $1.9 million increase in variable compensation expense, stock compensation expense, and fringe benefit expense. For the year ended December 31, 2015, we averaged 2,007 employees, a 7.4% decrease from the year ended December 31, 2014, during which we averaged 2,167 employees.

Data Processing

2016 vs. 2015
During the year ended December 31, 2016, data processing expense as a percentage of revenue was 7.6% compared to 8.6% for the year ended December 31, 2015. Data processing expense for the year ended December 31, 2016 was $37.3 million, a decrease of $3.6 million compared to $40.9 million for the year ended December 31, 2015. This change resulted primarily from a $4.0 million decrease in depreciation expense partially offset by an increase in software expenses.

2015 vs. 2014
During the year ended December 31, 2015, data processing expense as a percentage of revenue was 8.6% compared to 8.9% for the year ended December 31, 2014. Data processing expense for the year ended December 31, 2015 was $40.9 million, an increase of $1.2 million compared to $39.7 million for the year ended December 31, 2014. This change resulted primarily from a $3.0 million total increase in software and data expenses, partially offset by a decrease in depreciation expense.

Occupancy

2016 vs. 2015
During the year ended December 31, 2016, occupancy expense as a percentage of revenue was 2.9% compared to 3.3% for the year ended December 31, 2015. Occupancy expense for the year ended December 31, 2016 was $14.0 million, a decrease

of $1.8 million compared to $15.8 million for the year ended December 31, 2015. This decrease was primarily related to the closure of one of our office locations in 2016. Additional savings were realized due to reductions in utilities and equipment rental expense.

2015 vs. 2014

During the year ended December 31, 2015, occupancy expense as a percentage of revenue was 3.3% compared to 3.8% for the year ended December 31, 2014. Occupancy expense for the year ended December 31, 2015 was $15.8 million, a decrease of $1.2 million compared to $17.0 million for the year ended December 31, 2014. This decrease was primarily related to downsizing office space and relocation of our offices in Omaha, Nebraska and Albany, New York. Additional savings were realized after closing several of our smaller field offices in 2014 and 2015.

Direct Project Expenses

2016 vs. 2015

During the year ended December 31, 2016, direct project expense as a percentage of revenue was 9.4% compared to 10.9% for the year ended December 31, 2015. Direct project expense for the year ended December 31, 2016 was $46.3 million, a decrease of $5.2 million compared to $51.5 million for the year ended December 31, 2015. The reduction of Medicare RAC activity resulted in a $3.5 million decrease in sub-contractor fees from the prior year.

2015 vs. 2014

During the year ended December 31, 2015, direct project expense as a percentage of revenue was 10.9% compared to 8.3% for the year ended December 31, 2014. Direct project expense for the year ended December 31, 2015 was $51.5 million, an increase of $14.6 million compared to $36.9 million for the year ended December 31, 2014. This increase was partially due to a $9.6 million increase related to the transition of operational processes to sub-contractors. Additionally, data costs increased by $2.9 million in connection with an increase in the volume of patient charts we reviewed for our commercial health plan customers. The volume increase also resulted in a $1.4 million increase in key punch and data conversion due to the increase in reformatting electronic and hard copy remittance data.

Other Operating Expenses

2016 vs. 2015

During the year ended December 31, 2016, other operating expenses as a percentage of revenue were 5.7% compared to 6.1% for the year ended December 31, 2015. Other operating expenses for the year ended December 31, 2016 were $27.8 million, a decrease of $1.1 million compared to $28.9 million for the year ended December 31, 2015. This decrease primarily resulted from a $2.3 million decrease in temporary staffing and sub-contractor fees, partially offset by a $0.9 million increase in consulting fees.

2015 vs. 2014

During the year ended December 31, 2015, other operating expenses as a percentage of revenue were 6.1% compared to 5.6% for the year ended December 31, 2014. Other operating expenses for the year ended December 31, 2015 were $28.9 million, an increase of $4.3 million compared to $24.6 million for the year ended December 31, 2014. This increase primarily resulted from a $3.6 million increase in temporary staffing and consulting expense.

Amortization of Acquisition Related Software and Intangible Assets

2016 vs. 2015

During the year ended December 31, 2016, amortization of acquisition related software and intangibles as a percentage of revenue was 5.7% compared to 5.9% for the year December 31, 2015. Amortization of acquisition related software and intangible assets for 2016 was $28.0 million, a decrease of $0.1 million compared to $28.1 million for the year ended December 31, 2015. This decrease resulted from intangibles becoming fully amortized in 2016, partially offset by additional expense related to the Essette acquisition.

2015 vs. 2014
During the year ended December 31, 2015, amortization of acquisition related software and intangibles as a percentage of revenue was 5.9% compared to 6.5% for the year December 31, 2014. Amortization of acquisition related software and intangible assets for 2015 was $28.1 million, a decrease of $0.5 million compared to $28.6 million for the year ended December 31, 2014. This decrease resulted from the completion of amortization in 2014 on restrictive covenants for our Verify Solutions, Inc. and MedRecovery Management, LLC acquisitions.

Selling, General and Administrative expenses

2016 vs. 2015
During the year ended December 31, 2016, SG&A expense as a percentage of revenue was 18.3% compared to 17.6% for the year December 31, 2015. SG&A expense for 2016 was $89.4 million, an increase of $6.3 million compared to $83.1 million for the year ended December 31, 2015. Increases totaling $14.1 million were comprised of consulting expense of $4.0 million, fringe benefits expense of $1.6 million, compensation costs of $6.1 million, and other expenses $2.4 million. These increases were partially offset by a $7.8 million reduction in legal fees and settlements. During the year ended December 31, 2016, we averaged 236 employees in the SG&A group, an 8.3% increase over our average of 218 employees in that group during the year ended December 31, 2015.

2015 vs. 2014
During the year ended December 31, 2015, SG&A expense as a percentage of revenue was 17.6% compared to 18.3% for the year December 31, 2014. SG&A expense for 2015 was $83.1 million, an increase of $2.0 million compared to $81.1 million for the year ended December 31, 2014. This increase was primarily due to a $2.8 million increase in salary expense which was partially offset by a $0.9 million decrease in software-related costs. During the year ended December 31, 2015, we averaged 218 employees in the SG&A group, a 1.4% decrease over our average of 221 employees in that group during the year ended December 31, 2014.

Operating Income

2016 vs. 2015
Operating income for the year ended December 31, 2016 was $57.7 million, or 11.8% of revenue, compared to $47.6 million or 10.0% of revenue, for the prior year.

2015 vs. 2014
Operating income for the year ended December 31, 2015 was $47.6 million, or 10.0% of revenue, compared to $34.2 million, or 7.7% of revenue, for the prior year.

Interest Expense

Interest expense represents interest on borrowings under our revolving credit facility, amortization of deferred financing costs, commitment fees for our revolving credit facility and issuance fees for our letter of credit.

2016 vs. 2015
During the year ended December 31, 2016, interest expense was $8.5 million, an increase of $0.7 million compared to the prior year. This increase resulted from an increase on the variable interest rate on our outstanding debt. Amortization of deferred financing costs of $2.1 million in both periods is included within interest expense.

2015 vs. 2014
During the year ended December 31, 2015, interest expense was $7.8 million, a decrease of $0.1 million compared to the prior year. The decrease primarily relates to a reduction in interest on capital leases. Amortization of deferred financing costs of $2.1 million in both periods is included within interest expense.

Income Taxes

2016 vs. 2015
During the year ended December 31, 2016, we recorded income tax expense of $11.8 million, a decrease of $3.5 million compared to the prior year. Net income before taxes of $49.5 million increased $9.7 million year-over-year, while income tax expense decreased $3.5 million. Our effective tax rate decreased from 38.4% to 23.9%, which reflects a $6.2 million tax benefit recognized in the third quarter of 2016 that was related to R&D Credits and Section 199 Deductions. Excluding that tax benefit would result in a normalized effective tax rate of 36.2%. The principal differences between the statutory rate and our effective rate were the R&D Credits, the Section 199 Deduction, other permanent items, unrecognized tax benefits and state taxes.

2015 vs. 2014
During the year ended December 31, 2015, we recorded income tax expense of $15.3 million, an increase of $2.9 million compared to the prior year. Net income before taxes of $39.8 million increased $13.5 million year-over-year. Our effective tax rate decreased from 47.0% to 38.4% primarily due to a change in unitary state apportionments and permanent differences. The principal differences between the statutory rate and our effective rate were state taxes and permanent differences.

Net Income

2016 vs. 2015
During the year ended December 31, 2016, net income was $37.6 million which represents a $13.1 million increase compared to net income of $24.5 million for 2015.

2015 vs. 2014
During the year ended December 31, 2015, net income was $24.5 million which represents a $10.6 million increase compared to net income of $13.9 million for 2014.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements.

Liquidity and Capital Resources

The following tables should be read in conjunction with the Consolidated Financial Statements and Supplementary Data thereto, included in Item 8 of this Annual Report on Form 10-K.

Our cash and cash equivalents, working capital and available borrowings under our credit facility (based upon the borrowing base and financial covenants in our Credit Agreement) were as follows:

	Years Ended December 31,	
(In thousands)	**2016**	**2015**
Cash and cash equivalents	$ 175,999	$ 145,610
Working capital	$ 277,478	$ 240,456
Available borrowings under credit facility	$ 183,913	$ 121,204

A summary of our cash flows was as follows:

(In thousands)	Years Ended December 31, 2016	2015	2014
Net cash provided by operating activities	$ 88,639	$ 72,285	$ 100,556
Net cash used in investing activities	(39,201)	(11,817)	(26,201)
Net cash used in financing activities	(19,049)	(47,974)	(34,605)
Net increase in cash and cash equivalents	$ 30,389	$ 12,494	$ 39,750

Our principal source of cash has been our cash flow from operations and our $500 million five-year revolving credit facility. Other sources of cash include proceeds from exercise of stock options and tax benefits associated with stock option exercises. The primary uses of cash are compensation expenses, data processing, direct project costs and SG&A expenses and acquisitions.

We believe that expected cash flows from operations, available cash and cash equivalents, and funds available under our revolving credit facility will be sufficient to meet our liquidity requirements for the following year, which include:

- the working capital requirements of our operations;
- investments in our business;
- business development activities;
- repurchases of common stock; and
- repayment of our revolving credit facility.

Any projections of future earnings and cash flows are subject to substantial uncertainty. We may need to access debt and equity markets in the future if unforeseen costs or opportunities arise, to fund acquisitions or to repay indebtedness under the Credit Agreement, which matures in May 2018. If we need to obtain new debt or equity financing in the future, the terms and availability of such financing may be impacted by economic and financial market conditions as well as our financial condition and results of operations at the time we seek additional financing.

Cash Flows from Operating Activities

Net cash provided by operating activities for the year ended December 31, 2016 was $89.0 million, a $16.7 million increase from net cash provided by operating activities of $72.3 million for the year ended December 31, 2015. The increase was primarily due to an increases in net income as adjusted for non-cash items including decreased stock-based compensation expense and deferred income taxes, as well as increase in accounts payable and other liabilities.

Net cash provided by operating activities for the year ended December 31, 2015 was $72.3 million, a $28.3 million decrease from net cash provided by operating activities of $100.6 million for the year ended December 31, 2014. This decrease was primarily due to an increase in accounts receivable and a decrease in our net deferred tax liabilities and accounts payable, partially offset by an increase in net income.

Net cash provided by operating activities for the year ended December 31, 2014 was $100.6 million, a $0.6 million decrease from net cash provided by operating activities of $101.2 million for the year ended December 31, 2013. This decrease was driven primarily by a decrease in net income and the net changes in the estimated allowance for unbilled receivables, accounts receivable, accounts payable, accrued expenses and other liabilities and the provision for the accounts receivable allowance.

Our DSO calculation can be derived by dividing total net accounts receivable at the end of period, by the daily average of the current quarter's annualized revenue. For the year ended December 31, 2016, revenue was $489.7 million, an increase of $15.5 million compared to revenue of $474.2 million for the year ended December 31, 2015. DSO increased by 6 days to 124 days as of December 31, 2016, as compared to 118 days as of December 31, 2015. The change was primarily due to delays in invoicing and receipt of payment for previously recognized revenue as a result of timing delays; offset by accelerated cash collections of invoiced balances; and a decrease in various operational issues including missing Explanation of Benefits which delay invoicing.

Higher accounts receivable balances and higher DSOs in future periods would reduce net cash from operating activities in those periods. We do not currently anticipate collection issues with our accounts receivable, however, nor do we currently expect that any extended collections will materially impact our liquidity.

The majority of our customer relationships have been in place for several years. Our future operating cash flows could be adversely affected by a decrease in a demand for our services, delayed payments from customers or if one or more contracts with our largest customers is terminated or not re-awarded.

Cash Flows from Investing Activities

Net cash used in investing activities for the year ended December 31, 2016 was $39.5 million, a $27.7 million increase compared to net cash used in investing activities of $11.8 million for the year ended December 31, 2015. This increase was primarily due to the use of approximately $20.7 million in the Essette acquisition during the third quarter of 2016. Purchases of property and equipment and investment in capital software also increased by $9.2 million. These increases were partially offset by the receipt of proceeds from the sale of a cost basis investment of approximately $2.5 million.

Net cash used in investing activities for the year ended December 31, 2015 was $11.8 million, a $14.4 million decrease compared to net cash used in investing activities of $26.2 million for the year ended December 31, 2014. The decrease was primarily related to a $14.1 million decrease in purchase of property and equipment and a $0.3 million decrease in investment in capitalized software.

Net cash used in investing activities for the year ended December 31, 2014 was $26.2 million, a $0.1 million decrease compared to net cash used in investing activities of $26.3 million for the year ended December 31, 2013. This decrease was primarily related to a $0.5 million decrease in investments in common stock and a $0.1 million decrease in investment in capitalized software, which were offset by a $0.5 million increase in purchases of property and equipment.

We currently expect to incur capital expenditures of $28 million during the year ended December 31, 2017.

Cash Flows from Financing Activities

Net cash used in financing activities for the year ended December 31, 2016 was $19.0 million, a $29.0 million decrease from net cash used in financing activities of $48.0 million for the year ended December 31, 2015. This decrease was primarily attributable to a decrease in share repurchases as compared to the prior year. Approximately $20.5 million was used for share repurchases of 1,140,332 of our shares of common stock at a weighted average price of $17.93 per share pursuant to an authorized share repurchase program as more fully described in Note 8 – "Equity" in our Notes to the Consolidated Financial Statements under Item 8. Consolidated Financial Statements and Supplementary Data.

Net cash used in financing activities for the year ended December 31, 2015 was $48.0 million, a $13.4 million increase from net cash used in financing activities of $34.6 million for the year ended December 31, 2014. This increase was primarily attributable to $50.0 million used in 2015 for share repurchases of 4,747,441 of our shares of common stock at a weighted average price of $10.51 per share pursuant to an authorized share repurchase program, partially offset by a $35.0 million reduction in payments toward the principal outstanding on our revolving credit facility and. No share repurchases were made during the year ended December 31, 2014.

Net cash used in financing activities for the year ended December 31, 2014 was $34.6 million, an $82.2 million decrease from net cash used in financing activities of $116.8 million for the year ended December 31, 2013. This decrease was primarily attributable to a $60.0 million reduction in payments toward the principal outstanding on our revolving credit facility and a $25.0 million reduction for share repurchases. No share repurchases were made for the year ended December 31, 2014.

Credit Agreement

In May 2013, we entered into the Credit Agreement with certain financial institutions and Citibank, N.A. as Administrative Agent. The Credit Agreement has a five-year term, provides for an initial $500 million revolving credit facility, and contains customary representations and warranties, affirmative and negative covenants, including financial covenants, and events of default. Our obligations and any amounts due under the Credit Agreement are guaranteed by our material 100% owned subsidiaries and secured by a security interest in all or substantially all of our and our subsidiaries' physical assets. See Note 7 – "Credit Agreement" in our Notes to the Consolidated Financial Statements under Item 8. Consolidated Financial Statements and Supplementary Data for additional information regarding our Credit Agreement.

As of December 31, 2016, the Company was in compliance with all the terms of the Credit Agreement.

Share Repurchase Program

During the year ended December 31, 2016, we repurchased 1.1 million shares of our common stock for approximately $20.5 million using cash resources. See Note 8 – "Equity" in our Notes to the Consolidated Financial Statements under Item 8. Consolidated Financial Statements and Supplementary Data for additional information regarding share repurchases.

Contractual Obligations

The following table represents the scheduled maturities of our contractual cash obligations and other commitments (*in thousands*):

	Payments Due by Period				
Contractual Obligations [7]	**Total**	**Less than 1 year**	**1 - 3 years**	**3 -5 years**	**More than 5 years**
Operating leases [1]	$ 38,568	$ 16,077	$ 10,598	$ 7,041	$ 4,852
Revolving credit facility [2]	197,796	-	197,796	-	-
Interest expense [3]	7,368	5,511	1,857	-	-
Commitment fee [4]	2,028	1,517	511	-	-
Capital leases [5]	4	4	-	-	-
Letter of Credit fee [6]	26	26	-	-	-
Total	$ 245,790	$ 23,135	$ 210,762	$ 7,041	$ 4,852

(1) Represents the future minimum lease payments under non-cancelable operating leases. In addition to minimum rent, certain leases require the payment for insurance, maintenance and other costs. These costs have historically represented approximately 3% to 6% of the minimum rent amount. These additional amounts are not included in the table of contractual obligations as the timing or amounts of such payments are unknown.

(2) Represents scheduled repayments of principal on the revolving credit facility under the terms of our Credit Agreement. See Note 7 - "Credit Agreement" in our Notes to the Consolidated Financial Statements in Item 8. Consolidated Financial Statements and Supplementary Data for additional information regarding the Credit Agreement.

(3) Represents estimates of amounts due on revolving credit facility based on the interest rate as of December 31, 2016 and on scheduled repayments of principal. See Note 7 - "Credit Agreement" in our Notes to the Consolidated Financial

Statements in Item 8. Consolidated Financial Statements and Supplementary Data for additional information regarding the Credit Agreement.

(4) Represents the commitment fee due on the revolving credit facility. See Note 7 - "Credit Agreement" in our Notes to the Consolidated Financial Statements in Item 8. Consolidated Financial Statements and Supplementary Data for additional information regarding the Credit Agreement.

(5) Represents the future minimum lease payments under capital leases.

(6) Represents the fees for the letter of credit established against the revolving credit facility. See Note 7 - "Credit Agreement" in our Notes to the Consolidated Financial Statements in Item 8. Consolidated Financial Statements and Supplementary Data for additional information regarding the Credit Agreement.

(7) The Company has excluded long-term unrecognized tax benefits, including interest and penalties, of $7.4 million from the amounts presented as the timing of these obligations is uncertain.

As part of our contractual agreement with a customer, we have an outstanding irrevocable letter of credit for $3.0 million, which we established against our existing revolving credit facility. On May 1, 2017, the expiration date of the letter of credit was extended to April 26, 2018.

Recently Issued Accounting Pronouncements

The information set forth under the caption "Summary of Significant Accounting Policies" in Note 1 of the Notes to the Consolidated Financial Statements included in Part II, Item 8. Consolidated Financial Statements and Supplementary Data is incorporated herein by reference.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

At December 31, 2016, we were not a party to any derivative financial instruments. We conduct all of our business in U.S. currency and hence do not have direct foreign currency risk. We are exposed to changes in interest rates, primarily with respect to our revolving credit facility under our Credit Agreement. If the effective interest rate for all of our variable rate debt were to increase by 100 basis points (1%), our annual interest expense would increase by a maximum of $2.0 million based on our debt balances outstanding at December 31, 2016. Further, we currently invest substantially all of our excess cash in short-term investments, primarily money market accounts, where returns effectively reflect current interest rates. As a result, market interest rate changes may impact our interest income or expense. The impact will depend on variables such as the magnitude of rate changes and the level of borrowings or excess cash balances. We do not consider this risk to be material. We manage such risk by continuing to evaluate the best investment rates available for short-term, high quality investments.

Item 8. Consolidated Financial Statements and Supplementary Data

The information required by Item 8 is found on pages 102 to 125 of this Annual Report on Form 10-K

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

(a) Evaluation of Disclosure Controls and Procedures

We are responsible for maintaining disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) that are designed to ensure that information required to be disclosed in our reports filed under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow for timely decisions regarding required disclosure.

As required by Rule 13a-15(b) under the Exchange Act, management, with the participation of our Chief Executive Officer and Chief Financial Officer, performed an evaluation of the effectiveness of our disclosure controls and procedures as of December 31, 2016. Based on our evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were not effective as of December 31, 2016 due to the identification of material weaknesses in our internal control over financial reporting as described in Management's Report on Internal Control Over Financial Reporting below.

(b) Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting and for the assessment of the effectiveness of internal control over financial reporting. As defined by Rule 13a-15(f) of the Exchange Act, internal control over financial reporting is a process designed by, or under the supervision of our Chief Executive Officer and our Chief Financial Officer and effected by our Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the consolidated financial statements for external purposes in accordance with U.S. GAAP.

Our internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of the consolidated financial statements in accordance with generally accepted accounting principles and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the consolidated financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement in our annual or interim financial statements will not be prevented or detected on a timely basis.

In connection with the preparation of our annual consolidated financial statements, management has undertaken an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2016, based on criteria established in the Internal Control-Integrated Framework issued by COSO. Management's assessment included an evaluation of the design of our internal control over financial reporting and testing of the operational effectiveness of those controls.

Based on that assessment, management identified the following material weaknesses:

> We did not maintain an effective control environment based on lack of established reporting lines and defined authorities and responsibilities for financial reporting at our wholly owned subsidiary, HDI, and did not have

an effective risk assessment process on a periodic basis to assess the effects of changes in business operations and turnover of our employees that significantly impact our financial processes and internal control over financial reporting related to (i) our estimated liability for appeals associated with our contract with CMS (the "CMS Reserve") and (ii) the valuation of our accounts receivable allowance (the "Allowance"). As a result, we did not design and implement effective process level control activities, specifically management review controls over the measurement and disclosure of the CMS Reserve and the Allowance and controls over the completeness and accuracy of data used to calculate the CMS Reserve and the Allowance.

The material weaknesses identified above resulted in an immaterial reclassification error in revenue and selling, general and administrative expenses that was corrected prior to the issuance of the consolidated financial statements. These material weaknesses create a reasonable possibility as of December 31, 2016 that a material misstatement to the consolidated financial statements will not be prevented or detected on a timely basis; therefore, we concluded that our internal control over financial reporting was not effective as of December 31, 2016.

KPMG LLP, the independent registered public accounting firm that audited our consolidated financial statements included in this Annual Report on Form 10-K, has issued an adverse opinion in their report on the effectiveness of our internal control over financial reporting, a copy of which appears on page 100.

(c) Changes in Internal Control Over Financial Reporting

Except as relating to the material weaknesses identified in the current period and described under "Management's Report on Internal Control Over Financial Reporting," there have been no changes in our internal control over financial reporting identified in connection with the evaluation of our controls performed during the quarter ended December 31, 2016 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

(d) Remediation

Management is currently revising and supplementing our control environment and our risk assessment process and the design of our process level controls in order to remediate the material weaknesses described above, including a set of compensating controls in the near term. We are enhancing and revising the design of controls and procedures to ensure the calculations of the CMS Reserve and the Allowance properly utilize historical information to derive the period-end balances. Additionally, management will be supplementing the review controls over the CMS Reserve and the Allowance, and controls over the completeness and accuracy of the data used to calculate the balances with additional levels of review involving senior members of our accounting department and will assess the need for additional remediation steps. We believe that the steps identified should remediate the control weaknesses identified.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

BOARD OF DIRECTORS

The Board of Directors is currently composed of nine members, eight of whom are non-employee directors. Pursuant to our Bylaws, our Board of Directors is currently divided into two classes, Class I and Class II, with one class standing for election each year for a term of two years. The following table sets forth certain information with respect to each of our directors.

Name	Age	Has Served as a Director Since	Position with HMS
Class II Directors (Terms expire at the 2017 Annual Meeting)			
William F. Miller III	67	2000	Class II Director
Ellen A. Rudnick	66	1997	Class II Director
Richard H. Stowe	73	1989	Class II Director and Lead Independent Director
Cora M. Tellez	67	2012	Class II Director
Class I Directors (Terms expire at the 2018 Annual Meeting)			
Alex M. Azar II(1)	49	2016	Class I Director
Robert Becker(2)	63	2016	Class I Director
Craig R. Callen	61	2013	Class I Director
William C. Lucia	59	2009	Chairman, President and Chief Executive Officer, and Class I Director
Bart M. Schwartz	70	2010	Class I Director

(1) In October 2016, the Board of Directors increased the size of the board to nine members and appointed Mr. Azar as a Class I director.

(2) The Board of Directors appointed Mr. Becker as a Class I director in January 2016 to fill a vacancy on the Board.

Detailed biographical information of each director, as well as a description of the specific experience, qualifications, attributes and skills that led our Board to conclude that each director should serve as a member of our Board of Directors, is below.

CLASS II DIRECTORS (TERMS EXPIRE AT THE 2017 ANNUAL MEETING)

William F. Miller III

Mr. Miller has served as one of our directors since October 2000. In 2013, Mr. Miller joined KKR Advisors, a global investment firm, as a healthcare industry advisor. From 2006 to 2013, Mr. Miller was a partner at Highlander Partners, a private equity group in Dallas, Texas focused on investments in healthcare products, services and technology. From October 2000 to April 2005, Mr. Miller served as our Chief Executive Officer and from December 2000 to April 2006, Mr. Miller served as our Chairman. From 1983 to 1999, Mr. Miller served as President and Chief Operating Officer of EmCare Holdings, Inc., a national healthcare services firm focused on the provision of emergency physician medical services. From 1980 to 1983, Mr. Miller served as Administrator/Chief Operating Officer of Vail Mountain Medical. From 1997 to 2012, Mr. Miller served as a director of Lincare Holdings, Inc.

Mr. Miller brings to the Board of Directors both a thorough understanding of our business and the healthcare industry and extensive experience in the financial markets. His significant operational experience, both at HMS and at EmCare Holdings, makes him well-positioned to provide HMS with

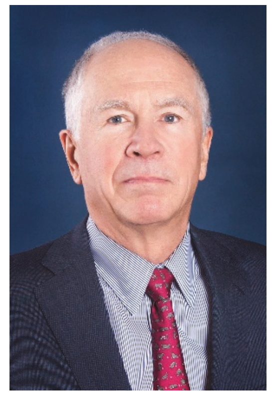
insight on financial, operational and strategic issues and to serve as a member of the Compliance and Ethics Committee.

Ellen A. Rudnick

Ms. Rudnick has served as one of our directors since 1997. Since 1999, Ms. Rudnick has served in various roles at the Polsky Center for Entrepreneurship and Innovation, University of Chicago Booth School of Business, including her current role as Senior Advisor for Entrepreneurship, adjunct faculty, and her prior role as Executive Director and Clinical Professor from 1999 through July 2016. From 1993 to 1999, Ms. Rudnick served as Chairman of Pacific Biometrics, Inc., a publicly held healthcare biodiagnostics company and its predecessor, Bioquant, which she co-founded. From 1990 to 1992, she served as President and Chief Executive Officer of Healthcare Knowledge Resources (HKR), a privately held healthcare information technology corporation and subsequently served as President of HCIA, Inc. (HCIA) following the acquisition of HKR by HCIA. From 1975 to 1990, Ms. Rudnick served in various positions at Baxter Health Care Corporation, including Corporate Vice President and President of its Management Services Division. Ms. Rudnick also serves as a director of Patterson Companies, Inc. and First Midwest Bancorp, Inc.

Ms. Rudnick brings to the Board of Directors extensive business understanding and demonstrated management expertise, having served in key leadership positions at a number of healthcare companies. Ms. Rudnick has a comprehensive understanding of the operational, financial and strategic challenges facing companies and knows how to make businesses work effectively and efficiently. Her management experience and service on other public company boards has provided her with a thorough understanding of the financial and other issues facing large companies, making her particularly valuable as the Chair of our Audit Committee and as a member of our Compliance and Ethics Committee and Nominating and Governance Committee.

Richard H. Stowe



Mr. Stowe has served as one of our directors since 1989 and as Lead Independent Director of the Board since July 2015. Mr. Stowe has served as a general partner of Health Enterprise Partners LP, a private equity firm, since 2005. From 1999 to 2005, Mr. Stowe was a private investor, a senior advisor to the predecessor funds to Health Enterprise Partners, and a senior advisor to Capital Counsel LLC, an asset management firm. From 1979 until 1998, Mr. Stowe was a general partner of Welsh, Carson, Anderson & Stowe. Prior to 1979, he was a Vice President in the venture capital and corporate finance groups of New Court Securities Corporation (now Rothschild, Inc.).

Mr. Stowe brings over 46 years of financial, capital markets and investment experience to our Board of Directors. Mr. Stowe's background and extensive experience make him well-positioned to serve as the Chair of the Compensation Committee, a member of the Nominating and Governance Committee and as our Lead Independent Director. Mr. Stowe has effectively carried out his responsibilities as a Chair for several of our Board committees and is well-respected by the independent directors. The Board believes that Mr. Stowe is highly qualified and continues to be in the best position to serve as Lead Independent Director.

Cora M. Tellez

Ms. Tellez has served as one of our directors since October 2012. Ms. Tellez is the President and Chief Executive Officer of Sterling HSA, an independent health savings accounts administrator which she founded in 2004. Prior to starting Sterling HSA, Ms. Tellez served as President of the health plans division of Health Net, Inc., an insurance provider. She later served as President of Prudential's western health care operations, CEO of Blue Shield of California, Bay Region and Regional Manager for Kaiser Permanente of Hawaii. Ms. Tellez also serves as Chief Executive Officer of Amazing CARE Network, Inc., a company she founded in January 2015. Ms. Tellez serves on the boards of directors of Pacific Premier Bancorp, Inc. and CorMedix Inc., as well as on the boards of various nonprofit organizations such as the Institute for Medical Quality and UC San Diego's Center for Integrative Medicine.

Ms. Tellez brings over 25 years of healthcare policy and operations experience to the Board. Her public company operational, financial and corporate governance experience is a valuable resource for our Board and makes her well-positioned to serve as the Chair of the Nominating and Governance Committee, a member of the Audit and Compensation Committees and as an audit committee financial expert.

CLASS I DIRECTORS (TERMS EXPIRE AT THE 2018 ANNUAL MEETING)

Alex M. Azar II

Mr. Azar has served as one of our directors since October 2016. Mr. Azar is currently Chairman of Seraphim Strategies, LLC, a firm he founded in 2017, which provides strategic consulting and counsel on the biopharmaceutical and health insurance industries, including biopharmaceutical pricing, reimbursement, access, and distribution, as well as federal and state healthcare policy. From January 2012 to January 2017, Mr. Azar served as President of Lilly USA, LLC, the largest affiliate of global biopharmaceutical company Eli Lilly & Co. (Lilly), where he was responsible for directing the sales and marketing operations of Lilly's U.S. commercial business and also directly led the U.S. Biomedicines division. From April 2009 to December 2011, he served as Lilly's Vice President of Managed Healthcare Services and Puerto Rico, and from June 2007 to April 2009 as its Senior Vice President of Corporate Affairs and Communications responsible for the company's global communications, government affairs, public policy, advocacy, and pricing, reimbursement and access organizations. Prior to joining Lilly, Mr. Azar served as the Deputy Secretary of the U.S. Department of Health and Human Services (HHS) from 2005 to 2007, where he was the Chief Operating Officer of the largest civilian cabinet department in the U.S. government. Mr. Azar supervised all operations of HHS, including the regulation of food and drugs, Medicare, Medicaid, medical research, public health, welfare, child and family services, disease prevention, Indian health, mental health services, and others. Mr. Azar served as General Counsel of HHS from 2001 to 2005. Prior to his service at HHS, Mr. Azar was in private legal practice. He also served as a Law Clerk to U.S. Supreme Court Justice Antonin Scalia. Mr. Azar serves on the boards of the American Council on Germany and the Indianapolis Symphony Orchestra.

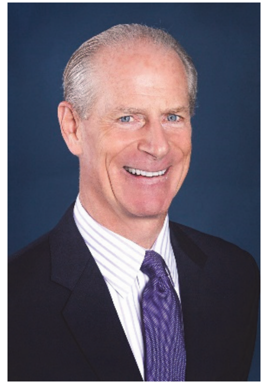
Mr. Azar brings an important blend of government and healthcare industry experience to our Board of Directors. He has an informed perspective on healthcare policy and extensive experience with big data, which is particularly relevant to us as we expand into the care management and data analytics field.

Robert Becker

Mr. Becker has served as one of our directors since January 2016. Mr. Becker most recently served as President and CEO of Wolters Kluwer Health, a provider of information and point of care solutions to the healthcare industry, from December 2008 until his retirement in May 2015. In his role at Wolters Kluwer Health, Mr. Becker reported to the Chairman of the Executive Board and had global responsibility for Wolters Kluwer's $1.2 billion Health division. From August 2003 to November 2008, he served as CEO of Wolters Kluwer Law & Business. Mr. Becker led the transformation of both the Health and Law & Business divisions from traditional publishers to world class providers of digital content and software solutions through a combination of organic growth and mergers and acquisitions. Prior to joining Wolters Kluwer, Mr. Becker served as President and CEO of Jupiter Media Metrix, a provider of comprehensive research and measurement products and services designed to assist companies in utilizing Internet technologies to more effectively operate their businesses. Mr. Becker also spent 13 years with The Thomson Corporation, 10 years as a CEO and three as a CFO of several global businesses. Mr. Becker, who is a CPA, began his career at PriceWaterhouse auditing numerous public and privately held companies. Mr. Becker previously served on the board of directors of Symphony Health, a privately held portfolio company of Symphony Technology Group providing pharmacy claims and patient longitudinal health records to the pharmaceutical industry.

Mr. Becker's executive leadership experience and strong background in technology and data analytics provide valuable insight into strategic planning and operations to the Board. Among other qualifications, Mr. Becker brings to the Board extensive financial expertise, including budgeting, forecasting and mergers and acquisitions, making him well-positioned to serve as a member of the Audit Committee and an audit committee financial expert, as well as a member of the Nominating and Governance Committee.

Craig R. Callen



Mr. Callen has served as one of our directors since October 2013. Mr. Callen was a Senior Advisor at Crestview Partners, a private equity firm, from 2009 through 2016. From 2004 to 2007, Mr. Callen was Senior Vice President and Head of Strategic Planning and Business Development and a member of the Executive Committee for Aetna, Inc. In his role at Aetna, Mr. Callen reported directly to the Chairman and CEO and was responsible for oversight and development of Aetna's corporate strategy, including mergers and acquisitions. During his tenure, Mr. Callen and his team led the acquisitions of seven companies, investing over $2.0 billion, broadening Aetna's revenue, global presence, product line, targeted markets and participation in government programs. Prior to joining Aetna, Mr. Callen was a Managing Director and Head of U.S. Healthcare Investment Banking at Credit Suisse First Boston and Co-Head of Healthcare Investment Banking at Donaldson, Lufkin & Jenrette. Mr. Callen serves on the board of directors of Omega Healthcare Investors, Inc.

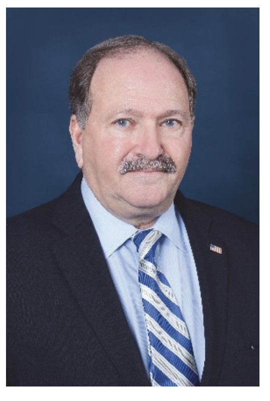
Mr. Callen brings over 20 years of healthcare investment banking experience and corporate development expertise to our Board, which are invaluable to us as we evaluate, develop and implement new solutions for clients. His extensive experience in a corporate setting and as an advisor to public/private healthcare companies positions him well to serve on the Compensation and Nominating and Governance Committees.

William C. Lucia

Mr. Lucia has served as our President and Chief Executive Officer since March 2009. He has been a member of our Board of Directors since May 2008 and was appointed Chairman of the Board in July 2015. From May 2005 to March 2009, Mr. Lucia served as our President and Chief Operating Officer. Since joining us in 1996, Mr. Lucia has held several positions with us, including: President of our subsidiary, Health Management Systems, Inc., from 2002 to 2009; President of our Payor Services Division from 2001 to 2002; Vice President and General Manager of our Payor Services Division from 2000 to 2001; Vice President of our Business Office Services from 1999 to 2000; Chief Operating Officer of our former subsidiary Quality Medical Adjudication, Incorporated (QMA) and Vice President of West Coast Operations from 1998 to 1999; Vice President and General Manager of QMA from 1997 to 1998; and Director of Information Systems for QMA from 1996 to 1997. Prior to joining us, Mr. Lucia served in various executive positions including Senior Vice President, Operations and Chief Information Officer for Celtic Life Insurance Company, and Senior Vice President, Insurance Operations for North American Company for Life and Health Insurance. Mr. Lucia is a Fellow of the Life Management Institute Program through LOMA, an international association through which insurance and financial services companies around the world engage in research and educational activities to improve company operations.

With over 20 years of experience with HMS working across multiple divisions and his prior experience in the insurance industry, Mr. Lucia brings to our Board in-depth knowledge of HMS and the healthcare and insurance industries, the evolving healthcare landscape and the array of challenges to be faced and demonstrates an ability to formulate and implement key strategic initiatives, making him well-positioned to lead our management team and provide essential insight and leadership to the Board.

Bart M. Schwartz



Mr. Schwartz has served as one of our directors since July 2010. Mr. Schwartz currently serves as the Chairman and Chief Executive Officer of SolutionPoint International, LLC, which provides an integrated array of business intelligence, security and compliance, identity assurance and situational awareness solutions. In 2003, Mr. Schwartz founded his own law firm, which specializes in, among other areas, conducting independent investigations, monitoring and Independent Private Sector Inspector General engagements and developing, auditing and implementing compliance programs. From 1991 to 2003, Mr. Schwartz served as the Chief Executive Officer of Decision Strategies, an internationally recognized investigative and security firm, which was sold to SPX Corporation in 2001. Mr. Schwartz has over 30 years' experience managing domestic and international investigations, prosecutions and assessments for clients in both the public and private sectors. He currently serves as the federally appointed Monitor of GM and as Chairman of the Board of Kadmon Holdings, Inc.

Mr. Schwartz brings extensive legal and compliance experience to our Board, which is particularly valuable as we continue to expand our business. Mr. Schwartz's background makes him well-positioned to serve as the Chair of the Compliance and Ethics Committee and as a member of the Audit and Nominating and Governance Committees.

EXECUTIVE OFFICERS

The following table sets forth certain information with respect to each person who currently serves as one of our executive officers as of the date of this Annual Report on Form 10-K. Our executive officers are elected annually by our Board of Directors and generally serve at the discretion of our Board of Directors. There are no arrangements or understandings between any of our executive officers and any other person pursuant to which they were selected as an officer. None of our directors or executive officers are related to any other director or executive officer of HMS or any of its subsidiaries by blood, marriage or adoption.

Name	Age	Position
William C. Lucia	59	Chairman, President and Chief Executive Officer
Meredith W. Bjorck	41	Executive Vice President, General Counsel and Corporate Secretary
Semone Neuman	53	Executive Vice President, Operations and Information Technology
Cynthia Nustad	46	Executive Vice President, Chief Strategy Officer
Jeffrey S. Sherman	51	Executive Vice President, Chief Financial Officer and Treasurer
Tracy A. South	58	Executive Vice President, Human Resources and Chief Administrative Officer
Douglas M. Williams	58	President, Markets and Product

The principal occupations for the last five years, as well as certain other biographical information, for each of our current executive officers who are not directors are set forth below. See "Class I Directors" above for biographical information for Mr. Lucia.

Meredith W. Bjorck

Ms. Bjorck has served as our Executive Vice President, General Counsel and Corporate Secretary since April 2016. Ms. Bjorck previously served as Senior Vice President, General Counsel and Corporate Secretary for Tuesday Morning Corporation, a national off-price retailer, from January 2013 to March 2016. From April 2008 until January 2013, Ms. Bjorck served in various capacities for CEC Entertainment, Inc., an international restaurant chain, including as Deputy General Counsel, Chief Compliance Officer and Corporate Secretary. Prior to joining CEC Entertainment, Ms. Bjorck was an attorney at Fulbright & Jaworski L.L.P. (now Norton Rose Fulbright) and Vinson & Elkins L.L.P., where she specialized in corporate securities and mergers and acquisitions.

Semone Neuman

Ms. Neuman has served as our Executive Vice President, Operations and Information Technology since December 2016, responsible for our operations for coordination of benefits, premium protection and subrogation services and information technology. From April 2013 to December 2016, she served as our Executive Vice President of Operations. Ms. Neuman has extensive experience in healthcare claims processing, operations and reengineering. She has a track record for leading change, driving quality performance and reducing unit costs in complex operating environments. Prior to joining HMS, Ms. Neuman served as Senior Vice President of Claim Operations at United HealthCare (UHC), from 2009 to 2013, where she oversaw the operations for all business lines and major platforms processing over 500 million claims annually. Under her leadership, UHC achieved industry-leading performance levels, earning the American Medical Association designation for the industry's best claim operation in 2011 and 2012.

Cynthia Nustad

Ms. Nustad has served as our Executive Vice President, Chief Strategy Officer since December 2016, and is responsible for strategy development, evolution and growth of our technology and analytics software and services and care management solutions. From February 2011 to December 2016, she served as our Executive Vice President, Chief Information Officer. Prior to joining HMS, Ms. Nustad served as Vice President of Architecture and Technology for Regence Blue Cross Blue Shield (now Cambia Health Solutions), where she was responsible for servicing a large corporation across multiple sites and states from January 2005 to January 2011. Ms. Nustad has over 20 years of management experience in the healthcare information technology industry, including executive experience in enterprise technology, business transformation, product development and innovation. Ms. Nustad and her teams have earned numerous industry awards, including the Computerworld Premier 100 IT Leader award in 2013.

Jeffrey S. Sherman

Mr. Sherman has served as our Executive Vice President, Chief Financial Officer and Treasurer since September 2014, and is also responsible for corporate development, investor relations, risk management and corporate security. Mr. Sherman has over 25 years of experience in healthcare operations, strategic planning and financial performance in senior financial executive positions. Prior to joining HMS, Mr. Sherman served as Executive Vice President and Chief Financial Officer of AccentCare, a healthcare delivery organization, from September 2013 to August 2014. From April 2009 to September 2013, he served as Executive Vice President and Chief Financial Officer of Lifepoint Hospitals, Inc. From September 2005 until April 2009, Mr. Sherman served as Vice President and Treasurer of Tenet Healthcare, where he managed all aspects of corporate finance, including cash flow management and capital structure, and was also responsible for risk management. Mr. Sherman served in various capacities for Tenet Healthcare and its predecessor company since 1990, including as a hospital chief financial officer and regional vice president.

Tracy A. South

Ms. South has served as our Executive Vice President, Human Resources and Chief Administrative Officer since May 2014. She served as our Senior Vice President of Human Resources from December 2011 to May 2014. Ms. South has over 21 years of executive-level human resources experience, including at national healthcare organizations. From 2003 to 2011, Ms. South served as the Senior Vice President, Chief Human Resources Officer at Mosaic Sales Solutions, a privately-held full-service marketing agency in Irving, Texas. During her tenure at Mosaic, she built the company's North America Human Resources department, focusing on attracting and training a dispersed workforce of over 10,000 employees hired to represent world class brands at retail, in the community and online. In her role, Ms. South oversaw Talent Acquisition, HR Services and Organizational Effectiveness. Ms. South has also served in HR leadership roles at Tenet Healthcare and Aetna US Healthcare.

Douglas M. Williams

Mr. Williams has served as our President, Markets and Product since December 2016, with responsibility for leading sales and marketing, product management and payment integrity solutions. From January 2015 to December 2016, he served as our Division President of Markets with responsibility for leading the state and federal government and commercial markets, sales and marketing. From December 2013 to January 2015, he served as our Division President of Commercial Solutions, responsible for leading our commercial product and business development strategy. Prior to joining HMS, Mr. Williams served as Chief Information Officer of Aveta Inc. (now part of Optum, Inc.), a provider of managed healthcare services, from 2010 to 2013. Mr. Williams has over 25 years of experience in healthcare information technology, sales, and operations.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Pursuant to Section 16(a) of the Exchange Act our executive officers, directors and persons owning more than 10% of a registered class of our equity securities are required to file reports of ownership and changes in ownership of common stock with the SEC. Copies of such reports are required to be furnished to us.

Based solely on a review of the copies of such reports furnished to us, or written representations that no other reports were required, we believe that during fiscal 2016, all of the reporting persons complied with the requirements of Section 16(a).

CORPORATE GOVERNANCE

BOARD COMMITTEES AND RELATED MATTERS

The Board of Directors has the following standing committees: Audit Committee, Compensation Committee, Compliance and Ethics Committee and Nominating and Governance Committee, each of which operates pursuant to a separate charter that has been approved by the Board of Directors. A current copy of each charter is available on our website under the "Investors—Corporate Governance" tabs at http://investor.hms.com/corporate-governance.cfm. Each committee reviews the appropriateness of its charter on an annual basis, as required by its charter, and recommends any changes to the Board of Directors for approval.

The Board of Directors makes committee and committee chair assignments annually at its meeting following the annual meeting of shareholders, although further changes to committee assignments are made from time to time as deemed appropriate by the Board of Directors. The membership of each standing committee as of the date of this Annual Report on Form 10-K and the number of meetings held by each committee during 2016 are summarized in the table below.

		Committee			
Director	**Board**	**Audit**[2]	**Compensation**[3]	**Compliance and Ethics**	**Nominating and Governance**
Alex M. Azar II[1][4]	👤				
Robert Becker[1][5]	👤	👤			👤
Craig R. Callen[1]	👤		👤		👤
William C. Lucia	Chairman				
William F. Miller III[1][6]	👤			👤	
Ellen A. Rudnick[1]	👤	Chair		👤	👤
Bart M. Schwartz[1]	👤	👤		Chair	👤
Richard H. Stowe[1]	Lead Independent Director		Chair		👤
Cora M. Tellez[1][7]	👤	👤	👤		Chair
Number of Meetings in 2016	**8**	**6**	**7**	**5**	**7**

(1) The Board has determined that the director is independent as defined in the NASDAQ Marketplace Rules.

(2) The Board has determined that each member of the Audit Committee meets NASDAQ's financial knowledge and sophistication requirements. In addition, the Board has determined that Mr. Becker and Ms. Tellez each qualify as an "audit committee financial expert," as such term is defined in Item 407(d)(5)(ii) of Regulation S-K.

(3) The Board has determined that each member of the Compensation Committee is an independent director, as independence for compensation committee members is defined in the NASDAQ Marketplace Rules. Each of Messrs. Callen and Stowe and Ms. Tellez also qualifies as an "outside director" within the meaning of Section 162(m) of the Internal Revenue Code of 1986 (the "Code") and as a "non-employee" director under Rule 16b-3 of the Exchange Act.

(4) Mr. Azar was appointed as an independent member of the Board of Directors in October 2016.

(5) Mr. Becker was appointed as a member of the Audit Committee and the Nominating and Governance Committee effective as of February 19, 2016.

(6) Mr. Miller was appointed as a member of the Compliance and Ethics Committee effective as of July 28, 2016.

(7) Ms. Tellez stepped down from the Compliance and Ethics Committee and was appointed as a member of the Compensation Committee effective as of July 28, 2016.

CODE OF CONDUCT

Our Board of Directors has adopted a Code of Conduct applicable to all of our directors, officers and employees, including all employees, officers, directors, contractors, contingent workers and business affiliates of HMS subsidiaries. The Code of Conduct is publicly available on our website under the "Investors—Corporate Governance" tab at http://investor.hms.com/corporate-governance.cfm and can also be obtained free of charge by sending a written request to our Corporate Secretary. To the extent permissible under NASDAQ Marketplace Rules, we intend to disclose amendments to our Code of Conduct, as well as waivers of the provisions thereof, that relate to our principal executive officer, principal financial officer, principal accounting officer, controller or persons performing similar functions on the Company's website under the "Investors—Corporate Governance" tab at http://investor.hms.com/corporate-governance.cfm.

Item 11. Executive Compensation

EXECUTIVE COMPENSATION

COMPENSATION DISCUSSION AND ANALYSIS

This Compensation Discussion and Analysis ("CD&A"), describes our 2016 executive compensation program and certain actions with respect to our 2017 executive compensation program and should be read in conjunction with the compensation tables that follow this CD&A. In particular, this CD&A explains how the Compensation Committee of the Board of Directors made its compensation decisions for our named executive officers for fiscal 2016.

For 2016, our named executive officers are:

- William C. Lucia, Chairman, President and Chief Executive Officer ("CEO");
- Jeffrey S. Sherman, Executive Vice President, Chief Financial Officer and Treasurer;
- Semone Neuman, Executive Vice President, Operations and Information Technology;
- Cynthia Nustad, Executive Vice President, Chief Strategy Officer; and
- Douglas Williams, President, Markets and Product.

2016 Say-on-Pay Vote

At our 2016 Annual Meeting of Shareholders, over 97% of the votes cast on the say-on-pay proposal were in favor of our 2015 executive compensation program described in our 2016 Proxy Statement. The Compensation Committee believes that this vote, and the consistent high level of support from our shareholders of our executive compensation program year over year, affirms our shareholders' strong support of HMS's general approach to executive compensation. Therefore, the Compensation Committee did not change its compensation philosophy as it made decisions for 2016. As market practices on executive compensation policies evolve, the Compensation Committee will continue to evaluate and, if needed, make changes to our executive compensation program to ensure that the program continues to reflect our pay-for-performance compensation philosophy and objectives. The Compensation Committee will also continue to consider the outcome of HMS's say-on-pay votes when making future compensation decisions for executive officers.

Executive Summary

2016 FINANCIAL PERFORMANCE OVERVIEW

Our full year 2016 financial performance included solid growth in revenue, operating income and adjusted EPS, margin expansion, higher adjusted EBITDA, strong operating cash flow and prudent capital deployment – including the Essette acquisition and share repurchases.

The following is an overview of our financial performance for the year ended December 31, 2016.

- We reported total revenue of $489.7 million, a 3.3% increase compared to total revenue for fiscal 2015 of $474.2 million.
- We reported net income of $37.6 million or $0.43 per diluted share, a 53.6% increase compared to net income for fiscal 2015 of $24.5 million or $0.28 per diluted share.
- We reported adjusted earnings before interest, income taxes, depreciation and amortization, stock-based compensation and non-recurring legal expense ("adjusted EBITDA") of $117.4 million, a 4.4% increase compared to adjusted EBITDA for fiscal 2015 of $112.5 million.
- We reported adjusted earnings per diluted share ("adjusted EPS") of $0.75, a 31.6% increase compared to adjusted EPS for fiscal 2015 of $0.57.

- Our stock price increased by 47.2% for the one-year period ending December 30, 2016, from $12.34 per share to $18.16 per share.

A reconciliation of the non-GAAP financial measures (adjusted EBITDA and adjusted EPS) to the most directly comparable GAAP measures is set forth below under the heading "Non-GAAP Financial Measures".

KEY 2016 COMPENSATION ACTIONS

The following highlights key decisions and actions of the Compensation Committee with respect to executive compensation for 2016. These decisions and actions were made with the advice of the Compensation Committee's independent consultant, Frederic W. Cook & Co., Inc. ("FW Cook") (see "Role of the Independent Compensation Consultant" below), and are discussed in greater detail later in this CD&A.

- Executive Compensation Peer Group. In January 2016, the Compensation Committee approved certain changes to its executive compensation peer group, resulting in a new 14 company peer group.

- Merit-Based Salary Increases. In February 2016, the Compensation Committee approved merit-based salary increases for the named executive officers, other than the CEO.

- Annual Short-Term Incentive Plan Performance Metrics. In February 2016, the Compensation Committee introduced a fourth performance metric, adjusted EPS, under the 2016 Short-Term Incentive Plan (the "2016 STIP"), in addition to the metrics used under the prior year's short-term incentive plan of revenue, adjusted EBITDA, and corporate strategic performance.

- Performance-Based Long-Term Incentive Awards. In February 2016, in light of our strong shareholder support evidenced by the results of the say-on-pay vote at our 2015 Annual Meeting of Shareholders, the Compensation Committee continued to grant annual long-term incentive awards to our executive officers consisting, on a substantially equal value basis, of 50% non-qualified stock options and 50% restricted stock units, half of which are subject to stock price performance conditions.

- Earned and Unearned Performance Awards. The Compensation Committee determined that the performance conditions for the long-term incentive awards granted on March 4, 2015, May 13, 2015 and March 2, 2016 had been achieved during 2016 (within the 3-year award period), and therefore, the awards have been earned subject only to any remaining time-based vesting and other terms applicable to the awards. In addition, the Compensation Committee determined that the performance conditions for the long-term incentive awards granted on November 15, 2013 had not been achieved within the 3-year award period and therefore, the awards were forfeited during 2016.

KEY COMPENSATION PRACTICES AND GOVERNANCE FEATURES

Our executive compensation program reflects a number of best practices used by the Compensation Committee and the Board of Directors.

What We Do	What We Don't Do
Pay-for-Performance. Payment of a significant amount of our executives' total direct compensation is contingent upon satisfaction of certain pre-determined financial and non-financial objectives.	**No Repricing.** We have not reduced the exercise price, repriced or provided cash payment for underwater stock options.
Annual Say-on-Pay Votes. We have annual say-on-pay votes and recommend continued annual votes.	**No Hedging or Pledging.** We do not permit pledging of our securities as collateral for a loan or entering into hedging and derivative transactions with respect to our securities by employees or directors.
Independent Compensation Consultant. The Compensation Committee retains a compensation consultant that is independent from management to provide advice to the committee on executive and director compensation, as well as other compensation and benefits matters.	**No Evergreen Equity Plans.** Our equity plan does not permit evergreen share authorizations or liberal share recycling.
Limited Use of Executive Perquisites. We offer limited executive perquisites in order to attract and retain top executive talent and to maintain competitiveness.	**No Pensions or Supplemental Executive Retirement Plans.** We only provide retirement benefits to executives that are generally available to all other employees.
Stock Ownership Guidelines. Our CEO is required to hold five times his base salary in our common stock and all other executive officers are required to hold two times their base salary in our common stock, aligning the executive officer's interests with those of our shareholders and mitigating the risk of focusing only on short-term goals.	**No Change-in-Control-Related Excise Tax Gross-ups.** We do not include change-in-control excise tax gross-up provisions in employment agreements.
Compensation Recovery (Clawback Policy). We are permitted to recover from any of HMS's current or former executive officers any incentive bonus and equity compensation gains attributable to such executive officer's misconduct occurring after January 1, 2015, that causes a subsequent restatement of our financial statements.	**No Single Trigger Change-in-Control Compensation.** We provide double trigger change-in-control compensation.
Employment Agreements. Each of our executive officers has entered into an employment agreement and restrictive covenant agreement with HMS.	
CEO Compensation. All of our independent directors as a group approve the compensation of our CEO, taking into account the recommendation of the Compensation Committee.	

Philosophy, Objectives and Principles of Our Executive Compensation Program

Our mission is to make the healthcare system work better for everyone. In order to support that mission and Board-approved strategic objectives, while providing adequate returns to our shareholders, we must compete for, attract, develop, motivate and retain top quality executive talent at the corporate and operating business unit levels during periods of both favorable and unfavorable business conditions.

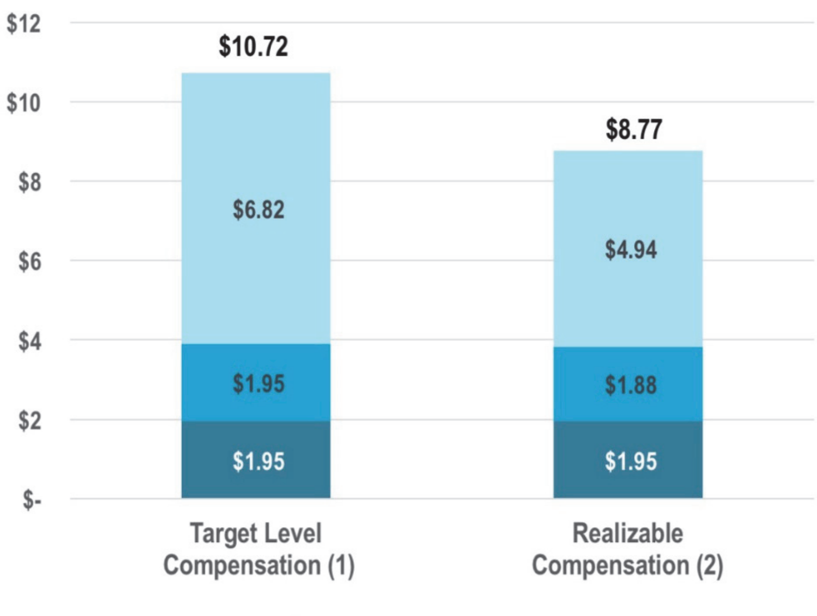
Our executive compensation program is a critical management tool in achieving these objectives. “Pay-for-performance” is the underlying philosophy for our executive compensation program. The program is designed and administered to:

- reward performance that drives the achievement of our short and long-term goals;
- align the interests of our senior executives with the interests of our shareholders, thus rewarding individual and team achievements that contribute to the attainment of our business goals;
- foster teamwork and encourage our senior executives to work together with key personnel in the interest of company performance;
- attract, develop, motivate and retain high-performing senior executives by providing a balance of total compensation opportunities, including salary and short and long-term incentives that are competitive with similarly situated companies and reflective of our performance;
- maximize the financial efficiency of the overall compensation program from tax, accounting and cash flow perspectives; and
- motivate our senior executives to pursue objectives that create long-term shareholder value and discourage behavior that could lead to excessive risk, by balancing our fixed and at-risk pay (both short and long-term incentives) and choosing multiple financial metrics for our short and long-term incentives.

PAY-FOR-PERFORMANCE

We design our compensation programs to make a meaningful amount of target total direct compensation (salary, plus target annual incentive compensation, plus target annual long-term incentive compensation) dependent on the achievement of performance objectives.

To illustrate this, in the chart that follows, we compare the aggregate target total direct compensation for our CEO for the last three fiscal years to the aggregate compensation for the last three fiscal years that had been earned or that may be considered realizable (based on the methodology described below) as of December 31, 2016. The chart illustrates that our annual and long-term incentive programs over the past three fiscal years have been designed to make a meaningful amount of our CEO’s target total direct compensation dependent on the achievement of performance objectives and have resulted in actual compensation significantly less than the target amount.



(1) "Target Level Compensation" equals the sum of (i) annual base salary paid in each of the last three fiscal years, (ii) the target value of short-term cash incentive awards for each of the last three fiscal years and (iii) stock awards and option awards granted in each of the last three fiscal years valued at the grant date fair value, the same value at which such awards are required to be reflected in the Summary Compensation Table included in this Annual Report on Form 10-K, under applicable SEC regulations. Target Level Compensation does not include amounts under All Other Compensation in the Summary Compensation Table.

(2) "Realizable Compensation" equals the sum of (i) annual base salary paid in each of the last three fiscal years, (ii) actual short-term cash incentive awards earned in each of the last three fiscal years, (iii) the value as of their vesting date of any portion of stock awards granted in each of the last three fiscal years that vested prior to December 31, 2016, (iv) an assumed realizable value for any portion of stock awards granted in each of the last three fiscal years that remained unvested on December 31, 2016, based on the closing market price per share of our common stock on December 30, 2016, the last trading day in 2016, of $18.16 per share and (v) the intrinsic value of option awards granted during fiscal 2015 and 2016 based on the difference between the option exercise prices of $16.77 per share and $13.94 per share, respectively, and the closing market price per share of our common stock on December 30, 2016 of $18.16 per share. For purposes of this table, the intrinsic value of the option award granted during 2014 is zero because the award has an exercise price per share that is greater than the closing market price per share of our common stock on December 30, 2016. For purposes of this table, all performance-based stock awards and option awards are considered earned and all option awards (whether time-based or performance-based) are considered fully vested. The value that may be realized by our CEO on such stock awards and option awards in the future, if any, will depend on the extent to which the performance-based stock awards and option awards are earned and vest, the extent to which time-based stock awards and option awards vest, the market price of our common stock on the vesting date for stock awards and the extent to which there is appreciation in the market price of our common stock over the respective exercise price per share of stock options at the time such options are exercised.

How We Determine Executive Compensation

ROLE OF MANAGEMENT

Our CEO, together with our Chief Financial Officer and Executive Vice President of Human Resources, develop recommendations regarding the design of our executive compensation program. In addition, they are involved in setting the financial and strategic objectives that, subject to the approval of the Board and the Compensation Committee, are used as the performance measures for the short and long-term incentive plans. Both the CEO and the Chief Financial Officer provide the Compensation Committee with information relevant to determining the achievement of financial and non-financial performance objectives and related funding levels under our short-term cash incentive plan. Also, as part of its review process in determining executive compensation, the Compensation Committee receives from our CEO an assessment of each other executive officer's performance against individual objectives and compensation recommendations for such officer, including base salary and short and long-term incentives.

ROLE OF THE COMPENSATION COMMITTEE

Our executive compensation program is administered by the Compensation Committee, which is composed entirely of independent directors. The Compensation Committee is responsible for designing our executive compensation program, including each element of the program, and determining and approving total executive remuneration. Each year, the Compensation Committee reviews a competitive analysis and assessment of the compensation provided to executive officers and approves executive compensation based on this review, as well as an evaluation of recommendations presented by our CEO with respect to the other executive officers and the advice of FW Cook. Our CEO does not participate in the Compensation Committee's deliberations or decisions with regard to his own compensation, and the Compensation Committee's decisions with respect to our CEO's compensation are reviewed and approved by the independent members of the Board of Directors as a group.

ROLE OF THE INDEPENDENT COMPENSATION CONSULTANT

The Compensation Committee is authorized to engage its own independent advisors to assist in carrying out its responsibilities. The Compensation Committee has retained FW Cook as its independent compensation consultant. Representatives of FW Cook regularly attend Compensation Committee meetings and communicate with the Chair of the Compensation Committee outside of meetings. FW Cook reports directly to the Compensation Committee and the Compensation Committee oversees the fees paid for its services. FW Cook provides the Compensation Committee with independent and objective guidance on a variety of matters related to our executive and director compensation programs and general compensation and benefits matters. In addition, FW Cook provides objective guidance regarding management's executive compensation recommendations, with the instruction that FW Cook is to advise the Compensation Committee independent of management and to provide such advice for the benefit of HMS and its shareholders. FW Cook does not provide any consulting services to HMS beyond its role as a consultant to the Compensation Committee. The Compensation Committee conducts an assessment of the independence of its compensation consultant annually, pursuant to SEC rules and, following its most recent assessment in April 2017, concluded that no conflict of interest exists that would prevent FW Cook from serving as an independent consultant to the Compensation Committee.

During fiscal 2016, FW Cook provided the following services to the Compensation Committee:

- assisted in the design and development of all elements of the 2016 executive and director compensation program;
- consulted on the composition of the peer group and provided competitive benchmarking and market data analysis based on the peer group;
- evaluated management's compensation recommendations and proposals;
- consulted on the design of the 2016 Omnibus Incentive Plan and amendments to the Annual Incentive Compensation Plan in light of best practices, industry trends and voting policies of proxy advisory firms;
- reviewed and provided advice on the design of the 2016 Short-Term Incentive Plan;
- reviewed agendas for the Compensation Committee meetings held in 2016;

- reviewed HMS's 2016 compensation risk assessment;
- consulted on compliance with Section 162(m) of the Code;
- provided updates regarding evolving regulatory requirements, emerging trends and best practices in executive compensation; and
- reviewed and provided advice on HMS's executive compensation-related disclosures in the 2016 Proxy Statement and reviewed the compensation-related disclosures and proposals in the 2017 Proxy Statement.

Competitive Pay Positioning and Peer Group Analyses

The Compensation Committee believes that competitive pay positioning is a key factor in helping to achieve our executive compensation program objectives. As part of our annual pay-setting process, the Compensation Committee uses benchmarking data to evaluate each executive officer's target compensation levels compared to similarly situated executives at peer group companies.

The Compensation Committee does not target the level of total direct compensation (or any specific element of compensation) for our executive officers to a specific percentile of our peer group. Instead, the Compensation Committee exercises its discretion in setting target compensation levels annually based on a variety of factors to achieve our compensation objectives:

- each executive's competitive pay positioning relative to similarly situated executives among our peer companies,
- each executive's scope of responsibilities, individual performance and expected contributions going forward,
- tenure,
- relative internal pay levels,
- recommendations by the CEO for the other executive officers, and
- prior year target and actual compensation levels.

Our peer group companies are selected by the Compensation Committee based on their similarity to us in size, financial profile and scope of operations, as well as potential to compete for executive talent. The Compensation Committee's general practice is to select companies that position HMS at approximately the peer group median across these metrics. The Compensation Committee reviews the peer group annually with guidance from FW Cook and may make modifications from time to time to ensure that it continues to provide an appropriate benchmark for competitive pay analyses.

In January 2016, the Compensation Committee, with guidance from FW Cook, reviewed and modified the peer group used to benchmark executive compensation for 2016. The peer group established by the Compensation Committee for 2016 consists of the 14 companies listed below, grouped by sub-industry (the "2016 Peer Group").

2016 Peer Group Companies		
Heath Care Technology	**Application Software**	**Data Processing and Outsourced Services**
Allscripts Healthcare Solutions, Inc.	Blackbaud, Inc.	ExlService Holdings, Inc.
athenahealth, Inc.	Bottomline Technologies (de), Inc.	MAXIMUS, Inc.
Computer Programs & Systems, Inc.	RealPage, Inc.	WEX Inc.
HealthStream, Inc.	Tyler Technologies, Inc.	
Medidata Solutions, Inc.		
Omnicell, Inc.		
Quality Systems, Inc.		

The Compensation Committee made the changes listed below to the peer group at the time of its review.

Peers Added		Peers Removed	
Company	**Rationale**	**Company**	**Rationale**
Blackbaud, Inc.	▪ Comparably-sized ▪ Application software industry ▪ Peer of peers	Dealertrack Technologies	▪ Acquired by Cox Automotive
Computer Programs & Systems, Inc.	▪ Health care technology industry ▪ Peer of peers	MedAssets	▪ Acquired by Pamplona Capital Management
Healthstream, Inc.	▪ Health care technology industry ▪ Peer of peer	Acxiom	▪ Not comparably-sized ▪ Not in a sub-industry referenced above
RealPage, Inc.	▪ Comparably-sized ▪ Application software industry ▪ Peer of peers	Fair Isaac	▪ Not comparably-sized
		NeuStar	▪ Not comparably sized

The chart below compares our revenue, net income, EBITDA (income before interest, income taxes, depreciation and amortization) and market capitalization to the median of those four measures for our 2016 Peer Group at the time the 2016 Peer Group was established in January 2016, and at the time it was subsequently reviewed in October 2016. In January 2016, our revenue, net income and market capitalization were below the 2016 Peer Group median, and our EBITDA was above the median. Increases in our stock price between January 2016 and October 2016 repositioned HMS's market capitalization considerably closer to the peer median and net income increased above the peer median.

	January 2016 Review			October 2016 Review		
(in millions)	HMS ($)	2016 Peer Group Median ($)	HMS Percentile Rank (%)	HMS ($)	2016 Peer Group Median ($)	HMS Percentile Rank (%)
Revenue(1)	458	529	32	490	633	30
Net Income(1)(2)	13	23	34	29	12	69
EBITDA(1)	85	68	60	94	78	57
Market Capitalization(3)	1,061	2,244	20	1,872	2,260	42

(1) Based on most recently reported four quarters as of January 25, 2016 and October 31, 2016 for the January 2016 review and the October 2016 review, respectively.

(2) Before extraordinary items and discontinued operations.

(3) As of December 31, 2015 and September 30, 2016 for the January 2016 review and the October 2016 review, respectively.

During the first quarter of 2016, the Compensation Committee evaluated competitive market data from our 2016 Peer Group with guidance from FW Cook. The analysis included benchmarking data on several factors:

- target total direct compensation (comprised of base salary, target bonus and recommended long-term incentive awards) for our executive officers relative to the compensation of similarly situated executives in the 2016 Peer Group based on the most recent proxy data,
- equity usage (shares granted in equity plans as a percentage of weighted average shares outstanding), and

- equity allocation, in both absolute dollar value and percentage of annual equity granted, among (i) the CEO, (ii) the next four most highly paid executives, (iii) the remaining executives and (iv) all other employees.

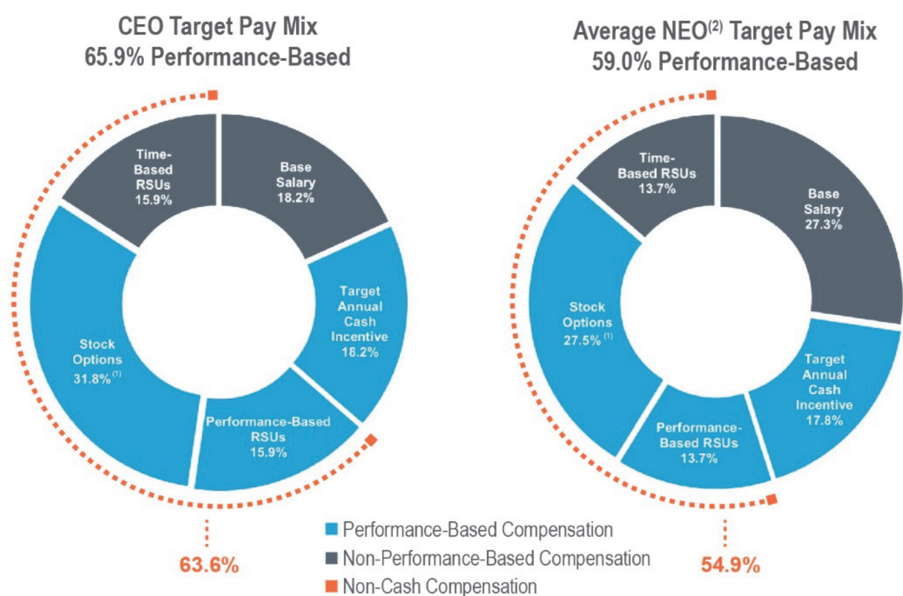
2016 Executive Compensation Elements

The elements of our executive compensation program for 2016 are summarized in the table below.

Element	Type	Objective
Annual Base Salary	Fixed cash compensation for performing day-to-day responsibilities	Recognizes skills, experience, knowledge and responsibilities
Annual Short-Term Incentive Compensation	Performance-based cash compensation awards based on the achievement of short-term financial goals and strategic objectives measured over a specific year	Promotes and rewards short-term corporate performance based on achievement of both financial and non-financial objectives
Annual Long-Term Incentive Compensation	Restricted stock units, 50% performance-based Nonqualified stock options, 50% performance-based	Builds executive stock ownership, retains executives and aligns compensation with the achievement of our long-term financial goals of creating shareholder value and our strategic objectives as measured over multi-year periods
Limited Executive Perquisites	Executive disability income insurance Executive financial consulting services	Maintains competitiveness in the market among our peer companies for both retention and recruitment purposes
Other Elements of Compensation	Broad-based benefits available to all employees	Attractive benefits package attracts and retains talent
	Severance and change-in-control benefits	Supports executive retention and encourages executive independence and objectivity in considering a potential change in control transaction

Compensation Mix

The Compensation Committee does not have a formal or informal policy or target for allocating target total compensation between short-term and long-term compensation, performance and non-performance-based compensation, cash and non-cash compensation, or among the different forms of non-cash compensation. In allocating compensation between the different forms of compensation, we, with guidance from FW Cook, determine what we believe in our business judgment is the appropriate level with respect to each element of total direct compensation to achieve the objectives of our executive compensation program. The allocation of the primary elements of compensation for 2016 at target levels for both our CEO and the average of our other named executive officers is shown below.



(1) For purposes of this illustration, we include all stock options as performance-based compensation. One half of the stock options are subject to additional, predetermined performance-based vesting criteria based on stock price performance. See "Grants of Plan Based Awards for the Year Ended December 31, 2016" for a description of the vesting and other terms of the option awards granted on March 2, 2016.

(2) Includes named executive officers other than the CEO.

Annual Base Salary

Base salary is used to recognize the experience, skills, knowledge and responsibilities of our employees, including our named executive officers, and to provide a competitive level of fixed compensation to balance performance-based risks. The key factors in determining base salary are individual and Company performance, job responsibilities, the competitive rate among our peers for positions of like responsibility and internal pay equity among our employees with similar responsibilities and tenure. As noted above, the Compensation Committee does not target the amount of base salary or other components of compensation for our executive officers to a specific percentile of our peer group, but rather considers the peer group analysis together with a variety of factors in determining compensation.

The Compensation Committee reviews base salaries annually and, if appropriate, makes adjustments to reflect market levels generally every two years after taking into account individual responsibilities, performance and experience, the recommendations of the CEO and the benchmarking data provided by FW Cook. The Compensation Committee also reviews salaries on an interim basis as it determines appropriate based on significant changes in an executive's scope of responsibilities.

In February 2016, the Compensation Committee approved merit-based increases in base salary for each of our named executive officers, other than the CEO. The table below shows the annual base salaries for 2014 through 2016 for our named executive officers.

Named Executive Officer	2014 Year End Salary ($)	Increase (%)	2015 Year End Salary ($)	Increase [(1)] (%)	2016 Salary [(1)] ($)
Lucia	650,000	0	650,000	0	650,000
Sherman	500,000	0	500,000	3.0	515,000
Neuman	475,000	0	475,000	5.3	500,000
Nustad	425,000	0	425,000	3.0	437,750
Williams	400,000	18.8	475,000	5.3	500,000

(1) Effective February 29, 2016

Annual Short-Term Incentive Compensation

The Compensation Committee awards annual short-term cash incentive compensation to our named executive officers that reflects financial and strategic achievements based on both objective and subjective criteria, as well as individual performance. Our annual short-term incentive compensation is at-risk compensation. The Compensation Committee believes that this element of our executive compensation program promotes our performance-based compensation philosophy by providing named executive officers with direct financial incentives to achieve specific short-term performance goals intended to increase shareholder value and rewards both overall short-term corporate performance and individual contributions to attaining such performance. Our annual short-term cash incentive awards are paid in a lump sum during the first quarter following the completion of the fiscal year.

Each of our named executive officers was eligible to participate in the 2016 STIP. The target incentive opportunity for each of the named executive officers under the 2016 STIP, as approved by the Compensation Committee, is shown in the table below expressed as a percentage of base salary. The target incentive opportunities were determined based upon a number of factors, including salary levels, job responsibilities and the appropriate targeted level of short-term incentive opportunity for each named executive officer.

Named Executive Officer	Target Incentive Opportunity (as a % of base salary)
Lucia	100%
Sherman	65%
Neuman	65%
Nustad	65%
Williams	65%

2016 PERFORMANCE GOALS

Bonus payouts under the 2016 STIP were subject to the achievement of pre-determined performance goals based on the following financial and non-financial measures and relative weights:

Financial Measures	Non-Financial Measures
Revenue (25%)	Strategic Objectives (25%)
Adjusted EBITDA (25%)	
Adjusted EPS (25%)	

We chose revenue, adjusted EBITDA and adjusted EPS as financial measures under the 2016 STIP because we believe each is a strong indicator of our overall financial performance, a key indicator used by industry analysts to evaluate our operating performance and motivates our executives to drive company growth and profitability. Adjusted EPS was introduced as an additional financial metric for 2016 to further diversify the performance measures and further align the performance metrics with the interest of shareholders. Consistent with 2015, the Committee determined that payout of 50% of the bonus pool should be

based on performance against earnings targets (by lowering the relative weighting of the adjusted EBITDA measure compared to 2015 and adding adjusted EPS) in order to drive profitability and long-term shareholder value.

We define adjusted EBITDA, which is a non-GAAP measure, as earnings before interest, income taxes, depreciation and amortization, stock-based compensation and non-recurring legal expense.

We define adjusted EPS, which is a non-GAAP measure, as earnings per share adjusted for stock-based compensation expense, non-recurring legal expense, amortization of acquisition related software and intangible assets and for the related taxes.

In addition, we chose to include strategic objectives under the 2016 STIP that are designed to enhance profitability and create long-term shareholder value.

Financial Objectives. Financial objectives are established based on the annual financial plan approved by the Board of Directors during the first quarter of the year and are intended to be challenging. For 2016, the revenue target was set higher than 2015 performance based on expectations of increased growth in our commercial health plan market, while the adjusted EBITDA and adjusted EPS targets were set at levels higher than 2015 performance after normalizing for anticipated changes in Medicare RAC and state revenues.

A threshold level of performance against each of the financial targets is required in order for the respective portion of the bonus pool to be funded. If the threshold level is met, the actual payout amount is calculated based on the funding curves below, which provide for funding greater than the target level only if results exceed 105% of target.

Adjusted EBITDA (25%) & Adjusted EPS (25%) Funding Curve	
Percent of Target Achieved	% Funding of Bonus Pool
<85%	—
85%	50%
86% - 94%	Payout is straight line from 50% to 100%
95 - 105%	100%
106% - 130%	Payout is straight line from 100% to 200%

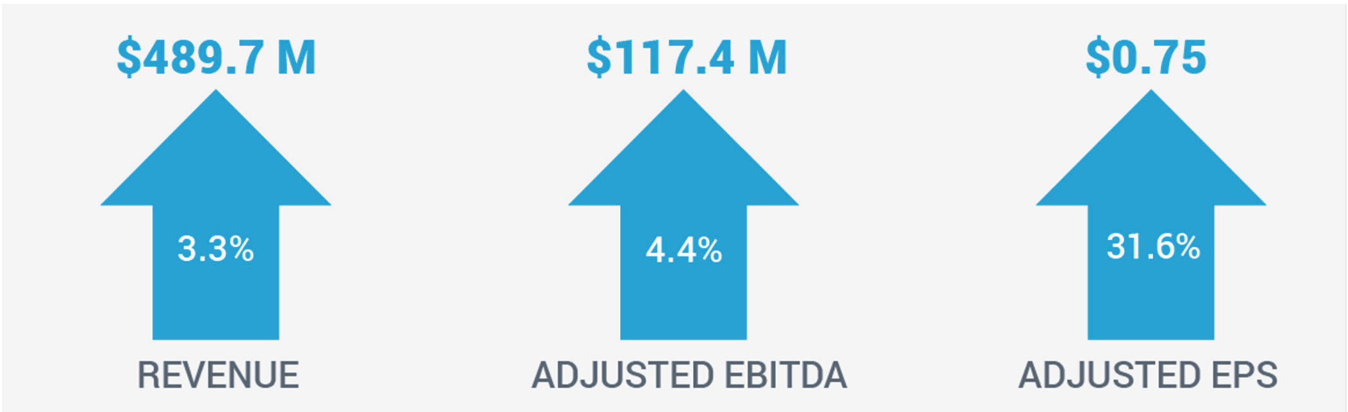
Revenue (25%) Funding Curve	
Percent of Target Achieved	% Funding of Bonus Pool
<90%	—
90%	50%
91% - 94%	Payout is straight line from 50% to 100%
95 - 105%	100%
106% - 120%	Payout is straight line from 100% to 200%

The 2016 STIP authorized the Compensation Committee, in its discretion, to include or exclude the impact of acquisitions and/or dispositions of businesses during the performance period that would distort HMS's 2016 financial results; however, the Compensation Committee did not make any such adjustments in 2016.

Non-financial Objectives. The Compensation Committee established the following strategic objectives under the 2016 STIP: (i) achieve revenue growth by product and market; (ii) increase customer loyalty and retention; (iii) achieve certain growth objectives; (iv) achieve certain margin objectives; and (v) increase employee engagement. The level of achievement of the strategic objectives is determined in the Compensation Committee's sole discretion based on its review of the measured results.

RESULTS UNDER THE 2016 SHORT-TERM INCENTIVE PLAN

For fiscal 2016, we reported the following results under the financial performance measures that are used in determining payouts under our 2016 STIP.



For purposes of calculating the funding percentage under the 2016 STIP, the reported adjusted EBITDA and adjusted EPS results were reduced to include the impact of certain non-recurring legal fees, which resulted in lower payouts under the 2016 STIP. In addition, based on its evaluation of performance against the 2016 strategic objectives measures shown above, the Compensation Committee determined that a 90% payout for the strategic objectives was appropriate based on slightly lower than expected results in revenue growth in certain markets and products. The table below sets forth the calculated funding level under the 2016 STIP.

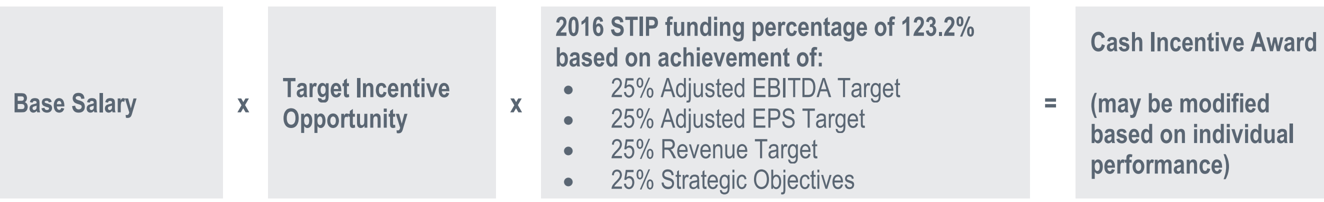
Performance Objectives	Performance Objective Weighting	Performance Target	Results under 2016 STIP	Achievement of Performance Objective	2016 STIP Funding Percentage[1]
Revenue	25%	$477.9M	$489.7M	102.5%	100.0%
Adjusted EBITDA	25%	$109.5M	$115.9M	105.8%	103.4%
Adjusted EPS	25%	$ 0.57	$ 0.74	129.8%	199.3%
Strategic Objectives	25%	100%	90.0%	90.0%	90.0%
Total	100%				123.2%

(1) Based on the funding curves shown above with respect to revenue, adjusted EBITDA and adjusted EPS.

2016 BONUS PAYOUTS

Bonus payouts for 2016 reflect the Company's strong financial performance for fiscal 2016 and above-target achievement of key financial metrics under the 2016 STIP.

Each of the named executive officers' short-term incentive awards for 2016 were determined by applying the formula set forth below, which, as provided under the 2016 STIP, includes the Committee's ability to use discretion to modify the calculated payout based on individual performance.



The Compensation Committee considered the CEO's recommendations regarding individual bonus amounts for the named executive officers (other than himself) based on both corporate performance (as determined by the level of achievement under the 2016 STIP) and the officers' individual performance and determined to modify the awards for Mses. Neuman and Nustad and Messrs. Sherman and Williams based on performance within their respective business units. Mr. Lucia's bonus amount was determined solely based on corporate performance under the 2016 STIP, and all of the independent members of the Board as a group approved and ratified the Compensation Committee's decision with respect to the CEO's bonus amount. The table below compares target bonus amounts to actual bonus amounts paid to the named executive officers under the 2016 STIP.

Named Executive Officer	Target Bonus ($)	Actual Percentage of Target Bonus Paid (%)	Actual Bonus ($)
Lucia	650,000	123.2	800,800
Sherman	334,750	130.0	435,175
Neuman	325,000	120.0	390,000
Nustad	284,538	120.0	341,445
Williams	325,000	120.0	390,000

OTHER CONSIDERATIONS

The 2016 STIP operates as a sub-plan under our Annual Incentive Compensation Plan as amended and restated (the "AIP"), which was adopted by the Board and approved by our shareholders in order to qualify incentive awards as performance-based compensation that is intended to be deductible (to the extent possible) for federal income tax purposes under the Code. Each of the named executive officers was a participant in the AIP for 2016 and was eligible to receive a maximum bonus award of $2,000,000 for the 2016 performance period, subject to the Compensation Committee's authority to use negative discretion, if the predetermined objective goal for the fiscal year was met. This limit is in addition to the limit on performance-based cash awards under the 2016 Omnibus Plan. EBITDA was selected as the performance metric under the AIP for fiscal 2016 because it is one of the primary metrics used to measure our operating performance and although it is a non-GAAP financial measure, its components are calculated based on U.S. GAAP. EBITDA is defined as income before interest, income taxes, depreciation and amortization. The Compensation Committee establishes an initial performance requirement under the AIP, pursuant to which an executive may earn the initial right to receive the maximum bonus under the AIP. The performance requirement for fiscal 2016 was established at $50 million in EBITDA. The 2016 STIP then establishes a second performance requirement, consisting of the performance goals and objectives described above. The potentially achievable incentive compensation under this second performance requirement is less than or equal to the maximum possible bonus specified in the AIP which was approved by the shareholders.

Annual Long-Term Incentive Compensation

We believe that equity awards provide our named executive officers with a strong link to our long-term performance in order to create an ownership culture and help to align their interests with those of our shareholders. Annual long-term incentive awards are granted pursuant to our 2016 Omnibus Incentive Plan, which replaced and superseded the 2006 Stock Plan, upon approval by our shareholders on June 23, 2016. The 2016 Omnibus Plan, which is administered by the Compensation Committee, is intended to furnish a material incentive to employees by making available to them the benefits of a larger common stock ownership in HMS through stock options and other awards. The Board of Directors and the Compensation Committee believe that these increased incentives align compensation with the achievement of our long-term financial goal of creating shareholder value and our strategic objectives as measured over multi-year periods, as well as assist in the retention of employees.

TYPES OF LONG-TERM INCENTIVE AWARDS

For 2016, the Compensation Committee granted 50% of the total annual long-term incentive award value to our named executive officers in nonqualified stock options (50% of which are subject to stock price performance conditions) and 50% in restricted stock units (50% of which are subject to stock price performance conditions), pursuant to the 2006 Stock Plan. We believe that

the mix of performance-based and non-performance-based stock options and restricted stock units is appropriate because it represents a balanced approach that reinforces our emphasis on pay-for-performance while retaining, incentivizing and compensating named executive officers for achievement of long-term goals intended to increase shareholder value.

Time-Based Stock Options. We believe stock options strongly support our objective of ensuring that pay is aligned with changes in shareholder value. We set the exercise price of all stock options equal to or above the closing price of our common stock on the NASDAQ Global Select Market on the day of the grant. Accordingly, a stock option is intended to provide a return to the executive only if the market price of our common stock appreciates from the exercise price of the stock option and the executive remains employed during the vesting period. To foster retention and long-term performance, time-based stock options vest in one-third increments on the first, second and third anniversaries of the date of grant.

Time-Based Restricted Stock Units. We believe restricted stock unit grants support the goal of retaining our named executive officers and further align the interests of our executives with shareholders by increasing their stock ownership. Because these restricted stock units vest in installments over time, these awards will provide a return to the executive only if the executive remains employed during the vesting period. The value of restricted stock unit awards increases or decreases as the market price of our common stock increases or decreases, further supporting our objective of ensuring that pay is aligned with changes in shareholder value. In addition, restricted stock units generally are perceived as more valuable than stock options during periods of stock price volatility. Time-based restricted stock units vest in one-third increments on the first, second and third anniversaries of the date of grant.

Performance-Based Awards. To drive long-term performance and shareholder value, we establish performance conditions with respect to 50% of the stock option awards and 50% of the restricted stock unit awards granted to the named executive officers. Performance-based awards are earned only to the extent pre-established performance goals are met, and, if earned, are subject to the time-based vesting requirements described above. For awards granted in 2016, both the performance-based stock options and performance-based restricted stock units will be earned only if our average closing price per share for the trading days during any 30-day calendar period preceding the first, second and/or third anniversaries of the date of grant is at least 25% higher than the closing price per share on the date of grant. If the performance condition is met prior to the first anniversary of the grant date, one-third of the performance-based stock options and restricted stock units will vest in three equal installments on the first, second and third anniversaries of the grant date; if the performance condition is met after the first anniversary but prior to the second anniversary of the grant date, two-thirds of the performance-based stock options and restricted stock units will vest on the second anniversary of the grant date and one-third will vest on the third anniversary of the grant date; if the performance condition is met after the second anniversary but prior to the third anniversary of the grant date, 100% of the performance-based stock options and restricted stock units will vest on the third anniversary of the grant date. If the performance condition is not achieved before the third anniversary of the grant date, the performance-based stock options and restricted stock units will be forfeited. The named executive officer must remain employed by the Company as of each vesting date.

The table below includes certain information regarding performance-based awards previously granted to our named executive officers that, during 2016, were either (i) earned at the target level, following the Compensation Committee's certification of the achievement of the respective performance goals (and are subject to time-based vesting according to the previously-approved award terms) or (ii) forfeited, following the Compensation Committee's determination that the performance goal had not been achieved during the 3-year award period.

Name	Award Type	Grant Date	Performance-Based Awards Earned in 2016 (#)	Performance-Based Awards Forfeited in 2016 (#)	Exercise Price of Options ($/Sh)	Grant Date Fair Value of Performance-Based Awards ($)
Lucia	Stock Options	11/15/2013	—	86,083	21.36	599,387
	Stock Options	3/4/2015	96,488	—	16.77	568,749
	Restricted Stock Units	3/4/2015	33,915	—	—	568,755
	Stock Options	3/2/2016	104,166	—	13.94	568,746
	Restricted Stock Units	3/2/2016	40,800	—	—	568,752
Sherman	Stock Options	3/4/2015	59,377	—	16.77	349,998
	Restricted Stock Units	3/4/2015	20,871	—	—	350,007
	Stock Options	5/13/2015	21,193	—	16.64	125,001
	Restricted Stock Units	5/13/2015	7,512	—	—	125,000
	Stock Options	3/2/2016	51,282	—	13.94	280,000
	Restricted Stock Units	3/2/2016	20,086	—	—	279,999
Neuman	Stock Options	11/15/2013	—	32,281	21.36	224,769
	Stock Options	3/4/2015	50,895	—	16.77	300,001
	Restricted Stock Units	3/4/2015	17,889	—	—	299,999
	Stock Options	5/13/2015	21,193	—	16.64	125,001
	Restricted Stock Units	5/13/2015	7,512	—	—	125,000
	Stock Options	3/2/2016	45,787	—	13.94	249,997
	Restricted Stock Units	3/2/2016	17,934	—	—	250,000
Nustad	Stock Options	11/15/2013	—	28,694	21.36	199,793
	Stock Options	3/4/2015	42,412	—	16.77	249,998
	Restricted Stock Units	3/4/2015	14,908	—	—	250,007
	Stock Options	3/2/2016	36,859	—	13.94	201,250
	Restricted Stock Units	3/2/2016	14,437	—	—	201,252
Williams	Stock Options	3/4/2015	50,895	—	16.77	300,001
	Restricted Stock Units	3/4/2015	17,889	—	—	299,999
	Stock Options	5/13/2015	21,193	—	16.64	125,001
	Restricted Stock Units	5/13/2015	7,512	—	—	125,000
	Stock Options	3/2/2016	45,787	—	13.94	249,997
	Restricted Stock Units	3/2/2016	17,934	—	—	250,000

2016 ANNUAL LONG-TERM INCENTIVE COMPENSATION

The 2016 annual long-term incentive awards for the named executive officers were determined based upon the Compensation Committee's subjective evaluation of the factors set forth below and guidance from FW Cook:

- competitive positioning among our peer group companies;
- corporate performance;
- relative shareholder return (for CEO's evaluation);
- recommendations of the CEO, based on individual performance, expected contributions going forward and appropriateness of the grant depending upon the level of responsibility (for executives other than the CEO);
- perceived retention value of the award;
- comparative share ownership and outstanding equity awards of HMS executives;
- awards granted to each executive in prior years; and
- potential wealth creation.

No mathematical weighting was applied to any individual factor. All of the independent directors as a group approved and ratified the 2016 annual long-term incentive award for the CEO.

The following long-term incentive awards were granted to our named executive officers, effective March 2, 2016:

Named Executive Officer	Value of Options Granted ($)	Number of Options Granted (1)(2) (#)	Value of Restricted Stock Units Granted ($)	Number of Restricted Stock Units Granted(1)(2) (#)
Lucia	1,137,500	208,333	1,137,500	81,600
Sherman	560,000	102,564	560,000	40,172
Neuman	500,000	91,575	500,000	35,868
Nustad	402,500	73,718	402,500	28,874
Williams	500,000	91,575	500,000	35,868

(1) See "Grants of Plan Based Awards For the Year Ended December 31, 2016" for a description of the vesting and other terms of the option and restricted stock unit awards.

(2) The options have an exercise price of $13.94 per share.

Limited Executive Perquisites

In order to enhance our ability to recruit and retain highly qualified executive talent, we offer Guaranteed Standard Issue, or individual disability income insurance, to employees earning more than $300,000 in annualized base salary, and financial counseling services to the CEO and any officers who report directly to the CEO. In addition, beginning in 2017, we also offer preventative health program benefits to our CEO and executives who report directly to the CEO. The Compensation Committee believes these benefits are reasonable and comparable to benefits offered by companies of a similar size to ours and better enable us to maintain competitiveness by providing high-performing executives with benefits that will facilitate strong, focused performance, while optimizing physical health. The cost of these perquisites constitutes a small percentage of each executive's total compensation. Each of the named executive officers is eligible to receive these benefits. Mr. Williams opted not to receive financial counseling services during 2016, as reflected in the Summary Compensation Table.

Other Elements of Compensation

BENEFITS AND OTHER COMPENSATION

We maintain broad-based benefits that are provided to all employees, including health and dental insurance, life and disability insurance and a 401(k) plan. Our named executive officers are eligible to participate in all of our employee benefit plans, in each case on the same basis as other employees.

SEVERANCE AND CHANGE-IN-CONTROL BENEFITS

To enable us to offer competitive total compensation packages to our senior executives, as well as to ensure the ongoing retention of these individuals when considering transactions that may create uncertainty as to their future employment with us, in 2011, the Compensation Committee approved standardizing the terms of employment of our senior executives, which included providing consistent separation and change-in-control protection.

Based on information provided by FW Cook, the Compensation Committee believes that the protection afforded by the revised terms of employment described above provides a level of benefits that are estimated to be within a reasonable range based on competitive practices with respect to comparable positions. We believe that the benefits provided under these agreements are consistent with our objective of attracting and retaining highly qualified executives and provide reasonable assurance so that our senior executives are not distracted from their duties during the uncertainty that may accompany a possible change in control and as well as encourage executive independence and objectivity in considering any such transaction. The agreements and equity plans provide a "double trigger" for the payment of benefits upon a change of control, so that vesting occurs if a qualifying termination event occurs in connection with the change-in-control. The Compensation Committee believes that a "double trigger" is more appropriate than a "single trigger" because a double trigger prevents the unnecessary payment of benefits to an

executive officer in the event that the change in control does not result in a qualifying termination event with respect to the executive's employment.

We have provided detailed information about Mr. Lucia's employment agreement and our agreements with the other named executive officers and the benefits provided to Mr. Lucia and the other named executive officers under their respective agreements, along with estimates of the value of such benefits under various circumstances, under the heading "Potential Payments Upon Termination of Employment or Change in Control" below.

EQUITY AWARD GRANT PRACTICES

Annual equity awards to eligible employees, including the named executive officers, are considered by the Compensation Committee at its regularly scheduled meeting held in the first quarter of each year. At this meeting, the Compensation Committee meets with management and FW Cook to discuss and consider annual long-term incentive awards and to approve individual award amounts and terms for the executive officers and other employees subject to Section 16 of the Exchange Act. The grant date for the 2016 annual equity awards was established as the second business day after the date that HMS filed its annual report on Form 10-K with the SEC.

The Compensation Committee also approves off-cycle initial equity grants to attract and retain key new hires. Generally, the grant value and equity mix is based on management's negotiations with new hire candidates. If the Company is in a blackout period when an individual is hired, then the grant date is established as the third trading day following the Company's public announcement of material non-public information. If the Company is not in a blackout period when an individual is hired, then the grant date is established on the date of the new hire's commencement of employment. Equity grants to new hires are subject to service-based vesting over four years. The Compensation Committee has delegated authority to the CEO to grant new hire awards, subject to certain limitations, on terms pre-established by the Compensation Committee to employees who are not subject to Section 16 of the Exchange Act. Grants approved by the CEO pursuant to this delegation are reviewed at the Compensation Committee's next regularly scheduled meeting.

The grant date for other off-cycle equity grants that may be approved by the Compensation Committee from time to time is established as the second business day after the date that HMS files its next annual or quarterly report with the SEC.

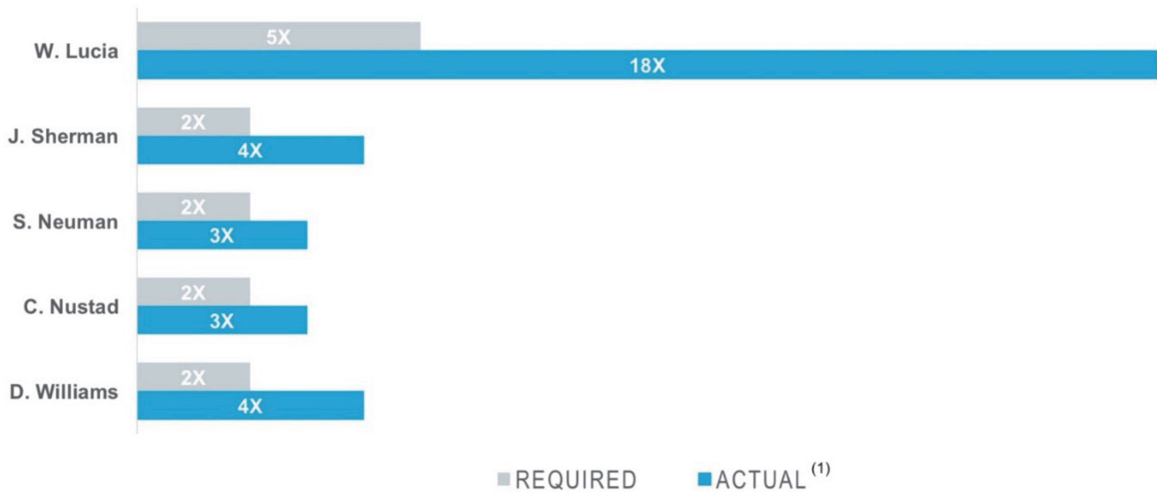
STOCK OWNERSHIP GUIDELINES FOR EXECUTIVE OFFICERS

The Board of Directors has established significant stock ownership guidelines for our executive officers to encourage them to own and hold a meaningful equity stake in HMS in order to further align their interests and actions with the interests of HMS and its shareholders. The guidelines for executive officers are based on a multiple of the executive's base salary.

Title	Value of Shares Required to be Owned
CEO	5 X Annual Base Salary
Other Executive Officers	2 X Annual Base Salary

For purposes of satisfying these guidelines, an executive officer's shares owned outright, directly or indirectly, and restricted stock and restricted stock units, whether or not vested, are counted in determining the executive's stock ownership. Each executive is required to meet his or her respective ownership guideline within five years after election (or promotion to a covered position), or in the case of executives in office at the time the guidelines were adopted, within five years of the date of adoption. To mitigate the impact of stock price fluctuation, the number of shares required to be held by each executive to satisfy the guidelines remains fixed through December 1, 2019. The Compensation Committee monitors compliance with these guidelines on an annual basis.

The following graph summarizes the stock ownership of each of our named executive officers as of December 1, 2016, as a multiple of base salary in effect as of December 1, 2016, pursuant to our Stock Ownership Guidelines.



(1) Rounded down to the nearest multiple

CLAWBACK POLICY

The Board of Directors has adopted a clawback policy that covers each of our current and former executive officers and applies to all forms of executive incentive compensation. Our clawback policy provides that the Board of Directors (or a Board committee) is authorized to recover from any current or former executive officer any bonus, incentive compensation or equity-based compensation gains resulting from certain misconduct occurring after January 1, 2015 that causes a restatement of our financial statements. The Board is required to review all circumstances and actions causing such restatement and to take action as it deems appropriate. We are monitoring this policy to ensure that it is consistent with applicable laws, and to the extent that the SEC adopts rules for clawback policies, we will revise our policy to reflect any necessary changes.

PROHIBITION ON HEDGING AND PLEDGING

Our Insider Trading Policy prohibits our employees and directors from, among many other actions, purchasing our securities on margin, borrowing against our securities held in a margin account, pledging our securities as collateral for a loan and entering into hedging and derivative transactions with respect to our securities.

TAX CONSIDERATIONS

Section 162(m) of the Code prohibits us from deducting from taxable income any compensation in excess of $1 million paid to our CEO and the three other most highly compensated named executive officers employed at the end of the year (other than our Chief Financial Officer), except to the extent that such compensation is paid pursuant to a shareholder approved plan upon the attainment of specified performance objectives. The Compensation Committee believes that tax deductibility is an important factor, but not the sole factor, to be considered in setting executive compensation policy. Accordingly, the Compensation Committee periodically reviews the potential consequences of Section 162(m) of the Code and generally intends to take such reasonable steps as are required to avoid the loss of a tax deduction due to Section 162(m) of the Code. However, the Compensation Committee may, in its judgment, authorize compensation payments or arrangements that do not comply with the exemptions in Section 162(m) of the Code when it believes that such payments are appropriate to attract and retain executive talent. In addition, because of the uncertainties associated with the application and interpretation of Section 162(m) of the Code

and the regulations issued thereunder, there can be no assurance that compensation intended to satisfy the requirements for deductibility under Section 162(m) of the Code will in fact be deductible. We obtained shareholder approval of the AIP, as amended and restated, and the 2016 Omnibus Plan in 2016 in order to qualify awards under such plans, to the extent structured to comply with Section 162(m) of the Code, as performance-based compensation that is tax deductible under Section 162(m) of the Code.

EARLY 2017 COMPENSATION ACTIONS

The following is a brief summary of certain changes to the compensation of the named executive officers for fiscal 2017, which is intended to provide additional information to shareholders in their review of our compensation program for fiscal 2016. A more detailed description of compensation for fiscal 2017 will be included in the proxy statement for the 2018 Annual Meeting of Shareholders.

2017 Annual Base Salary

In February 2017, the Compensation Committee increased Mr. Lucia's annual base salary to $700,000, effective February 27, 2017, following its annual review of executive compensation. The Compensation Committee did not increase the annual base salary of any other named executive officer for 2017.

2017 Short-Term Incentive Plan Design

In February 2017, the Compensation Committee established the 2017 Short-Term Incentive Plan ("2017 STIP") for eligible employees, including our named executive officers. The 2017 STIP is substantially similar to the 2016 STIP with respect to the performance criteria and funding curves, and provides additional items for which the Compensation Committee may make adjustments in determining the level of achievement of the financial objectives. To ensure a minimum amount of earnings is achieved before bonuses are paid and to further align the plan design with shareholder interests, the Committee determined that if either the adjusted EBITDA or adjusted EPS results for fiscal 2017 do not meet the minimum threshold for funding under the 2017 STIP, the Committee may use negative discretion to reduce the entire bonus plan funding from the calculated amount. For a discussion of the performance goals under the 2016 STIP, see "2016 Performance Goals" earlier in this CD&A. Payouts under the 2017 STIP generally are capped at 200% of target and will be determined in early 2018.

2017 Long-Term Incentive Awards

In April 2017, the Compensation Committee approved the grant of annual long-term incentive awards to the named executive officers in the form of non-qualified stock options and restricted stock units, on a substantially equal value basis, pursuant to the 2016 Omnibus Plan. Due to the delay in filing the Company's annual report on Form 10-K for the year-ended December 31, 2016 with the SEC, the Committee determined to make the awards effective on the third business day following the filing of our quarterly report on Form 10-Q for the period ended March 31, 2017, with the SEC. One-half of the stock options and one-half of the restricted stock units are subject to stock price performance conditions.

Named Executive Officer	Grant Date Fair Value of Options Granted (1) ($)	Grant Date Fair Value of RSUs Granted (1) ($)
Lucia	1,500,000	1,500,000
Sherman	850,000	850,000
Neuman	600,000	600,000
Nustad	350,000	350,000
Williams	600,000	600,000

(1) The non-qualified stock options and restricted stock units vest as follows: 50% vest in three equal installments on the first, second and third anniversaries of the grant date, and the remaining 50% are earned upon the Company's achievement of the following performance condition and vest as set forth below: the Company's average closing price per share must be at least 25% higher than the closing price on the grant date for a period of 30 consecutive trading days preceding the first, second or third anniversaries of the grant date. If the

performance condition is met prior to the first anniversary of the grant date, one-third of the performance-based stock options and restricted stock units will vest in three equal installments on the first, second and third anniversaries of the grant date; if the performance condition is met after the first anniversary but prior to the second anniversary of the grant date, two-thirds of the performance-based stock options and restricted stock units will vest on the second anniversary of the grant date and one-third will vest on the third anniversary of the grant date; if the performance condition is met after the second anniversary but prior to the third anniversary of the grant date, 100% of the performance-based stock options and restricted stock units will vest on the third anniversary of the grant date. If the performance condition is not achieved before the third anniversary of the grant date, the performance-based stock options and restricted stock units will be forfeited. The named executive officer must remain employed by the Company as of each vesting date.

NON-GAAP FINANCIAL MEASURES

The Company believes that the non-GAAP financial measures presented in this CD&A provide useful information to the Company's management, investors, and other interested parties about the Company's operating performance because they allow them to understand and compare the Company's operating results during the current periods to the prior year periods in a more consistent manner. The non-GAAP measures presented in this CD&A may not be comparable to similarly titled measures used by other companies. These non-GAAP financial measures are used in addition to and in conjunction with results presented in accordance with GAAP and reflect an additional way of viewing aspects of the Company's operations that, when viewed with GAAP results and the accompanying reconciliations to corresponding GAAP financial measures, provides a more complete understanding of the results of operations and trends affecting the Company's business. These non-GAAP financial measures should be considered as a supplement to, and not as a substitute for, or superior to financial measures calculated in accordance with GAAP.

Reconciliation of Net Income to EBITDA and Adjusted EBITDA
(in thousands)

	FY 2016	FY 2015
Net income	$ 37,636	$ 24,527
Net interest expense	8,198	7,763
Income taxes	11,835	15,282
Depreciation and amortization, net of deferred financing costs, included in net interest expense	44,930	50,598
Earnings before interest, taxes, depreciation and amortization (EBITDA)	$102,599	$ 98,170
Stock based compensation expense	13,277	14,297
Non-recurring legal fees [1]	1,563	-
Adjusted EBITDA	$117,439	$112,467

(1) In periods prior to 2016, legal fees related to disputes involving PCG were not included in adjusted earnings because they were not considered non-recurring at the time. For the twelve months ended December 31, 2015, related legal fees were $5.5 million.

Reconciliation of Net Income to GAAP EPS and Adjusted EPS
(in thousands, except per share amounts)

	FY 2016	FY 2015
Net Income	$ 37,636	$ 24,527
Stock-based compensation expense	13,277	14,297
Non-recurring legal fees [(1)]	1,563	-
Amortization of acquisition related software and intangible assets	28,030	28,148
Income tax related to adjustments	(15,536)	(16,295)
Sub-total	$ 64,970	$ 50,677
Weighted average common shares, diluted	86,987	88,361
Diluted GAAP EPS	0.43	$ 0.28
Diluted adjusted EPS	0.75	$ 0.57

(1) Related legal fees were not considered non-recurring in 2015. For the twelve months ended December 31, 2015, related legal fees were approximately $5.5 million and income taxes on related legal fees were approximately $2.1 million or the equivalent of $0.04 per diluted Adjusted EPS.

COMPENSATION COMMITTEE REPORT

The Compensation Committee of the Board of Directors of HMS Holdings Corp. has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with management. Based on this review and discussion, the Compensation Committee recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this Annual Report on Form 10-K.

By the Compensation Committee of the Board of Directors of HMS Holdings Corp.

Richard H. Stowe, *Chair*
Craig R. Callen
Cora M. Tellez

The information contained in the Compensation Committee Report shall not be deemed to be "soliciting material" or to be "filed" with the Securities and Exchange Commission, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, except to the extent that we specifically incorporate it by reference in such filing.

SUMMARY COMPENSATION TABLE

The following table sets forth the cash and non-cash compensation awarded to or earned by our named executive officers for the fiscal years ended December 31, 2016, 2015 and 2014.

Name and Principal Position	Year	Salary [1] ($)	Bonus [2] ($)	Stock Awards[3] ($)	Option Awards[4] ($)	Non-Equity Incentive Plan Compensation[5] ($)	All Other Compensation[6] ($)	Total Compensation ($)
William C. Lucia	2016	650,000	—	1,137,504	1,137,498	800,800	33,421	3,759,223
Chairman, President	2015	650,000	—	1,137,493	1,137,498	606,385	31,491	3,562,867
and CEO	2014	650,000	—	1,412,490	737,497	468,000	10,400	3,278,387
Jeffrey S. Sherman	2016	512,115	—	559,998	559,999	435,175	28,391	2,095,678
EVP, Chief Financial	2015	500,000	—	949,997	1,933,332	303,193	28,194	3,714,716
Officer and Treasurer	2014	136,538[7]	355,000	337,493	1,087,493	—	—	1,916,524
Semone Neuman	2016	495,192	—	500,000	500,000	390,000	28,773	1,913,965
EVP, Operations and	2015	475,000	—	849,998	1,833,332	288,033	29,893	3,476,256
Information Technology	2014	470,192	—	787,480	287,494	265,000	13,677	1,823,843
Cynthia Nustad	2016	435,298	—	402,504	402,500	341,445	27,826	1,609,573
EVP, Chief	2015	425,000	—	499,997	1,237,501	257,714	29,387	2,449,599
Strategy Officer	2014	421,731	—	649,996	249,994	200,000	10,400	1,532,121
Douglas M. Williams	2016	495,192	—	500,000	500,000	390,000	13,595	1,898,787
President, Markets	2015	469,231	—	849,998	1,833,332	288,033	12,646	3,453,240
and Product	2014	396,923	50,000	499,980	274,994	230,000	8,885	1,460,782

(1) The amounts in this column consist of base salary earned for the fiscal year.

(2) The amounts in this column consist of (i) with respect to Mr. Sherman, a sign-on bonus of $200,000 paid in 2014 and a bonus payment of $155,000 ($150,000 of which was guaranteed) earned for 2014 and paid in 2015 and (ii) with respect to Mr. Williams, a sign-on bonus of $50,000 paid in 2014, pursuant to the terms of their respective employment agreements.

(3) The amounts in this column represent the aggregate grant date fair value of the restricted stock unit awards computed in accordance with FASB guidance on stock-based compensation. The grant date fair value of restricted stock units is determined based on the number of units awarded and the fair value of our common stock on the grant date, which is the closing sales price per share of our common stock reported on the NASDAQ Global Select Market on that date.

(4) The amounts in this column represent the aggregate grant date fair value of the stock option awards computed in accordance with FASB guidance on stock-based compensation. The relevant assumptions made in the valuations for the 2016, 2015 and 2014 stock option awards may be found in (i) Note 1 of the Notes to the Consolidated Financial Statements in this Annual Report on Form 10-K for the fiscal year ended December 31, 2016, (ii) Note 10 of the Notes to the Consolidated Financial Statements in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015 and (iii) Note 11 of the Notes to the Consolidated Financial Statements in our Annual Report on Form 10-K for the fiscal year ended December 31, 2014, respectively. The grant date fair value of stock options is determined based on the number of options awarded and the fair value of the stock option on the grant date based upon the Black Scholes pricing model.

(5) The amounts in this column consist of amounts earned pursuant to the short-term (cash) incentive plan for the fiscal year reported, which are paid in the following fiscal year.

(6) The table below shows the components of "All Other Compensation" for the named executive officers for 2016.

(7) The amount reported consists of base salary earned by Mr. Sherman, prorated from his date of employment on September 8, 2014.

FISCAL 2016 ALL OTHER COMPENSATION TABLE

Name	401(k) Savings Plan Employer Matching Contributions(1) ($)	Executive Disability Insurance(2) ($)	Financial Counseling(3) ($)	Other(4) ($)	Tax Gross-ups(5) ($)	Total All Other Compensation ($)
Lucia	10,600	3,003	15,000	3,356	1,462	33,421
Sherman	10,600	2,791	15,000	—	—	28,391
Neuman	10,600	2,849	15,000	316	8	28,773
Nustad	10,600	2,226	15,000	—	—	27,826
Williams	10,600	2,995	—	—	—	13,595

(1) These amounts represent Company matching contributions to our named executive officers in the Company's 401(k) savings plan.

(2) These amounts represent the premiums paid by the Company on behalf of our named executive officers for executive disability insurance.

(3) These amounts represent the amounts paid on behalf of our named executive officers for financial counseling services.

(4) These amounts represent the cost of Company gifts given to the named executive officer in celebration of certain events.

(5) These amounts represent the amounts paid to the named executive officer for taxes incurred on Company gifts.

GRANTS OF PLAN-BASED AWARDS FOR THE YEAR ENDED DECEMBER 31, 2016

The following table provides information concerning each grant of an award made to our named executive officers in fiscal 2016 under our AIP, 2016 STIP and 2006 Stock Plan.

				Estimated Possible Payouts Under Non-Equity Incentive Plan Awards(1)		Estimated Future Payouts Under Equity Incentive Plan Awards (2)				
Name	Award Type	Grant Date	Compensation Committee Approval Date	Target ($)	Maximum ($)	Target (#)	All Other Stock Awards: Number of Shares of Stock or Units(3) (#)	All Other Option Awards: Number of Securities Underlying Options(4) (#)	Exercise or Base Price of Options(5) ($/Sh)	Grant Date Fair Value of Stock and Option Awards(6) ($)
Lucia	AIP/2016 STIP	—	—	650,000	2,000,000	—	—	—	—	—
	Stock Options (7)	3/2/2016	2/18/2016	—	—	104,166	—	104,167	13.94	1,137,498
	RSUs (7)	3/2/2016	2/18/2016	—	—	40,800	40,800	—	—	1,137,504
Sherman	AIP/2016 STIP	—	—	334,750	2,000,000	—	—	—	—	—
	Stock Options (7)	3/2/2016	2/18/2016	—	—	51,282	—	51,282	13.94	559,999
	RSUs (7)	3/2/2016	2/18/2016	—	—	20,086	20,086	—	—	559,998
Neuman	AIP/2016 STIP	—	—	325,000	2,000,000	—	—	—	—	—
	Stock Options (7)	3/2/2016	2/18/2016	—	—	45,787	—	45,788	13.94	500,000
	RSUs (7)	3/2/2016	2/18/2016	—	—	17,934	17,934	—	—	500,000
Nustad	AIP/2016 STIP	—	—	284,538	2,000,000	—	—	—	—	—
	Stock Options (7)	3/2/2016	2/18/2016	—	—	36,859	—	36,859	13.94	402,500
	RSUs (7)	3/2/2016	2/18/2016	—	—	14,437	14,437	—	—	402,504
Williams	AIP/2016 STIP	—	—	325,000	2,000,000	—	—	—	—	—
	Stock Options (7)	3/2/2016	2/18/2016	—	—	45,787	—	45,788	13.94	500,000
	RSUs (7)	3/2/2016	2/18/2016	—	—	17,934	17,934	—	—	500,000

(1) Amounts represent the target and maximum short-term (cash) incentive compensation payouts that could be earned by the named executive officers for 2016. The target amount shown is 100% of the individual's target annual award opportunity and assumes that the named executive officer achieves all related pre-determined financial and non-financial objectives. The maximum amount shown is the shareholder-approved maximum payout under the AIP. There are no threshold amounts under the 2016 STIP or the AIP. The actual short-term (cash) incentive compensation paid for 2016 is shown in the Summary Compensation Table in the "Non-Equity Incentive Plan Compensation" column. The AIP and our 2016 STIP are described in the Compensation Discussion and Analysis, under the heading "Annual Short-Term Incentive Compensation." For 2016, Mr. Lucia's target award opportunity was 100% of his base salary. The target award opportunity for Messrs. Sherman and Williams and Mses. Neuman and Nustad was 65% of his/her base salary.

(2) Amounts represent the portion of the award made to each named executive officer in 2016 that is dependent on certain pre-defined performance conditions and continued service for both non-qualified stock options and restricted stock units. These grants are discussed in the Compensation Discussion and Analysis under the heading "Annual Long-Term Incentive Compensation."

(3) Amounts represent the portion of the restricted stock unit award made to each named executive officer in 2016 that is conditioned on continued service. These restricted stock unit awards are discussed in the Compensation Discussion and Analysis under the heading "Annual Long-Term Incentive Compensation."

(4) Amounts represent the portion of the non-qualified stock option award made to the named executive officers in 2016 that is conditioned on continued service. These stock option awards are discussed in the Compensation Discussion and Analysis under the heading "Annual Long-Term Incentive Compensation."

(5) Represents the closing price of our common stock on the date of the grant.

(6) Amounts in this column represent the grant date fair value of each stock option grant and each restricted stock unit grant computed in accordance with FASB guidance on stock-based compensation, and exclude the impact of estimated forfeitures related to service-based vesting conditions. The relevant assumptions made in the valuations may be found in Note 1 of the Notes to the Consolidated Financial Statements in this Annual Report on Form 10-K for the fiscal year ended December 31, 2016.

(7) The non-qualified stock options and restricted stock units vest as follows: 50% vests in three equal installments on the first, second and third anniversaries of the grant date, and the remaining 50% vests upon the Company's achievement of the following performance condition: the Company's average closing price per share must be at least 25% higher than the closing price on the grant date for a period of 30 consecutive trading days preceding the first, second or third anniversaries of the grant date. If the performance condition is met prior to the first anniversary of the grant date, one-third of the performance-based stock options and restricted stock units will vest in three equal installments on the first, second and third anniversaries of the grant date; if the performance condition is met after the first anniversary but prior to the second anniversary of the grant date, two-thirds of the performance-based stock options and restricted stock units will vest on the second anniversary of the grant date and one-third will vest on the third anniversary of the grant date; if the performance condition is met after the second anniversary but prior to the third anniversary of the grant date, 100% of the performance-based stock options and restricted stock units will vest on the third anniversary of the grant date. If the performance condition is not achieved before the third anniversary of the grant date, the performance-based stock options and restricted stock units will be forfeited. The named executive officer must remain employed by the Company as of each vesting date. The non-qualified stock options are exercisable over a term of ten years.

OUTSTANDING EQUITY AWARDS AT DECEMBER 31, 2016

	Option Awards					Stock Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock that Have Not Vested (1) ($)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested ($)
Lucia	30,000	—	—	19.77	9/30/2017	—	—	—	—
	71,628	—	—	22.95	9/30/2018	—	—	—	—
	64,100	—	—	27.79	10/4/2019	—	—	—	—
	86,083	—	—	21.36	11/14/2020	—	—	—	—
	32,410	16,205 (2)	48,616 (3)	21.63	11/11/2021	—	—	—	—
	32,163	160,813 (4)	—	16.77	3/3/2022	—	—	—	—
	—	208,333 (12)	—	13.94	3/3/2023	—	—	—	—
	—	—	—	—	—	11,743 (5)	213,253	—	—
	—	—	—	—	—	16,700 (6)	303,272	—	—
	—	—	—	—	—	5,683 (2)	103,203	17,048 (3)	309,592
	—	—	—	—	—	56,525 (4)	1,026,494	—	—
	—	—	—	—	—	81,600 (12)	1,481,856	—	—
Sherman	51,796	51,795 (7)	—	20.71	9/8/2021	—	—	—	—
	14,831	7,416 (2)	22,248 (3)	21.63	11/11/2021	—	—	—	—
	19,792	98,962 (4)	—	16.77	3/3/2022	—	—	—	—
	7,064	35,321 (9)	—	16.64	5/13/2022	—	—	—	—
	33,334	66,666 (10)	—	11.20	11/10/2022	—	—	—	—
	33,334	66,666 (10)	—	14.00	11/10/2022	—	—	—	—
	—	102,564 (12)	—	13.94	3/3/2023	—	—	—	—
	—	—	—	—	—	2,601 (2)	47,234	7,802 (3)	141,684
	—	—	—	—	—	34,785 (4)	631,696	—	—
	—	—	—	—	—	12,520 (9)	227,363	—	—
	—	—	—	—	—	40,172 (12)	729,524	—	—
Neuman	32,281	—	—	21.36	11/14/2020	—	—	—	—
	12,634	6,317 (2)	18,952 (3)	21.63	11/11/2021	—	—	—	—
	16,965	84,824 (4)	—	16.77	3/3/2022	—	—	—	—
	7,064	35,321 (9)	—	16.64	5/13/2022	—	—	—	—
	33,334	66,666 (10)	—	11.20	11/10/2022	—	—	—	—
	33,334	66,666 (10)	—	14.00	11/10/2022	—	—	—	—
	—	91,575 (12)	—	13.94	3/3/2023	—	—	—	—
	—	—	—	—	—	4,551 (8)	82,646	—	—
	—	—	—	—	—	12,370 (6)	224,639	—	—
	—	—	—	—	—	2,215 (2)	40,224	6,646 (3)	120,691
	—	—	—	—	—	29,815 (4)	541,440	—	—
	—	—	—	—	—	12,520 (9)	227,363	—	—
	—	—	—	—	—	35,868 (12)	651,363	—	—
Nustad	11,247	—	—	22.47	2/8/2018	—	—	—	—
	22,384	—	—	22.95	9/30/2018	—	—	—	—
	10,015	—	—	27.79	10/4/2019	—	—	—	—
	10,016	—	—	27.79	10/4/2019	—	—	—	—
	28,694	—	—	21.36	11/14/2020	—	—	—	—
	10,986	5,493 (2)	16,480 (3)	21.63	11/11/2021	—	—	—	—
	14,137	70,687 (4)	—	16.77	3/3/2022	—	—	—	—
	25,000	50,000 (10)	—	11.20	11/10/2022	—	—	—	—
	25,000	50,000 (10)	—	14.00	11/10/2022	—	—	—	—
	—	73,718 (5)	—	13.94	3/3/2023	—	—	—	—

	—	—	—	—	—	8,699 (5)	157,974	—	—
	—	—	—	—	—	9,896 (6)	179,711	—	—
	—	—	—	—	—	1,927 (2)	34,994	5,779 (3)	104,947
	—	—	—	—	—	24,846 (4)	451,203	—	—
	—	—	—	—	—	28,874 (12)	524,352	—	—
Williams	38,285	12,762 (11)	—	22.54	12/8/2020	—	—	—	—
	12,084	6,043 (2)	18,128 (3)	21.63	11/11/2021	—	—	—	—
	16,965	84,824 (4)	—	16.77	3/3/2022	—	—	—	—
	7,064	35,321 (9)	—	16.64	5/13/2022	—	—	—	—
	33,334	66,666 (10)	—	11.20	11/10/2022	—	—	—	—
	33,334	66,666 (10)	—	14.00	11/10/2022	—	—	—	—
	—	91,575 (12)	—	13.94	3/3/2023	—	—	—	—
	—	—	—	—	—	5,567 (6)	101,097	—	—
	—	—	—	—	—	2,119 (2)	38,481	6,357 (3)	115,443
	—	—	—	—	—	29,815 (4)	541,440	—	—
	—	—	—	—	—	12,520 (9)	227,363	—	—
	—	—	—	—	—	35,868 (12)	651,363	—	—

(1) The market value of shares or units of stock that have not vested is calculated by multiplying the closing market price per share of our common stock on December 30, 2016, the last trading day in 2016, of $18.16 per share by the number of shares or units of stock that have not vested.

(2) Represents stock options and restricted stock units granted on November 12, 2014. The remaining stock options and restricted stock units are scheduled to vest on November 12, 2017.

(3) Represents performance-based stock options and restricted stock units granted on November 12, 2014 that have not been earned. The stock options and restricted stock units are scheduled to vest on November 12, 2017, subject to satisfaction of the following performance condition: an increase in the average closing price per share of our common stock during the applicable trading days in any consecutive 30 calendar day period preceding the third anniversary of the grant date of at least 25% over the option exercise price.

(4) Represents stock options and restricted stock units granted on March 4, 2015. One-half of the stock options and restricted stock units granted are subject to time-based vesting in one-third increments. Of the remaining two-thirds that were unexercisable or that had not vested as of December 30, 2016, one-third vested on March 4, 2017, and one-third is scheduled to vest on March 4, 2018. One-half of the stock options and restricted stock units granted were subject to performance-based conditions that have been satisfied and subject to time-based vesting conditions. Two-thirds of these performance-based stock options and restricted stock units vested on March 4, 2017, and one-third is scheduled to vest on March 4, 2018.

(5) Represents restricted stock units granted on February 27, 2013 that were subject to performance-based conditions that have been satisfied and subject to time-based vesting conditions. Of the remaining restricted stock units that had not vested as of December 30, 2016, one-half vested on February 27, 2017, and one-half is scheduled to vest on February 27, 2018.

(6) Represents restricted stock units granted on March 5, 2014 that were subject to performance-based conditions that have been satisfied and subject to time-based vesting conditions. Of the remaining restricted stock units that had not vested as of December 30, 2016, one-half vested on March 5, 2017, and one-half is scheduled to vest on March 5, 2018.

(7) Represents stock options granted on September 8, 2014. One-half of the remaining stock options are scheduled to vest on September 8, 2017, and one-half are scheduled to vest on September 8, 2018.

(8) Represents restricted stock units granted on April 1, 2013. All of the remaining restricted stock units vested on April 1, 2017.

(9) Represents stock options and restricted stock units granted on May 13, 2015. One-half of the stock options and restricted stock units granted are subject to time-based vesting in one-third increments. Of the remaining two-thirds that were unexercisable or that had not vested as of December 30, 2016, one-third is scheduled to vest on May 13, 2017, and one-third is scheduled to vest on May 13, 2018. One-half of the stock options and restricted stock units granted were subject to performance-based conditions that have been satisfied and subject to time-based vesting conditions. Two-thirds of these performance-based stock options and restricted stock units are scheduled to vest on May 13, 2017, and one-third are scheduled to vest on May 13, 2018.

(10) Represents stock options granted on November 11, 2015. Of the remaining two-thirds that were unexercisable as of December 30, 2016, one-third is scheduled to vest on November 11, 2017, and one-third is scheduled to vest on November 11, 2018.

(11) Represents stock options granted on December 9, 2013. All of the remaining stock options are scheduled to vest on December 9, 2017.

(12) Represents stock options and restricted stock units granted on March 2, 2016. One-half of the stock options and restricted stock units granted are subject to time-based vesting in one-third increments. One-third of the time-based stock options and restricted stock units

vested on March 2, 2017, and one-third is scheduled to vest on each of March 2, 2018 and March 2, 2019. One-half of the stock options and restricted stock units granted were subject to performance-based conditions that have been satisfied and subject to time-based vesting conditions. One-third of these performance-based stock options and restricted stock units vested on March 2, 2017, and one-third is scheduled to vest on each of March 2, 2018 and March 2, 2019.

OPTION EXERCISES AND STOCK VESTED IN 2016

The following table sets forth certain information concerning the stock options exercised and stock awards that vested for our named executive officers during the year ended December 31, 2016.

	Option Awards		Stock Awards	
Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise[(1)] ($)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting[(2)] ($)
Lucia	339,328	4,504,336	44,906	604,649
Sherman	—	—	12,060	179,971
Neuman	—	—	21,417	310,316
Nustad	—	—	16,192	227,287
Williams	—	—	13,369	197,093

(1) The value realized on the exercise of stock options is based on the difference between the exercise price and the market price (used for tax purposes) of our common stock on the date of exercise.

(2) The value realized on vesting represents the number of shares acquired on vesting multiplied by the market value of shares of our common stock on the vesting date, which is the closing price of our common stock on:

(i) February 18, 2016 of $11.61 for Mr. Lucia (13,697 shares);

(ii) February 27, 2016 of $12.99 for Mr. Lucia (5,872 shares) and Ms. Nustad (4,349 shares);

(iii) March 4, 2016 of $14.01 for Messrs. Lucia (11,304 shares), Sherman (6,956 shares) and Williams (5,963 shares) and Mses. Neuman (5,963 shares) and Nustad (4,969 shares);

(iv) March 5, 2016 of $14.01 for Messrs. Lucia (8,350 shares) and Williams (2,783 shares) and Mses. Neuman (6,185 shares) and Nustad (4,948 shares);

(v) April 1, 2016 of $14.06 for Ms. Neuman (4,550 shares);

(vi) May 13, 2016 of $15.78 for Messrs. Sherman (2,504 shares) and Williams (2,504 shares) and Ms. Neuman (2,504 shares); and

(vii) November 12, 2016 of $16.54 for Messrs. Lucia (5,683 shares), Sherman (2,600 shares) and Williams (2,119 shares) and Mses. Neuman (2,215 shares) and Nustad (1,926 shares).

POTENTIAL PAYMENTS UPON TERMINATION OF EMPLOYMENT OR CHANGE IN CONTROL

The information and table in this section summarize the estimated compensation payable to each of our named executive officers in the event of termination of employment or a change in control. This compensation is payable pursuant to (i) the terms of the employment agreement with each of our named executive officers, and (ii) the terms of our equity incentive plans and related award agreements. Regardless of the manner in which the named executive officer's employment terminates, each executive is generally entitled to receive earned, unpaid salary and accrued but unused paid time off through the date of termination under his or her employment agreement. Each named executive officer is also entitled to receive any earned, unpaid bonus for the calendar year preceding the calendar year in which his or her employment ends unless such termination is for Cause. The definitions of "Cause," Change in Control," "Disability," and "Good Reason" appear at the end of the next section under the heading "Key Terms."

In addition to the compensation discussed above, the following table reflects the compensation and benefits that would have been paid to the named executive officers had their employment terminated on December 31, 2016 under the termination

scenarios shown below, and assumes a closing price of our common stock as of December 30, 2016, the last trading day in 2016 ($18.16). The table also assumes that each named executive officer executes a separation agreement and general release, as required under the terms of their employment agreements, and complies with certain restrictive covenants and confidentiality provisions contained in their employment agreements and Restrictive Covenants Agreements (as defined and described under the heading "Restrictive Covenants Agreements"). The table does not include any amounts due for unused paid time off for 2016 or the value of immediately exercisable stock options at the date of termination (where vesting was not accelerated as a result of the termination). Due to a number of factors that may affect the availability, nature and amount of compensation upon termination, any actual amounts paid or distributed to named executive officers may be different from the amounts provided in this section. In addition, in connection with any actual termination or change in control situation, we may determine to enter into agreements or establish arrangements that alter the terms below.

Named Executive Officer and Type of Payment	Termination without Cause[(1)] ($)	Resignation for Good Reason[(2)] ($)	Termination without Cause following a Change in Control[(3)] ($)	Resignation for Good Reason following a Change in Control[(3)] ($)	Disability[(4)] ($)	Death or Retirement[(5)] ($)
Lucia						
Cash severance	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	—
Bonus compensation[(6)]	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	—
Continued health insurance coverage	22,833	22,833	22,833	22,833	22,833	—
RSUs[(7)(9)]	3,437,670	3,437,670	3,437,670	3,437,670	3,437,670	3,437,670
Stock Options[(8)(9)]	1,102,695	1,102,695	1,102,695	1,102,695	1,102,695	1,102,695
Total	7,163,198	7,163,198	7,163,198	7,163,198	7,163,198	4,540,365
Sherman						
Cash severance	515,000	515,000	515,000	—	—	—
Continued health insurance coverage	16,407	16,407	16,407	—	—	—
RSUs[(7)]	—	—	1,777,501	1,777,501	1,777,501	1,777,501
Stock Options[(8)]	—	—	1,365,391	1,365,391	1,365,391	1,365,391
Total	531,407	531,407	3,674,299	3,142,892	3,142,892	3,142,892
Neuman						
Cash severance	500,000	—	500,000	500,000	—	—
Continued health insurance coverage	10,669	—	10,669	10,669	—	—
RSUs[(7)]	—	—	1,888,368	1,888,368	1,888,368	1,888,368
Stock Options[(8)]	—	—	1,299,366	1,299,366	1,299,366	1,299,366
Total	510,669	—	3,698,402	3,698,402	3,187,733	3,187,733
Nustad						
Cash severance	437,750	—	437,750	437,750	—	—
Continued health insurance coverage	16,407	—	16,407	16,407	—	—
RSUs[(7)]	—	—	1,453,181	1,453,181	1,453,181	1,453,181
Stock Options[(8)]	—	—	965,345	965,345	965,345	965,345
Total	454,157	—	2,872,683	2,872,683	2,418,526	2,418,526
Williams						
Cash severance	500,000	—	500,000	500,000	—	—
Continued health insurance coverage	16,407	—	16,407	16,407	—	—
RSUs[(7)]	—	—	1,675,187	1,675,187	1,675,187	1,675,187
Stock Options[(8)]	—	—	1,299,366	1,299,366	1,299,366	1,299,366
Total	516,407	—	3,490,960	3,490,960	2,974,553	2,974,553

(1) Assuming involuntary termination without Cause, Messrs. Sherman and Williams and Mses. Neuman and Nustad would be entitled to cash severance in an amount equal to 12 times their monthly base salary paid ratably in equal installments over a 12 month period, and a lump sum amount equal to 12 times the difference between the monthly COBRA coverage premium for the same type of medical and dental coverage they are receiving as of the date their employment ends and their monthly employee contribution. Mr. Lucia would be entitled to cash severance in an amount equal to 24 times his monthly base salary paid ratably in equal installments over a 24-month period, continued health coverage for 24 months or until he becomes eligible for health coverage from another employer, whichever is earlier, and twice his bonus component. The bonus component varies depending upon whether the bonus for the year of termination is intended to be "performance-based" compensation and performance is satisfied, in which case it will be paid when bonuses are paid to our other senior executive officers, or whether the bonus is under a different program, in which case it will be his target bonus. In addition, Mr. Lucia would be treated as continuing in service for purposes of the vesting of any equity award under the terms of his employment agreement.

(2) The amounts in this column represent the amounts payable to the named executive officer in the event he resigns for Good Reason, as defined in his employment Agreement, which will be paid on the same schedule as if he were terminated without Cause.

(3) If within 24 months following a Change in Control, the named executive officer's employment is terminated without cause or the named executive officer resigns for Good Reason, Messrs. Sherman and Williams and Mses. Neuman and Nustad would receive the amount of cash severance equal to 12 times their monthly base salary in a single lump sum, and Mr. Lucia would receive the amount of his cash severance equal to 24 times his monthly base salary and twice his bonus component in a single lump sum. In addition, if Mr. Lucia is terminated without Cause or resigns for Good Reason within six months prior to a Change in Control, Mr. Lucia would receive a lump sum cash payment equal to the excess of the amount he would have received for any equity awards outstanding or deemed to be outstanding, or canceled or forfeited, as a result of termination or Change in Control, over the amount he actually received. The named executive officers would also be entitled to continued health coverage, and accelerated vesting of stock awards and option awards pursuant to the terms of the applicable agreements. Since the employment agreements of named executive officers and the equity awards have double-trigger Change in Control provisions (except with respect to equity awards not assumed by the acquiring entity), the table assumes that both a Change in Control and a subsequent termination of employment has occurred.

(4) In the event the employment of Messrs. Sherman or Williams, or Mses. Neuman or Nustad is terminated due to the executive's Disability, all outstanding stock awards will immediately vest and all option awards will become vested and fully exercisable pursuant to the terms of the applicable award agreements. A termination of Mr. Lucia's employment due to Disability would be treated as a termination without Cause pursuant to his employment agreement.

(5) The amounts in this column represent the amounts payable to the named executive officer if his or her employment is terminated upon death or Retirement. If the named executive officer's employment is terminated as a result of death, all outstanding stock awards will immediately vest and all option awards will become vested and fully exercisable upon termination pursuant to the terms of the applicable award agreements. If the named executive officer's employment is terminated as a result of Retirement, the named executive officer will be treated as continuing in service for vesting purposes and the vested portion of options shall remain exercisable until the second anniversary of such executive's Retirement, or until the last applicable vesting date or option expiration date under the applicable award agreement, whichever is sooner. Under the award agreements, "Retirement" means cessation of employment on or after attaining the age of 60 and having at least 5 years of continuous service with the Company. None of the named executive officers qualified for Retirement as of December 31, 2016.

(6) Amounts represent the target annual short-term (cash) incentive compensation that Mr. Lucia would be entitled to receive under his employment agreement as of the date his employment ends, and not the amount that the Compensation Committee determined to pay Mr. Lucia as set forth in the Non-Equity Incentive Plan Compensation" column of the Summary Compensation Table.

(7) Except for the amounts reported for Mr. Lucia in the columns entitled Termination Without Cause or Resignation for Good Reason, the amounts reported represent the estimated market value of unvested restricted stock units (including any performance-based restricted stock units) that would have vested as of December 31, 2016 under the termination scenarios in the table, calculated based on the aggregate number of accelerated restricted stock units multiplied by the closing market price per share of our common stock on December 30, 2016, the last trading day in 2016, of $18.16 per share.

(8) Except for the amounts reported for Mr. Lucia in the columns entitled Termination Without Cause or Resignation for Good Reason, the amounts reported represent the estimated market value of outstanding stock options, which are not then exercisable (including any performance-based stock options), that would have become exercisable as of December 31, 2016 under the termination scenarios in the table, calculated based on the difference between the aggregate exercise price of all accelerated options and the aggregate market value of the underlying shares as of December 30, 2016, the last trading day in 2016, based on the closing market price per share of our common stock on December 30, 2016 of $18.16 per share.

(9) The amounts reported for Mr. Lucia in the columns entitled Termination Without Cause or Resignation for Good Reason represent the estimated market value of his (i) unvested restricted stock units (including any performance-based restricted stock units) as of December 31, 2016, calculated based on the aggregate number of restricted stock units multiplied by the closing market price per share of our common stock on December 30, 2016, the last trading day in 2016, of $18.16 per share and (ii) and outstanding stock options, which are not then exercisable (including any performance-based stock options) as of December 31, 2016, calculated based on the difference between the aggregate exercise price of such options and the aggregate market value of the underlying shares as of December 30, 2016, the last trading day in 2016, based on the closing market price per share of our common stock on December 30, 2016 of $18.16 per share, which would continue to vest under these termination scenarios pursuant to the terms of his employment agreement. The amounts reported assume that these restricted stock units and stock options are earned, to the extent such awards are performance-based, and fully vest.

Executive Employment Agreements

EMPLOYMENT AGREEMENT WITH MR. LUCIA

HMS and Mr. Lucia entered into the second amendment to his executive employment agreement, effective March 1, 2015, extending the term of his agreement to February 28, 2018. Under his employment agreement, Mr. Lucia is entitled to a minimum annual base salary of $650,000, subject to increase from time to time by the Board of Directors or the Compensation Committee, and a targeted annual short-term (cash) incentive award opportunity of 100% of his base salary. If we terminate Mr. Lucia's employment without Cause, in connection with a Change in Control or otherwise, or if his employment ceases because of his disability or if he terminates his employment with Good Reason, then provided that Mr. Lucia executes and does not revoke a separation agreement and release, and complies with his Restrictive Covenants Agreement, (i) he will be entitled to receive cash severance in an amount equal to (A) 24 times his monthly base salary paid ratably in equal installments over a 24 month period (unless his termination/resignation is in connection with a Change in Control, in which case the payment will be in a single lump sum), and (B) twice his bonus component that will vary depending upon whether the bonus for the year of termination is intended to be "performance-based" compensation and performance is satisfied, in which case it will be paid when bonuses are paid to our other senior executive officers, or whether the bonus is under a different program, in which case it will be his target bonus and will be paid on the same schedule as (A) above (unless his termination/resignation is in connection with a Change in Control, in which case the payment will be in a single lump sum), (ii) he will be entitled to continued health coverage for 24 months or until he becomes eligible for health coverage from another employer, whichever is earlier, and (iii) he will be treated as continuing in service for purposes of the vesting of any equity award until the earliest of: (x) the end of the Noncompetition Period (as defined in Mr. Lucia's Restrictive Covenants Agreement), (y) the last of the applicable vesting dates under such awards, or (z) the termination or violation of the Restrictive Covenants Agreement.

In addition, if we terminate Mr. Lucia's employment without Cause or Mr. Lucia resigns for Good Reason, and such termination occurs within a six-month period before a Change in Control, Mr. Lucia will receive a cash payment equal to the excess of the amount he would have received for such equity awards if he were continuing in service as of the date of the Change in Control and terminated immediately thereafter over the amount actually received, paid in a single lump sum payment at the time provided in the agreement. In the event that any payments and benefits, including any benefits provided to Mr. Lucia or for Mr. Lucia's benefit under the agreement or any other company plan or agreement, become subject to the excise tax under Section 4999 of the Code, such payments and benefits will be "cut-back" to an amount that is less than such amount that would cause the excise tax to the extent that such reduction would result in Mr. Lucia retaining a larger amount on an after-tax basis.

EMPLOYMENT AGREEMENTS WITH OTHER NAMED EXECUTIVE OFFICERS

We have employment agreements that are at-will, subject to certain notice and/or severance provisions, with Mr. Sherman, Ms. Neuman, Ms. Nustad and Mr. Williams. These employment agreements set forth the named executive officer's initial annualized base salary as follows: (i) Mr. Sherman at $500,000, (ii) Ms. Neuman at $450,000, (iii) Ms. Nustad at $350,000 and (iv) Mr. Williams at $400,000, subject to increase from time to time by the Board of Directors or the Compensation Committee. In addition, under the terms of these agreements, the named executive officers are eligible to receive bonus compensation from us in respect of each fiscal year (or portion thereof) during the term of their employment, in each case as may be determined by our Compensation Committee in its sole discretion on the basis of such performance-based or other criteria as it determines appropriate. For 2016, the targeted annual short-term (cash) incentive award opportunity for each other named executive was 65% of his/her base salary.

In the event any of these named executive officers is terminated without Cause, in connection with a Change in Control or otherwise, then provided that such named executive officer executes and does not revoke a separation agreement and release, and complies with the Restrictive Covenants Agreement, the executive will be entitled to receive (i) cash severance in an amount equal to 12 times the executive's monthly base salary paid ratably in equal installments over a 12 month period, (ii) a lump sum amount equal to 12 times the difference between the monthly COBRA coverage premium for the same type of medical and dental coverage (single, family, or other) the executive is receiving as of the date employment ends and then monthly employee contribution, which amount may be used for any purpose, and (iii) any earned but unpaid annual bonus for the calendar year preceding the calendar year in which employment ends. If within 24 months following a Change in Control, Mr. Williams' or Mses. Neuman's or Nustad's employment is terminated without Cause or resigns for Good Reason, provided that the executive executes a separation agreement and release, and complies with the Restrictive Covenants Agreement, he or she will receive the amounts set forth in (i) above in a single lump sum payment, rather than in installments as applies outside of a Change in Control.

Restrictive Covenants Agreements

We also have entered into a Noncompetition, Nonsolicitation, Proprietary and Confidential Information and Developments Agreement (the "Restrictive Covenants Agreement") with each of our named executive officers. Under the terms of the Restrictive Covenants Agreements, in Mr. Lucia's case, for the 24 months following the termination of his employment for any reason, and in the case of the other named executive officers, for the 12 months following the termination of employment for any reason, the named executive officer is generally prohibited from (i) engaging or assisting others to engage in any business or enterprise in the United States that competes with HMS's business, products or services, (ii) soliciting or diverting, or attempting to solicit or divert, the business of any of HMS's current or prospective clients, (iii) soliciting, recruiting or inducing or attempting to solicit, recruit or induce any company employee or independent contractor to leave HMS's employ (or, in some situations, hire any such company employee or independent contractor), and (iv) disclosing or utilizing for the benefit of any entity other than HMS, any system or product development ideas discussed or explored, even if not implemented, during the named executive officer's employment with HMS. The Restrictive Covenants Agreements also set forth certain obligations with respect to proprietary and confidential information and developments and inventions.

Equity Incentive Plans

All named executive officers participated in the Company's equity plans in 2016.

With respect to stock awards and option awards under the 2006 Stock Plan, the 2016 Omnibus Plan, and the related award agreements, such awards generally require that the named executive officer remain employed by the Company (or continue to serve on the Board of Directors if no longer employed by the Company) during the period designated by the Compensation Committee, subject to acceleration of vesting or continued vesting of equity awards in the termination scenarios described in the table under "Potential Payments Upon Termination of Employment or Change in Control." If the named executive officer's employment or Board membership ends before the designated period for any reason (other than upon death, Disability, Retirement, termination without Cause or resignation for Good Reason following a Change in Control, or as otherwise specified in the executive's employment agreement), all unvested restricted stock units will be forfeited and all unexercisable portions of option awards will expire immediately. If we terminate the named executive officer's employment or Board membership for Cause, all stock awards and option awards will immediately terminate without regard to whether such awards are vested or exercisable, respectively.

In general, the treatment of equity upon a Change in Control depends on if the awards are assumed by the successor company. Upon a Change in Control, and unless provided otherwise in the terms of an award agreement or employment agreement, awards granted under the 2006 Stock Plan and the 2016 Omnibus Plan vest on an accelerated basis only if a qualifying termination occurs within 24 months after a Change in Control. In this case, restricted stock unit awards will immediately vest and become free of restrictions, and any outstanding option awards will become fully vested and immediately exercisable. Such options will remain exercisable for 12 months following the qualifying termination, but not beyond the option expiration date set forth in the applicable award agreement. To the extent an award under the 2016 Omnibus Plan is not assumed in a Change in Control, accelerated vesting generally occurs upon a Change in Control.

Key Definitions

The capitalized terms used in the sections under the headings "Potential Payments Upon Termination of Employment or Change in Control" and "Executive Employment Agreements" are defined as below. These definitions are subject to further limitations if necessary to conform to Section 409A of the Code.

"CAUSE"

- Under the employment agreements for each of the named executive officers, "Cause" means: (i) fraud with respect to HMS or any of its subsidiaries and affiliates; (ii) material misrepresentation to any regulatory agency, governmental authority, outside or internal auditors, internal or external company counsel, or the Board of Directors concerning the operation or financial status of HMS or of any of its subsidiaries and affiliates; (iii) theft or embezzlement of assets of HMS or any of its subsidiaries or affiliates; (iv) conviction, or plea of guilty or nolo contendere to any felony (or to a felony charge reduced to a misdemeanor), or, with respect to the named executive officer's employment, to any misdemeanor (other than a traffic violation); (v) material failure to follow HMS's conduct and ethics policies that have been provided or made available to the named executive officer; (vi) a material breach of the named executive officer's employment agreement or Restrictive

Covenants Agreement; and/or (vii) continued failure to attempt in good faith to perform his/her duties as reasonably assigned by the Board, in Mr. Lucia's case, or by his/her supervisor in the case of the other named executive officers. Certain of the foregoing definitions permit the named executive officer to attempt to cure the grounds for Cause prior to termination.

- Under the 2006 Stock Plan and the related award agreements, "Cause" is equated with "gross misconduct," and is determined by the Compensation Committee or our Board of Directors.

- During fiscal 2016, we adopted forms of Non-Qualified Stock Option Award Agreement and Restricted Stock Unit Award Agreement for awards under the 2016 Omnibus Plan, under which, "Gross Misconduct" is equated with "Cause" as defined in the employment agreements for the named executive officers. For participants that have not entered into employment agreements with HMS, "Gross Misconduct" means, for purposes of these awards, a conviction of any felony, or a misdemeanor with respect to the participant's employment, or the entering of a plea guilty or nolo contendere to such charge, the embezzlement or theft of HMS property, or a violation of a restrictive covenants or similar agreement with HMS.

"CHANGE IN CONTROL"

- Under the employment agreements and the terms of the 2006 Stock Plan and the 2016 Omnibus Plan, a "Change in Control" generally occurs, subject to specific exceptions, when:

  - a person or group beneficially owns 50.01% or more of our outstanding shares of common stock or the combined voting power of outstanding company securities entitled to vote in the election of directors;
  - there is a merger, consolidation, reorganization, recapitalization or share exchange involving HMS or a sale or other disposition of all or substantially all of HMS's assets, unless, immediately after the transaction (i) all or substantially all of the beneficial owners of HMS's outstanding common stock and outstanding voting securities prior to the transaction own, directly or indirectly, more than 50% of such securities after the transaction in substantially the same proportions as their initial ownership and (ii) no person beneficially owns 50.01%, or more of the outstanding shares of common stock or voting securities of the acquiring corporation (unless such ownership level existed prior to the transaction); or
  - during any one year-period, the individuals who are the continuing directors (as determined under the 2016 Omnibus Plan) cease for any reason to constitute a majority of the Board of Directors or the Board of a successor corporation.

"DISABILITY"

- Under the employment agreements, "Disability" exists when the Company determines that based upon appropriate medical evidence, the named executive officer has become physically or mentally incapacitated so as to render such executive incapable of performing the executive's usual and customary duties, with or without a reasonable accommodation, for at least 180 days (or in Mr. Sherman's case, for at least 120 days), whether or not consecutive, during any 12-month period, or if the named executive officer is found to be disabled within the Company's long-term disability insurance as then in effect.

- Under the related award agreements to the 2006 Stock Plan and the 2016 Omnibus Plan, "Disability" means permanent and total disability as defined by Section 22(e)(3) of the Code.

"GOOD REASON"

- Under the employment agreements, "Good Reason" means, the occurrence, without the named executive officer's prior written consent, of any of the following events: (i) a material diminution in his/her authority, duties or responsibilities (in Mr. Lucia's case, other than in connection with a portion of his authority, duties or responsibilities being assigned to or carried out by a President); (ii) a requirement that, in Mr. Lucia's case, he report to an officer rather than to the Board, and in the case of the other named executive officers, that they report to a new supervisor who has materially diminished authority, duties or responsibilities in comparison to his/her previous supervisor; (iii) a material reduction in the named executive officer's base salary (or, in Mr. Sherman's case, his base salary or target bonus percentage); (iv) HMS's requiring, (a) in the case of Messrs. Lucia and Sherman, that they perform their principal services in a geographic area more than 50 miles from HMS's offices in Irving, Texas, or such other place at which they have agreed to provide such services, and (b)

in the case of Mses. Neuman and Nustad and Mr. Williams, that they perform their principal services primarily in a geographic area more than 50 miles from HMS's offices in Dallas, Texas and New York, New York, or such other place of primary employment at which they have agreed to provide such services; or (v) a material breach by HMS of any material provision of the named executive officer's employment agreement. Good Reason is also subject to certain timing restrictions and our ability to cure the proposed Good Reason.

COMPENSATION-RELATED RISK

We regularly assess risks related to our compensation programs for all employees, including non-executive officers. In February 2017, HMS's management and Compensation Committee, with the assistance of FW Cook, conducted a comprehensive assessment of the risks associated with our compensation policies and practices as they relate to risk management practices and risk-taking incentives. The Compensation Committee took into consideration our current compensation structure and the possible risks and mitigation factors associated with each compensation element, including the mix of cash, equity and fixed compensation with short- and long-term incentives, the use of multi-year vesting periods and performance criteria for equity awards, clawback provisions that apply to long-term incentive awards, stock ownership guidelines for executive officers and a cap on bonus pool funding and individual payouts for all short-term incentive awards. Based on the results of this assessment, the Compensation Committee does not believe our compensation policies and practices for employees create risks that are reasonably likely to have a material adverse effect on our company.

As discussed in more detail under the heading "Compensation Discussion and Analysis" above, the Compensation Committee reviews and approves executive compensation programs that focus on having the appropriate balance of features that mitigate compensation-related risk without diminishing the incentive nature of the compensation.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

None of the persons who served on the Compensation Committee during 2016 (Messrs. Stowe (Chair) and Callen and Ms. Tellez) were or are an officer or employee of HMS or had a related person transaction involving HMS requiring disclosure under Item 404 of Regulation S-K. During 2016, none of our executive officers (i) served as a member of the board of directors or compensation committee (or equivalent entity) of any other entity that had one or more of its executive officers serving as a member of our Compensation Committee or (ii) served as a member of the compensation committee (or equivalent entity) of any other entity that had one or more of its executive officers serving as a member of our Board of Directors.

DIRECTOR COMPENSATION

The Compensation Committee has the responsibility for recommending to the Board of Directors the form and amount of compensation for directors, which are subject to review and adjustment by the Board of Directors from time to time. Directors who are employed by HMS do not receive compensation for their service on the Board of Directors. Directors who are not our employees (non-employee directors) receive cash and equity-based compensation for their services as a director. All of our directors are reimbursed for reasonable expenses incurred in connection with attendance at meetings of the Board of Directors or its committees.

STANDARD COMPENSATION ARRANGEMENTS FOR NON-EMPLOYEE DIRECTORS

Our standard compensation arrangements for non-employee directors for fiscal 2016 are summarized in the table below. Amounts effective during the periods from January 1, 2016 through October 31, 2016, and November 1, 2016 through December 31, 2016, are shown separately to illustrate certain changes approved by the Board of Directors that became effective on November 1, 2016, as discussed in more detail below. Other than the meeting fees, the amounts shown in the table below are per annum.

		Effective 1/1/16-10/31/16 ($)	Effective 11/1/16-12/31/16 ($)
Cash Compensation			
Board Cash Retainer[1]	Board Member	50,000	60,000
Committee Chair Cash Retainer[1][2]	Audit	20,000	20,000
	Compensation	15,000	15,000
	Compliance and Ethics	15,000	15,000
	Nominating and Governance	15,000	15,000
Committee Member Cash Retainer[1]	Audit	7,000	7,000
	Compensation	5,000	5,000
	Compliance and Ethics	5,000	5,000
	Nominating and Governance	5,000	5,000
Additional Cash Retainer[1]	Lead Independent Director	25,000	25,000
Meeting Fees	Per meeting fee for board meetings in excess of eight during fiscal year; does not include committee meetings	2,000	2,000
Equity-Based Compensation			
Annual Equity Retainer[3]	Board Member	130,000	165,000

(1) All cash retainer fees, unless deferred by a director pursuant to the Director Deferred Compensation Plan, are paid in quarterly installments in arrears. Cash retainer fees are pro-rated for partial periods of service.

(2) Committee chair cash retainers are paid in lieu of the respective committee member cash retainer.

(3) The annual equity retainer to non-employee directors is in the form of a substantially equal number of non-qualified stock options and restricted stock units. See "2016 Non-Employee Director Compensation Decisions" below for a discussion of the 2016 annual equity retainer awards.

2016 Non-Employee Director Compensation Decisions

In October 2016, the Compensation Committee reviewed the design and competitive positioning of our non-employee director compensation program in relation to our peer group. For a discussion regarding our peer group, see "Competitive Pay Position and Peer Group Analyses" under the subsection entitled "Compensation Discussion and Analysis." The peer group analysis included benchmarking data on total director compensation (taking into account our board and committee structure, board leadership structure, and number of meetings held during 2016), as well as pay mix, cash compensation and equity compensation levels, and general practices such as committee chair and member retainers and stock ownership guidelines. With guidance from FW Cook, the Compensation Committee recommended, and the Board approved, certain changes to our non-employee director compensation, effective as of November 1, 2016, as reflected in the table above under the heading "Standard Compensation Arrangements for Non-Employee Directors." These changes resulted in our total non-employee director compensation approximating the median level of our peer group companies.

Based on the recommendation of the Compensation Committee, in November 2016 the Board of Directors determined to change the timing of the annual non-employee director equity grant, which is typically granted during the fourth quarter, to the date of the annual meeting of shareholders beginning in 2017, primarily to align the vesting of the award with the directors' year of service. To compensate the non-employee directors for their board membership from November 2016 through the anticipated date of our 2017 annual meeting of shareholders, the Board approved a pro-rated grant, effective as of November 11, 2016, for each non-employee director (other than Mr. Azar), pursuant to the 2016 Omnibus Incentive Plan, or the 2016 Omnibus Plan, with an aggregate grant date fair value of $87,450. In connection with Mr. Azar's appointment to the Board in October 2016, Mr. Azar received an initial equity grant with an aggregate grant date fair value of $165,000, effective November 11, 2016, pursuant to the 2016 Omnibus Plan. In addition, in connection with Mr. Becker's appointment to the Board in January, 2016, Mr. Becker received an initial equity grant with an aggregate grant date fair value of $130,000, effective as of March 2, 2016, pursuant to the then-effective Fourth Amended and Restated 2006 Stock Plan, as amended (the "2006 Stock Plan"). For additional information regarding the 2016 non-employee director equity awards, see "2016 Director Compensation" below.

Equity-Based Compensation

Equity compensation provided to our non-employee directors consists of a substantially equal number of stock options and restricted stock units granted pursuant to the 2016 Omnibus Plan. Notwithstanding the changes in director grant timing that were approved in November 2016 for grants to be awarded beginning in 2017 (described above), equity grants to our non-employee directors historically have been approved annually in the fourth quarter of the fiscal year, are effective two business days following the filing of our next quarterly report on Form 10-Q with the SEC and vest in four equal installments, with 25% vesting on the last day of the calendar quarter in which the grant was effective and 25% vesting on the last day of each of the next three calendar quarters, provided that the non-employee director remains a member of our Board of Directors through each vesting date. Equity grants for new directors joining the Board are approved by the Compensation Committee at its next meeting following the director's appointment or election and are effective two business days following the filing of our next quarterly report on Form 10-Q or annual report on Form 10-K, as applicable, with the SEC.

Director Compensation Limits

Under the terms of the 2016 Omnibus Plan, the maximum number of shares subject to awards granted during a single fiscal year to any non-employee director, taken together with any cash fees paid to such non-employee director during the fiscal year, is limited to $500,000 in total value (calculating the value of any such awards based on the grant date fair value of such award for financial reporting purposes). The Compensation Committee may make exceptions to this limit for a non-executive chair of the Board or, in extraordinary circumstances, for other individual non-employee directors, as the Committee may determine in its discretion, provided that the non-employee director receiving such additional compensation may not participate in the decision to award such compensation.

Deferred Compensation

Each of our non-employee directors is eligible to participate in our Director Deferred Compensation Plan, under which the non-employee director may elect annually to defer payment of all or a portion of his or her cash retainer fees and annual restricted stock unit grants until the termination of his or her service as a member of the Board. The amount of any cash compensation deferred by a non-employee director is converted into a number of deferred stock units, determined based upon the closing price of our common stock on the NASDAQ Global Select Market on the date such fees would otherwise have been payable, and credited to a deferred compensation account maintained in his or her name. Any restricted stock units that are deferred by a non-employee director are credited to the non-employee director's account in the form of deferred stock units on a share-for-share basis on the date such restricted stock units would otherwise have been payable. The account will be credited with additional deferred stock units on the payment date for any dividends declared on our common stock, calculated based on the closing price of our common stock on the payment date. On the tenth business day of January of the year following a director's termination of service for any reason, the amounts accumulated in the deferred compensation account will be paid in a lump sum in shares of our common stock under the 2016 Omnibus Plan equal to the number of whole deferred stock units in the account and cash in lieu of any fractional shares.

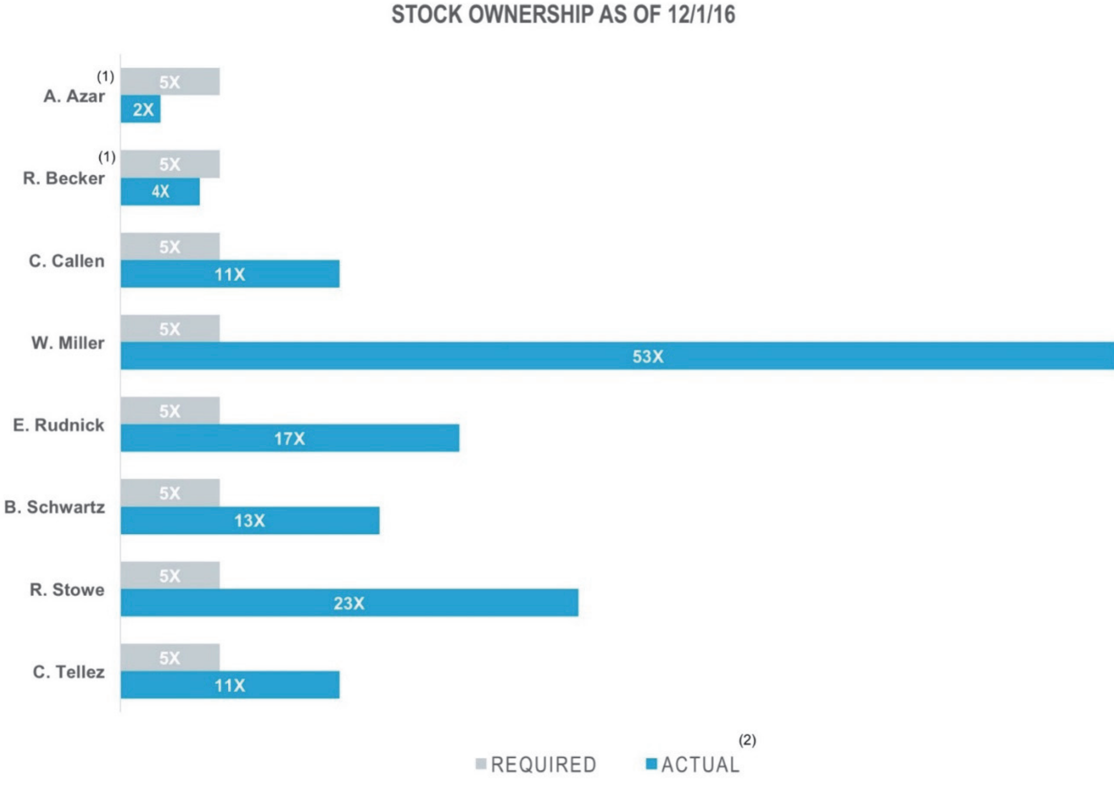
The following table sets forth the number of deferred stock units credited to the accounts of our non-employee directors as of December 31, 2016.

Name	Deferred Stock Units (#)
Azar	7,785
Becker	10,441
Callen	19,041
Holster	35,213
Miller	4,058
Rudnick	13,490
Schwartz	23,592
Stowe	50,381
Tellez	35,948

STOCK OWNERSHIP GUIDELINES FOR NON-EMPLOYEE DIRECTORS

The Board of Directors has established significant stock ownership guidelines for our non-employee directors to encourage non-employee directors to own and hold a meaningful ownership stake in HMS in order to further align their interests and actions with the interests of HMS and its shareholders. Our non-employee directors are required to own shares of HMS common stock equal in value to at least five times their annual cash retainer. For purposes of satisfying these guidelines, a non-employee director's shares owned outright, directly or indirectly, restricted stock and restricted stock units, whether or not vested, and deferred stock units are counted in determining the non-employee director's stock ownership. Each non-employee director is required to achieve his or her respective ownership guidelines within five years after election to the Board of Directors, or in the case of non-employee directors serving at the time the guidelines were adopted (July 28, 2016), within five years of the date of adoption. To mitigate the impact of stock price fluctuation, the number of shares required to be held by each non-employee director to satisfy the guidelines remains fixed through December 1, 2019. The Compensation Committee monitors compliance with these guidelines on an annual basis.

The following graph summarizes the stock ownership of each of our non-employee directors as of December 1, 2016, as a multiple of annual cash retainer in effect as of December 1, 2016, pursuant to our Stock Ownership Guidelines.



(1) Messrs. Azar and Becker joined the Board on October 11, 2016 and January 29, 2016, respectively. Pursuant to our stock ownership guidelines, Mr. Azar has until October 11, 2021 to achieve the ownership guideline, and Mr. Becker has until July 28, 2021 to achieve the ownership guideline.

(2) Rounded down to the nearest multiple.

2016 DIRECTOR COMPENSATION

The following table sets forth compensation earned by each of our non-employee directors for services as a director during fiscal 2016.

Name	Fees Earned or Paid in Cash[1] ($)	Stock Awards[2][3] ($)	Option Awards[2][4] ($)	Total ($)
Alex M. Azar	13,217	116,723	48,270	178,210
Robert Becker	41,039	155,272	62,169	258,480
Craig R. Callen	61,720	61,860	25,582	149,162
Robert M. Holster [5]	24,038	—	—	24,038
William F. Miller	54,860	61,860	25,582	142,302
Ellen A. Rudnick	81,720	61,860	25,582	169,162
Bart M. Schwartz	78,720	61,860	25,582	166,162
Richard H. Stowe	96,720	61,860	25,582	184,162
Cora M. Tellez	79,360	61,860	25,582	166,802

(1) The amounts in this column include the value of fully vested deferred stock units received under our Director Deferred Compensation Plan in lieu of all or a specified portion of the non-employee director's cash retainer fees, calculated based on the fair market value of the underlying shares on the dates the cash retainer fees would otherwise have been paid. The aggregate number of deferred stock units credited to non-employee directors in lieu of all or a specified portion of the non-employee director's cash retainer fees for 2016, pursuant to each director's election, and the aggregate fair market value (calculated as of the date the units were credited to the non-employee director) of such deferred stock units are shown in Figure 1 below.

(2) The number of outstanding stock options and unvested restricted stock units, whether or not deferred under the Director Deferred Compensation Plan, held by the non-employee directors as of December 31, 2016 is shown in Figure 2 below.

(3) The amounts in this column represent the grant date fair value of the restricted stock units granted to the non-employee directors during fiscal 2016, whether or not deferred, computed in accordance with FASB guidance on stock-based compensation. The relevant assumptions made in the valuations may be found in Note 1 of the Notes to the Consolidated Financial Statements in this Annual Report on Form 10-K for the fiscal year ended December 31, 2016. The number of restricted stock units granted to each non-employee director during fiscal 2016 and the number of such restricted stock units that were deferred under our Director Deferred Compensation Plan, pursuant to each director's election, are shown in Figure 3 below. The restricted stock units, whether or not deferred, vest in four equal increments, with the first 25% vesting on the last day of the calendar quarter of the date of grant, and 25% vesting on the last day of each of the next three calendar quarters.

(4) The amounts in this column represent the grant date fair value of the nonqualified stock options granted to the non-employee directors during fiscal 2016, computed in accordance with FASB guidance on stock-based compensation. The relevant assumptions made in the valuations may be found in Note 1 of the Notes to the Consolidated Financial Statements in this Annual Report on Form 10-K for the fiscal year ended December 31, 2016. The number of nonqualified stock options granted to each non-employee director during fiscal 2016 is shown in Figure 4 below. The stock options vest in four equal increments, with the first 25% vesting on the last day of the calendar quarter of the date of grant, and 25% vesting on the last day of each of the next three calendar quarters.

(5) Mr. Holster retired from the Board of Directors effective as of the 2016 Annual Meeting held on June 23, 2016, and therefore did not receive an equity grant during fiscal 2016.

FIGURE 1 – DEFERRED STOCK UNITS RECEIVED IN LIEU OF CASH DURING FISCAL 2016

Name	Deferred Stock Units Received in Lieu of 2016 Cash Compensation (#)	Fair Market Value ($)
Azar	728	13,220
Schwartz	2,229	39,362
Stowe	5,478	96,728
Tellez	4,486	79,352

FIGURE 2 – OUTSTANDING STOCK OPTIONS AND UNVESTED RESTRICTED STOCK UNITS AT DECEMBER 31, 2016

Name	Outstanding Stock Options (#)	Unvested Restricted Stock Units (#)
Azar	7,057	5,293
Becker	10,441	2,805
Callen	19,041	2,805
Holster	35,213	—
Miller	26,983	2,805
Rudnick	26,983	2,806
Schwartz	26,983	2,806
Stowe	26,983	2,805
Tellez	21,725	2,805

FIGURE 3 – RESTRICTED STOCK UNITS GRANTED DURING FISCAL 2016

Name	Restricted Stock Units Granted[1] (#)	Restricted Stock Units Deferred (#)
Azar	7,057	7,057
Becker	10,441	10,441
Callen	3,740	3,740
Miller	3,740	—
Rudnick	3,740	1,870
Schwartz	3,740	1,870
Stowe	3,740	3,740
Tellez	3,740	3,740

(1) The amount shown represents the number of restricted stock units granted to each non-employee director (other than Mr. Becker) on November 11, 2016. The amount shown for Mr. Becker represents the aggregate number of restricted stock units granted on March 2, 2016 (6,701) and November 11, 2016 (3,740).

FIGURE 4 – STOCK OPTIONS GRANTED DURING FISCAL 2016

Name	Nonqualified Stock Options Granted[1] (#)
Azar	7,057
Becker	10,441
Callen	3,740
Miller	3,740
Rudnick	3,740
Schwartz	3,740
Stowe	3,740
Tellez	3,740

(1) The amount shown represents the number of nonqualified stock options granted to each non-employee director (other than Mr. Becker) on November 11, 2016. The amount shown for Mr. Becker represents the aggregate number of nonqualified stock options granted on March 2, 2016 (6,701) and November 11, 2016 (3,740).

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Shareholder Matters

EQUITY COMPENSATION PLAN INFORMATION

The following table summarizes information about our equity compensation plans as of December 31, 2016. For additional information about our equity compensation plans see Note 10 – "Stock-Based Compensation" in our Notes to the Consolidated Financial Statements in Item 8. Consolidated Financial Statements and Supplemental Data.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by shareholders	6,515,239 [1]	$ 17.35	7,142,562
Equity compensation plans not approved by shareholders	52,140 [2]	$ 22.58	—
Total	6,567,379		

(1) This includes stock options and restricted stock units granted under our 2006 Stock Plan and 2016 Omnibus Plan.

(2) This includes stock options granted under the 2011 HDI Plan, which was assumed in connection with our acquisition of HDI and approved by the Compensation Committee of our Board.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following tables set forth information known to us with respect to the beneficial ownership of our common stock as of May 15, 2017 by (i) each of our directors, (ii) each of Messrs. Lucia, Sherman and Williams and Mses. Neuman and Nustad, our named executive officers for fiscal 2016, (iii) all of our directors and current executive officers as a group and (iv) each person (or group of affiliated persons) known by us to be the beneficial owner of more than 5% of our common stock.

The tables are based upon information supplied to us by directors, executive officers and principal shareholders and filings under the Exchange Act. We have based our calculation of the percentage of beneficial ownership on 83,909,845 shares of our

common stock outstanding as of May 15, 2017, unless otherwise noted. The beneficial ownership reported in the following tables is determined in accordance with the applicable rules of the SEC and does not necessarily indicate beneficial ownership for any other purpose. For purposes of the following tables, an entity or individual is considered the beneficial owner of shares of common stock if the entity or individual directly or indirectly has or shares voting power or investment power, as defined in the rules of the SEC, with respect to such shares or has the right to acquire beneficial ownership of such shares within 60 days of May 15, 2017.

Unless otherwise noted and subject to applicable community property laws, to our knowledge each shareholder named in the following table possesses sole voting and investment power over the shares listed. The address of each person listed in the table is c/o HMS Holdings Corp., 5615 High Point Drive, Irving, Texas 75038. To our knowledge, as of May 15, 2017, none of our officers or directors has pledged any of the shares that they respectively beneficially own as security.

SECURITY OWNERSHIP OF MANAGEMENT

Name of Beneficial Owner	Number of Outstanding Shares of Common Stock	Number of Shares Underlying Options Exercisable Within 60 Days(1)	Number of Shares Underlying Restricted Stock Units that will Vest Within 60 Days(2)(3)	Percent of Class
Directors (who are not officers):				
Alex M. Azar II	—	5,292	—	*
Robert Becker	5,000	9,506	—	*
Craig R. Callen	19,000	18,106	—	*
William F. Miller III	164,940 (4)	26,048	935	*
Ellen A. Rudnick	42,980	26,048	467	*
Bart M. Schwartz	20,306	26,048	467	*
Richard H. Stowe	25,000	26,048	—	*
Cora M. Tellez	580	20,790	—	*
Named Executive Officers:				
William C. Lucia	522,092 (5)	482,316	—	1.2%
Semone Neuman	35,280	238,222	—	*
Cynthia Nustad	32,209	224,462	—	*
Jeffrey S. Sherman	50,507 (6)	274,907	—	*
Douglas Williams	43,532	243,676	—	*
All current directors and executive officers as a group (15 persons)(7)	995,664 (8)	1,784,002	1,869	3.3%

* Less than 1% of outstanding shares

(1) Includes the number of shares that could be purchased by exercise of options exercisable at May 15, 2017 or within 60 days thereafter. The amounts reported in this column are excluded from the amounts reported in the column "Number of Outstanding Shares of Common Stock."

(2) Includes the number of shares underlying restricted stock units that are not subject to outstanding performance conditions and vest within 60 days of May 15, 2017, and excludes vested and unvested deferred stock units acquired pursuant to the Director Deferred Compensation Plan. Restricted stock units do not have voting power and are payable solely in shares of HMS common stock. The amounts reported in this column are excluded from the amounts reported in the column "Number of Outstanding Shares of Common Stock."

(3) Excludes deferred stock units (whether or not vested) held by non-employee directors pursuant to the Director Deferred Compensation Plan as follows: Mr. Azar (8,523), Mr. Becker (10,441), Mr. Callen (19,041), Mr. Miller (4,058), Ms. Rudnick (13,490), Mr. Schwartz (24,127), Mr. Stowe (51,672), and Ms. Tellez (37,018).

(4) Includes 9,000 shares of common stock held in trusts for the benefit of Mr. Miller's family. Mr. Miller disclaims beneficial ownership of the shares of common stock held by the trusts.

(5) Includes 522,092 shares of common stock held by the William C. Lucia Family Trust, a revocable trust for which Mr. Lucia serves as trustee.

(6) Includes 10,760 shares of common stock held by a revocable family trust for the benefit of Mr. Sherman's children and for which Mr. Sherman and his spouse serve as trustees.

(7) Includes the named executive officers, the current directors and Mses. Bjorck and South.

(8) Includes the shares reported in footnotes (4), (5) and (6).

Based on a review of filings with the SEC, the following entities hold more than 5% of our outstanding shares of common stock as of the date indicated on the respective filing.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS

Name and Address of Beneficial Owner	Number of Outstanding Shares of Common Stock (#)	Percent of Class (%)
BlackRock, Inc.[(1)]	9,836,431	11.6
The Vanguard Group[(2)]	7,907,910	9.3
T. Rowe Price Associates, Inc.[(3)]	6,819,568	8.0

(1) Based solely on a Schedule 13G/A filed with the SEC on January 12, 2017. According to the Schedule 13G/A, BlackRock, Inc., in its capacity as a parent holding company or control person of subsidiaries that acquired the reported securities, has sole voting power over 9,442,892 shares and sole dispositive power over 9,836,431 shares. The Schedule 13G/A was filed on BlackRock's behalf and on behalf of its subsidiaries BlackRock (Netherlands) B.V.; BlackRock Advisors, LLC; BlackRock Asset Management Canada Limited; BlackRock Asset Management Ireland Limited; BlackRock Asset Management Schweiz AG; BlackRock Financial Management, Inc.; BlackRock Fund Advisors; BlackRock Institutional Trust Company, N.A.; BlackRock Investment Management (Australia) Limited; BlackRock Investment Management (UK) Ltd and BlackRock Investment Management, LLC. BlackRock Fund Advisors beneficially owns 5% or greater of the outstanding shares of the class. BlackRock's principal business address is 55 East 52nd Street, New York, NY 10055.

(2) Based solely on a Schedule 13G/A filed with the SEC on February 13, 2017. According to the Schedule 13G/A, The Vanguard Group, a registered investment advisor, has sole voting power over 167,345 shares, shared voting power over 12,078 shares, sole dispositive power over 7,732,809 shares and shared dispositive power over 175,101 shares. Vanguard Fiduciary Trust Company, a wholly-owned subsidiary of The Vanguard Group, Inc., is the beneficial owner of 163,023 shares as a result of its serving as investment manager of collective trust accounts. Vanguard Investments Australia, Ltd., a wholly-owned subsidiary of The Vanguard Group, Inc., is the beneficial owner of 16,400 shares as a result of its serving as investment manager of Australian investment offerings. The Vanguard Group's principal business address is 100 Vanguard Boulevard, Malvern, PA 19355.

(3) Based solely on a Schedule 13G filed with the SEC on February 2, 2017. According to the Schedule 13G, T. Rowe Price Associates, Inc., a registered investment advisor ("Price Associates"), has sole voting power over 957,740 shares and sole dispositive power over 6,819,568 shares. Price Associates does not serve as custodian of the assets of any of its clients; accordingly, in each instance only the client or the client's custodian or trustee bank has the right to receive dividends paid with respect to, and proceeds from the sale of, such securities. The ultimate power to direct the receipt of dividends paid with respect to, and the proceeds from the sale of, such securities, is vested in the individual and institutional clients which Price Associates serves as investment adviser. Any and all discretionary authority which has been delegated to Price Associates may be revoked in whole or in part at any time. Price Associates' principal business address is 100 E. Pratt Street, Baltimore, MD 21202.

Item 13. Certain Relationships and Related Transactions and Director Independence

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Related Person Transaction Policy

The Audit Committee is responsible for reviewing all transactions with related persons on an ongoing basis for potential conflict of interest situations, and all such transactions must be approved by the Audit Committee. Our Board of Directors has adopted a written Related Person Transaction Policy to assist the Audit Committee in reviewing proposed transactions between HMS and certain individuals deemed to be "related persons." The policy applies to our executive officers, directors, director nominees and 5% shareholders (and their immediate family members), each of whom we refer to as a "related person," and governs the

review of any transaction, arrangement or relationship in which we are a participant, the amount involved exceeds $120,000 and a related person has a direct or indirect material interest. We refer to such a transaction, arrangement or relationship as a "related person transaction."

Review and Approval of Related Person Transactions

Pursuant to our Related Person Transaction Policy, a related person must notify the Corporate Secretary of any plan to enter into, extend or modify any transaction with HMS or its affiliates that could be a related person transaction. The proposed transaction is reviewed and, if deemed appropriate, approved by the Audit Committee prior to entry into the transaction. Under the policy, any related person transactions that are ongoing in nature and previously approved by the Audit Committee will be reviewed annually. A transaction with a related person reviewed under the policy will be considered approved or ratified if it is authorized by the Audit Committee after full disclosure of the related person's interest in the transaction. The Audit Committee will review and consider all relevant information regarding the transaction, including the impact on a director's independence or a Board committee's composition in the event the related person is a director, as it deems appropriate under the circumstances.

The Audit Committee may approve or ratify the transaction only if the Audit Committee determines that, under all of the circumstances, the transaction is in, or is not inconsistent with, the best interests of HMS. In connection with approving a transaction with a related person, the Audit Committee may impose any conditions on the transaction that it deems appropriate. All related person transactions will be disclosed in applicable SEC filings to the extent required by the Securities Act and the Exchange Act and related rules and regulations. There have been no transactions with related persons since the beginning of fiscal 2016 reportable pursuant to applicable SEC rules.

DIRECTOR INDEPENDENCE

A majority of our Board of Directors must be comprised of "independent directors" in accordance with the NASDAQ Marketplace Rules. Under Rule 5605(a)(2) of the NASDAQ Marketplace Rules, a director will only qualify as an "independent director" if, in the opinion of our Board of Directors, that person does not have a relationship which would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Based on its review of the applicable independence standards and answers to annual questionnaires completed by the directors, our Board of Directors has determined that each of Messrs. Azar, Becker, Callen, Miller, Schwartz and Stowe and Mses. Rudnick and Tellez is an "independent director" as defined under the NASDAQ Marketplace Rules. The Board of Directors previously determined that Mr. Robert M. Holster, who retired from our Board of Directors effective at the 2016 annual meeting of shareholders, was an independent director during the time he served on the Board in 2016.

Item 14. Principal Accounting Fees and Services

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

KPMG LLP ("KPMG") has served as our (and our predecessor's) independent registered public accounting firm since 1981. The aggregate fees for the services rendered by KPMG during the past two fiscal years are set forth in the table below.

Audit and Non-Audit Fees

Type of Fee	2016 ($)	2015 ($)
Audit Fees(1)	1,600,000	945,000
Audit-Related Fees(2)	—	—
Tax Fees(3)	1,757,388	320,000
All Other Fees(4)	—	—
Total Fees for Services Provided(5)	**3,357,388**	**1,265,000**

(1) Audit fees consist of fees for professional services rendered for the audit of our consolidated financial statements, review of interim financial statements and services normally provided by the independent registered public accounting firm in connection with regulatory filings, including registration statements. The amount shown for fiscal 2016 represents the aggregate fees estimated to be billed by KPMG for the services rendered.

(2) Audit-related fees may consist of fees for audits of benefit plans and due diligence related to mergers and acquisitions. KPMG did not perform any audit-related services during fiscal years 2015 and 2016.

(3) Tax fees consist of fees for permissible tax services, including tax compliance, tax analysis and tax implementation provided during the ordinary course of operations.

(4) All other fees consist of services not included in the categories above. KPMG did not perform any other services during fiscal years 2015 and 2016.

(5) All audit and non-audit services disclosed in the table were pre-approved by the Audit Committee prior to the provision of the services.

Audit Committee Pre-Approval Policies and Procedures

In accordance with its Charter, the Audit Committee pre-approves all audit and permissible non-audit services provided by our independent registered public accounting firm. At the time of the annual engagement of our independent registered public accounting firm or as soon as practicable thereafter, the Audit Committee pre-approves specific services and/or categories of services that may be provided during the year by the independent registered public accounting firm and the estimated fees for such services. During the year, circumstances may arise when it may become necessary or appropriate to engage the independent registered public accounting firm for additional services not contemplated in the original pre-approval. In such circumstances, our senior management seeks approval from the Audit Committee to engage the independent registered public accounting firm for such additional services. A description of any proposed non-audit services is provided to the Audit Committee along with the estimated fees for its pre-approval. For each proposed service, the independent registered public accounting firm is required to provide detailed supporting documentation at the time of approval to permit the Audit Committee to make a determination whether the performance of such services would impair the auditor's independence. The Audit Committee is regularly informed of any non-audit services provided by the independent auditor pursuant to this pre-approval process.

PART IV

Item 15. Exhibits and Financial Statement Schedules

1. *Financial Statements.*

   The financial statements are listed in the Index to Consolidated Financial Statements on page 102.

2. *Financial Statement Schedules.*

   Financial Statement Schedule II-Valuation and Qualifying Accounts is set forth on page 126. All other financial statement schedules have been omitted as they are either not required, not applicable or the information is otherwise included.

3. *Exhibits.*

   The Exhibits are set forth on the Exhibit Index on page 127 and incorporated herein by reference. The Exhibits include agreements to which the Company is a party or has a beneficial interest. The agreements have been filed to provide investors with information regarding their respective terms. The agreements are not intended to provide any other actual information about the Company or its business or operations. In particular, the assertions embodied in any representations, warranties, and covenants contained in the agreements may be subject to qualifications with respect to knowledge and materiality different from those applicable to investors and may be qualified by information in confidential disclosure schedules not included with the exhibits. These disclosure schedules may contain information that modifies, qualifies and creates exceptions to the representations, warranties and covenants set forth in the agreements. Moreover, certain representations, warranties, and covenants in the agreements may have been used for the purpose of allocating risk between parties, rather than establishing matters as facts. In addition, information concerning the subject matter of the representations, warranties and covenants may have changed after the date of the respective agreement, which subsequent information may or may not be fully reflected in the Company's public disclosures. Accordingly, investors should not rely on the representations, warranties and covenants in the agreements as characterizations of the actual state of facts about the Company or its business or operations on the date hereof.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized on June 6, 2017.

HMS Holdings Corp.

/s/ WILLIAM C. LUCIA
William C. Lucia
Chairman of the Board, President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the Registrant and in the capacities indicated on June 6, 2017.

Signature	Title
/s/ WILLIAM C. LUCIA William C. Lucia	Director, Chairman of the Board, President and Chief Executive Officer (Principal Executive Officer)
/s/ JEFFREY S. SHERMAN Jeffrey S. Sherman	Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer)
/s/ GREG D. AUNAN Greg D. Aunan	Senior Vice President and Chief Accounting Officer (Principal Accounting Officer)
/s/ ALEX M. AZAR II Alex M. Azar II	Director
/s/ ROBERT BECKER Robert Becker	Director
/s/ CRAIG R. CALLEN Craig R. Callen	Director
/s/ WILLIAM F. MILLER III William F. Miller III	Director
/s/ ELLEN A. RUDNICK Ellen A. Rudnick	Director
/s/ BART M. SCHWARTZ Bart M. Schwartz	Director
/s/ RICHARD H. STOWE Richard H. Stowe	Director
/s/ CORA M. TELLEZ Cora M. Tellez	Director

HMS HOLDINGS CORP. AND SUBSIDIARIES
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

	Page Number
Consolidated Financial Statements:	
Reports of Independent Registered Public Accounting Firm	99 - 101
Consolidated Balance Sheets as of December 31, 2016 and 2015	102
Consolidated Statements of Income for the Years Ended December 31, 2016, 2015, and 2014	103
Consolidated Statements of Shareholders’ Equity for the Years Ended December 31, 2016, 2015, and 2014	104
Consolidated Statements of Cash Flows for the Years Ended December 31, 2016, 2015, and 2014	105
Notes to the Consolidated Financial Statements	106
Financial Statement Schedule:	
Schedule II - Valuation and Qualifying Accounts	126

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders
HMS Holdings Corp.:

We have audited the accompanying consolidated balance sheets of HMS Holdings Corp. and subsidiaries as of December 31, 2016 and 2015, and the related consolidated statements of income, shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2016. In connection with our audits of the consolidated financial statements, we also have audited financial statement schedule II. These consolidated financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of HMS Holdings Corp. and subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), HMS Holdings Corp.'s internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated June 6, 2017 expressed an adverse opinion on the effectiveness of the Company's internal control over financial reporting.

/s/ KPMG LLP

KPMG LLP
Dallas, Texas
June 6, 2017

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders
HMS Holdings Corp.:

We have audited HMS Holdings Corp.'s internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). HMS Holdings Corp.'s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis. Material weaknesses existed related to the Company not maintaining an effective control environment based on a lack of established reporting lines and defined authorities and responsibilities for financial reporting, and not conducting an effective risk assessment process on a periodic basis to assess the effects of changes in business operations and turnover of its employees that significantly impacts its financial processes and internal control over financial reporting. As a result, the Company did not design and implement effective control activities and management review controls over the estimated liability of appeals and the accounts receivable allowance, including controls over the completeness and accuracy of data used to calculate the respective account balances. These material weaknesses have been identified and included in management's assessment. We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of HMS Holdings Corp. and subsidiaries as of December 31, 2016 and 2015, and the related consolidated statements of income, shareholders' equity and cash flows for each of the years in the three-year period ended December 31, 2016. These material weaknesses were considered in determining the nature, timing, and extent of audit tests applied in our audit of the 2016 consolidated financial statements, and this report does not affect our report dated June 6, 2017, which expressed an unqualified opinion on those consolidated financial statements.

In our opinion, because of the effect of the aforementioned material weaknesses on the achievement of the objectives of the control criteria, HMS Holdings Corp. has not maintained effective internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

/s/ KPMG LLP

KPMG LLP
Dallas, Texas
June 6, 2017

HMS HOLDINGS CORP. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share amounts)

	December 31, 2016	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents	$ 175,999	$ 145,610
Accounts receivable, net of allowance of $10,772 and $11,464, at December 31, 2016 and 2015, respectively	173,582	169,146
Prepaid expenses	13,699	11,261
Income tax receivable	3,354	-
Other current assets	1,001	3,051
Total current assets	367,635	329,068
Property and equipment, net	92,167	96,551
Goodwill	379,716	361,468
Intangible assets, net	37,797	54,308
Deferred financing costs, net	2,790	4,873
Other assets	2,650	4,329
Total assets	$ 882,755	$ 850,597
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable, accrued expenses and other liabilities	$ 59,402	$ 51,661
Estimated liability for appeals	30,755	33,078
Income taxes payable	-	3,873
Total current liabilities	90,157	88,612
Long-term liabilities:		
Revolving credit facility	197,796	197,796
Net deferred tax liabilities	22,717	30,961
Deferred rent	5,427	6,006
Other liabilities	10,048	2,520
Total long-term liabilities	235,988	237,283
Total liabilities	326,145	325,895
Commitments and contingencies (Note 12)		
Shareholders' equity:		
Preferred stock -- $0.01 par value; 5,000,000 shares authorized; none issued	-	-
Common stock -- $0.01 par value; 175,000,000 shares authorized; 95,966,852 shares issued and 83,552,774 shares outstanding at December 31, 2016; 95,263,461 shares issued and 83,989,715 shares outstanding at December 31, 2015	959	952
Capital in excess of par value	345,025	330,290
Retained earnings	326,110	288,474
Treasury stock, at cost -- 12,414,078 shares at December 31, 2016 and 11,273,746 shares December 31, 2015	(115,484)	(95,014)
Total shareholders' equity	556,610	524,702
Total liabilities and shareholders' equity	$ 882,755	$ 850,597

See accompanying notes to the consolidated financial statements.

HMS HOLDINGS CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(in thousands, except per share amounts)

	Years Ended December 31,		
	2016	2015	2014
Revenue	$489,720	$474,216	$443,225
Cost of services:			
Compensation	189,271	178,272	181,273
Data processing	37,337	40,915	39,661
Occupancy	14,000	15,766	16,950
Direct project expenses	46,254	51,527	36,866
Other operating expenses	27,778	28,895	24,588
Amortization of acquisition related software and intangible assets	28,030	28,148	28,612
Total cost of services	342,670	343,523	327,950
Selling, general and administrative expenses	89,381	83,121	81,071
Total operating expenses	432,051	426,644	409,021
Operating income	57,669	47,572	34,204
Interest expense	(8,519)	(7,812)	(7,931)
Interest income	321	49	57
Income before income taxes	49,471	39,809	26,330
Income tax expense	11,835	15,282	12,383
Net income	$ 37,636	$ 24,527	$ 13,947
Basic income per common share:			
Net income per common share -- basic	$ 0.45	$ 0.28	$ 0.16
Diluted income per common share:			
Net income per common share -- diluted	$ 0.43	$ 0.28	$ 0.16
Weighted average shares:			
Basic	84,221	87,881	87,673
Diluted	86,987	88,361	88,164

See accompanying notes to the consolidated financial statements

HMS HOLDINGS CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
(in thousands except share and per share amounts)

	Common Stock				Treasury Stock		
	# of Shares Issued	Par Value	Capital in Excess of Par Value	Retained Earnings	# of Shares	Amount	Total Shareholders' Equity
Balance at January 1, 2014	93,826,453	$ 936	$ 296,517	$ 250,000	6,526,305	$ (45,014)	$ 502,439
Net income	-	-	-	13,947	-	-	13,947
Stock-based compensation expense	-	-	13,356	-	-	-	13,356
Exercise of stock options	516,552	5	4,105	-	-	-	4,110
Vesting of restricted stock awards and units, net of shares withheld for employee tax	168,439	2	(1,660)	-	-	-	(1,658)
Excess tax benefit from exercise of stock options	-	-	1,795	-	-	-	1,795
Shortfall due to exercise of stock options	-	-	(323)	-	-	-	(323)
Deferred tax asset reversal for unexercised stock options	-	-	(576)	-	-	-	(576)
Balance at December 31, 2014	94,511,444	943	313,214	263,947	6,526,305	(45,014)	533,090
Net income	-	-	-	24,527	-	-	24,527
Stock-based compensation expense	-	-	14,297	-	-	-	14,297
Purchase of treasury stock	-	-	-	-	4,747,441	(50,000)	(50,000)
Exercise of stock options	577,559	7	4,180	-	-	-	4,187
Vesting of restricted stock awards and units, net of shares withheld for employee tax	174,458	2	(1,031)	-	-	-	(1,029)
Excess tax benefit from exercise of stock options	-	-	1,569	-	-	-	1,569
Shortfall due to exercise of stock options	-	-	(827)	-	-	-	(827)
Deferred tax asset reversal for unexercised stock options	-	-	(1,112)	-	-	-	(1,112)
Balance at December 31, 2015	95,263,461	952	330,290	288,474	11,273,746	(95,014)	524,702
Net income	-	-	-	37,636	-	-	37,636
Stock-based compensation expense	-	-	13,277	-	-	-	13,277
Purchase of treasury stock	-	-	-	-	1,140,332	(20,470)	(20,470)
Exercise of stock options	510,512	5	2,935	-	-	-	2,940
Vesting of restricted stock awards and units, net of shares withheld for employee tax	192,879	2	(1,477)	-	-	-	(1,475)
Balance at December 31, 2016	95,966,852	$ 959	$ 345,025	$ 326,110	12,414,078	$ (115,484)	$ 556,610

See accompanying notes to the consolidated financial statements.

HMS HOLDINGS CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Years ended December 31,		
	2016	2015	2014
Operating activities:			
Net income	$ 37,636	$ 24,527	$ 13,947
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization of property and equipment	24,882	30,328	32,864
Amortization of intangible assets	20,164	20,270	20,734
Amortization of deferred financing costs	2,083	2,084	2,084
Stock-based compensation expense	13,277	14,297	13,356
Deferred income taxes	(7,368)	(14,020)	(12,290)
(Gain) / Loss on disposal of assets	(948)	84	219
Change in fair value of contingent consideration	-	-	(517)
Changes in operating assets and liabilities, net of the effect of acquistions:			
Accounts receivable	(3,554)	(12,045)	14,625
Prepaid expenses	(2,399)	549	1,132
Prepaid income taxes	-	6,711	3,445
Other current assets	2,066	(412)	(2,150)
Other assets	234	10	121
Income taxes receivable / (payable)	(7,227)	3,873	-
Accounts payable, accrued expenses and other liabilities	12,116	(250)	18,039
Estimated liability for appeals	(2,323)	(3,721)	(5,053)
Net cash provided by operating acitivties	88,639	72,285	100,556
Investing activities:			
Acquisition of a business, net of cash acquired	(20,678)	-	-
Proceeds from sale of cost basis investment	2,496	-	-
Purchases of land, property and equipment	(13,703)	(8,620)	(22,687)
Investment in capitalized software	(7,316)	(3,197)	(3,514)
Net cash used in investing activities	(39,201)	(11,817)	(26,201)
Financing activities:			
Repayment of revolving credit facility	-	-	(35,000)
Proceeds from exercise of stock options	2,940	4,187	4,110
Payments of tax withholdings on behalf of employees for net-share settlement for stock-based compensation	(1,475)	(1,029)	(1,658)
Payments on capital lease obligations	(44)	(1,132)	(1,629)
Payments on contingent consideration	-	-	(428)
Purchases of treasury stock	(20,470)	(50,000)	-
Net cash used in financing activities	(19,049)	(47,974)	(34,605)
Net increase in cash and cash equivalents	30,389	12,494	39,750
Cash and cash equivalents			
Cash and cash equivalents at beginning of year	145,610	133,116	93,366
Cash and cash equivalents at end of year	$ 175,999	$ 145,610	$ 133,116
Supplemental disclosure of cash flow information:			
Cash paid for income taxes	$ 20,326	$ 22,878	$ 21,144
Cash paid for interest	$ 6,196	$ 5,694	$ 4,458
Supplemental disclosure of noncash activities:			
Change in balance of accrued property and equipment purchases	$ 684	$ 729	$ 1,610

See accompanying notes to the consolidated financial statements.

1. Business and Summary of Significant Accounting Policies

(a) Business

HMS is a leading provider of cost containment solutions in the U.S. healthcare marketplace. Using innovative technology as well as extensive data services and powerful analytics, the Company delivers coordination of benefits, payment integrity and care management solutions through its operating subsidiaries to help healthcare payers improve performance and outcomes. The Company is managed and operates as one business segment with a single management team that reports to the Chief Executive Officer. The Company serves state Medicaid programs, commercial health plans, federal government health agencies, government and private employers, child support agencies, and other healthcare payers and sponsors. Together the various services help the Company's customers recover improper payments; prevent future improper payments; reduce fraud, waste and abuse; and ensure regulatory compliance.

(b) Summary of Significant Accounting Policies

(i) Principles of Consolidation

The consolidated financial statements include the Company's accounts and transactions and those of the Company's wholly owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

(ii) Use of Estimates

The preparation of the consolidated financial statements in conformity with United States Generally Accepted Accounting Principles ("U.S. GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

(iii) Reclassifications

In the 2015 Consolidated Balance Sheets, the Company reported Accounts Receivable, net of allowance for doubtful accounts and estimated allowance for appeals. In the 2016 Consolidated Balance Sheets, Accounts Receivable, net of allowance includes the allowance for doubtful accounts, revenue adjustments and the estimated allowance for appeals.

(iv) Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. Cash equivalents consist of deposits that are readily convertible into cash.

(v) Concentration of Credit Risk

The Company's policy is to limit credit exposure by placing cash in accounts which are exposed to minimal interest rate and credit risk. HMS maintains cash and cash equivalents in cash depository accounts with large financial institutions with a minimum credit rating of A1/P1 or better, as defined by Standard and Poor's. The balance at these institutions generally exceeds the maximum balance insured by the Federal Deposit Insurance Corporation of up to $250,000 per entity. HMS has not experienced any losses in cash and cash equivalents and believes these cash and cash equivalents do not expose the Company to any significant credit risk.

The Company is subject to potential credit risk related to changes in economic conditions within the healthcare market. However, HMS believes that the billing and collection policies are adequate to minimize the potential credit risk. The Company performs ongoing credit evaluations of customers and generally does not require collateral.

(vi) Property and Equipment

Property and equipment are stated at cost less accumulated depreciation. Depreciation is provided over the estimated useful lives of the assets utilizing the straight-line method. HMS amortizes leasehold improvements on a straight-line basis over the term of the related lease which is typically five years, including any anticipated renewal periods, or the life of the leasehold improvement, whichever is shorter. Equipment leased under capital leases is depreciated over the shorter of (i) the term of the lease and (ii) the estimated useful life of the equipment. Capitalized software costs related to software that is acquired or developed for internal use while in the application development stage. All other costs to develop software for internal use, either in the preliminary project stage or post-implementation stage, are expensed as incurred. Amortization of capitalized software is calculated on a straight-line basis over the expected economic life. Land is not depreciated.

Estimated useful lives are as follows:

Property and Equipment	Useful Life
Equipment	2 - 3 years
Leasehold improvements	3 - 10 years
Furniture and fixtures	3 - 5 years
Capitalized software	3 - 10 years
Building and building improvements	up to 39.5 years

Property and equipment is reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. When indicators exist, recoverability of assets is measured by a comparison of the carrying value of the asset group to the estimated undiscounted future net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying value of the asset group exceeds the fair value of the assets, which amount is charged to earnings. Fair value is based on a projection of the estimated discounted future net cash flows expected to result from the asset group, using a discount rate reflective of the Company's cost of funds. The Company did not recognize any impairment charges related to property and equipment during the years ended December 31, 2016, 2015 or 2014.

(vii) Intangible Assets

The Company records assets acquired and liabilities assumed in a business combination based upon their acquisition date fair values. In most instances there is not a readily defined or listed market price for individual assets and liabilities acquired in connection with a business, including intangible assets. The determination of fair value for individual assets and liabilities in many instances requires a high degree of estimation and the valuation of intangible assets, in particular, is subjective. Significant estimates in intangible assets include, but are not limited to, growth rates, discount rates, customer attrition rates, expected levels of revenues, earnings, cash flows and tax rates. The use of different valuation techniques and assumptions are inherently uncertain and unpredictable and, as a result, actual results may differ from estimates. All of the Company's intangible assets are subject to amortization and are amortized using the straight-line method over their estimated period of benefit. Estimated useful lives are as follows:

Intangible Assets	Useful Life
Customer relationships	5 - 10 years
Restrictive covenants	3 - 7 years
Trade name	3 - 5 years
Intellectual property	5 years

Intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. When indicators exist, recoverability of assets is measured by a comparison of the carrying value of the asset group to the estimated undiscounted future net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by

which the carrying value of the asset group exceeds the fair value of the assets, which amount is charged to earnings. Fair value is based on a projection of the estimated discounted future net cash flows expected to result from the asset group, using a discount rate reflective of the Company's cost of funds. The Company did not recognize any impairment charges related to intangible assets during the years ended December 31, 2016, 2015 or 2014.

(viii) Goodwill

Goodwill is the excess of acquisition costs over the fair values of assets and liabilities of acquired businesses. During the measurement period, which is up to one year from the acquisition date, the Company may record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill. Upon the conclusion of the measurement period, any subsequent adjustments are recorded to earnings.

Goodwill is subject to a periodic assessment for impairment. HMS assesses goodwill for impairment on an annual basis as of June 30th of each year or more frequently if an event occurs or changes in circumstances would more likely than not reduce the fair value of a reporting unit below its carrying amount. Assessment of goodwill impairment is at the HMS Holdings Corp. entity level as the Company operates as a single reporting unit. The Company has the option to perform a qualitative assessment to determine if impairment is more likely than not to have occurred. If the Company can support the conclusion that it is more likely than not that the fair value of a reporting unit is greater than its carrying amount, then HMS would not need to perform the two-step impairment test for that reporting unit. If the Company cannot support such a conclusion, or the Company does not elect to perform the qualitative assessment, then the first step of the goodwill impairment test is used to identify potential impairment by comparing the fair value of a reporting unit with its carrying amount, including goodwill. HMS completed the annual impairment test as of June 30, 2016 using the optional qualitative assessment and determined no impairment existed. There were no impairment charges related to goodwill during the years ended December 31, 2016, 2015 or 2014.

(ix) Income Taxes

Income taxes are accounted for under the asset and liability method. Under this method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. This method also requires the recognition of future tax benefits for net operating loss carry-forwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized as income or expense in the period that includes the enactment date. A valuation allowance is provided against deferred tax assets to the extent their realization is not more likely than not. Uncertain income tax positions are accounted for by prescribing a minimum recognition threshold that a tax position is required to meet before being recognized in the financial statements. Although the Company believes that it has adequately reserved for uncertain tax positions (including interest and penalties), it can provide no assurance that the final tax outcome of these matters will not be materially different. The Company makes adjustments to these reserves in accordance with the income tax accounting guidance when facts and circumstances change, such as the closing of a tax audit or the refinement of an estimate. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will affect the provision for income taxes in the period in which such determination is made, and could have a material impact on our financial condition and operating results.

(x) Revenue Recognition

The Company provides services under contracts that contain various fee structures, including contingency fee and fixed fee arrangements. Revenue is recognized when a contract exists, services have been provided to the customer, the fee is fixed and determinable, and collectability is reasonably assured. In addition, the Company has contracts with the federal government which are generally cost-plus or time and material based. Revenue on cost-plus contracts is recognized based on costs incurred plus the negotiated fee earned. Revenue on time and materials contracts is recognized based on hours worked and expenses incurred. In addition, some of the Company's contracts may include customer acceptance provisions. Formal customer sign-off is not always necessary to recognize revenue, provided HMS objectively demonstrates that the criteria specified in the acceptance provision are satisfied. Due to the range of products and services that HMS provides and the differing fee structures associated with each type of contract, revenue may be recognized in irregular increments.

A portion of our revenue is recorded net of an estimate of future revenue adjustments, with an offsetting entry to accounts receivable allowance, based on historical patterns of billing adjustments, length of operating and collection cycle and customer negotiations, behaviors and payment patterns. Changes in these estimates are recorded to revenue in the period of change.

(xi) Estimated Liability for Appeals

Under the Company's Recovery Audit Contractor ("RAC") contract with Centers for Medicare and Medicaid Services ("CMS"), the Medicaid RAC contracts with various states, and similar contracts for commercial health plan customers, HMS recognizes revenue when findings are sent to the customer for offset against future claims payments. Providers have the right to appeal a finding and may pursue additional appeals if the initial appeal is found in favor of the customer. HMS records a) a liability for findings which have been adjudicated in favor of providers and b) an estimated liability for findings that are probable of being returned to providers following a successful appeal. Resolution of appeals can take substantial time to resolve as there is a significant backlog in the system for resolving appeals, as over the course of the Company's existing RAC contract, healthcare providers have increased their pursuit of appeals beyond the first and second levels of appeals to the third level of appeal, where cases are heard by Administrative Law Judges ("ALJs"). In the Company's experience, decisions at the third level of appeal are the least favorable as ALJs exercise greater discretion and there is less predictability in the ALJ decisions as compared to appeals for the first or second levels. The estimated liability is based on the amount of revenue that is subject to appeals, closures or other adjustments and the Company's historical experience with appeals. The liability for appeals is an offset to revenue to the Company's Consolidated Statements of Income. The total liability for appeals balance of $30.8 million and $33.1 million as of December 31, 2016 and 2015, respectively, includes $17.3 million and $15.9 million, respectively, of CMS liabilities which represents findings which have been adjudicated in favor of providers and $11.1 million and $12.8 million, respectively, of CMS liabilities which represents an estimate of findings that are probable of being returned to providers following a successful appeal. To the extent the amount to be returned to providers following a successful appeal, closure or other adjustment exceeds or is less than the amount recorded, revenue in the applicable period would be reduced or increased by such amount. Any future changes to any of the Company's customer contracts, including further modifications to the transition plan for incumbent Medicare RACs may require the Company to apply different assumptions that could materially affect the Company's liability for future periods.

(xii) Expense Classifications

HMS cost of services is presented in the categories set forth below. Each category within cost of services excludes expenses relating to Selling, general and administrative expenses ("SG&A") functions, which are presented separately as a component of total operating costs. A description of the primary expenses included in each category is as follows:

Cost of Services:

- *Compensation:* Salary, fringe benefits, bonus and stock-based compensation.
- *Data processing:* Hardware, software and data communication costs.
- *Occupancy:* Rent, utilities, depreciation, office equipment and repair and maintenance costs.
- *Direct project expense:* Variable costs incurred from third party providers that are directly associated with specific revenue generating projects and employee travel expenses.
- *Other operating expense:* Professional fees, temporary staffing, travel and entertainment, insurance and local and property tax costs.
- *Amortization of acquisition related software and intangible assets:* Amortization of the cost of acquisition related software and intangible assets.

SG&A:

- Expenses related to general management, marketing and administration activities.

(xiii) Estimating Valuation Allowances and Accrued Liabilities

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenue and expenses during the reported period. In particular, management must make estimates of the probability of collecting accounts receivable. When evaluating the adequacy of the accounts receivable allowance, management reviews the accounts receivables based on an analysis of historical revenue adjustments, bad debts, customer concentrations, customer credit-worthiness, current economic trends and changes in customer payment terms. As of December 31, 2016 and 2015, the accounts receivable balance was $173.6 million and $169.1 million, net of allowance of $10.8 million and $11.5 million, respectively.

(xiv) Stock-Based Compensation

Long-Term Incentive Award Plans

The Company grants equity-based compensation awards, including stock options and restricted stock units, to HMS employees and non-employee directors under the 2016 Omnibus Plan, which was approved by the Company's shareholders on June 23, 2016. The 2016 Omnibus Plan replaced and superseded the Company's 2006 Stock Plan and 2011 HDI Plan. All of the Company's employees as well as HMS non-employee directors are eligible to participate in the 2016 Omnibus Plan. Awards granted under the 2016 Omnibus Plan generally vest over one to four years. The exercise price of stock options granted under the 2016 Omnibus Plan may not be less than the fair market value of a share of stock on the grant date, as measured by the closing price of the Company's common stock on the NASDAQ Global Select Market and the term of a stock option may not exceed ten years. Certain stock option and restricted stock unit awards granted to senior executives are subject to performance-based vesting conditions. The performance-based awards are market condition awards as the performance condition is based on the Company's common stock price over the applicable performance period.

Stock-Based Compensation Expense

For awards subject to service-based vesting conditions, the Company recognizes stock-based compensation expense equal to the grant date fair value of the award on a straight-line basis over the requisite service period, which is generally the vesting term. For the performance-based awards subject to market conditions, the Company recognizes stock-based compensation expense equal to the grant date fair value of the stock options on a straight-line basis over the requisite service period.

The fair value of each option grant with service-based conditions is estimated using the Black-Scholes pricing model. The fair value of each option grant with market-based conditions is estimated using a Monte Carlo simulation model. The fair value of each restricted stock unit is calculated based on the closing sale price of the Company's common stock on the grant date.

The determination of the fair value of the stock options on the grant date using the models above is affected by the Company's stock price, as well as assumptions regarding a number of complex and subjective variables. Certain key variables include: the Company's expected stock price volatility over the expected term of the awards; a risk-free interest rate; and any expected dividends. The Company estimates stock price volatility based on the historical volatility of the Company's common stock and estimates the expected term of the awards based on the Company's historical option exercises for similar types of stock option awards. The assumed risk-free interest rate is based on the yield on the measurement date of a zero-coupon U.S. Treasury bond with a maturity period equal to the option's expected term. The Company does not anticipate paying any cash dividends in the foreseeable future and therefore, uses an expected dividend yield of zero in the option valuation models. The fair value of all awards also includes an estimate of expected forfeitures. Forfeitures are estimated based on historical experience. If actual forfeitures vary from estimates, a difference in compensation expense will be recognized in the period the actual forfeitures occur. Upon the exercise of stock options or the vesting of restricted stock units, the resulting excess tax benefits or deficiencies, if any, are recognized as income tax expense or benefit. Additionally, excess tax benefits are required to be reflected as a cash flow operating activity.

(xv) Fair Value of Financial Instruments

Financial instruments are categorized into a three-level fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). If the inputs used to measure fair value fall within different levels of the hierarchy, the category level is based on the lowest priority level input that is significant to the fair value measurement of the instrument. In the event the fair value is not readily available or determinable, the financial instrument is carried at cost and referred to as a cost method investment. The fair value hierarchy is as follows:

- *Level 1*: Observable inputs such as quoted prices in active markets;
- *Level 2:* Inputs, other than the quoted prices in active markets, that are observable either directly or indirectly; and
- *Level 3:* Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

Financial instruments (principally cash and cash equivalents, accounts receivable, accounts payable and accrued expenses) are carried at cost, which approximates fair value due to the short-term maturity of these instruments. The Company's long-term credit facility is carried at cost. Due to the variable interest rate associated with the revolving credit facility and the variable interest margin based upon the Company's consolidated leverage ratio, cost approximates its fair value. The fair value of the contingent consideration liability is determined using Level 3 inputs. See Note 4 – "Acquisitions" in our Notes to the Consolidated Financial Statements under Item 8. Consolidated Financial Statements and Supplementary Data for additional information regarding the fair value of financial instruments.

(xvi) Leases

HMS accounts for the lease agreements as either operating or capital leases, depending on certain defined criteria. Lease costs are amortized on a straight-line basis without regard to deferred payment terms, such as rent holidays, that defer the commencement date of required payments. Additionally, incentives such as tenant improvement allowances, are capitalized and are treated as a reduction of rental expense over the term of the lease agreement.

(xvii) Contingencies

From time to time, HMS is involved in legal proceedings in the ordinary course of business. The Company assesses the likelihood of any adverse judgments or outcomes to these contingencies as well as potential ranges or probable losses and establish reserves accordingly. HMS records accruals for outstanding legal matters when it believes it is probable that a loss will be incurred and the amount can be reasonable estimated. Significant judgment is required to determine both probability and the estimated amount. HMS reviews these provisions at least quarterly and adjusts the provisions to reflect the impact of negotiations, settlements, rulings, advice of legal counsel and updated information. Litigation is inherently unpredictable and is subject to significant uncertainties, some of which are beyond the Company's control. The amount of reserves required may change in future periods due to new developments in each matter or changes in approach to a matter such as a change in settlement strategy.

(xviii) Recent Accounting Guidance

Recently Adopted Accounting Guidance

In April 2015, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2015-05, *Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40): Customer's Accounting for Fees Paid in a Cloud Computing Arrangement* ("ASU 2015-05"). ASU 2015-05 provides explicit guidance to help companies evaluate the accounting for fees paid by a customer in a cloud computing arrangement and clarifies that if a cloud computing arrangement includes a software license, the customer should account for the license consistent with its accounting for other software licenses. If the arrangement does not include a software license, the customer should account for the arrangement as a service contract. ASU 2015-05 is effective for annual reporting periods beginning after December 15,

2015, including interim periods within such annual reporting periods with early adoption permitted. The adoption of this guidance did not have a material effect on the Company's consolidated financial statements.

In November 2015, the FASB issued ASU 2015-17, *Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes* ("ASU 2015-17"). ASU 2015-17 simplifies the current presentation of separately classifying deferred tax assets and deferred tax liabilities as current and noncurrent in a classified balance sheet by requiring companies to present them as noncurrent. ASU 2015-17, as amended, is effective for annual reporting periods beginning after December 15, 2016, including interim periods within such annual reporting periods with early adoption permitted. The Company elected to early adopt the new guidance in the fourth quarter of fiscal year 2016. The Company elected to apply the presentation requirements for the balance sheet retrospectively to all periods presented which resulted in a decrease to total current assets and total long term liabilities of $7.5 million at December 31, 2015.

In March 2016, the FASB issued ASU No. 2016-09, *Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accountin*g, ("ASU 2016-09") that changes the accounting for certain aspects of share-based payments to employees. The new guidance requires excess tax benefits and tax deficiencies to be recorded in the income statement when stock awards vest or are settled. In addition, cash flows related to excess tax benefits will no longer be separately classified as a financing activity apart from other income tax cash flows. The standard also allows Companies to repurchase more of an employee's vesting shares for tax withholding purposes without triggering liability accounting, clarifies that all cash payments made to tax authorities on an employee's behalf for withheld shares should be presented as a financing activity on the cash flows statement and provides an accounting policy election to account for forfeitures as they occur. ASU 2016-09 is effective for annual reporting periods beginning after December 15, 2016, including interim periods within such annual reporting periods with early adoption permitted. The Company elected to early adopt the new guidance in the fourth quarter of fiscal year 2016 which requires us to reflect any adjustments as of January 1, 2016, the beginning of the annual period that includes the interim period of adoption. The primary impact of adoption was the recognition of excess tax benefits in the provision for income taxes rather than paid-in capital for all periods in fiscal year 2016. Additional amendments to the accounting for income taxes and minimum statutory withholding tax requirements had no impact to retained earnings as of January 1, 2016, where the cumulative effect of these changes are required to be recorded. The Company elected to continue to estimate forfeitures expected to occur to determine the amount of compensation cost to be recognized in each period. We elected to apply the presentation requirements for cash flows related to excess tax benefits retrospectively to all periods presented which resulted in an increase to both net cash from operations and net cash used in financing of $1.6 million and $1.8 million for the years ended December 31, 2015 and 2014, respectively. Adoption of the new standard resulted in the recognition of net excess tax benefits in the provision for income taxes rather than paid-in capital of $1.9 million for the year ended December 31, 2016. The presentation requirements for cash flows related to employee taxes paid for withheld shares had no impact to any of the periods presented on the consolidated statements of cash flow since such cash flows have historically been presented as a financing activity.

Recent Accounting Guidance Not Yet Adopted

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers* (Topic 606) ("ASU 2014-09"), which is the new comprehensive revenue recognition standard that will supersede all existing revenue recognition guidance under U.S. GAAP. The FASB has recently issued several amendments to the standard, including: principal versus agent considerations; clarification on accounting for licenses of intellectual property and identifying performance obligations; narrow scope-improvements and practical expedients; and technical corrections and improvements. ASU 2014-09 is effective for annual reporting periods beginning after December 15, 2017, including interim periods within such annual reporting periods with early adoption permitted. The Company does not plan to early adopt this guidance and therefore will adopt on January 1, 2018. The guidance permits two methods of adoption: retrospectively to each prior reporting period presented (full retrospective method), or retrospectively with the cumulative effect of initially applying the guidance recognized at the date of initial application (modified retrospective method). The Company is in the process of determining the adoption method but preliminarily expects to use the modified retrospective method. The Company, with the assistance of external consultants, has developed and is currently following a preliminary implementation plan. One major element of this plan involves reviewing historical contracts to quantify the impact that adoption will have on the Company's operations. Depending on the results of the Company's review, there could be material changes to the timing and recognition of revenues and certain associated expenses. The Company expects to complete the review of historical contracts and the

overall assessment process, including selecting a transition plan and an assessment of the overall impact to the results of operations by the end of the third quarter of 2017.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)* ("ASU 2016-02"). ASU 2016-02 will require most lessees to recognize a majority of the Company's leases on the balance sheet, which will increase reported assets and liabilities. ASU 2016-02 is effective for annual reporting periods beginning after December 15, 2018 including interim periods within such annual reporting periods with early adoption permitted. The Company has not early adopted this guidance and is currently evaluating the impact on the Company's consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, *Statements of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments* ("ASU 2016-15"). The amendment clarifies where certain cash receipts and cash payments are presented and classified in the statement of cash flows. Current guidance does not include specific guidance on the eight classification issues presented in the amendments, which are intended to reduce diversity in practice with respect to classification and presentation of such cash receipts and payments. The amendments are effective for annual reporting periods beginning after December 15, 2017, and for interim reporting periods within such annual periods. The Company is currently evaluating the impact on the Company's financial statements.

In January 2017, the FASB issued ASU No. 2017-01, *Business Combinations (Topic 805) – Clarifying the Definition of a Business* ("ASU 2017-01"). ASU 2017-01 finalizes previous proposals regarding shareholder concerns that the definition of a business is applied too broadly. The guidance assists entities with evaluating whether transactions should be accounted for as acquisitions of assets or of businesses. The amendments are effective for annual periods beginning after December 15, 2017, including interim periods within those periods. The Company is currently evaluating the impact on the Company's financial statements of adopting this guidance.

In January 2017, the FASB issued ASU No. 2017-04, *Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment (*"ASU 2017-04"). This amendment simplifies the manner in which an entity is required to test for goodwill impairment by eliminating Step 2 from the goodwill impairment test. Step 2 measures goodwill impairment loss by comparing the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill. The amendment simplifies this approach by having the entity (1) perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount, and (2) recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, with the understanding that the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. The amendment is effective for public entities that are U.S. Securities and Exchange Commission ("SEC") filers prospectively for their annual, or any interim, goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted for all entities for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The Company is currently evaluating the impact on the Company's financial statements of adopting this guidance.

Other new pronouncements issued but not effective until after December 31, 2016, if any, are not expected to have a material impact on the Company's financial position, results of operations or liquidity.

2. Property and Equipment

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

	December 31,	
	2016	2015
Equipment	$ 94,345	$ 90,496
Leasehold improvements	8,637	8,512
Building	8,624	8,624
Building improvements	12,671	11,367
Land	2,769	2,769
Furniture and fixtures	10,728	10,858
Capitalized software	110,696	104,266
	248,470	236,892
Less: accumulated depreciation and amortization	(156,303)	(140,341)
Property and equipment, net	92,167	96,551

	December 31,		
(in millions)	2016	2015	2014
Depreciation and amortization expense related to property and equipment	$ 24.9	$ 30.3	$ 32.9

Net capital leases included as part of equipment were approximately $4,000 and $51,000 at December 31, 2016 and 2015, respectively. Accumulated depreciation for equipment under capital leases was approximately $6.1 million and $6.0 million for the years ended December 31, 2016 and 2015. Depreciation expense for equipment under capital leases for the years ended December 31, 2016, 2015 and 2014 was approximately $40,000, $1.2 million, and $1.6 million, respectively.

3. Intangible Assets

Intangible assets consisted of the following (*in thousands*):

	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
December 31, 2016			
Customer relationships	$ 103,090	$ (71,914)	$ 31,176
Trade name	15,936	(11,393)	4,543
Intellectual property	2,100	(140)	1,960
Restrictive covenants	133	(15)	118
Total	$ 121,259	$ (83,462)	$ 37,797
December 31, 2015			
Customer relationships	$ 101,806	$ (57,497)	$ 44,309
Trade name	17,000	(10,221)	6,779
Restrictive covenants	16,800	(13,580)	3,220
Total	$ 135,606	$ (81,298)	$ 54,308

In 2016, the Company wrote-off approximately $16.8 million of fully amortized restrictive covenant intangibles and $1.2 million of fully amortized trade name intangibles.

Amortization expense of intangible assets is expected to approximate the following (*in thousands*):

Year ending December 31,	
2017	$ 17,306
2018	16,685
2019	2,245
2020	791
2021	463
Thereafter	307

For the years ended December 31, 2016, 2015 and 2014, amortization expense related to intangible assets was $20.2 million, $20.3 million and $20.7 million, respectively.

4. Acquisitions

On September 2, 2016, the Company acquired the outstanding capital stock of Essette, a care management technology company which helps risk-bearing organizations manage the care delivered to their members, for aggregate consideration of $24.2 million, which is primarily comprised of cash payments of $21.3 million. To fund the purchase price, the Company utilized cash on hand. The acquisition is subject to adjustment based upon the final amount of adjusted working capital of Essette at closing.

The Company allocated the purchase price, net of cash acquired, to a) at their acquisition date fair values, the following tangible assets: net deferred tax assets of $0.9 million and other net assets of $0.9 million and b) at their acquisition date fair values, the following amortizing intangible assets: intellectual property of $2.1 million, customer relationships of $1.3 million, restrictive covenants of $0.1 million, and trade name of $0.1 million. Goodwill of $18.2 million represents the excess purchase price over the net identifiable tangible and intangible assets. The intangible assets are valued using various methods which requires several judgments, including growth rates, discount rates, customer attrition rates, and expected levels of revenues, earnings, cash flows and tax rates. The intangible assets are amortized over their estimated useful lives on a straight-line basis and are not expected to be deductible for tax purposes. The goodwill recognized from the acquisition was a result of expected synergies to be realized from future revenue growth, is not expected to be deductible for tax purposes, has an indefinite useful life and will be included in the Company’s annual impairment testing. Contingent consideration, up to an aggregate maximum $12.0 million, will be payable in calendar years 2017, 2018, or 2019, respectively, should Essette achieve certain revenue targets as defined in the stock purchase agreement. The contingent consideration is valued using a method which requires several judgments but primarily include discount rates and expected levels of revenues. In the fourth quarter 2016, purchase accounting adjustments included a $1.1 million increase to total transaction consideration and to goodwill, a $0.7 million increase to other net assets, and a $0.2 million increase in the customer relationship intangible. The amounts shown above may change in the near term as management continues to assess the fair value of acquired assets and liabilities.

The acquisition was not significant to the Company’s consolidated financial statements; therefore, pro forma results of the operations related to this business acquisition for the year ended December 31, 2015 have not been presented. The immaterial results of Essette’s operations since September 2, 2016 have been included in the Company’s consolidated financial statements.

There were no changes in the carrying amount of goodwill for the years ended December 31, 2015 and 2014.

5. Accounts Payable, Accrued Expenses and Other Liabilities

Accounts payable, accrued expenses and other liabilities consisted of the following (*in thousands*):

	December 31, 2016	December 31, 2015
Accounts payable, trade	$ 13,847	$ 7,790
Accrued compensation and other	28,507	21,948
Accrued operating expenses	17,048	21,923
Total accounts payable, accrued expenses and other liabilities	$ 59,402	$ 51,661

6. Income Taxes

Income tax expense is as follows (*in thousands*):

	December 31,		
	2016	2015	2014
Current tax expense:			
Federal	$ 16,274	$ 25,852	$ 20,244
State	2,929	3,450	4,429
Total current tax expense:	19,203	29,302	24,673
Deferred tax expense (benefit):			
Federal	(7,115)	(12,571)	(12,421)
State	(253)	(1,449)	131
Total deferred tax benefit:	(7,368)	(14,020)	(12,290)
Total income tax expense	$ 11,835	$ 15,282	$ 12,383

A reconciliation of the income tax expense calculated using the applicable federal statutory rate to the actual income tax expense is as follows (*in thousands*):

	December 31,					
	2016	%	2015	%	2014	%
Computed at federal statutory rate	$ 17,315	35.0	$ 13,934	35.0	$ 9,215	35.0
State and local tax expense, net of federal benefit	2,448	5.0	1,038	2.6	2,973	11.3
Net perm deduction and credit tax benefits from prior years	(6,213)	(12.6)	-	-	-	-
Net perm deduction and credit tax benefits from current year	(1,509)	(3.1)	-	-	-	-
Other, net	(206)	(0.4)	310	0.8	195	0.7
Total income tax expense	$ 11,835	23.9	$ 15,282	38.4	$ 12,383	47.0

The Company's effective tax rate decreased to 23.9% for the year ended December 31, 2016 from 38.4% for the year ended December 31, 2015, primarily due to the Company's recognition of tax benefits for R&D Credits and the Section 199 Deduction, as discussed below.

As a result of an analysis performed during 2016 the Company determined certain activities it performs qualify for (i) Research and Development Tax Credits ("R&D Credits") provided in Internal Revenue Code ("IRC") Section 41 and (ii) the U.S. Production activities deduction ("Section 199 Deduction") provided in IRC Section 199. During the third quarter of 2016, the Company determined it was economically viable to claim the R&D Credits and the Section 199 Deduction for all open tax years. As a result, the Company recognized net tax benefits during the year ended December 31, 2016 of $2.2 million and $5.7 million for federal and state R&D Credits and the Section 199 Deduction, respectively, relating to tax years 2012 through 2016.

Deferred income taxes are recognized for the future tax consequences of temporary differences between the financial statement and tax bases of assets and liabilities. The tax effect of temporary differences that give rise to a significant portion of the deferred tax assets and deferred tax liabilities are as follows (in thousands):

	December 31,	
	2016	2015
Deferred tax assets:		
Stock-based compensation	$ 10,373	$ 9,059
Goodwill and intangible assets	10,711	10,449
Allowance for doubtful accounts	4,108	1,766
Deferred rent	1,120	1,119
Tenant improvements	1,226	1,392
Estimated liability for appeals	11,596	-
Net operating loss carry-forwards	2,141	113
Property and equipment	79	-
Accrued expenses and other	7,811	6,298
Total deferred tax assets	49,165	30,196
Deferred tax liabilities:		
Goodwill and intangible assets	52,729	56,790
Section 481(a) adjustment	14,757	-
Property and equipment	-	894
Capitalized software cost	4,396	3,473
Total deferred tax liabilities	71,882	61,157
Total net deferred tax liabilities	$ 22,717	$ 30,961

Included in Other liabilities on the Consolidated Balance Sheets, are the total amount of unrecognized tax benefits of approximately $7.4 million and $1.3 million as of December 31, 2016 and 2015, respectively, (net of the federal benefit for state issues) that, if recognized, would favorably affect the Company's future effective tax rate. Also included in Other Liabilities on the Consolidated Balance Sheets, are accrued liabilities for interest expense and penalties related to unrecognized tax benefits of $0.6 million and $0.4 million as of December 31, 2016 and 2015, respectively. HMS includes interest expense and penalties in the provision for income taxes in the Consolidated Statements of Income. The amount of interest expense (net of federal and state income tax benefits) and penalties in the Consolidated Statements of Income for the years ended December 31, 2016, 2015 and 2014 was $0.2 million, $0.6 million and $0.4 million, respectively. The Company believes it is reasonably possible the amount of unrecognized tax benefits may decrease by $0.9 million during 2017, due to the expiration of the statute of limitations in various state jurisdictions.

A reconciliation of the beginning and ending amounts of unrecognized tax benefits are as follows *(in thousands)*:

	December 31,	
	2016	2015
Unrecognized tax benefits at January 1	$ 1,329	$ 1,329
Additions for tax positions taken during prior periods	763	565
Additions for tax positions taken during current period including amended prior years	5,931	-
Reductions related to the expiration of statutes of limitations	(590)	(565)
Unrecognized tax benefits at December 31	$ 7,433	$ 1,329

The Company increased the provision for unrecognized tax benefits by $5.9 million during the year ended December 31, 2016, related to tax benefits recognized associated with R&D Credits and the Section 199 Deduction for all open tax years.

At December 31, 2016, HMS had federal and state pre-tax net operating loss carryforwards of approximately $13.8 million, which will be available to offset future taxable income. If not used, these carryforwards will expire between 2020 and 2036.The Company files income tax returns with the U.S. Federal government and various state jurisdictions. HMS is no longer subject to

U.S. Federal income tax examinations for years before 2012. The Company received notification the Internal Revenue Service intends to audit years 2013 and 2014. HMS operates in a number of state and local jurisdictions, most of which have never audited the Company's records. Accordingly, HMS is subject to state and local income tax examinations based upon the various statutes of limitations in each jurisdiction. The Company is currently being examined by the State of New York.

7. Credit Agreement

During the years ended December 31, 2016 and 2015, no principal payments were made against the Company's revolving credit facility. The $197.8 million principal balance of the revolving credit facility is due in May 2018. The Company has commenced discussions to extend or refinance the revolving credit facility.

The Credit Agreement provides for an initial $500 million revolving credit facility, and, under specified circumstances, the revolving credit facility can be increased or one or more incremental term loan facilities can be added, provided that the incremental credit facilities do not exceed in the aggregate the sum of (a) $75 million plus (b) an additional amount not less than $25 million, so long as the total secured leverage ratio, calculated giving pro forma effect to the requested incremental borrowing and other customary and appropriate pro forma adjustment events, including any permitted acquisitions, is no greater than 2.5:1.0. The Company's obligations and any amounts due under the Credit Agreement are guaranteed by the Company's material 100% owned subsidiaries and secured by a security interest in all or substantially all of the Company's and the Company's subsidiaries' physical assets.

The Credit Agreement requires the Company to comply with certain principal financial covenants and other covenants, including a maximum consolidated leverage ratio reducing from 3.50:1.00 to 3.25:1.00 over the next five years and a minimum interest coverage ratio of 3.00:1.00. See Note 14 – "Subsequent Events" in our Notes to the Consolidated Financial Statements under Item 8. Consolidated Financial Statements and Supplementary Data for additional information regarding the amendment to our Credit Agreement.

The interest rates applicable to the revolving credit facility are, at the Company's option, either:

a) the LIBOR multiplied by the statutory reserve rate plus an interest margin ranging from 1.50% to 2.25% based on the Company's consolidated leverage ratio, or
b) a base rate (which is equal to the greatest of (i) Citibank's prime rate, (ii) the federal funds effective rate plus 0.50% and (iii) the one-month LIBOR plus 1.00% plus an interest margin ranging from 0.50% to 1.25% based on the Company's consolidated leverage ratio.

HMS pays an unused commitment fee on the revolving credit facility during the term of the Credit Agreement ranging from 0.375% to 0.50% per annum based on the consolidated leverage ratio.

Interest expense and the commitment fees on the unused portion of the Company's revolving credit facility are as follows (*in thousands*):

	December 31,		
	2016	**2015**	**2014**
Interest expense	$ 4,837	$ 4,117	$ 4,186
Commitment fees	$ 1,518	$ 1,513	$ 1,465

At December 31, 2016 and 2015, the unamortized balance of deferred financing costs was $2.8 million and $4.9 million, respectively. HMS amortized $2.1 million in December 31, 2016, 2015 and 2014, respectively, of interest expense related to the Company's deferred financing costs.

As part of a contractual agreement with a customer, the Company has an outstanding irrevocable letter of credit for $3.0 million, which was established against the existing revolving credit facility. On May 1, 2017, the expiration date of the letter of credit was extended to April 26, 2018.

8. Equity

(a) Share Repurchase

On July 30, 2015, the Company's Board of Directors approved a share repurchase program authorizing the repurchase of up to $75 million of the Company's common stock from time to time on the open market or in privately negotiated transactions. The repurchase program is authorized through July 30, 2017, and may be suspended or discontinued at any time. Repurchased shares will be available for use in connection with issuance under the Company's stock plans and for other corporate purposes. Repurchases may also be made under a Rule 10b5-1 plan, which would permit shares to be repurchased when HMS might otherwise be precluded from doing so under insider trading laws. The timing and amount of any shares repurchased under the program will be determined by management based on its evaluation of market conditions and other factors. During the year ended December 31, 2016, the Company repurchased $20 million of the Company's common stock pursuant to this authorization and 10b5-1 plans. All repurchases were made using cash resources.

Following are the Company's monthly stock repurchases for the fourth quarter of fiscal year 2016, all of which were made as part of publicly announced plans or programs:

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Program[(1)]	Maximum Approximate Dollar Value of Shares That May Yet Be Purchased Under the Program
October 1, 2016 to October 31, 2016	—	$ —	—	$ —
November 1, 2016 to November 30, 2016	570,717	17.61	570,717	15,000,000
December 1, 2016 to December 31, 2016	569,615	18.25	569,615	5,000,000
October 1, 2016 to December 31, 2016	**1,140,332**	**$ 17.93**	**1,140,332**	**$ 5,000,000**

(1) Represents shares repurchased through the Company's Share Repurchase Program publicly announced in August 2015.

(b) Preferred Stock

The Company's certificate of incorporation, as amended, authorizes the issuance of up to 5,000,000 shares of "blank check" preferred stock with such designations, rights and preferences as may be determined by the Company's Board of Directors. As of December 31, 2016, no preferred stock had been issued.

9. Employee Benefit Plan

The Company sponsors the 401(k) Plan for eligible employees. Eligible employees must complete 90 days of service in order to enroll in the 401(k) Plan. Participants may make voluntary contributions to the 401(k) Plan of up to 60% of their annual base pre-tax compensation not to exceed the federally determined maximum allowable contribution. In addition, the 401(k) Plan permits the Company to make discretionary contributions. During 2016, 2015 and 2014 HMS matched 100% of the first 3% of pay contributed by each eligible employee and 50% on the next 2% of pay contributed. These matching contributions vest immediately and are not in the form of the Company's common stock.

For the years ended December 31, 2016, 2015 and 2014, HMS contributed $4.8 million, $4.8 million and $5.0 million, respectively, to the 401(k) Plan in the form of matching contributions.

10. Stock-Based Compensation

Stock-Based Compensation Expense

Total stock-based compensation expense in the Company's Consolidated Statements of Income related to the Company's long-term incentive award plans was as follows *(in thousands)*:

	December 31,		
	2016	2015	2014
Cost of services-compensation	$ 3,805	$ 6,242	$ 5,075
Selling, general and administrative	9,472	8,055	8,280
Total	$ 13,277	$ 14,297	$ 13,355

Stock Options

Stock-based compensation expense related to stock options was approximately $6.9 million, $6.4 million and $7.6 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Presented below is a summary of stock option activity for the year ended December 31, 2016 (*in thousands except for weighted average exercise price and weighted average remaining contractual terms*):

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Terms	Aggregate Intrinsic Value
Outstanding balance at December 31, 2015	5,030	$ 17.37		
Granted	1,078	14.07		
Exercised	(511)	7.03		
Forfeitures	(67)	17.76		
Expired	(339)	22.67		
Outstanding balance at December 31, 2016	5,191	17.35	5.00	$ 12,854
Expected to vest at December 31, 2016	2,207	15.22	5.72	7,219
Exercisable at December 31, 2016	2,150	$ 20.25	4.02	$ 3,042

The weighted average grant date fair value per share of the stock options granted during the years ended December 31, 2016, 2015 and 2014 was $5.55, $5.37 and $7.59, respectively. HMS estimated the fair value of each stock option grant on the date of grant using a Black-Scholes option pricing model and weighted–average assumptions set forth in the following table:

	December 31,		
	2016	2015	2014
Expected dividend yield	—	—	—
Risk-free interest rate	1.20%	1.54%	1.57%
Expected volatility	44.01%	40.62%	38.18%
Expected life (years)	4.90	4.89	4.82

During the years ended December 31, 2016, 2015 and 2014, the Company issued 510,512, 577,559 and 516,552 shares, respectively, of the Company's common stock upon the exercise of outstanding stock options and received proceeds of

$2.9 million, $4.2 million and $4.1 million, respectively. The total intrinsic value of stock options exercised during the years ended December 31, 2016, 2015 and 2014 was $6.3 million, $5.9 million and $6.5 million, respectively.

As of December 31, 2016, there was approximately $12.7 million of total unrecognized compensation cost related to stock options outstanding, which is expected to be recognized over a weighted average period of 1.05 years.

The excess tax benefit from the exercise of stock options for the years ended December 31, 2016, 2015 and 2014 was $1.9 million, $1.6 million and $1.8 million, respectively.

Restricted Stock Units

Stock-based compensation expense related to restricted stock units was $6.4 million, $7.9 million and $5.7 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Presented below is a summary of restricted stock units activity for the year ended December 31, 2016 *(in thousands, except for weighted average grant date fair value per unit):*

	Number of Units	Weighted Average Grant Date Fair Value per Unit
Outstanding balance at December 31, 2015	1,154	$18.85
Granted	637	14.26
Vesting of restricted stock units, net of units withheld for taxes	(193)	18.64
Units withheld for taxes	(102)	18.64
Forfeitures	(83)	16.95
Outstanding balance at December 31, 2016	1,413	$16.44

As of December 31, 2016, 1,231,736 restricted stock units remained unvested and there was approximately $14.1 million of unrecognized compensation cost related to restricted stock units, which is expected to be recognized over a weighted average vesting period of 0.92 years.

11. Earnings per Share

The following table sets forth the computation of basic and diluted earnings per share *(in thousands, except per share data)*:

	Years ended December 31,		
	2016	2015	2014
Net income	$ 37,636	$ 24,527	$ 13,947
Weighted average common shares outstanding-basic	84,221	87,881	87,673
Plus: net effect of dilutive stock options and restricted stock units	2,766	480	491
Weighted average common shares outstanding-diluted	86,987	88,361	88,164
Net income per common share-basic	$ 0.45	$ 0.28	$ 0.16
Net income per common share-diluted	$ 0.43	$ 0.28	$ 0.16

For the years ended December 31, 2016, 2015 and 2014, 2,070,771, 3,480,458 and 2,442,628 stock options, respectively, were not included in the diluted earnings per share calculation because the effect would have been anti-dilutive. For the years ended December 31, 2016, 2015 and 2014, restricted stock units representing 46,651, 305,999 and 90,905 shares of common stock, respectively, were not included in the diluted earnings per share calculation because the effect would have been anti-dilutive.

12. Commitments and Contingencies

(a) Lease Commitments

The Company leases office space, data processing equipment and software licenses under operating leases that expire on various dates through 2024. The lease agreements provide for rent escalations. Lease expense, exclusive of sublease income, for the year ended December 31, 2016, 2015 and 2014 was $5.0 million, $5.4 million and $6.9 million, respectively. Lease and sublease income was approximately $27,000, $25,000 and $42,000 for the years ended December 31, 2016, 2015 and 2014, respectively.

Minimum annual lease payments to be made both under capital leases and operating leases, net of nominal sublease payments to be received for each of the next five years ending December 31 and thereafter are as follows (*in thousands*):

	Capital Lease Payments		Operating Lease Payments	
2017	$	4	$	16,077
2018		-		6,304
2019		-		4,294
2020		-		3,815
2021		-		3,226
Thereafter		-		4,852
Total		4	$	38,568
Less: Interest		-		
Total	$	4		

(b) Litigation

Dennis Demetre and Lori Lewis: In July 2012, Dennis Demetre and Lori Lewis (the "Plaintiffs"), filed an action in the Supreme Court of the State of New York against HMS Holdings Corp., claiming an undetermined amount of damages alleging that various actions by HMS unlawfully deprived the Plaintiffs of the acquisition earn-out portion of the purchase price for Allied Management Group Special Investigation Unit ("AMG") under the applicable Stock Purchase Agreement (the "SPA") and that HMS had breached certain contractual provisions under the SPA. The Plaintiffs filed a second amended complaint with two causes of action for breach of contract and one cause of action for breach of implied covenant of good faith and fair dealing. HMS asserted a counterclaim against Plaintiffs for breach of contract based on contractual indemnification costs, including attorneys' fees arising out of the Company's defense of AMG in *Kern Health Systems v. AMG, Dennis Demetre and Lori Lewis* (the "California Action"), which are recoverable under the SPA. Mediation took place in September 2014 but the matter was not resolved. In June 2016, Kern Health Systems and AMG entered into a settlement agreement that resolved all claims in the California Action.

In January 2016, HMS moved for summary judgment on its counterclaim for breach of contract and for summary judgment on the Plaintiffs' breach of contract causes of action against HMS (HMS did not move for summary judgment on Plaintiffs' breach of implied covenant of good faith and fair dealing claim). The motions were argued on June 22, 2016. A decision on the motions has not yet been issued by the Court and a trial date has not been set. HMS continues to believe that the Plaintiffs' claims are without merit and will continue to vigorously defend against them.

Shareholder Proceedings: On March 3, 2017, a putative securities class action was filed in the Federal District Court for the District of New Jersey, entitled *Danahar v. HMS Holdings Corp., et al*. The complaint names the Company, its Chief Executive Officer, and its Chief Financial Officer as defendants and arises out of the Company's disclosure on March 2, 2017 that the filing of its 2016 Form 10-K would be delayed in order to permit the Company to complete the Company's previously disclosed review of its estimated liability for appeals and related internal control over financial reporting, and that the Company's auditor had informed the Company that it had identified what it believed was a material weakness in the Company's internal control over financial reporting related to the CMS reserves. The complaint alleges that the Company's Form 10-K for the period ended December 31, 2015 and its quarterly reports on Form 10-Q for the period January 1, 2016 to September 30, 2016 were false and misleading for failing to disclose the matters set forth above. On May 19, 2017, the New Jersey District Court granted the

defendants' motion to transfer the action to the United States District Court for the Northern District of Texas. The action is at its early stages, and the Company has not yet responded to the complaint.

From time to time, HMS may be subject to investigations, legal proceedings and other disputes arising in the ordinary course of the Company's business, including but not limited to regulatory audits, billing and contractual disputes, employment-related matters and post-closing disputes related to acquisitions. Due to the Company's contractual relationships, including those with federal and state government entities, HMS's operations, billing and business practices are subject to scrutiny and audit by those entities and other multiple agencies and levels of government, as well as to frequent transitions and changes in the personnel responsible for oversight of the Company's contractual performance. HMS may have contractual disputes with its customers arising from differing interpretations of contractual provisions that define the Company's rights, obligations, scope of work or terms of payment, and with associated claims of liability for inaccurate or improper billing for reimbursement of contract fees, or for sanctions or damages for alleged performance deficiencies. Resolution of such disputes may involve litigation or may require that HMS accept some amount of loss or liability in order to avoid customer abrasion, negative marketplace perceptions and other disadvantageous results that could affect the Company's business, financial condition, results of operations and cash flows.

HMS records accruals for outstanding legal matters when it believes it is probable that a loss will be incurred and the amount can be reasonably estimated. The Company evaluates, on a quarterly basis, developments in legal matters that could affect the amount of any accrual and developments that would make a loss contingency both probable and reasonably estimable. If a loss contingency is not both probable and estimable, HMS does not establish an accrued liability.

13. Customer Concentration

(a) Geographic Information

The Company operates within the United States.

(b) Major Customers

For the years ended December 31, 2016, 2015 and 2014 no one individual Company customer accounted for more than 10% of the Company's total revenue.

(c) Concentration of Revenue

The composition of the Company's ten largest customer's changes periodically. For the years ended December 31, 2016, 2015 and 2014, the Company's ten largest customers represented 40.6%, 44.0% and 40.1% of HMS' total revenue, respectively. The Company's agreements with the ten current largest customers expire between 2017 and 2020. In many instances, HMS provides services pursuant to agreements that may be renewed or subject to a competitive reprocurement process. Several of the Company's contracts, including those with some of its largest customers, may be terminated for convenience.

14. Subsequent Events

(a) Credit Agreement

On March 8, 2017, Amendment No. 1 to the Credit Agreement was executed which amended, among other things, the Company's requirement to furnish to Citibank, N.A., as administrative agent, and the lenders party to the Credit Agreement, financial statements and other information within 90 days of the fiscal year end to 180 days for the fiscal year ended December 31, 2016. These financial statements include the audited consolidated balance sheet and related statements of income, stockholders' equity and cash flows of the Company and its subsidiaries.

(b) Eliza Holding Corp. Acquisition

On April 17, 2017, the Company completed its previously announced acquisition of Eliza Holding Corp. ("Eliza"), a Delaware Company, pursuant to an Agreement and Plan of Merger dated March 10, 2017 (the "Merger Agreement"), for a cash purchase

price of approximately $172.0 million, after adjustments for working capital, cash, transaction expenses and indebtedness. The acquisition was funded with available liquidity, consisting of approximately 75% cash on hand and approximately 25% of borrowings under the Company's credit facility. The purchase price is subject to certain post-closing purchase price adjustments. The Merger Agreement was entered into by and among the Company, Echo Acquisition Sub, Inc., a Delaware corporation and an indirect wholly owned subsidiary of the Company (the "Merger Sub"), Eliza, and Parthenon Investors III, L.P., a Delaware limited partnership, solely in its capacity as the representative for equity holders of Eliza. Under the terms of the Merger Agreement, the Merger Sub merged with and into Eliza (the "Merger") and Eliza continued as the surviving corporation becoming an indirect wholly owned subsidiary of the Company.

The Merger Agreement contains customary representations, warranties and covenants. The Merger Agreement also contains indemnification provisions that are subject to specified limitations, including recourse to a representation and warranty insurance policy for certain losses.

In connection with the preparation of these audited consolidated financial statements, an evaluation of subsequent events was performed through the date these audited consolidated financial statements were issued and, other than the events above, there are no other events that have occurred that would require adjustments or disclosure to the Company's audited consolidated financial statements.

15. Quarterly Financial Data (Unaudited)

The table below summarizes the Company's unaudited quarterly operating results for the last two fiscal years (*in thousands, except per share amounts*):

Year ended December 31, 2016	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Revenue	$ 119,763	$ 123,550	$ 124,604	$ 125,590
Operating income	$ 9,909	$ 16,352	$ 12,650	$ 18,758
Net income	$ 4,560	$ 8,566	$ 13,508	$ 11,002
Net income per common share - basic	$ 0.05	$ 0.10	$ 0.16	$ 0.13
Net income per common share - diluted	$ 0.05	$ 0.10	$ 0.16	$ 0.13
Revenue, as reported	$ 119,763	$ 123,550	$ 124,604	$ 125,590
Revenue, as revised	$ 119,758	$ 121,512	$ 122,860	
Selling, general and administrative expenses, as reported	$ 22,930	$ 22,227	$ 24,875	$ 23,136
Selling, general and administrative expenses, as revised	$ 22,925	$ 20,189	$ 23,131	

During the fourth quarter of 2016, the Company identified a material weakness in accounting for its accounts receivable allowance, resulting in overstatements of revenue and of selling, general and administrative expenses for the quarters ended March 31, 2016 of $5,050, June 30, 2016 of $2,038,000, and September 30, 2016 of $1,744,244. Due to the immaterial nature of the error, the Company revised the quarterly financial information above, and will revise the quarterly information for 2016 when it is presented in future filings.

Year ended December 31, 2015	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Revenue	$ 110,324	$ 116,934	$ 118,444	$ 128,514
Operating income	$ 7,981	$ 11,752	$ 13,016	$ 14,823
Net income	$ 3,522	$ 5,418	$ 6,862	$ 8,725
Net income per common share - basic	$ 0.04	$ 0.06	$ 0.08	$ 0.10
Net income per common share - diluted	$ 0.04	$ 0.06	$ 0.08	$ 0.10

SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS
For the years ended December 31, 2016, 2015 and 2014

Accounts receivable allowance and Estimated liability for appeals as of December 31, 2016, 2015 and 2014 are as follows:

Accounts receivable allowance *(in thousands)*:

	Balance at Beginning of Year	Provision	Recoveries	Charge-offs	Balance at End of Year
Year ended December 31, 2014	$ 15,899	12,861	(17)	(19,384)	$ 9,359
Year ended December 31, 2015	$ 9,359	8,046	(100)	(5,841)	$ 11,464
Year ended December 31, 2016	$ 11,464	21,583	108	(22,383)	$ 10,772

Estimated liability for appeals *(in thousands)*:

	Balance at Beginning of Year	Provision	Appeals found in providers favor	Balance at End of Year
Year ended December 31, 2014	$ 19,853	1,459	(1,998)	$ 19,314
Year ended December 31, 2015	$ 19,314	2,610	(9,123)	$ 12,801
Year ended December 31, 2016	$ 12,801	721	(2,396)	$ 11,126

The above chart represents the CMS estimated reserve liability only. See Note 1 - "Business and Summary of Significant Accounting Policies" in our Notes to the Consolidated Financial Statements under Item 8. Consolidated Financial Statements and Supplementary Data for additional information regarding the estimated liability for appeals.

HMS HOLDINGS CORP. AND SUBSIDIARIES
Exhibit Index

Where an exhibit is filed by incorporation by reference to a previously filed registration statement or report, such registration statement or report is identified after the description of the exhibit.

Exhibit Number	Description
2.1	Agreement and Plan of Merger among Health Management Systems, Inc., HMS Holdings Corp. and HMS Acquisition Corp. dated December 16, 2002 (incorporated by reference to Exhibit A to HMS Holdings Corp.'s Prospectus and Proxy Statement (Reg No. 333-100521) as filed with the SEC on January 24, 2003)
2.2	Agreement and Plan of Merger, between the HMS Holdings Corp., a Delaware corporation and HMS Holdings Corp., a New York corporation dated July 17, 2013 (incorporated by reference to Exhibit 2.1 to HMS Holding Corp.'s Current Report on Form 8-K/12g-3 (File No. 000-50194) as filed with the SEC on July 23, 2013)
3.1	Conformed copy of Certificate of Incorporation of HMS Holdings Corp., as amended through July 9, 2015 (incorporated by reference to Exhibit 3.1 to HMS Holding Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on August 10, 2015)
3.2	Amended and Restated Bylaws of HMS Holdings Corp. dated May 4, 2016 (incorporated by reference to Exhibit 3.2 to HMS Holdings Corp.'s Current Report on Form 8-K (File No. 000-50194) as filed with the SEC on May 5, 2016)
4.1	Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.1 to HMS Holding Corp.'s Current Report on Form 8-K/12g-3 (File No. 000-50194) as filed with the SEC on July 23, 2013)
4.2	See Exhibits 3.1 and 3.2 for provisions defining the rights of holders of common stock of HMS Holdings Corp.
10.1†	HMS Holdings Corp. Fourth Amended and Restated 2006 Stock Plan (the "2006 Stock Plan") (incorporated by reference to Exhibit 3.1 to HMS Holdings Corp.'s Current Report on Form 8-K (File No. 000-50194) as filed with the SEC on July 12, 2011)
10.2†	Amendment No. 1 to the 2006 Stock Plan (incorporated by reference to Exhibit 10.6 to HMS Holdings Corp.'s Annual Report on Form 10-K (File No. 000-50194) as filed with the SEC on February 29, 2012)
10.3†	Form of 2010 Director Non-Qualified Stock Option Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.2 to HMS Holdings Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on November 8, 2010)
10.4†	Form 2010 Employee Non-Qualified Stock Option Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.4 to HMS Holdings Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) filed with the SEC on November 8, 2010)
10.5†	Form of 2011 Director Non-Qualified Stock Option Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.16 to HMS Holdings Corp.'s Annual Report on Form 10-K (File No. 000-50194) as filed with the SEC on February 29, 2012)
10.6†	Form of 2011 Employee Non-Qualified Stock Option Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.18 to HMS Holdings Corp.'s Annual Report on Form 10-K (File No. 000-50194) as filed with the SEC on February 29, 2012)
10.7†	Form of 2012 Director Non-Qualified Stock Option Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.20 to HMS Holdings Corp.'s Annual Report on Form 10-K (File No. 000-50194) as filed with the SEC on March 1, 2013)
10.8†	Form of 2012 Executive Non-Qualified Stock Option Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.22 to HMS Holdings Corp.'s Annual Report on Form 10-K (File No. 000-50194) as filed with the SEC on March 1, 2013)

Exhibit Number	Description
10.9†	Form of 2013 Executive Restricted Stock Unit Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.24 to HMS Holdings Corp.'s Annual Report on Form 10-K (File No. 000-50194) as filed with the SEC on March 1, 2013)
10.10†	Form of 2013 Director Non-Qualified Stock Option Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.1 to HMS Holding Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on May 12, 2014)
10.11†	Form of 2013 Executive Non-Qualified Stock Option Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.3 to HMS Holding Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on May 12, 2014)
10.12†	Form of March 2014 Executive Restricted Stock Unit Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.4 to HMS Holding Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on May 12, 2014)
10.13†	Form of November 2014 Executive Restricted Stock Unit Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.1 to HMS Holding Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on November 10, 2014)
10.14†	Form of 2014 Director Non-Qualified Stock Option Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.26 to HMS Holding Corp.'s Annual Report on Form 10-K (File No. 000-50194) as filed with the SEC on March 2, 2015)
10.15†	Form of 2014 Executive Non-Qualified Stock Option Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.28 to HMS Holding Corp.'s Annual Report on Form 10-K (File No. 000-50194) as filed with the SEC on March 2, 2015)
10.16†	Form of March 2015 Executive Non-Qualified Stock Option Agreement under the 2006 Stock Plan (incorporated by reference Exhibit 10.1 to HMS Holding Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on May 11, 2015)
10.17†	Form of March 2015 Executive Restricted Stock Unit Agreement under the 2006 Stock Plan (incorporated by reference Exhibit 10.2 to HMS Holding Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on May 11, 2015)
10.18†	Form of 2015 Director Non-Qualified Stock Option Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.21 to HMS Holdings Corp.'s Annual Report on Form 10-K (File No. 000-50194) as filed with the SEC on March 1, 2016)
10.19†	Form of 2015 Director Restricted Stock Unit Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.22 to HMS Holdings Corp.'s Annual Report on Form 10-K (File No. 000-50194) as filed with the SEC on March 1, 2016)
10.20†	Form of November 2015 Executive Non-Qualified Stock Option Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.23 to HMS Holdings Corp.'s Annual Report on Form 10-K (File No. 000-50194) as filed with the SEC on March 1, 2016)
10.21†	Form of 2016 Executive and Senior Vice President Non-Qualified Stock Option Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.1 to HMS Holdings Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on May 10, 2016)
10.22†	Form of 2016 Executive and Senior Vice President Restricted Stock Unit Agreement under the 2006 Stock Plan (incorporated by reference to Exhibit 10.2 to HMS Holdings Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on May 10, 2016)
10.23†	HMS Holdings Corp. 2016 Omnibus Incentive Plan ("the "2016 Omnibus Plan") (incorporated by reference to Exhibit 10.2 to HMS Holdings Corp.'s Current Report on Form 8-K (File No. 000-50194) as filed with the SEC on June 27, 2016)

Exhibit Number	Description
10.24†	Form of Non-Qualified Stock Option Award Agreement for Employees under the 2016 Omnibus Plan (incorporated by reference to Exhibit 10.1 to HMS Holdings Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on November 9, 2016)
10.25†	Form of Restricted Stock Unit Award Agreement for Employees under the 2016 Omnibus Plan (incorporated by reference to Exhibit 10. to HMS Holdings Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on November 9, 2016)
10.26†	Form of Non-Qualified Stock Option Award Agreement for Non-Employee Directors under the 2016 Omnibus Plan (incorporated by reference to Exhibit 10.3 to HMS Holdings Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on November 9, 2016)
10.27†	Form of Restricted Stock Unit Award Agreement for Non-Employee Directors under the 2016 Omnibus Plan (incorporated by reference to Exhibit 10.4 to HMS Holdings Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on November 9, 2016)
10.28†	HDI Holdings, Inc. Amended 2011 Stock Option and Stock Issuance Plan (the "HDI 2011 Stock Plan") (incorporated by reference to Exhibit 10.21 to HMS Holdings Corp.'s Annual Report on Form 10-K (File No. 000-50194) as filed with the SEC on February 29, 2012)
10.29†	Form of 2011 Employee Non-Qualified Stock Option Agreement under the HDI 2011 Stock Plan (incorporated by reference to Exhibit 10.22 to HMS Holdings Corp.'s Annual Report on Form 10-K (File No. 000-50194) as filed with the SEC on February 29, 2012)
10.30†	Executive Employment Agreement between William C. Lucia and HMS Holdings Corp. dated March 1, 2013 (incorporated by reference to Exhibit 10.20 to HMS Holdings Corp.'s Annual Report on Form 10-K (File No. 000-50194) as filed with the SEC on March 1, 2013)
10.31†	Letter of Amendment to Executive Employment Agreement between William C. Lucia and HMS Holdings Corp. dated April 30, 2013 (incorporated by reference to Exhibit 10.1 to Amendment No. 1 to HMS Holdings Corp.'s Annual Report on Form 10-K/A (File No. 000-50194) as filed with the SEC on April 30, 2013)
10.32†	Second Amendment to Executive Employment Agreement between HMS Holdings Corp. and William C. Lucia dated January 20, 2015 (incorporated by reference to Exhibit 10.1 to HMS Holding Corp.'s Current Report on Form 8-K (Filed No. 000-50194) as filed with the SEC on January 23, 2015)
10.33†	Employment Agreement between Jeffrey S. Sherman and HMS Holdings Corp. dated July 28, 2014 (incorporated by reference to Exhibit 10.1 to HMS Holdings Corp.'s Current Report on Form 8-K (File No. 000-50194) as filed with the SEC on September 8, 2014)
10.34†	Employment Agreement between Semone Wagner and HMS Holdings Corp. dated January 16, 2013 (incorporated by reference to Exhibit 99.2 to HMS Holding Corp.'s Annual Report on Form 10-K (File No. 000-50194) as filed with the SEC on March 3, 2014)
10.35†	Employment Agreement between Cynthia Nustad and HMS Business Services, Inc. dated May 15, 2012 (incorporated by reference to Exhibit 10.47 to Amendment No. 1 to HMS Holding Corp.'s Annual Report on Form 10-K/A (File No. 000-50194) as filed with the SEC on April 30, 2015)
10.36†	Employment Agreement between Douglas M. Williams and HMS Holdings Corp. dated November 13, 2013 (incorporated by reference to Exhibit 10.33 to HMS Holdings Corp.'s Annual Report on Form 10-K (File No. 000-50194) as filed with the SEC on March 1, 2016)
10.37†	Form of Indemnification Agreement (incorporated by reference to Exhibit 10.1 to HMS Holdings Corp.'s Current Report on Form 8-K (File No. 000-50194) as filed with the SEC on August 6, 2014)
10.38†	HMS Holdings Corp. Director Deferred Compensation Plan, as amended through June 29, 2016 (incorporated by reference to Exhibit 10.3 to HMS Holdings Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on August 9, 2016)

Exhibit Number	Description
10.39†	2016 HMS Holdings Corp. Annual Incentive Compensation Plan as amended and restated (incorporated by reference to Exhibit 10.1 to HMS Holdings Corp.'s Current Report on Form 8-K (File No. 000-50194) as filed with the SEC on June 27, 2016)
10.40	Credit Agreement dated May 3, 2013 among HMS Holdings Corp., the Guarantors Party thereto, the Lenders party thereto and Citibank, N.A. as Administrative Agent (incorporated by reference to Exhibit 10.1 to HMS Holdings Corp.'s Current Report on Form 8-K (File No. 000-50194) as filed with the SEC on May 6, 2013)
10.41	HDI Lease between New Russell One LLC and HMS Business Services, Inc. dated February 27, 2014 (incorporated by reference to Exhibit 10.5 to HMS Holdings Corp.'s Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on May 12, 2014)
21.1*	HMS Holdings Corp. List of Subsidiaries
23.1*	Consent of Independent Registered Public Accounting Firm
31.1*	Rule 13a-14(a)/15d-14(a) Certification of the Principal Executive Officer of HMS Holdings Corp., as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Rule 13a-14(a)/15d-14(a) Certification of the Principal Financial Officer of HMS Holdings Corp., as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1‡	Section 1350 Certification of the Principal Executive Officer of HMS Holdings Corp., as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2‡	Section 1350 Certification of the Principal Financial Officer of HMS Holdings Corp., as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

† Indicates a management contract or compensatory plan, contract or arrangement

* Filed herewith

‡ Furnished herewith

(This page has been left blank intentionally.)

Appendix A
HMS Holdings Corp. and Subsidiaries

Reconciliation of Net Income to EBITDA and Adjusted EBITDA
(in thousands)

	FY 2016	FY 2015
Net income	$ 37,636	$ 24,527
Net interest expense	8,198	7,763
Income taxes	11,835	15,282
Depreciation and amortization, net of deferred financing costs, included in net interest expense	44,930	50,598
Earnings before interest, taxes, depreciation and amortization (EBITDA)	$ 102,599	$ 98,170
Stock based compensation expense	13,277	14,297
Non-recurring legal fees [(1)]	1,563	——
Adjusted EBITDA	$ 117,439	$ 112,467

(1) In periods prior to 2016, legal fees related to disputes involving PCG were not included in adjusted earnings because they were not considered non-recurring at the time. For the twelve months ended December 31, 2015, related legal fees were $5.5 million.

Reconciliation of Net Income to GAAP EPS and Adjusted EPS
(in thousands, except per share amounts)

	FY 2016	FY 2015
Net income	$ 37,636	$ 24,527
Stock-based compensation	13,277	14,297
Non-recurring legal fees [(1)]	1,563	——
Amortization of acquisition related software and intangible assets	28,030	28,148
Income tax related adjustments	(15,536)	(16,295)
Sub-total	$ 64,970	$ 50,677
Weighted average common shares, diluted	86,987	88,361
Diluted GAAP EPS	$ 0.43	$ 0.28
Diluted Adjusted EPS	$ 0.75	$ 0.57

(1) Legal fees related to disputes involving PCG were not considered non-recurring in 2015. For the twelve months ended December 31, 2015, related legal fees were approximately $5.5 million and income taxes on related legal fees were approximately $2.1 million or the equivalent of $0.04 per diluted Adjusted EPS.

Board of Directors:

Alex M. Azar II
Chairman, Seraphim Strategies, LLC
Former President, Lilly USA, LLC

Robert Becker
Former President and Chief Executive Officer, Wolters Kluwer Health

Craig R. Callen
Former Senior Advisor, Crestview Partners

William C. Lucia
Chairman of the Board,
President and Chief Executive Officer, HMS Holdings Corp.

William F. Miller III
Healthcare Industry Advisor, KKR Advisors
Former Chairman of the Board and Chief Executive Officer,
HMS Holdings Corp.

Ellen A. Rudnick
Senior Advisor for Entrepreneurship, adjunct faculty,
Polsky Center for Entrepreneurship and Innovation,
University of Chicago Booth School of Business

Bart M. Schwartz
Chairman and Chief Executive Officer,
SolutionPoint International, LLC

Richard H. Stowe
Lead Independent Director, HMS Holdings Corp.
General Partner, Health Enterprise Partners, LP

Cora M. Tellez
President and Chief Executive Officer, Sterling HSA

Executive Officers:

William C. Lucia
Chairman of the Board,
President and Chief Executive Officer

Meredith W. Bjorck
Executive Vice President,
General Counsel and Corporate Secretary

Semone Neuman
Executive Vice President, Operations and Information Technology

Cynthia Nustad
Executive Vice President and Chief Strategy Officer

Jeffrey S. Sherman
Executive Vice President,
Chief Financial Officer and Treasurer

Tracy A. South
Executive Vice President,
Human Resources and Chief Administrative Officer

Douglas M. Williams
President, Markets and Product

Corporate Headquarters:

5615 High Point Drive
Irving, TX 75038
Tel. 214.453.3000
Fax. 214.453.3023

Form 10-K Report/Quarterly Reporting

The Company's 2016 Form 10-K, as filed with the SEC, is included in this Annual Report in its entirety with the exception of certain exhibits. Copies of the Company's quarterly earnings results and additional copies of the 2016 Form 10-K, including all exhibits, are available on the Internet at http://investor.hms.com/sec.cfm or by accessing our filings with the SEC. In addition, shareholders may obtain a paper copy of these materials upon request from our Office of Investor Relations by emailing dennis.oakes@hms.com.

Stock Registrar and Transfer Agent

Common stock of HMS Holdings Corp. is traded on the NASDAQ Stock Exchange under the symbol HMSY. Questions with regard to registered shares of HMSY should be submitted to: HMS Holdings Corp. c/o Broadridge Corporate Issuer Solutions, Inc., P.O. Box 1342, Brentwood, NY 11717. Phone: 855.418.5059. Email: shareholder@broadridge.com. Internet: http://www.broadridge.com.

© 2017 HMS Holdings Corp.