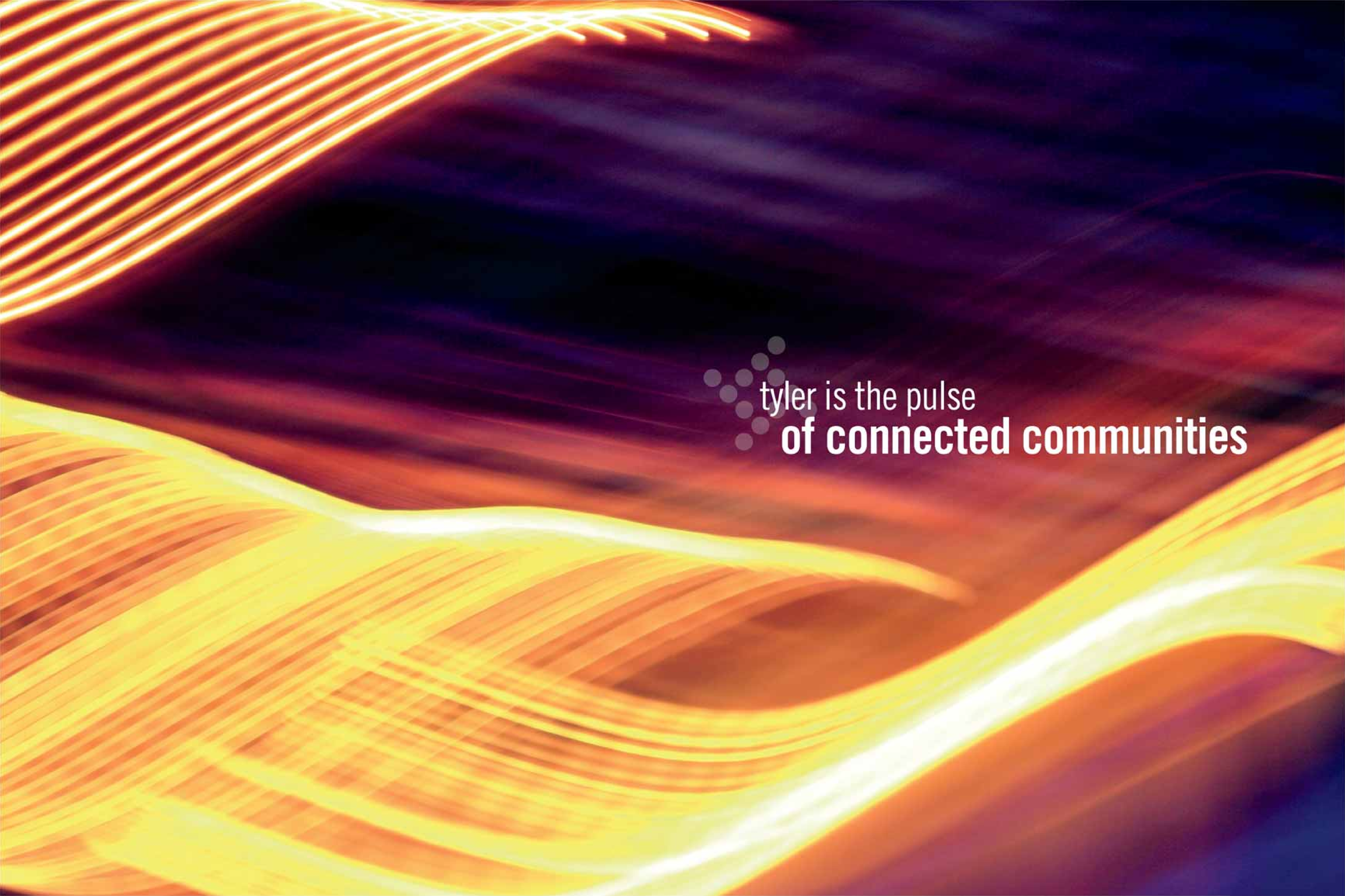
ANNUAL REPORT 2016


tyler is the pulse
of connected communities

what is a connected community?

Imagine the community of the future.

The kind of community you want to live in.
It's safe. It's clean. It's prosperous.
Everything works as it should.

It's a community with a vibe. **An energy that hums with life and purpose.** You can't quite put your finger on it, but you can **feel** it. It's a place where you feel like part of something **bigger than yourself**.

That's a **connected community.**

It's made possible by seamlessly connecting data, **people and processes**, and letting **technology** work behind the scenes to make local government and schools **work better**, so **every community and its citizens thrive.**

> "It's a community where citizens feel connected to their government, and it's about the governments themselves, and the organizations within them, being connected to each other and to other jurisdictions."
>
> — Jeff Green, Chief Technology Officer

to our shareholders

In October 2016, Tyler Technologies' leaders commemorated our company's 50th anniversary by ringing The NYSE Closing Bell® on the New York Stock Exchange. Even though Tyler was founded in 1966, it was 1998 that marked the move to our singular focus on software for the local government market. This decision has led to steady and remarkable performance, and 2016 marked another year of extraordinary success in the growth of our business.

Our competitive position in the local government software market reached an impressive high in 2016. Historically, we've invested in our products to not only earn more business, but to better fulfill our mission of empowering those who serve the public sector. Having successfully built and reinforced our leadership position with multiple best-in-class products for major, essential parts of government, we are now ready for the next phase of Tyler's development — connecting communities through seamless integration. By developing technologies to enable our clients to share data between departments and agencies that traditionally have been siloed, Tyler will be unique in its ability to empower our clients for their future as connected communities.

"We believe that, together with our clients, we have a unique opportunity and responsibility to create a more efficient public sector and a more just society."

— Bruce Graham, Chief Strategy Officer

FINANCIAL STRENGTH

In 2016, we continued to see improving win rates and growth in market share driven by individual successes across product suites. Our focus on delivering best-of-breed solutions and services has resulted in strong financial performance, with 16 years of positive net income, and positions us well for what lies ahead.

Tyler's revenues grew 28 percent to $756 million, with 12 percent organic growth. GAAP net income for the year was $110 million, or $2.82 per diluted share, up 69 percent. Non-GAAP net income rose more than 46 percent to $136 million, or $3.49 per diluted share. Our non-GAAP operating margin improved 260 basis points to 28 percent. Bookings were the highest in company history at $880 million, up 32 percent over 2015, $72 million of which was due to a four-year extension of Tyler's eFileTexas™ agreement. Total backlog also reached a new high of $953 million, up 13 percent from 2015. Our cloud business continued to generate interest and exhibit strength, increasing 27 percent over 2015, of which 24 percent was organic. Annual revenue from software licenses and royalties was up more than 25 percent from 2015.

Our balance sheet remains exceptionally strong, with $70 million in cash and investments and only $10 million of debt at the end of 2016. Cash provided by operations also reached a new high in 2016 at $192 million, an increase of 43 percent from 2015. During the year, we paid down $56 million of net debt, repurchased $113 million of our common stock, and spent $18 million on office facilities in Yarmouth and Falmouth, Maine, while investing in product development at an elevated level.

CONTINUED INVESTMENT

Our management team has always focused on converting our strong cash flow into shareholder value through strategic acquisitions and stock repurchases. We are well positioned to continue to expand our market presence by acquiring market leaders, as we did with the acquisition of New World Systems Corporation in late 2015. We made great progress with the integration of New World in 2016, from both an operational and a product perspective, and we are continuing to invest at a high level in Tyler's New World™ public safety products to strengthen our competitive position and broaden our addressable market. In June 2016 we acquired ExecuTime Software, which provides time and attendance solutions that complement and supplement Tyler's enterprise resource planning (ERP) solutions.

Our strong financial performance in 2016 reflects our patience-driven, long-term strategy of investment that has fueled growth and delivered value to our clients, shareholders and employees. Our long-term strategy is to continue to invest in our products at a high level while seeking strategic acquisitions that enhance our offerings and expand our reach. Ultimately, this strategy will facilitate our evolution from a company with multiple, very successful products to a more unified Tyler with integrated suites of complementary products. This will give our clients the unprecedented ability to share data across agencies and jurisdictions, leading to synergistic efficiencies, more informed decision-making, better transparency and improved service to their constituents.

EXPERIENCED LEADERSHIP

One of Tyler's greatest strengths is the depth and experience of our management team. To support Tyler's growth and evolution as a company, we made changes in roles on our senior leadership team, as well as organizational structure changes that will further our move toward more unified and integrated suites of products, and streamlined sales and operations channels. Our five independent divisions were organized into two groups that have affinity and synergy with each other — Enterprise, led by Andy Teed, and Justice, led by Bret Dixon. H. Lynn Moore Jr. was named president, effective January 1, 2017, and I became chairman of the board while continuing as chief executive officer. Lynn has served as a Tyler leader and close executive adviser for many years and, as president, will work with me to continue the management and culture that have made us successful as a company.

These changes enable us to continue and expand our focus on strategy and innovative development while our strong division leadership continues to focus on efficient performance and outstanding execution of our business operations. We believe continued investment combined with experienced operational leadership will make Tyler even more competitive by allowing us to reach into new markets and strengthen our presence in existing ones. In addition, our integration strategy will help our clients benefit from connected solutions, advancing the way they use technology and helping their communities thrive. We appreciate the support of our shareholders, clients and employees as we execute our mission of empowering people who serve the public.

John S. Marr Jr.
Chairman of the Board and
Chief Executive Officer
March 17, 2017

how far we've come

1999

At the cusp of the new millennium, Tyler had an opportunity to redefine the way government works at the local level. It focused on an ambitious goal:

"Our mission to make local government more accessible, responsive and efficient through innovative e-government systems and solutions has implications for virtually every individual and every type of business . . . The years ahead will be exciting as we deploy our combined knowledge and technological resources to bring this vision to reality."

— Tyler Technologies 1999 Annual Report

2000

Tyler's 2000 annual report described our early strategy for achieving our goal of becoming the "country's largest company focused solely on providing software and services to the local government market." We've executed on that strategy, acquiring best-of-breed companies and investing in our products to earn more business.

"Three years ago, we targeted for acquisition the premier companies in the highly fragmented local government IT market. These geographically diverse companies offered a variety of products and services, but had several characteristics in common — including strong customer relationships, a reputation for quality and service, and a history of profitable growth. By bringing together these market niche leaders, we built the country's largest company focused solely on providing software and services to the local government market."

— Tyler Technologies 2000 Annual Report

Tyler's employees and shareholders can take pride in having successfully executed the initial objectives of the Tyler strategy and look forward with optimism to the opportunities that lie ahead.

the next horizon

As successful as we have been in achieving our initial objectives, there is still work to do before we fully realize this vision of market leadership for every one of our solutions. To achieve this, we have defined a strategy for continued growth and developed a plan for connecting product suites across vertical solutions.

While we've achieved high win rates and clear leadership positions with many of our products, we cannot expect to continue to achieve our targets for double-digit growth by simply improving Tyler's competitive position. In order to meet our goals, we also need to expand our addressable market within the public sector, both geographically and by expanding our product offerings. While most of that growth will come organically through investing in Tyler's products and services, we also will continue to make strategic acquisitions to enhance and expand our product suites.

EVALUATING AND INTEGRATING ACQUISITIONS

We have historically supplemented our organic growth with targeted strategic acquisitions. In many cases, the acquisitions have brought products, services or technologies that expand and complement our existing offerings. For example, with the acquisition of New World Systems Corporation in 2015 (the largest acquisition in our company's history), we significantly increased Tyler's presence in the public safety software market, a large and growing segment that complements our strength in courts and justice solutions. Acquiring New World accelerated Tyler's ability to integrate public safety and criminal justice applications into an end-to-end solution spanning all phases of criminal justice from dispatch through disposition.

We look for companies with products that currently have market leadership positions, or that have the potential to achieve leadership as a part of Tyler. Our June 2016 acquisition of ExecuTime Software, while on a smaller scale, also fits this description. ExecuTime brought to us a robust time and attendance solution that integrates fully with our ERP and public safety solutions, giving us the opportunity to leverage our sales resources and client base to accelerate its growth. As an example, officials in Baton Rouge, Louisiana, signed an agreement to replace the city's legacy ERP system with both Tyler's Munis® ERP and ExecuTime™ time and recordkeeping solutions to replace paper-oriented processes with digital workflows. In addition, we have completed some acquisitions that represent market consolidation opportunities, with products or services that overlap our current offerings, but have attractive client bases and recurring revenue streams.

As we discussed at the beginning of the year, we made significant investments in the New World public safety organization and products to integrate them into the family of Tyler justice solutions and position us to expand our presence in the public safety market. Some of those planned investments involved strengthening the organizational infrastructure to support our growth objectives, including adding resources to client support, development and sales teams. We're pleased with the progress we made in 2016, while New World provided a contribution to earnings that exceeded our plan for the year.

We expect to continue to invest in our public safety products at a high level in accordance with our long-term plan to significantly improve win rates and gain market share in that space. Among those efforts include accelerating development of advanced features and functionality, as well as scaling our solutions for larger clients. We believe these investments could expand our public safety addressable market by a factor of four and lead to increased win rates.

ANALYZING OPPORTUNITIES

OVER THE COURSE OF 2016

we put considerable effort into an extensive white-space analysis of the public sector software space to further our long-term goal of being a leading provider of most, if not all, of the essential applications for local governments. We're evaluating our current product offerings and their market positions, and, in those areas where we are not currently a market leader, mapping the path to leadership. At the same time, we're analyzing spaces adjacent to our current solutions and other areas of the public sector software market that we don't currently serve, identifying connections to our existing offerings, sizing the markets and studying the competitive landscape. This analysis is an ongoing effort, and it will enable us to prioritize strategic investments in a thoughtful and objective manner, shaping both our merger and acquisition strategy and our internal development priorities.

Underlying our commitment to making these investments in acquisitions and internal product development is our confidence in the ability of our people to execute at the highest levels. We know how to build industry-leading products, how to be responsive to clients, and how to strategically address the marketplace with a successful sales approach. Our track record shows that Tyler can invest in companies and products with confidence that they will be successful in the marketplace and drive additional growth over time.

FINANCIAL OVERVIEW

Our balance sheet continues to be extremely strong, and our cash flows from operations for the year rose 43 percent.

We are well-poised to continue making significant product development investments aimed at further strengthening our leadership positions and driving new long-term growth opportunities.

NO. 24

Ranking on Forbes "Most Innovative Growth Companies" list in 2016

2016

RECURRING REVENUE (in millions)

2012	2013	2014	2015	2016
$216.5	$253.6	$300.5	$357.5	$465.7

30% Increase Over 2015

BACKLOG (in millions)

2012	2013	2014	2015	2016
$380.6	$551.7	$702.0	$844.5	$953.3

13% Increase Over 2015

NON GAAP NET INCOME

$135.8 M +47% from 2015

or $3.49 per diluted share

GAAP NET INCOME

$109.9 M +69% from 2015

or $2.82 per diluted share

21 Consecutive Quarters Double-Digit Revenue Growth

24 Consecutive Quarters Revenue Growth

QUARTERLY GROWTH

+28% OVER 2015

TOTAL REVENUES (in millions)

Year	Total Revenues
2012	$363.3
2013	$416.6
2014	$493.1
2015	$591.0
2016	$756.0

ANNUAL EARNINGS PER SHARE

Year	NON GAAP	GAAP
2012	$1.29	$1.00
2013	$1.51	$1.13
2014	$2.09	$1.66
2015	$2.54	$1.77
2016	$3.49	$2.82

+13% Compound annual total growth in revenues 2002-2016

+11% Compound annual organic growth in revenues 2002-2016

+32% Maintenance: Fastest growing revenue stream In 2016

EVOLVING OUR PRODUCTS

Investment in deepening, uniting and extending our core products has proven to be a winning strategy that enables us to compete favorably against a wide range of competitors. We believe our financial strength and long-term commitment to the public sector software market, which are reflected in our consistent investments, continue to set us apart from many of our competitors. We also continue to add value for our clients with initiatives like our evergreen perpetual licensing model and EverGuide™, Tyler's continuous improvement initiative that ensures our clients have the latest product releases, as well as the training and resources they need. With a singular focus on the public sector, coupled with what we believe is the largest base of local government clients in the nation, we use client feedback to understand users' pain points. This guides our efforts to enhance products and improve the user experience so our clients can accomplish their goals more quickly and efficiently.

In addition to making improvements to our product release cycles, we continue to add features and functionality to applications and drive consistency across multiple products. The 2016 release of Tyler's Odyssey Case Manager™ is one such example, incorporating new technology and delivering it in an evolutionary way. Odyssey® 2016 provides major technology platform upgrades in a way that minimizes disruption to client operations, and does it as part of their evergreen upgrade.

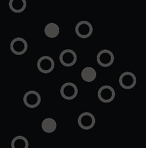
THREE KEYS TO THE FUTURE

One of Tyler's biggest challenges in providing end-to-end solutions for the public sector is navigating the inherent complexity of solutions that span multiple departments and multiple jurisdictions, each with its own individual missions and goals. We understand the budget challenges of local government, and consult with our clients to plan significant, yet manageable, advances in technology while accommodating the realities of integrating myriad independent systems of various ages and sophistication.

Many of our technology initiatives in 2016 focused on establishing the framework for the next phase of Tyler's evolution. We are integrating applications in a way that allows the user to share data smoothly through a workflow or chain of events across departments. The question becomes, how do we deliver best-in-class solutions for each stage of the end-to-end process in a way that offers efficiency, transparency and longevity?

WE ARE INTEGRATING APPLICATIONS IN A WAY THAT ALLOWS THE USER TO SHARE DATA SMOOTHLY THROUGH A WORKFLOW OR CHAIN OF EVENTS ACROSS DEPARTMENTS.

IMPROVING THE USER EXPERIENCE The first key is to enhance and improve core products by adding features that improve the user experience. On the front end of applications, this includes improving the user interface and unifying the look and feel of all of Tyler's applications.



DATA SHARING The second key is to build infrastructure to allow Tyler products to communicate with each other and improve data sharing. Historically, public sector software systems have generally been siloed, without the ability to access data across agencies. Complex integrations must be built between applications in order to connect products within a suite and across jurisdictional boundaries. To accomplish this degree of integrated communication, we are developing technologies that allow our applications to talk to one another and enable data flow across boundaries, along with a common workflow engine that helps orchestrate the flow of approvals, notifications and tasks according to the client's business process. For instance, a new building permit in our EnerGov™ application could automatically trigger a workflow that alerts a taxing authority to revalue the property, allowing the client to uncover hidden revenue.

This ability to share, aggregate, search and analyze data across jurisdictions will also be instrumental in helping our clients be more resourceful, accurate and responsive with information. With our ERP financial solutions in the Enterprise Group, Tyler clients could compare key performance indicators for their departments or organizations against organizations of similar size in their region, or even across the country, to help them make more informed financial decisions. In the Justice Group, Tyler DataXchange™ aggregates information across multiple jurisdictions and gives law enforcement and justice officials the ability to share offender records, outstanding warrants and similar data via mobile applications that can help them apprehend and bring criminals to justice.

COMMON FOUNDATION A third key is to create a shared foundation of services that provides core capabilities across all Tyler applications. Just as an interstate highway allows cars to travel unimpeded between states, our common foundation will allow data to flow unimpeded within and between jurisdictions, eliminating complexity while unlocking capability.

One initiative to better support integration is to create a model for single sign-on for constituents. Whether that constituent is a city employee, a vendor or a citizen, the idea is to create one constituent portal framework. Users will be able to log in to the Tyler portal once to access all the data they need to interact with any community department from a single user interface and single website.

These features will begin to roll out in 2017 in applications like EnerGov, Munis® and Incode®. Because of Tyler's best-in-class products, excellent customer service and our clients' confidence in the products they are currently using, we are seeing more clients interested in deploying multiple Tyler products across solution areas. This allows them to take advantage of the efficiencies created by an integrated process, the insights and workflows generated by the data, and the responsiveness and transparency available to their constituents. With our planned development initiatives, our clients will be able to realize value from Tyler that will further distinguish us from competitors.

connected communities

"WE'RE COMMITTED TO USING TECHNOLOGY AND DATA, NOT ONLY TO HELP US MAKE SMARTER POLICY DECISIONS, BUT ALSO TO HELP RESIDENTS AND BUSINESSES FEEL MORE CONNECTED TO THE DECISION-MAKING PROCESS."

— Mayor Luke Bronin
City of Hartford, Connecticut

The promise of technology has always been to amplify what one person can accomplish by making work more productive. By connecting data and organizations and networking communities, Tyler Technologies delivers on the promise of using technology to make local government more accessible, responsive and efficient.

Tyler's objective is to empower vibrant, thriving and engaged communities by enabling seamless connections between citizens and government agencies, ultimately creating better places to live and do business.

We have been steadily broadening our reach across the marketplace to support our vision of connected solutions. This leads us to the next step of connected communities. Our goal of expanding relationships by providing multiple products to an organization or jurisdiction is advanced, and our clients benefit with synergies that improve their operational effectiveness while helping them serve better-informed, happier and more engaged citizens—the pulse of a thriving community.

POWER USERS

CITY OF HARTFORD, CONNECTICUT

USER OF MUNIS AND ENERGOV

The City of Hartford, Connecticut, which had already seen savings in both hard costs and soft costs as a result of increased purchasing options in Tyler's Munis® (ERP) solution, added the EnerGov™ planning, regulatory and maintenance solution to save money and enhance efficiencies in the field while streamlining its processes.

Already at the forefront of using geographic information system (GIS) technology to provide data and analytics that help them make better decisions, Hartford leaders saw the ability to integrate the city's GIS technology with EnerGov as a huge advantage. By enabling departments across the city to streamline access to inspector and zoning information, analyze flood zones and soil type, and enhance other developmental services, city officials expect to encourage economic growth and development despite a financially challenging environment.

POWER USERS

CITY OF MOBILE, ALABAMA

USER OF MULITPLE TYLER PRODUCTS, INCLUDING MUNIS (ERP),

INCODE (MUNICIPAL COURTS AND PUBLIC SAFETY), TYLER PARKS & REC, AND ENERGOV

In 2015, city leaders in Mobile, Alabama, signed a seven-year software-as-a-service (SaaS) agreement for an integrated suite of Tyler software solutions to replace the city's legacy system. Mobile is in the midst of a multi-year implementation of Tyler products including Munis®, EnerGov™, Incode® municipal court solution and the Incode public safety solution for a comprehensive set of integrated solutions.

Tyler's unique ability to integrate a city-wide cloud solution and manage day-to-day maintenance of the system provides value to Mobile by allowing city staff to focus on other critical functions. Financial benefits have also accrued to the city, contributing to budget surpluses since the go-live date.

"WE CHOSE TYLER BECAUSE WE FELT LIKE WE COULD GET EVERYTHING FROM ONE VENDOR. WHEN I HEARD ABOUT THE INTEGRATION, IT WAS MUSIC TO MY EARS."

— Sue Farni

Executive Director, Information Technology

City of Mobile, Alabama

CONNECTING THE DOTS

Tyler has begun to realize the vision of connected communities through two long-term initiatives branded as Tyler Alliance™ for public safety, courts and justice clients in the Justice Group, and Tyler Nexus™ for municipal clients in the Enterprise Group.

Tyler Alliance and Tyler Nexus will each bring together related applications under a common user experience and enable data sharing and workflows across business processes. The goal is to break down barriers between the separate applications and have one continuous process that flows from agency to agency.

connected community initiatives

tyler alliance™

Tyler Alliance™ is an initiative to build a multi-agency distributed platform that integrates public safety and criminal justice systems by connecting across departments, agencies and jurisdictions to help create safer communities. It connects core courts and justice products like Odyssey®, SoftCode™ and Incode® with Tyler's public safety solutions, creating the first integrated end-to-end criminal justice solution on the market. New products and technologies from Tyler's acquisitions of New World and Brazos Technology Corporation in 2015 fit the long-term objective of enabling the exchange of cross-departmental and cross-jurisdictional data. Tyler Alliance can help law enforcement agencies interdict crime while also helping to ensure efficient judicial proceedings. For a glimpse into the potential of Tyler Alliance, we can turn to one of Tyler's 2016 Excellence Award Winners in Public Safety, the city of Greenwood Village, Colorado. Because of Greenwood Village's positive experience using Tyler's Incode municipal court software, the Greenwood Village Police Department chose both Incode (public safety) and Brazos™ to replace paper-based processes with software that would effectively manage its essential day-to-day functions. Incode's public safety solution manages records and computer-aided dispatch to streamline the police department's critical data, while Brazos electronic citation software eliminates manual ticketing processes to save time and money. The ability to share reliable, real-time data gives officers the information they need to make the split-second decisions necessary to keep officers and citizens safe.

FROM **DISPATCH** THROUGH **DISPOSITION**™

THE **DIGITAL FABRIC** FOR **THRIVING COMMUNITIES**™

tyler nexus™

Tyler Nexus™ is a similar initiative for counties, cities and other municipal groups, which typically have multiple, smaller, public-facing agencies with different types of needs and processes than justice organizations. Tyler Nexus builds what is in essence a digital fabric that connects disparate governmental agencies, each with its own priorities, functions and procedures, into one digital ecosystem. Key data will be shared across organizations and with constituents through custom portals that leverage a common foundation of application services. The mission is to enable connected communities where local government and schools function efficiently, effectively, transparently and responsively on behalf of their constituents, and where constituents feel engaged and empowered. As with Tyler Alliance, the success of Tyler Nexus will rely on extending core products through strategic acquisitions and product enhancements and integrating them through Tyler's technology initiatives. Several recent contracts demonstrate the potential of Tyler Nexus by combining core product suites like EnerGov™ and Munis® with products like Eagle Recorder™ and iasWorld® appraisal and tax software and integrating new applications from acquisitions like ExecuTime™.

NEW CONTRACTS PROVIDE A GLIMPSE INTO THE FUTURE

We signed a number of new contracts in 2016 that include multiple Tyler products.

In July, officials in Collin County, Texas, signed an agreement for Tyler's Munis® ERP solution and the EnerGov™ permitting, regulatory and maintenance platform. Together, these products provide Collin County with a comprehensive solution that will enable the county to communicate better across departments, integrate processes and expand residents' access to government through a citizen portal. Already a user of Tyler's justice products, including Odyssey® and Brazos™, Collin County's addition of these Enterprise solutions is an example of incremental growth through cross-selling products across agencies, while also furthering Tyler's vision of connected communities.

Seeking a platform of solutions that would allow for the city's growth and constant improvement initiatives while expanding citizen access, the city of Amarillo, Texas, entered into a SaaS agreement with Tyler for the EnerGov, Munis and Eagle Recorder™ products. A user of Tyler's Incode® municipal court case management solution, the addition of EnerGov will provide the city with permitting and inspections processing, as well as a citizen portal to expand access and transparency for residents. Munis will improve communication across multiple departments, and Eagle Recorder will streamline document and record management. Together, these integrated products allow for seamless coordination between various city departments and automated workflows to boost citizen access, customer service and communication, giving the citizens of Amarillo greater access to data through the city's 3-1-1 initiatives while offering the city cost savings and efficiencies.

Integrating EnerGov and Munis is proving to be an attractive offering for a number of clients. Tyler also entered into a SaaS agreement with the city of Tulsa, Oklahoma, which sought to use integrated Munis and EnerGov solutions to streamline business processes, eliminate redundancies and provide city staff and citizens access to real-time data. Opting for a SaaS solution also ensures that the city of Tulsa has up-to-date systems and built-in disaster recovery.

Another contract where the client has selected multiple Tyler products from different enterprise suites is the seven-year SaaS agreement between Tyler and the city of Healdsburg, California. Seeking to replace the city's legacy system with a modernized solution that can accommodate complex financial reporting requirements, Healdsburg officials chose a suite of Incode financial applications along with EnerGov and Tyler Content Manager™ to replace manual processes, improve customer support and communication, enhance reporting and increase productivity citywide.

The Frederick County Public Schools in Virginia entered into a seven-year SaaS contract for Tyler's Munis® ERP solution and Tyler SIS™ student information system. The client wanted a technology partner that could provide both solutions in order to ease integration, help eliminate disparate systems and reduce the overall technology footprint. The Tyler solution also allows data to be shared across departments, so when a new teacher is added to Munis payroll, the automated workflow also adds the teacher to Tyler SIS. Choosing Tyler's SaaS model provides built-in redundancies to prevent data loss and downtime, and frees overloaded IT staff to focus on other projects.

In August 2016, leaders in Lake County, Illinois, opted to integrate EnerGov with Tyler's iasWorld® for an integrated property tax administration and computer-assisted mass appraisal solution to automate manual processes, while establishing e-services for residents and mobile capabilities for staff. Integrating property assessment with permitting and inspection functionality improves efficiency and reporting capabilities. The five-year SaaS contract supports Lake County's growth strategies in one integrated, multi-solution approach that will help the county provide better service to its constituents by creating greater access to information.

In other 2016 contracts, Tyler leveraged existing relationships to provide additional products. Washtenaw County, Michigan, had an existing relationship with Tyler, having implemented the Eagle recording and property tax assessment solution, as well as Tyler's Odyssey court case management solution. The county sought to replace its ERP system with a system that would provide modern applications needed to support high-quality customer service and accommodate the county's growth. After a competitive review, the county entered into a new agreement in the first quarter of 2016 for Tyler's Munis ERP solution.

These new contracts and numerous others give us confidence that the Tyler Alliance and Tyler Nexus initiatives resonate with local governments. Interest in integrated solutions that cross agencies, jurisdictions and county lines continues to build. Selecting a single provider that can weave together a comprehensive digital solution for all of the community's needs encourages success. This is the future Tyler envisions.

CREATING SYNERGY

In 2016, Tyler continued to advance ongoing efforts to connect more of our products to mobile devices and to create native mobile applications. Going forward, we expect investment in mobile technologies to increase as we further integrate our products and introduce applications that enable mobile access for both users and citizens.

With clients growing increasingly comfortable with cloud-based systems that offer benefits like remote access capabilities, security risk mitigation, scheduled upgrades and enhancements, and disaster recovery, Tyler expects to continue to see a gradual increase in the percentage of our clients that are choosing Tyler's software as a cloud-based service.

With the expectation of a growing move to the cloud, we plan to increase investment in cloud technologies in 2017. This includes adding capacity to our dedicated development teams to prepare specific technologies and product enhancements that will enable us to realize our vision.

Our product development goals will result in a network effect in which the more Tyler products our clients implement, the more value they receive. Not only will this network benefit our clients in many ways, it will also solidify our favorable competitive position. Development work in 2016 advanced our objectives toward improving the user experience, creating data exchanges, enhancing products and creating a common foundation that will knit together a digital environment where Tyler, our developers, our clients and our users can access data and fulfill necessary functions when and how they need it. While most of these technologies are still in development, we will begin to roll them out with future product updates in the next few years.

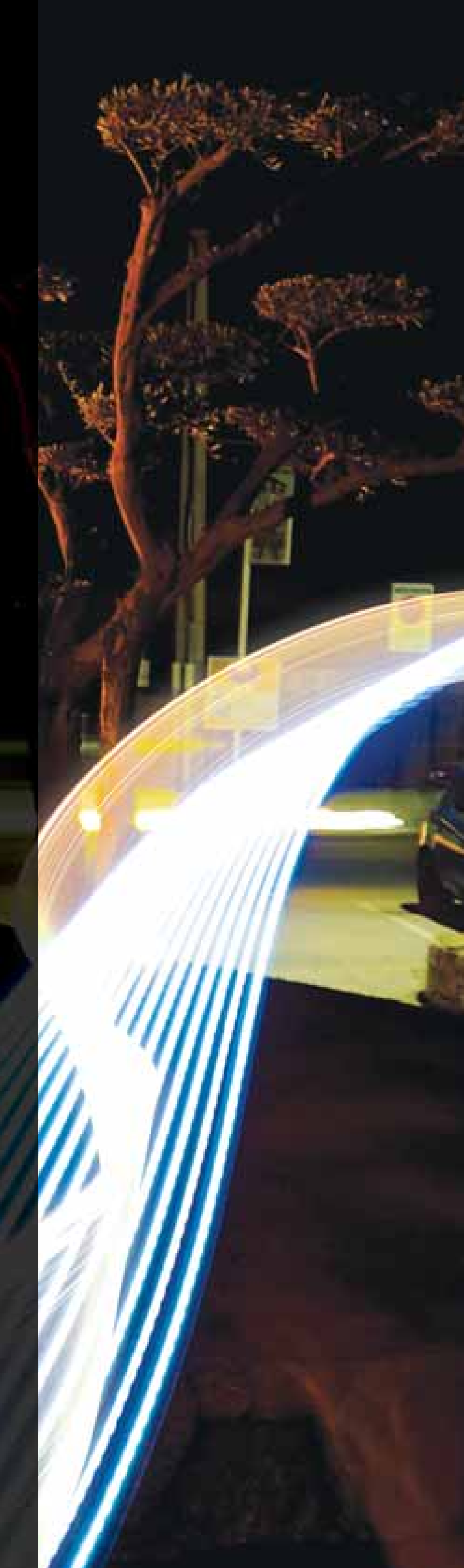
Tyler Identity™ is our engine for single sign-on that will allow any constituent with the proper authorization — whether a judge, an assessor, a bus driver, a county clerk or a citizen — to register for a single Tyler ID that will grant access to all Tyler applications. Tyler Identity is currently being tested by early adopters in some of our core products.

WE HAVE A STRATEGIC PLAN TO STANDARDIZE THESE NEW TECHNOLOGIES ACROSS ALL TYLER APPLICATIONS, PRIORITIZING DEPLOYMENT IN APPLICATIONS THAT OFFER THE HIGHEST VALUE TO OUR CLIENTS IN THE SHORTEST AMOUNT OF TIME.

TYLER IS ALSO DEVELOPING SEVERAL OTHER FOUNDATIONAL TECHNOLOGIES:

- A powerful global search engine that will be able to search across all Tyler applications
- An enterprise service bus, currently deployed in the EnerGov citizen access portal, which enables Tyler's applications to communicate with each other and share data across the application boundaries
- A constitutent portal, serving as the framework for citizen communication through which all Tyler citizen-facing applications can be accessed
- Atlas, which allows citizens to easily browse and search aggregated data using a map interface.

We have a strategic plan to standardize these new technologies across all Tyler applications, prioritizing deployment in those that offer the highest value to our clients in the shortest amount of time.



building on success

"OUR CONFIDENCE IN MAKING THESE STRATEGIC INVESTMENTS – WHETHER IN OUR CURRENT TECHNOLOGY, OR IN NEWLY ACQUIRED PRODUCTS AND COMPANIES – COMES FROM KNOWING THAT THE NEARLY 4,000 EMPLOYEES WE HAVE ARE THE BEST IN THIS INDUSTRY."

— John S. Marr Jr.
Chairman of the Board and Chief Executive Officer

Tyler's shareholders stand to benefit substantially from our transition to this new phase in Tyler's evolution where we can genuinely create connected communities that enable citizens to thrive. BecauseTyler has a vision, a plan and the ability to repeat this connection in city after city, county after county, and state after state, the potential is enormous.

One of the keys to our longevity and success is our proven ability to consistently execute at a high level over a long period of time. This gives us the experience, the confidence and the credibility to win larger deals while continuing to perform at the highest level for clients of all sizes.

As Tyler continues to develop products and execute projects that help build connected communities, the potential is exciting. Because of the breadth and depth of our products, the talent and domain expertise of our team, and our clear-eyed vision of the future, we have the unique potential to blanket the country and beyond with solutions that empower those who serve the public sector.

We take pride in the fact that our solutions make tangible, positive differences in the lives of citizens every day. We help parents keep track of when and where their children get on and off a school bus. We help teachers record and access student information. We help citizens stay informed about how their home is valued. We help them submit payments for their utility bills and traffic tickets. We help cities and counties make informed decisions about investments in infrastructure, how their residents can be kept safe, how justice is served, and how tax dollars are spent. Tyler Technologies' solutions and initiatives make sure that all aspects of work in the public sector are made efficient, more transparent, and more effective.

TYLER IS THE PULSE THAT HELPS COMMUNITIES AND PEOPLE THRIVE.

tyler
technologies
2016 FINANCIAL INFORMATION

Reconciliation of GAAP to NON-GAAP Financial Measures (Unaudited)

	2016	2015	2014	2013	2012
Reconciliation of non-GAAP total revenues					
GAAP total revenues	$756,043	$591,022	$493,101	$416,643	$363,304
Non-GAAP adjustments:					
Add: Write-downs of acquisition-related deferred revenue	15,063	3,186	—	—	—
Add: Amortization of acquired leases	444	37	—	—	—
Non-GAAP total revenues	$771,550	$594,245	$493,101	$416,643	$363,304
Reconciliation of non-GAAP gross profit and margin					
GAAP gross profit	$355,351	$277,187	$233,371	$193,203	$167,702
Non-GAAP adjustments:					
Add: Write-downs of acquisition-related deferred revenue	15,063	3,186	—	—	—
Add: Amortization of acquired leases	444	37	—	—	—
Add: Share-based compensation expense included in cost of revenues	6,548	3,380	2,177	1,509	1,084
Add: Amortization of acquired software	22,235	4,440	1,858	2,078	1,888
Non-GAAP gross profit	$399,641	$288,230	$237,406	$196,790	$170,674
GAAP gross margin	47.0%	46.9%	47.3%	46.4%	46.2%
Non-GAAP gross margin	51.8%	48.5%	48.1%	47.2%	47.0%
Reconciliation of non-GAAP operating income and margin					
GAAP operating income	$131,305	$108,043	$ 94,822	$ 67,128	$ 56,577
Non-GAAP adjustments:					
Add: Write-downs of acquisition-related deferred revenue	15,063	3,186	—	—	—
Add: Amortization of acquired leases	444	37	—	—	—
Add: Share-based compensation expense	29,747	20,182	14,819	11,653	7,411
Add: Employer portion of payroll tax related to employee stock transactions	1,001	1,506	514	982	311
Add: Acquisition-related costs	—	5,875	—	—	—
Add: Amortization of acquired software	22,235	4,440	1,858	2,078	1,888
Add: Amortization of customer and trade name intangibles	13,731	5,905	4,546	4,517	4,279
Non-GAAP adjustments subtotal	$ 82,221	$ 41,131	$ 21,737	$ 19,230	$ 13,889
Non-GAAP operating income	$213,526	$149,174	$116,559	$ 86,358	$ 70,466
GAAP operating margin	17.4%	18.3%	19.2%	16.1%	15.6%
Non-GAAP operating margin	27.7%	25.1%	23.6%	20.7%	19.4%
Reconciliation of non-GAAP net income and earnings per share					
GAAP net income	$109,857	$ 64,869	$ 58,940	$ 39,101	$ 32,994
Non-GAAP adjustments:					
Add: Total non-GAAP adjustments to operating income	82,221	41,131	21,737	19,230	13,889
Less: Tax impact related to non-GAAP adjustments	(56,230)	(13,318)	(6,658)	(6,014)	(4,307)
Non-GAAP net income	$135,848	$ 92,682	$ 74,019	$ 52,317	$ 42,576
GAAP earnings per diluted share	$ 2.82	$ 1.77	$ 1.66	$ 1.13	$ 1.00
Non-GAAP earnings per diluted share	$ 3.49	$ 2.54	$ 2.09	$ 1.51	$ 1.29
Detail of share-based compensation expense					
Cost of software services, maintenance and subscriptions	$ 6,548	$ 3,380	$ 2,177	$ 1,509	$ 1,084
Selling, general and administrative expenses	23,199	16,802	12,642	10,144	6,327
Total share-based compensation expense	$ 29,747	$ 20,182	$ 14,819	$ 11,653	$ 7,411

Stock Market Data

Our common stock is traded on the New York Stock Exchange under the symbol "TYL." At December 31, 2016, we had approximately 1,492 stockholders of record. Most of our stockholders hold their shares in street name; therefore, there are substantially more than 1,492 beneficial owners of our common stock.

The following table shows, for the calendar periods indicated, the high and low sales price per share of our common stock as reported on the New York Stock Exchange.

		High	Low
2015:	First Quarter	$125.84	$103.18
	Second Quarter	133.54	118.05
	Third Quarter	152.91	127.25
	Fourth Quarter	184.01	150.00
2016:	First Quarter	$172.50	$118.16
	Second Quarter	168.19	126.70
	Third Quarter	175.77	159.24
	Fourth Quarter	172.24	139.61

We did not pay any cash dividends in 2016 or 2015. Our bank credit agreement contains restrictions on the payment of cash dividends. We intend to retain earnings for use in the operation and expansion of our business, and, therefore, we do not anticipate declaring a cash dividend in the foreseeable future.

During 2016, we purchased approximately 882,000 shares of our common stock for an aggregate purchase price of $112.7 million. The repurchase program, which was approved by our board of directors, was announced in October 2002 and was amended at various times from 2003 through 2016. There is no expiration date specified for the authorization, and we intend to repurchase stock under the plan from time to time.

Selected Financial Data

For the Years Ended December 31,	2016	2015 [b]	2014	2013	2012
(In thousands, except per share data)					
STATEMENT OF OPERATIONS DATA:					
Revenues	$ 756,043	$ 591,022	$493,101	$416,643	$363,304
Cost and expenses:					
Cost of revenues	400,692	313,835	259,730	223,440	195,602
Selling, general and administrative expenses	167,161	133,317	108,260	98,289	86,706
Research and development expense	43,154	29,922	25,743	23,269	20,140
Amortization of customer and trade name intangibles	13,731	5,905	4,546	4,517	4,279
Operating income	131,305	108,043	94,822	67,128	56,577
Other (expenses) income, net	(1,998)	381	(355)	(1,309)	(2,709)
Income before income taxes	129,307	108,424	94,467	65,819	53,868
Income tax provision [a]	19,450	43,555	35,527	26,718	20,874
Net income	109,857	64,869	58,940	39,101	32,994
Net earnings per diluted share	$ 2.82	$ 1.77	$ 1.66	$ 1.13	$ 1.00
Weighted average diluted shares [a]	38,961	36,552	35,401	34,590	32,916
STATEMENT OF CASH FLOWS DATA:					
Cash flows provided by operating activities [a]	$ 191,859	$ 134,327	$142,839	$ 94,297	$ 67,432
Cash flows used by investing activities	(50,720)	(398,459)	(11,555)	(25,658)	(34,736)
Cash flows (used) provided by financing activities [a]	(138,075)	91,052	(3,993)	3,831	(27,616)
BALANCE SHEET DATA:					
Total assets	$1,357,945	$1,356,570	$569,812	$444,488	$338,666
Revolving line of credit	10,000	66,000	—	—	18,000
Shareholders' equity	915,525	858,857	336,973	246,319	145,299

(a) During 2016, we adopted Accounting Standards Update ("ASU") No. 2016-09 "Improvements to Employee Share-Based Payment Accounting" requiring the recognition of excess tax benefits or tax deficiencies as a component of income tax expense; these benefits or deficiencies were historically recognized in equity. As the standard requires a prospective method of adoption, our net income in 2016 includes a $29.6 million income tax benefit due to the adoption that did not occur in the comparable periods presented above. In addition, the ASU updates the method of calculating diluted shares resulting in the inclusion of 519,000 additional shares in our diluted earnings per share calculation that is not comparable to the other periods presented. Refer to Note 1 "Summary of Significant Accounting Policies" for further discussion of this new accounting standard.

The adoption of ASU No. 2016-09 also requires excess tax benefits, previously presented as financing activities, to be classified as operating activities. As retrospective adoption for this component of the standard is allowable, we have adjusted all periods presented above to reflect this change in classification.

(b) On November 16, 2015, we completed the acquisition of New World Systems Corporation ("NWS"). Operating results for the twelve months ended December 31, 2015, include $5.9 million for financial advisory, legal, accounting, due diligence, valuation and other expenses necessary to complete the NWS acquisition as well as $3.5 million amortization expense related to NWS acquisition intangibles.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Forward-Looking Statements

In addition to historical information, this Annual Report contains forward-looking statements. The forward-looking statements are made in reliance upon safe harbor provisions of the Private Securities Litigation Reform Act of 1995. The forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those reflected in the forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect management's opinion only as of the date hereof. We undertake no obligation to revise or publicly release the results of any revisions to these forward-looking statements. Readers should carefully review the risk factors described in documents we file from time to time with the Securities and Exchange Commission.

When used in this Annual Report, the words "believes," "expects," "anticipates," "foresees," "forecasts," "estimates," "plans," "intends," "continues," "may," "will," "should," "projects," "might," "could" or other similar words or phrases are intended to identify forward-looking statements. Similarly, statements that describe our business strategy, outlook, objectives, plans, intentions or goals also are forward-looking statements.

Overview

General

We provide integrated information management solutions and services for the public sector, with a focus on local governments. We develop and market a broad line of software products and services to address the IT needs of cities, counties, schools and other local government entities. In addition, we provide professional IT services to our clients, including software and hardware installation, data conversion, training and for certain clients, product modifications, along with continuing maintenance and support for clients using our systems. We also provide subscription-based services such as software as a service ("SaaS"), which utilizes the Tyler private cloud, and electronic document filing solutions ("e-filing"), which simplify the filing and management of court related documents. Revenues for e-filing are derived from transaction fees and in some cases fixed fee arrangements. We also provide property appraisal outsourcing services for taxing jurisdictions.

Our products generally automate six major functional areas: (1) financial management and education, (2) courts and justice, (3) public safety (4) property appraisal and tax, (5) planning, regulatory and maintenance, and (6) land and vital records management. We report our results in two segments. The Enterprise Software ("ES") segment provides municipal and county governments and schools with software systems and services to meet their information technology and automation needs for mission-critical "back-office" functions such as: financial management; courts and justice processes; public safety; planning, regulatory and maintenance; and land and vital records management. The Appraisal and Tax ("A&T") segment provides systems and software that automate the appraisal and assessment of real and personal property as well as property appraisal outsourcing services for local governments and taxing authorities. Property appraisal outsourcing services include: the physical inspection of commercial and residential properties; data collection and processing; computer analysis for property valuation; preparation of tax rolls; community education; and arbitration between taxpayers and the assessing jurisdiction.

Total organic revenues increased 12% in 2016 compared to 2015.

On November 16, 2015, we acquired all of the capital stock of New World Systems Corporation ("NWS"), which provides public safety and financial solutions for local governments. The purchase price, net of cash acquired of $22.5 million, was $337.5 million in cash, of which $4.0 million was accrued at December 31, 2015, and 2.1 million shares of Tyler common stock valued at $362.8 million.

On May 29, 2015, we acquired all of the capital stock of Brazos Technology Corporation ("Brazos"), which provides mobile hand held solutions primarily to law enforcement agencies for field accident reporting and electronically issuing citations. The purchase price, net of cash acquired and including debt assumed, was $6.1 million in cash and 12,500 shares of Tyler common stock valued at $1.5 million.

The operating results of NWS and Brazos are included with the operating results of the Enterprise Software segment since their respective dates of acquisition.

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We monitor and analyze several key performance indicators in order to manage our business and evaluate our financial and operating performance. These indicators include the following:

- Revenues – We derive our revenues from five primary sources: sale of software licenses and royalties; subscription-based arrangements; software services; maintenance; and appraisal services. Subscriptions and maintenance are considered recurring revenue sources and comprised approximately 62% of our revenue in 2016. The number of new SaaS clients and the number of existing clients who convert from our traditional software arrangements to our SaaS model are a significant driver to our business, together with new software license sales and maintenance rate increases. In addition, we also monitor our customer base and churn as we historically have experienced very low customer turnover. During 2016, based on our number of customers, turnover was approximately 2%.
- Cost of Revenues and Gross Margins – Our primary cost component is personnel expenses in connection with providing software implementation, subscription-based services, maintenance and support, and appraisal services to our clients. We can improve gross margins by controlling headcount and related costs and by expanding our revenue base, especially from those products and services that produce incremental revenue with minimal incremental cost, such as software licenses and royalties, subscription-based services, and maintenance and support. Our appraisal projects are cyclical in nature, and we often employ appraisal personnel on a short-term basis to coincide with the life of a project. As of December 31, 2016, our total employee count increased to 3,831 from 3,586 at December 31, 2015.
- Selling, General and Administrative ("SG&A") Expenses – The primary components of SG&A expenses are administrative and sales personnel salaries and commissions, share-based compensation expense, marketing expense, rent and professional fees. Sales commissions typically fluctuate with revenues and share-based compensation expense generally increases when the market price of our stock increases. Other administrative expenses tend to grow at a slower rate than revenues. In 2015, SG&A expenses include approximately $5.9 million for financial advisory, legal, accounting, due diligence, valuation and other various services necessary to complete the NWS acquisition.
- Liquidity and Cash Flows – The primary driver of our cash flows is net income. Uses of cash include acquisitions, capital investments in property and equipment and discretionary purchases of treasury stock. Our working capital needs are fairly stable throughout the year with the significant components of cash outflows being payment of personnel expenses offset by cash inflows representing collection of accounts receivable and cash receipts from clients in advance of revenue being earned. In recent years, we have also received significant amounts of cash from employees exercising stock options and contributing to our Employee Stock Purchase Plan.
- Balance Sheet – Cash, accounts receivable and days sales outstanding and deferred revenue balances are important indicators of our business.

New Accounting Pronouncements Adopted in 2016

Improvements to Employee Share-Based Payment Accounting. In March 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-09, "Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting" which simplifies several aspects of the accounting for employee share-based payment transactions, including the accounting for income taxes, forfeitures, and statutory tax withholding requirements, as well as classification in the statement of cash flows. This standard is effective for our interim and annual reporting periods beginning December 15, 2016, and early adoption is permitted. We elected to early adopt this standard in fourth quarter of 2016. The impact of the early adoption was as follows:

- The standard eliminates additional paid in capital ("APIC") pools and requires excess tax benefits and tax deficiencies to be recorded in the income statement as a discrete item when the awards vest or are settled. The adoption of this guidance on a prospective basis resulted in the recognition of excess tax benefits in our provision for income taxes.

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- The standard requires excess tax benefits to be recognized regardless of whether the benefit reduces taxes payable. The adoption of this guidance is applied on a modified retrospective basis; however, it did not have an impact on our retained earnings as of January 1, 2016, as we had previously recognized all our excess tax benefits.
- As permitted, we have elected to continue to estimate forfeitures expected to occur to determine the amount of stock-based compensation cost to be recognized in each period. As such, the guidance relating to forfeitures did not have an impact on our retained earnings as of January 1, 2016.
- The new guidance changes the calculation of common stock equivalents for earnings per share purposes.
- As permitted, we elected to apply the statement of cash flows guidance that cash flows related to excess tax benefits be presented as an operating activity retrospectively.

Adoption of the new standard resulted in the recognition of excess tax benefits in our provision for income taxes rather than APIC of $29.6 million for the period ended December 31, 2016. As of December 31, 2016, the change in the calculation of common stock equivalents added approximately 519,000 weighted average shares for the diluted earnings per share calculations. The impact to our previously reported quarterly results for fiscal year 2016 is as follows:

	Three Months Ended March 31, 2016		Three Months Ended June 30, 2016		Three Months Ended September 30, 2016	
(In thousands, except per share amounts)	As Reported	As Adjusted	As Reported	As Adjusted	As Reported	As Adjusted
Income statements:						
Income tax provision	$ 10,495	$ 9,350	$11,323	$ 5,188	$ 14,155	$ 989
Net income	$ 17,079	$ 18,224	$18,872	$25,007	$ 22,264	$ 35,430
Basic earnings per common share	$ 0.47	$ 0.50	$ 0.52	$ 0.69	$ 0.61	$ 0.97
Diluted earnings per common share	$ 0.44	$ 0.47	$ 0.49	$ 0.65	$ 0.58	$ 0.91
Diluted weighted average common shares outstanding	38,557	39,071	38,196	38,738	38,506	39,062
Statement of cash flows:						
Net cash provided by operating activities	$ 40,270	$ 41,321	$13,877	$19,520	$ 67,091	$ 79,213
Net cash (used) provided by financing activities	$(15,860)	$(16,911)	$ 5,668	$ 25	$(77,973)	$(90,095)

Presentation of Financial Statements – Going Concern. In August 2014, the FASB issued ASU No. 2014-15, Presentation of Financial Statements – Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern. The guidance requires an entity to evaluate whether there are conditions or events, in the aggregate, that raise substantial doubt about the entity's ability to continue as a going concern within one year after the date that the financial statements are issued (or within one year after the financial statements are available to be issued when applicable) and to provide related footnote disclosures in certain circumstances. The guidance is effective for the annual period ending after December 15, 2016, and for annual and interim periods thereafter. We adopted this standard in the fourth quarter of 2016 and its adoption did not have an impact on our consolidated financial statements.

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Recent Accounting Guidance not yet Adopted

Revenue from Contracts with Customers. On May 28, 2014, FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers." This ASU is the result of a convergence project between the FASB and the International Accounting Standards Board. The core principle behind ASU No. 2014-09 is that an entity should recognize revenue to depict the transfer of promised goods and services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for delivering those goods and services. This model involves a five-step process that includes identifying the contract with the customer, identifying the performance obligations in the contract, determining the transaction price, allocating the transaction price to the performance obligations in the contract and recognizing revenue when (or as) the entity satisfies the performance obligations. The ASU allows two methods of adoption: a full retrospective approach where three years of financial information are presented in accordance with the new standard, and a modified retrospective approach where the ASU is applied to the most current period presented in the financial statements. We currently anticipate adopting the standard using the full retrospective method to restate each prior reporting period presented. Our ability to adopt using the full retrospective method is dependent on system readiness, including software procured from third-party providers, and the completion of our analysis of information necessary to restate prior period financial statements.

The new standard requires application no later than annual reporting periods beginning after December 15, 2017, including interim reporting periods therein; however, public entities are permitted to elect to early adopt the new standard. We are assessing the financial impact of adopting the new standard and the methods of adoption; however, we are currently unable to provide a reasonable estimate regarding the financial impact. We will adopt the new standard in fiscal year 2018.

We anticipate this standard will have a material impact on our consolidated financial statements. While we are continuing to assess all potential impacts of the standard, we currently believe the most significant impact relates to our accounting for software license fees, installation fees, and incremental cost of obtaining a contract. Specifically, under the new standard we expect software license fees under perpetual agreements will no longer be subject to 100% discount allocations from other elements in the contract. Discounts in arrangements will be allocated across all deliverables increasing license revenues and decreasing revenues allocated to other performance obligations. In addition, in most cases, net license fees (total license fees less any allocated discounts) will be recognized at the point in time that control of the software license transfers to the customer versus our current policy of recognizing revenue only to the extent billable per the contractual terms. Time-based license fees currently recognized over the license term will no longer be recognized over the period of the license and will instead be recognized at the point in time that control of the software license transfers to the customer. Installation fees will no longer be considered distinct performance obligations and therefore will be recognized over the term of the arrangement or life of the performance obligation. We expect revenue related to our SaaS offerings and professional services to remain substantially unchanged. Due to the complexity of certain contracts, the actual revenue recognition treatment required under the standard will be dependent on contract-specific terms and may vary in some instances from recognition at the time of billing. Application of the new standard requires that incremental costs directly related to obtaining a contract (typically sales commissions plus any associated fringe benefits) must be recognized as an asset and expensed over the expected life of the arrangement, unless that life is less than one year. Currently, we defer sales commissions and recognize expense over the relevant initial contractual term. With the adoption the new standard, we expect amortization periods to extend past the initial term.

Leases. On February 25, 2016, the FASB issued its new lease accounting guidance in ASU No. 2016-02, "Leases (Topic 842)." Under the new guidance, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date:

- A lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis; and
- A right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term.

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Lessees (for capital and operating leases) and lessors (for sales-type, direct financing, and operating leases) must apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. The modified retrospective approach would not require any transition accounting for leases that expired before the earliest comparative period presented. Lessees and lessors may not apply a full retrospective transition approach.

The ASU is effective for fiscal years beginning after December 15, 2018, including interim periods therein. Early application is permitted for all business entities upon issuance. We are assessing the financial impact of adopting the new standard; however, we are currently unable to provide a reasonable estimate regarding the financial impact. We expect to adopt the new standard in fiscal year 2019.

Outlook

Activity in the local government software market continues to be robust, and our backlog at December 31, 2016 reached $953.3 million, a 13% increase from last year. We expect to continue to achieve solid growth in revenue and earnings. With our strong financial position and cash flow, we plan to continue to make significant investments in product development to better position us to continue to expand our competitive position in the public sector software market over the long term.

Critical Accounting Policies and Estimates

Our discussion and analysis of financial condition and results of operations is based upon our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities at the date of the financial statements, the reported amounts of revenues, cost of revenues and expenses during the reporting period, and related disclosure of contingencies. The Notes to the Financial Statements included as part of this Annual Report describe our significant accounting policies used in the preparation of the financial statements. Significant items subject to such estimates and assumptions include the application of the percentage-of-completion and proportional performance methods of revenue recognition, the carrying amount and estimated useful lives of intangible assets, determination of share-based compensation expense and valuation allowance for receivables. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe the following critical accounting policies require significant judgments and estimates used in the preparation of our financial statements.

Revenue Recognition. We recognize revenues in accordance with the provisions of Accounting Standards Codification ("ASC") 605, Revenue Recognition and ASC 985-605, Software Revenue Recognition. Our revenues are derived from sales of software licenses and royalties, subscription-based services, appraisal services, maintenance and support, and services that typically range from installation, training and basic consulting to software modification and customization to meet specific customer needs. For multiple element software arrangements, which do not entail the performance of services that are considered essential to the functionality of the software, we generally record revenue when the delivered products or performed services result in a legally enforceable and non-refundable claim. We maintain allowances for doubtful accounts and sales adjustments, which are provided at the time the revenue is recognized. Because most of our customers are governmental entities, we rarely incur a loss resulting from the inability of a customer to make required payments. In a limited number of cases, we encounter a customer who is dissatisfied with some aspect of the software product or our service, and we may offer a "concession" to such customer. In those limited situations where we grant a concession, we rarely reduce the contract arrangement fee, but alternatively may perform additional services, such as additional training or creating additional custom reports. These amounts have historically been nominal. In connection with our customer contracts and the adequacy of related allowances and measures of progress towards contract completion, our project managers are charged with the responsibility to continually review the status of each customer

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on a specific contract basis. Also, we review, on at least a quarterly basis, significant past due accounts receivable and the adequacy of related reserves. Events or changes in circumstances that indicate that the carrying amount for the allowances for doubtful accounts and sales adjustments may require revision, include, but are not limited to, deterioration of a customer's financial condition, failure to manage our customer's expectations regarding the scope of the services to be delivered, and defects or errors in new versions or enhancements of our software products.

We use contract accounting, primarily the percentage-of-completion method, as discussed in ASC 605-35, Construction – Type and Certain Production – Type Contracts, for those software arrangements that involve significant production, modification or customization of the software, or where our software services are otherwise considered essential to the functionality of the software. We measure progress-to-completion primarily using labor hours incurred, or value added. In addition, we recognize revenue using the proportional performance method for our property appraisal projects, some of which can range up to five years. These methods rely on estimates of total expected contract revenue, billings and collections and expected contract costs, as well as measures of progress toward completion. We believe reasonably dependable estimates of revenue and costs and progress applicable to various stages of a contract can be made. At times, we perform additional and/or non-contractual services for little to no incremental fee to satisfy customer expectations. If changes occur in delivery, productivity or other factors used in developing our estimates of expected costs or revenues, we revise our cost and revenue estimates, and any revisions are charged to income in the period in which the facts that give rise to that revision first become known. In connection with these and certain other contracts, we may perform the work prior to when the services are billable and/or payable pursuant to the contract. The termination clauses in most of our contracts provide for the payment for the value of products delivered and services performed in the event of an early termination.

For SaaS arrangements, we evaluate whether the customer has the contractual right to take possession of our software at any time during the hosting period without significant penalty and whether the customer can feasibly maintain the software on the customer's hardware or enter into another arrangement with a third-party to host the software. If we determine that the customer has the contractual right to take possession of our software at any time during the hosting period without significant penalty and can feasibly maintain the software on the customer's hardware or enter into another arrangement with a third-party to host the software, we recognize the license, professional services and hosting services revenues pursuant to ASC 985-605, Software Revenue Recognition. For SaaS arrangements that do not meet the criteria for recognition under ASC 985-605, we account for the elements under ASC 605-25, Multiple Element Arrangements using all applicable facts and circumstances, including whether (i) the element has stand-alone value, (ii) there is a general right of return and (iii) the revenue is contingent on delivery of other elements. We allocate the contract value to each element of the arrangement that qualifies for treatment as a separate element based on vendor-specific objective evidence of fair value ("VSOE"), and if VSOE is not available, third-party evidence, and if third-party evidence is unavailable, estimated selling price. For professional services associated with SaaS arrangements that we determine do not have stand-alone value to the customer or are contingent on delivery of other elements, we recognize the services revenue ratably over the remaining contractual period once hosting has gone live and we may begin billing for the hosting services. We record amounts that have been invoiced in accounts receivable and in deferred revenue or revenues, depending on whether the revenue recognition criteria have been met.

In connection with certain of our contracts, we have recorded retentions receivable or unbilled receivables consisting of costs and estimated profit in excess of billings as of the balance sheet date. Many of the contracts which give rise to unbilled receivables at a given balance sheet date are subject to billings in the subsequent accounting period. We review unbilled receivables and related contract provisions to ensure we are justified in recognizing revenue prior to billing the customer and that we have objective evidence which allows us to recognize such revenue. In addition, we have a sizable amount of deferred revenue, which represents billings in excess of revenue earned. The majority of this liability consists of maintenance billings for which payments are made in advance and the revenue is ratably earned over the maintenance period, generally one year. We also have deferred revenue for those contracts in which we receive a deposit and the conditions in which to record revenue for the service or product have not been met. On a periodic basis, we review by customer the detail components of our deferred revenue to ensure our accounting remains appropriate.

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Intangible Assets and Goodwill. Our business acquisitions typically result in the creation of goodwill and other intangible asset balances, and these balances affect the amount and timing of future period amortization expense, as well as expense we could possibly incur as a result of an impairment charge. The cost of acquired companies is allocated to identifiable tangible and intangible assets based on estimated fair value, with the excess allocated to goodwill. Accordingly, we have a significant balance of acquisition date intangible assets, including software, customer related intangibles, trade name, leases and goodwill. These intangible assets (other than goodwill) are amortized over their estimated useful lives. We currently have no intangible assets with indefinite lives other than goodwill.

When testing goodwill for impairment quantitatively, we first compare the fair value of each reporting unit with its carrying amount. If the carrying amount of a reporting unit exceeds its fair value, a second step is performed to measure the amount of potential impairment. In the second step, we compare the implied fair value of reporting unit goodwill with the carrying amount of the reporting unit's goodwill. If the carrying amount of reporting unit goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized. The fair values calculated in our impairment tests are determined using discounted cash flow models involving several assumptions. The assumptions that are used are based upon what we believe a hypothetical marketplace participant would use in estimating fair value. We base our fair value estimates on assumptions we believe to be reasonable but that are unpredictable and inherently uncertain. We evaluate the reasonableness of the fair value calculations of our reporting units by comparing the total of the fair value of all of our reporting units to our total market capitalization.

Our annual goodwill impairment analysis, which we performed quantitatively during the second quarter of 2016, did not result in an impairment charge. During 2016, we did not identify any triggering events that would require an update to our annual impairment review.

All intangible assets (other than goodwill) are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of other intangible assets is measured by comparison of the carrying amount to estimated undiscounted future cash flows. The assessment of recoverability or of the estimated useful life for amortization purposes will be affected if the timing or the amount of estimated future operating cash flows is not achieved. Such indicators may include, among others: a significant decline in expected future cash flows; a sustained, significant decline in stock price and market capitalization; a significant adverse change in legal factors or in the business climate; unanticipated competition; and reductions in growth rates. In addition, products, capabilities, or technologies developed by others may render our software products obsolete or non-competitive. Any adverse change in these factors could have a significant impact on the recoverability of goodwill or other intangible assets.

Share-Based Compensation. We have a stock option plan that provides for the grant of stock options to key employees, directors and non-employee consultants. We estimate the fair value of share-based awards on the date of grant using the Black-Scholes option valuation model. Share-based compensation expense includes the estimated effects of forfeitures, which will be adjusted over the requisite service period to the extent actual forfeitures differ, or are expected to differ from such estimates. Changes in estimated forfeitures are recognized in the period of change and will also impact the amount of expense to be recognized in future periods. Forfeiture rate assumptions are derived from historical data. Our policy to estimate the impact of the forfeitures remains in accordance with the newly adopted accounting standard ASU No. 2016-09.

We estimate stock price volatility at the date of grant based on the historical volatility of our common stock. Estimated option life is determined using the weighted-average period the stock options are expected to be outstanding based primarily on the options' vesting terms, remaining contractual life and the employees' expected exercise based on historical patterns. Determining the appropriate fair-value model and calculating the fair value of share-based awards at the grant date requires considerable judgment, including estimating stock price volatility, expected option life and forfeiture rates.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Analysis of Results of Operations and Other

The following discussion compares the historical results of operations on a basis consistent with GAAP for the years ended December 31, 2016, 2015 and 2014.

	Percentage of Total Revenues		
Years Ended December 31,	2016	2015	2014
Revenues:			
Software licenses and royalties	9.8%	10.0%	10.0%
Subscriptions	18.9	18.9	17.8
Software services	23.1	23.7	23.1
Maintenance	42.7	41.6	43.1
Appraisal services	3.5	4.2	4.4
Hardware and other	2.0	1.6	1.6
Total revenues	100.0	100.0	100.0
Operating Expenses:			
Cost of software licenses, royalties and acquired software	3.3	1.0	0.8
Cost of software services, maintenance and subscriptions	46.2	48.2	47.9
Cost of appraisal services	2.2	2.7	2.9
Cost of hardware and other	1.3	1.1	1.1
Selling, general and administrative expenses	22.1	22.6	22.0
Research and development expense	5.7	5.1	5.2
Amortization of customer and trade name intangibles	1.8	1.0	0.9
Operating income	17.4	18.3	19.2
Other (expense) income, net	(0.3)	0.1	(0.1)
Income before income taxes	17.1	18.4	19.1
Income tax provision	2.6	7.4	7.2
Net income	14.5%	11.0%	11.9%

2016 Compared to 2015

Revenues

On November 16, 2015, we acquired NWS, which provides public safety and financial solutions for local governments. In May 2015, we acquired a company which provides mobile hand-held solutions primarily to law enforcement agencies for field accident reporting and electronically issuing citations. The results of their operations are included in our ES segment from their respective dates of acquisition. For comparative purposes, we have provided explanations for changes in operations to exclude results of operations for these acquisitions noting the exclusion.

Software licenses and royalties.

The following table sets forth a comparison of our software licenses and royalties revenue for the years ended December 31:

			Change	
($ in thousands)	2016	2015	$	%
ES	$68,844	$54,376	$14,468	27%
A&T	5,462	4,632	830	18
Total software licenses and royalties revenue	$74,306	$59,008	$15,298	26%

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Excluding the results of acquisitions, software license revenue increased 3% compared to the prior year. The majority of this growth was due to a more active marketplace as the result of improvement in local government economic conditions, as well as our increasingly strong competitive position, which we attribute in part to our investment in product development in recent years. This increase was offset somewhat by lower sales to our existing customer base for courts and justice related add-on solutions that assist and support the transition to a paperless environment. By the end of 2015, the majority of our courts and justice clients had implemented these add-on solutions.

Although the mix of new contracts between subscription-based and perpetual license arrangements may vary from quarter to quarter and year to year, we expect our longer-term software license growth rate to be negatively impacted by a growing number of customers choosing our subscription-based options, rather than purchasing the software under a traditional perpetual software license arrangement. Subscription-based arrangements result in lower software license revenue in the initial year as compared to perpetual software license arrangements but generate higher overall revenue over the term of the contract. Our new client mix in 2016 was approximately 68% selecting perpetual software license arrangements and approximately 32% selecting subscription-based arrangements compared to a client mix in 2015 of approximately 76% selecting perpetual software license arrangements and approximately 24% selecting subscription-based arrangements. 250 new clients entered into subscription-based software arrangements in 2016 compared to 134 new clients in 2015.

Subscriptions.

The following table sets forth a comparison of our subscriptions revenue for the years ended December 31:

			Change	
($ in thousands)	2016	2015	$	%
ES	$135,516	$107,090	$28,426	27%
A&T	7,188	4,843	2,345	48
Total subscriptions revenue	$142,704	$111,933	$30,771	27%

Subscription-based services revenue primarily consists of revenue derived from our SaaS arrangements, which utilize the Tyler private cloud. As part of our subscription-based services, we also provide electronic document filing solutions ("e-filing") that simplify the filing and management of court related documents for courts and law offices. E-filing revenue is derived from transaction fees and fixed fee arrangements.

Excluding acquisitions, subscription-based services revenue increased 24% compared to 2015. E-filing services contributed approximately $4.9 million of the subscriptions revenue increase in 2016. Most of the e-filing revenue increase related to several statewide contracts, several of which implemented mandatory electronic filing during 2015 and throughout 2016. New SaaS clients as well as existing clients who converted to our SaaS model provided the remainder of the subscriptions revenue increase. In 2016, we added 250 new SaaS clients and 53 existing clients elected to convert to our SaaS model. The average contract sizes in 2016 were 1% and 9% higher than 2015 for new clients and clients converting to our SaaS model, respectively.

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Software services.

The following table sets forth a comparison of our software services revenue for the years ended December 31:

($ in thousands)	2016	2015	Change $	Change %
ES	$158,478	$129,068	$29,410	23%
A&T	16,326	10,784	5,542	51
Total software services revenue	$174,804	$139,852	$34,952	25%

Software services revenue primarily consists of professional services billed in connection with implementing our software, converting client data, training client personnel, custom development activities and consulting. New clients who purchase our proprietary software licenses generally also contract with us to provide for the related software services. Existing clients also periodically purchase additional training, consulting and minor programming services. Excluding the results of acquisitions, software services revenue grew 11% compared to the prior year period. This growth is partly due to additions to our implementation and support staff, which increased our capacity to deliver backlog, and a contract mix that included more custom development and other services.

Maintenance.

The following table sets forth a comparison of our maintenance revenue for the years ended December 31:

($ in thousands)	2016	2015	Change $	Change %
ES	$304,380	$227,586	$76,794	34%
A&T	18,589	17,951	638	4
Total maintenance revenue	$322,969	$245,537	$77,432	32%

We provide maintenance and support services for our software products and certain third-party software. Excluding the results of acquisitions, maintenance revenue grew 9% compared to the prior year. Maintenance and support revenue increased mainly due to growth in our installed customer base from new software license sales as well as annual maintenance rate increases.

Appraisal services.

The following table sets forth a comparison of our appraisal services revenue for the years ended December 31:

($ in thousands)	2016	2015	Change $	Change %
ES	$ —	$ —	$ —	—%
A&T	26,287	25,065	1,222	5
Total appraisal services revenue	$26,287	$25,065	$1,222	5%

The appraisal services business is somewhat cyclical and driven in part by statutory revaluation cycles in various states. In 2016, appraisal services revenue increased 5% compared to prior year primarily due to the Franklin County, Ohio, revaluation project, which began late in the fourth quarter of 2015.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Cost of Revenues and Gross Margins

The following table sets forth a comparison of the key components of our cost of revenues for the years ended December 31:

($ in thousands)	2016	2015	Change $	Change %
Software licenses and royalties	$ 2,964	$ 1,632	$ 1,332	82%
Acquired software	22,235	4,440	17,795	N/M
Software services, maintenance and subscriptions	348,939	285,340	63,599	22
Appraisal services	16,411	15,922	489	3
Hardware and other	10,143	6,501	3,642	56
Total cost of revenues	$400,692	$313,835	$86,857	28%

The following table sets forth a comparison of gross margin percentage by revenue type for the years ended December 31:

Gross margin percentage	2016	2015	Change
Software licenses, royalties and acquired software	66.1%	89.7%	(23.6)%
Software services, maintenance and subscriptions	45.5	42.6	2.9
Appraisal services	37.6	36.5	1.1
Hardware and other	32.3	32.5	(0.2)
Overall gross margin	47.0%	46.9%	0.1%

Software licenses, royalties and acquired software. Costs of software licenses, royalties and acquired software are primarily comprised of amortization expense for acquired software and third-party software costs. We do not have any direct costs associated with royalties. In 2016, our software licenses, royalties and acquired software gross margin percentage declined compared to the prior year due to much higher amortization expense for acquired software resulting from our acquisition of NWS. Excluding the results of NWS, our software license, royalties and acquired software gross margin was 93.9% in 2016 compared to 93.6% in 2015.

Software services, maintenance and subscriptions. Cost of software services, maintenance and subscriptions primarily consists of personnel costs related to installation of our software, conversion of client data, training client personnel and support activities and various other services such as custom client development and on-going operation of SaaS and e-filing arrangements. In 2016, the software services, maintenance and subscriptions gross margin increased 2.9% compared to the prior year. Our implementation and support staff has grown by 169 employees since December 31, 2015. To support sales growth, we began making significant investments in our implementation and support staff in early 2015. Since December 31, 2014, excluding acquisitions, we have added 369 implementation and support employees. These additions contributed to the revenue growth in 2016. In addition, the NWS revenue mix includes a lower proportion of software services compared to Tyler's historical revenue mix, which also benefited the gross margin. Costs related to maintenance and various other services such as SaaS and e-filing typically grow at a slower rate than related revenue due to leverage in the utilization of support and maintenance staff and economies of scale. Maintenance and subscription price increases also resulted in slightly higher gross margins.

Appraisal services. Appraisal services revenue comprised approximately 3.5% of total revenue. The appraisal services gross margin increased 1.1% compared to 2015. A high proportion of the costs of appraisal services revenue are variable, as we often hire temporary employees to assist in appraisal projects, whose term of employment generally ends with the projects' completion.

Our 2016 blended gross margin remained consistent compared to 2015. Our overall gross margin was positively impacted by improved utilization of our support and maintenance staff; however, this benefit was offset by amortization expense for acquired software related to the NWS acquisition.

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Selling, General and Administrative Expenses

Selling, general and administrative ("SG&A") expenses consist primarily of salaries, employee benefits, travel, share-based compensation expense, commissions and related overhead costs for administrative and sales and marketing employees, as well as, professional fees, trade show activities, advertising costs and other marketing related costs. The following table sets forth a comparison of our SG&A expenses for the following years ended December 31:

			Change	
($ in thousands)	2016	2015	$	%
Selling, general and administrative expenses	$167,161	$133,317	$33,844	25%

SG&A as a percentage of revenue was 22.1% in 2016 compared to 22.6% in 2015. In 2015, our SG&A expense included approximately $5.9 million for financial advisory, legal, accounting, due diligence, valuation and other various expenses necessary to complete the NWS acquisition. Excluding NWS transaction costs and SG&A from acquisitions, SG&A expense increased approximately 12% mainly due to compensation costs related to increased staff levels, higher stock compensation expense and increased commission expense as a result of higher sales. We have added 22 employees mainly to our sales and finance teams since December 31, 2015. In addition, our 2016 stock compensation expense rose $6.4 million, mainly due to increases in our stock price over the last few years.

Research and Development Expense

Research and development expense consists primarily of salaries, employee benefits and related overhead costs associated with product development. The following table sets forth a comparison of our research and development expense for the years ended December 31:

			Change	
($ in thousands)	2016	2015	$	%
Research and development expense	$43,154	$29,922	$13,232	44%

Research and development expense consists mainly of costs associated with development of new products and technologies from which we do not currently generate revenue, as well as costs related to the ongoing development efforts for Microsoft Dynamics AX. Our contractual research and development commitment to develop public sector functionality for Microsoft Dynamics AX was amended in March 2016, which significantly reduced our development commitment through March 2018. However, we will continue to provide sustained engineering and technical support for the public sector functionality within Dynamics AX. License and maintenance royalties for all applicable domestic and international sales of Dynamics AX to public sector entities will continue under the terms of the contract.

Excluding the results of acquisitions, research and development expense increased 1.5% in 2016 compared to the prior year period, mainly due to research and development efforts related to new Tyler product development initiatives. As a result of the Microsoft Dynamics AX amendment, we also redeployed certain development resources to enhance functionality on several existing solutions and these costs were recorded in cost of sales – software services, maintenance and subscriptions.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Amortization of Customer and Trade Name Intangibles

Acquisition intangibles are comprised of the excess of the purchase price over the fair value of net tangible assets acquired that is allocated to acquired software, leases and customer and trade name intangibles. The remaining excess purchase price is allocated to goodwill that is not subject to amortization. Amortization expense related to acquired software is included with cost of revenues, while amortization expense of customer and trade name intangibles is recorded as operating expense. The estimated useful lives of both customer and trade name intangibles range from five to 25 years. The following table sets forth a comparison of amortization of customer and trade name intangibles for the years ended December 31:

			Change	
($ in thousands)	2016	2015	$	%
Amortization of customer and trade name intangibles	$13,731	$5,905	$7,826	133%

Amortization of customer and trade name intangibles increased substantially from the comparable prior year periods due to the acquisition of NWS in November 2015.

Estimated annual amortization expense relating to customer and trade name acquisition intangibles, excluding acquired software for which the amortization expense is recorded as cost of revenues, for the next five years and thereafter is as follows (in thousands):

2017	$13,808
2018	13,658
2019	12,395
2020	11,241
2021	11,121

Amortization expense relating to acquired leases will be recorded as a reduction to hardware and other revenue and is expected to be $442,000 in 2017, $426,000 in 2018, $373,000 in 2019, $314,000 in 2020, $312,000 in 2021 and $1.3 million thereafter.

Other

The following table sets forth a comparison of other (expense) income, net for the years ended December 31:

			Change	
($ in thousands)	2016	2015	$	%
Other (expense) income, net	$ (1,998)	$ 381	$ (2,379)	N/M

Other (expense) income is comprised of interest expense and non-usage and other fees associated with our revolving credit agreement as well as interest income from invested cash. In 2015, we had significantly higher invested cash balances and no outstanding debt until we completed the NWS acquisition on November 16, 2015.

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Income Tax Provision

The following table sets forth a comparison of our income tax provision for the years ended December 31:

($ in thousands)	2016	2015	Change $	Change %
Income tax provision	$19,450	$43,555	$(24,105)	(55)%
Effective income tax rate	15.0%	40.2%		

The decrease in the income tax provision during 2016 was primarily driven by the adoption of ASU No. 2016-09, which requires the excess tax benefits from stock option exercises to be recognized as a reduction of the income tax provision, whereas they previously were accounted for as an increase to shareholders' equity. The adoption of ASU No. 2016-09 resulted in a $29.6 million decrease in our full year 2016 provision for income taxes. (see Note 1 – "Summary of Significant Accounting Policies" in the accompanying consolidated financial statements).

Excluding the impact of the adoption of ASU No. 2016-09, our income tax provision and effective tax rate in 2016 would have been $49.0 million and 37.9%, respectively.

The effective income tax rates in both 2016 and 2015 also differed from the statutory United States federal income tax rate of 35% due to state income taxes, the domestic production activities deduction, non-deductible share-based compensation expense, disqualifying incentive stock option dispositions, and non-deductible business expenses. We realized a lower domestic production activities deduction as a result of taxable income limitations and non-deductible transaction costs related to the NWS acquisition negatively impacted our 2015 effective tax rate. In the past few years a relatively high amount of excess tax benefits related to stock option exercises have resulted in a reduction in our qualified manufacturing activities deduction. The qualified manufacturing activities deduction can be limited to a certain level of taxable income on the tax return. Therefore, any significant items that reduce taxable income, such as excess tax benefits on stock options, can reduce the amount of the qualified manufacturing activities deduction. We experienced significant stock option exercise activity in 2016 and 2015 that generated excess tax benefits of $29.6 million and $45.3 million, respectively.

2015 Compared to 2014

Revenues

Software licenses and royalties.

The following table sets forth a comparison of our software licenses and royalties revenue for the years ended December 31:

($ in thousands)	2015	2014	Change $	Change %
ES	$54,376	$46,047	$8,329	18%
A&T	4,632	3,018	1,614	53
Total software licenses and royalties revenue	$59,008	$49,065	$9,943	20%

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Excluding the results of acquisitions, software license revenue increased 15% compared to the prior year. The majority of this growth was due to a more active marketplace as the result of improvement in local government economic conditions, as well as our increasingly strong competitive position, which we attribute in part to our investment in product development in recent years. In addition, add-on sales to our existing customer base for courts and justice related solutions that assist and support the transition to a paperless environment increased approximately $1.3 million.

Our new client mix in 2015 was approximately 76% selecting perpetual software license arrangements and approximately 24% selecting subscription-based arrangements compared to a client mix in 2014 of approximately 74% selecting perpetual software license arrangements and approximately 26% selecting subscription-based arrangements. 134 new clients entered into subscription-based software arrangements in 2015 compared to 138 new clients in 2014.

Subscriptions.

The following table sets forth a comparison of our subscriptions revenue for the years ended December 31:

($ in thousands)	2015	2014	Change $	Change %
ES	$107,090	$84,322	$22,768	27%
A&T	4,843	3,526	1,317	37
Total subscriptions revenue	$111,933	$87,848	$24,085	27%

Subscription-based services revenue increased 27% compared to 2014. E-filing services contributed approximately $7.7 million of the subscriptions revenue increase in 2015. Most of the e-filing revenue increase related to several statewide contracts, several of which implemented mandatory electronic filing near the end of 2014 and throughout 2015. New SaaS clients as well as existing clients who converted to our SaaS model provided the remainder of the subscriptions revenue increase. In 2015, we added 134 new SaaS clients and 66 existing clients elected to convert to our SaaS model. The average contract sizes in 2015 were 38% and 22% higher than 2014 for new clients and clients converting to our SaaS model, respectively.

Software services.

The following table sets forth a comparison of our software services revenue for the years ended December 31:

($ in thousands)	2015	2014	Change $	Change %
ES	$129,068	$104,146	$24,922	24%
A&T	10,784	9,675	1,109	11
Total software services revenue	$139,852	$113,821	$26,031	23%

Excluding the results of acquisitions, software services revenue grew 20% compared to the prior year period. This growth is mainly due to much higher revenue from proprietary software arrangements, as well as additions to our implementation and support staff, which increased our capacity to deliver backlog.

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Maintenance.

The following table sets forth a comparison of our maintenance revenue for the years ended December 31:

($ in thousands)	2015	2014	Change $	Change %
ES	$227,586	$195,881	$31,705	16%
A&T	17,951	16,815	1,136	7
Total maintenance revenue	$245,537	$212,696	$32,841	15%

Excluding the results of acquisitions, maintenance revenue grew 12% compared to the prior year. Maintenance and support revenue increased mainly due to growth in our installed customer base from new software license sales as well as annual maintenance rate increases.

Appraisal services.

The following table sets forth a comparison of our appraisal services revenue for the years ended December 31:

($ in thousands)	2015	2014	Change $	Change %
ES	$ —	$ —	$ —	—%
A&T	25,065	21,802	3,263	15
Total appraisal services revenue	$25,065	$21,802	$ 3,263	15%

Appraisal services revenue benefited from the addition of several new revaluation contracts, including the City of Detroit, and the current appraisal cycle in Indiana, both of which began in 2014. In late 2015, Franklin County, Ohio began a full reappraisal cycle, which also contributed to appraisal services revenue.

Cost of Revenues and Gross Margins

The following table sets forth a comparison of the key components of our cost of revenues for the years ended December 31:

($ in thousands)	2015	2014	Change $	Change %
Software licenses and royalties	$ 1,632	$ 1,900	$ (268)	(14)%
Acquired software	4,440	1,858	2,582	139
Software services, maintenance and subscriptions	285,340	236,363	48,977	21
Appraisal services	15,922	14,284	1,638	11
Hardware and other	6,501	5,325	1,176	22
Total cost of revenues	$313,835	$259,730	$54,105	21%

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The following table sets forth a comparison of gross margin percentage by revenue type for the years ended December 31:

Gross margin percentage	2015	2014	Change
Software licenses, royalties and acquired software	89.7%	92.3%	(2.6)%
Software services, maintenance and subscriptions	42.6	43.0	(0.4)
Appraisal services	36.5	34.5	2.0
Hardware and other	32.5	32.3	0.2
Overall gross margin	46.9%	47.3%	(0.4)%

Software licenses, royalties and acquired software. In 2015, our software licenses, royalties and acquired software gross margin percentage declined compared to the prior year due to much higher amortization expense for acquired software resulting from our acquisition of NWS. Excluding the results of NWS, our software license, royalties and acquired software gross margin was 93.6% which increased 1.3% from the prior year period mainly due to higher revenues from proprietary software arrangements.

Software services, maintenance and subscriptions. In 2015, the software services, maintenance and subscriptions gross margin percentage declined compared to the prior year mainly due to onboarding costs associated with accelerated hiring to ensure that we are well-positioned to deliver our current backlog and anticipated new business. Excluding 285 employees added with acquisitions, our implementation and support staff has grown by 200 employees since December 31, 2014. In addition, in 2015, we incurred $1.4 million more in contract labor cost than 2014 in an effort to maintain flexibility to accommodate fluctuations in demand for professional services. The gross margin decline was somewhat offset because costs related to maintenance and various other services such as SaaS and e-filing typically grow at a slower rate than related revenue due to leverage in the utilization of our support and maintenance staff and economies of scale. Price increases also resulted in slightly higher rates on certain services.

Appraisal services. Appraisal services revenue comprised approximately 4% of total revenue. The appraisal services gross margin increased 2% compared to 2014. A high proportion of the costs of appraisal services revenue are variable, as we often hire temporary employees to assist in appraisal projects, whose term of employment generally ends with the projects' completion. The appraisal services gross margin was favorably impacted by operational efficiencies associated with a large revaluation contract that began late 2014.

Our 2015 blended gross margin declined 0.4% compared to 2014. The gross margin was negatively impacted by increased acquired software amortization expense associated with the NWS acquisition and expenses associated with increased hiring of implementation and development staff in order to expand our capacity to implement our contract backlog.

Selling, General and Administrative Expenses

The following table sets forth a comparison of our SG&A expenses for the following years ended December 31:

($ in thousands)	2015	2014	Change $	Change %
Selling, general and administrative expenses	$133,317	$108,260	$25,057	23%

Management's Discussion and Analysis of Financial Condition and Results of Operations

SG&A as a percentage of revenue was 22.6% in 2015 compared to 22.0% in 2014. In 2015, our SG&A expenses include approximately $5.9 million for financial advisory, legal, accounting, due diligence, valuation and other various services necessary to complete the NWS acquisition. In addition, our 2015 operating results include $4.0 million of SG&A expenses for NWS from the date of acquisition. The remaining SG&A expense increase is mainly due to compensation cost related to increased staff levels, higher stock compensation expense and increased commission expense as a result of higher sales. Excluding 140 employees added with acquisitions, we have added 16 employees mainly to our sales and finance teams since December 31, 2014. In addition, our 2015 stock compensation expense rose $4.2 million, mainly due to increases in our stock price over the last few years.

Research and Development Expense

The following table sets forth a comparison of our research and development expense for the years ended December 31:

			Change	
($ in thousands)	2015	2014	$	%
Research and development expense	$29,922	$25,743	$4,179	16%

Research and development expense in 2015 includes approximately $1.5 million related to NWS. The remaining increase compared to 2014 was primarily due to increased staffing to maintain and enhance our competitive position and annual wage adjustments.

Amortization of Customer and Trade Name Intangibles

The following table sets forth a comparison of amortization of customer and trade name intangibles for the years ended December 31:

			Change	
($ in thousands)	2015	2014	$	%
Amortization of customer and trade name intangibles	$5,905	$4,546	$1,359	30%

In 2015, we completed two acquisitions that increased amortizable customer and trade name intangibles by approximately $127.8 million. This amount is being amortized over a weighted average period of 15 years. We also added approximately $3.7 million to acquisition related intangibles to reflect the fair value of acquired leases, which will be amortized over the weighted average life of 9 years.

Other

The following table sets forth a comparison of other income (expense), net for the years ended December 31:

			Change	
($ in thousands)	2015	2014	$	%
Other income (expense), net	$381	$(355)	$736	N/M

Expenses in 2014 were comprised primarily of non-usage and other fees associated with a revolving debt agreement that terminated in August 2014, offset slightly by interest income from invested cash. In 2015, we had significantly higher invested cash balances than 2014 until we completed the NWS acquisition on November 16, 2015.

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Income Tax Provision

The following table sets forth a comparison of our income tax provision for the years ended December 31:

			Change	
($ in thousands)	2015	2014	$	%
Income tax provision	$43,555	$35,527	$8,028	23%
Effective income tax rate	40.2%	37.6%		

The effective income tax rates were different from the statutory United States federal income tax rate of 35% principally due to state income taxes, non-deductible share-based compensation expense, the qualified manufacturing activities deduction, disqualifying incentive stock option dispositions, non-deductible meals and entertainment costs and non-deductible transaction costs. A lower qualified manufacturing activities deduction and non-deductible transaction costs related to the NWS acquisition negatively impacted our 2015 effective tax rate.

In the past few years a relatively high amount of excess tax benefits related to stock option exercises have resulted in a reduction in our qualified manufacturing activities deduction as a result of taxable income limitations. We experienced significant stock option exercise activity in 2015 and 2014 that generated excess tax benefits of $45.3 million and $19.4 million, respectively.

Financial Condition and Liquidity

As of December 31, 2016, we had cash and cash equivalents of $36.2 million compared to $33.1 million at December 31, 2015. We also had $33.5 million invested in investment grade corporate and municipal bonds as of December 31, 2016. These investments mature between 2016 through mid-2018 and we intend to hold these investments until maturity. Cash and cash equivalents consist of cash on deposit with several domestic banks and money market funds. As of December 31, 2016, we had $10.0 million in outstanding borrowings and two outstanding letters of credit totaling $2.2 million in connection with a client contract and the expansion of our Yarmouth facility. Both letters of credit guarantee our performance under each contract. We do not believe the letters of credit will be required to be drawn upon. Both letters of credit expire in 2017. We believe our revolving line of credit, cash from operating activities, cash on hand and access to the credit markets provide us with sufficient flexibility to meet our long-term financial needs.

The following table sets forth a summary of cash flows for the years ended December 31:

($ in thousands)	2016	2015	2014
Cash flows provided (used) by:			
Operating activities	$ 191,859	$ 134,327	$142,839
Investing activities	(50,720)	(398,459)	(11,555)
Financing activities	(138,075)	91,052	(3,993)
Net increase (decrease) in cash and cash equivalents	$ 3,064	$(173,080)	$127,291

Net cash provided by operating activities continues to be our primary source of funds to finance operating needs and capital expenditures. Other potential capital resources include cash on hand, public and private issuances of debt or equity securities, and bank borrowings. It is possible that our ability to access the capital and credit markets in the future may be limited by economic conditions or other factors. We currently believe that cash provided by operating activities, cash on hand and available credit are sufficient to fund our working capital requirements, capital expenditures, income tax obligations, and share repurchases for at least the next twelve months.

Management's Discussion and Analysis of Financial Condition and Results of Operations

In 2016, operating activities provided cash of $191.9 million. Operating activities that provided cash were primarily comprised of net income of $109.9 million, non-cash depreciation and amortization charges of $50.3 million and non-cash share-based compensation expense of $29.7 million. Other sources of operating cash were higher deferred revenue balances due to growth in our installed software maintenance customer base and growth in subscription-based arrangements and timing of payments for wages and commissions. Somewhat offsetting these increases were annual maintenance and subscription billings.

In general, changes in the balance of deferred revenue are cyclical and primarily driven by the timing of our maintenance renewal billings. Our renewal dates occur throughout the year but our largest renewal cycles occur in the second and fourth quarters.

Days sales outstanding in accounts receivable were 93 days at December 31, 2016, compared to 100 days at December 31, 2015. Our maintenance billing cycle typically peaks at its highest level in June and second highest level in December of each year and is followed by collections in the subsequent quarter. DSO is calculated based on quarter-end accounts receivable (excluding long-term receivables, but including unbilled receivables) divided by the quotient of annualized quarterly revenues divided by 360 days.

Investing activities used cash of $50.7 million in 2016 compared to $398.5 million in 2015. We invested $20.3 million in investment grade corporate and municipal bonds with maturity dates ranging from 2016 through mid-2018. Approximately $37.7 million was invested in property and equipment. We purchased an office building in Falmouth, Maine, that was previously leased from an entity owned by an executive's father and brother, for approximately $9.7 million and paid $8.0 million for construction to expand a building in Yarmouth, Maine. We plan to spend approximately $18.7 million in 2017 in connection with the completion of this office expansion. The remaining additions were for computer equipment, furniture and fixtures in support of internal growth, particularly with respect to growth in our cloud-based offerings. We also made a small acquisition for approximately $7.4 million and paid $2.0 million related to the working capital holdback in connection with the NWS acquisition. These expenditures were funded from cash generated from operations, cash on hand and bank borrowings.

In 2015, we completed the acquisition of NWS for the purchase price of $337.5 million in cash, of which $4.0 million was accrued at December 31, 2015, and 2.1 million shares of Tyler common stock valued at $362.8 million. Also we completed the acquisition of Brazos Technology Corporation for the purchase price, net of cash acquired and including debt assumed, of $6.1 million in cash and 12,500 shares of Tyler common stock valued at $1.5 million. On January 30, 2015, we made a $15.0 million investment in convertible preferred stock representing a 20% interest in Record Holdings Pty Limited. We also invested $30.9 million in investment grade corporate and municipal bonds. The remaining use of cash was for capital expenditures related to computer equipment, furniture and fixtures in support of internal growth, particularly with respect to growth in our cloud-based offerings.

Financing activities used cash of $138.1 million in 2016 compared to cash provided by financing activities of $91.1 million in 2015. Financing activities in 2016 were comprised of $56.0 million net payments on our revolving line of credit offset somewhat by collections of $29.8 million from stock option exercises and employee stock purchase plan activity. We also purchased approximately 882,000 shares of our common stock for an aggregate purchase price of $112.7 million, of which $860,000 was accrued at December 31, 2016.

Financing activities in 2015 were comprised of net borrowings of $66.0 million and collections of $27.8 million from stock option exercises and employee stock purchase plan activity. We purchased approximately 5,400 shares of our common stock for an aggregate purchase price of $645,000 in 2015 and paid $2.1 million in debt issuance costs. Cash used by financing activities in 2014 were comprised of purchases of 294,000 shares of our common stock for an aggregate purchase price of $22.8 million offset substantially by collections of $18.8 million from stock option exercises and contributions from the employee stock purchase plan.

Management's Discussion and Analysis of Financial Condition and Results of Operations

On May 11, 2016, our board of directors authorized the repurchase of an additional 1.5 million shares of Tyler common stock. The repurchase program, which was approved by our board of directors, was announced in October 2002, and was amended at various times from 2003 through 2016. As of December 31, 2016, we had remaining authorization to repurchase up to 2.0 million additional shares of our common stock. Our share repurchase program allows us to repurchase shares at our discretion. Market conditions influence the timing of the buybacks and the number of shares repurchased, as well as the volume of employee stock option exercises. Share repurchases are generally funded using our existing cash balances and borrowings under our credit facility and may occur through open market purchases and transactions structured through investment banking institutions, privately negotiated transactions and/or other mechanisms. There is no expiration date specified for the authorization and we intend to repurchase stock under the plan from time to time.

Subsequent to December 31, 2016 and through February 21, 2017, we purchased approximately 42,000 shares of our common stock for an aggregate cash purchase price of $6.2 million.

On November 16, 2015, we entered into a $300.0 million Credit Agreement (the "Credit Facility") with the various lenders party thereto and Wells Fargo Bank, National Association, as Administrative Agent. The Credit Facility provides for a revolving credit line of up to $300.0 million, including a $10.0 million sublimit for letters of credit. The Credit Facility matures on November 16, 2020. Borrowings under the Credit Facility may be used for general corporate purposes, including working capital requirements, acquisitions and share repurchases. Borrowings under the Credit Facility bear interest at a rate of either (1) Wells Fargo Bank's prime rate (subject to certain higher rate determinations) plus a margin of 0.25% to 1.00% or (2) the 30, 60, 90 or 180 day LIBOR rate plus a margin of 1.25% to 2.00%. As of December 31, 2016, our interest rate was 1.96%. The Credit Facility is secured by substantially all of our assets. The Credit Facility requires us to maintain certain financial ratios and other financial conditions and prohibits us from making certain investments, advances, cash dividends or loans, and limits incurrence of additional indebtedness and liens. As of December 31, 2016, we were in compliance with those covenants.

As of December 31, 2016, we had $10.0 million in outstanding borrowings and unused borrowing capacity of $287.8 million under the Credit Facility.

We paid income taxes, net of refunds received, of $30.2 million in 2016, $27.3 million in 2015, and $10.2 million in 2014. In 2016, we experienced significant stock option exercise activity that generated net tax benefits of $29.6 million and reduced tax payments accordingly. In 2015 and 2014, excess tax benefits were $45.3 million and $19.4 million, respectively.

Excluding acquisitions, we anticipate that 2017 capital spending will be between $52.0 million and $54.0 million, including approximately $24.0 million related to real estate. We expect the majority of the other capital spending will consist of computer equipment and software for infrastructure replacements and expansion. We currently do not expect to capitalize significant amounts related to software development in 2017, but the actual amount and timing of those costs, and whether they are capitalized or expensed may result in additional capitalized software development. Capital spending is expected to be funded from existing cash balances, cash flows from operations and borrowings under our revolving line of credit.

From time to time we engage in discussions with potential acquisition candidates. In order to pursue such opportunities, which could require significant commitments of capital, we may be required to incur debt or to issue additional potentially dilutive securities in the future. No assurance can be given as to our future acquisition opportunities and how such opportunities will be financed.

We lease office facilities, as well as transportation, computer and other equipment used in our operations under non-cancelable operating lease agreements expiring at various dates through 2023. Most leases contain renewal options and some contain purchase options.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Summarized in the table below are our obligations to make future payments under our Credit Facility and lease obligations at December 31, 2016 (in thousands):

	2017	2018	2019	2020	2021	Thereafter	Total
Revolving line of credit	$ —	$ —	$ —	$10,000	$ —	$ —	$10,000
Lease obligations	5,177	4,221	3,556	3,273	2,059	601	18,887
Total future payment obligations	$5,177	$4,221	$3,556	$13,273	$2,059	$601	$28,887

As of December 31, 2016, we do not have any off-balance sheet arrangements, guarantees to third-parties or material purchase commitments, except for the operating lease commitments listed above.

Capitalization

At December 31, 2016, our capitalization consisted of $10.0 million of outstanding borrowings and $915.5 million of shareholders' equity.

Quantitative And Qualitative Disclosures About Market Risk.

Market risk represents the risk of loss that may affect us due to adverse changes in financial market prices and interest rates.

As of December 31, 2016, we had $10.0 million in outstanding borrowings under the Credit Facility. Loans under the Credit Facility bear interest, at Tyler's option, at a per annum rate of either (1) the Wells Fargo Bank prime rate (subject to certain higher rate determinations) plus a margin of 0.25% to 1.00% or (2) the 30, 60, 90 or 180-day LIBOR rate plus a margin of 1.25% to 2.00%.

In 2016, our effective average interest rate for borrowings was 1.79%. As of December 31, 2016 our interest rate was 1.96%. The Credit Facility is secured by substantially all of our assets.

Assuming borrowings of $10.0 million, a hypothetical 10% increase in our interest rate at December 31, 2016 for a one-year period would result in approximately $19,600 of additional interest rate expense.

Controls and Procedures

Controls And Procedures

Evaluation of Disclosure Controls and Procedures – We maintain disclosure controls and procedures (as defined in Rule 13a-15(e) of the Securities Exchange Act) designed to provide reasonable assurance that the information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. These include controls and procedures designed to ensure that this information is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosures. Management, with the participation of the chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2016. Based on this evaluation, the chief executive officer and chief financial officer have concluded that our disclosure controls and procedures were effective as of December 31, 2016.

Management's Report on Internal Control Over Financial Reporting – Tyler's management is responsible for establishing and maintaining effective internal control over financial reporting as defined in Securities Exchange Act Rule 13a-15(f). Tyler's internal control over financial reporting is designed to provide reasonable assurance to Tyler's management and board of directors regarding the preparation and fair presentation of published financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Management assessed the effectiveness of Tyler's internal control over financial reporting as of December 31, 2016. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Based on our assessment, we concluded that, as of December 31, 2016, Tyler's internal control over financial reporting was effective based on those criteria.

Tyler's internal control over financial reporting as of December 31, 2016 has been audited by Ernst & Young LLP, the independent registered public accounting firm who also audited Tyler's financial statements. Ernst & Young's attestation report on Tyler's internal control over financial reporting appears on page 60 hereof.

Changes in Internal Control Over Financial Reporting – During the quarter ended December 31, 2016, there were no changes in our internal control over financial reporting, as defined in Securities Exchange Act Rule 13a-15(f), that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders

Tyler Technologies, Inc.

We have audited Tyler Technologies, Inc.'s internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Tyler Technologies, Inc.'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, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and 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.

In our opinion, Tyler Technologies, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Tyler Technologies, Inc. as of December 31, 2016 and 2015, and the related consolidated statements of comprehensive income, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2016 and our report dated February 22, 2017 expressed an unqualified opinion thereon.

Ernst & Young LLP

Dallas, Texas
February 22, 2017

Report of Independent Registered Public Accounting Firm

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders

Tyler Technologies, Inc.

We have audited the accompanying consolidated balance sheets of Tyler Technologies, Inc. as of December 31, 2016 and 2015, and the related consolidated statements of comprehensive income, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements 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 financial statements referred to above present fairly, in all material respects, the financial position of Tyler Technologies, Inc. at December 31, 2016 and 2015, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles.

As discussed in Note 1 to the consolidated financial statements, the Company has adopted ASU 2016-09 Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Tyler Technologies, Inc.'s internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 22, 2017 expressed an unqualified opinion thereon.

Ernst & Young LLP

Dallas, Texas
February 22, 2017

Consolidated Statements of Comprehensive Income

For the years ended December 31,	2016	2015	2014
(In thousands, except per share amounts)			
Revenues:			
Software licenses and royalties	$ 74,306	$ 59,008	$ 49,065
Subscriptions	142,704	111,933	87,848
Software services	174,804	139,852	113,821
Maintenance	322,969	245,537	212,696
Appraisal services	26,287	25,065	21,802
Hardware and other	14,973	9,627	7,869
Total revenues	756,043	591,022	493,101
Cost of revenues:			
Software licenses and royalties	2,964	1,632	1,900
Acquired software	22,235	4,440	1,858
Software services, maintenance and subscriptions	348,939	285,340	236,363
Appraisal services	16,411	15,922	14,284
Hardware and other	10,143	6,501	5,325
Total cost of revenues	400,692	313,835	259,730
Gross profit	355,351	277,187	233,371
Selling, general and administrative expenses	167,161	133,317	108,260
Research and development expense	43,154	29,922	25,743
Amortization of customer and trade name intangibles	13,731	5,905	4,546
Operating income	131,305	108,043	94,822
Other (expense) income, net	(1,998)	381	(355)
Income before income taxes	129,307	108,424	94,467
Income tax provision	19,450	43,555	35,527
Net income	$ 109,857	$ 64,869	$ 58,940
Earnings per common share:			
Basic	$ 3.01	$ 1.90	$ 1.79
Diluted	$ 2.82	$ 1.77	$ 1.66

See accompanying notes.

Consolidated Balance Sheets

December 31,	2016	2015
(In thousands, except par value and share amounts)		
ASSETS		
Current assets:		
Cash and cash equivalents	$ 36,151	$ 33,087
Accounts receivable (less allowance for losses of $3,396 in 2016 and $1,640 in 2015)	200,334	176,360
Short-term investments	20,273	13,423
Prepaid expenses	21,039	22,334
Income tax receivable	2,895	21,080
Other current assets	2,268	1,931
Total current assets	282,960	268,215
Accounts receivable, long-term	2,480	2,777
Property and equipment, net	124,268	101,112
Other assets:		
Goodwill	650,237	653,666
Other intangibles, net	267,259	295,378
Cost method investment	15,000	15,000
Non-current investments and other assets	15,741	20,422
	$1,357,945	$1,356,570
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 7,295	$ 6,789
Accrued liabilities	55,989	49,156
Deferred revenue	298,217	281,627
Total current liabilities	361,501	337,572
Revolving line of credit	10,000	66,000
Deferred revenue, long-term	2,140	3,115
Deferred income taxes	68,779	91,026
Commitments and contingencies		
Shareholders' equity:		
Preferred stock, $10.00 par value; 1,000,000 shares authorized; none issued	—	—
Common stock, $0.01 par value; 100,000,000 shares authorized; 48,147,969 shares issued in 2016 and 2015	481	481
Additional paid-in capital	556,663	607,755
Accumulated other comprehensive loss, net of tax	(46)	(46)
Retained earnings	435,876	326,019
Treasury stock, at cost; 11,381,733 and 11,373,666 shares in 2016 and 2015, respectively	(77,449)	(75,352)
Total shareholders' equity	915,525	858,857
	$1,357,945	$1,356,570

See accompanying notes.

Consolidated Statements of Shareholders' Equity

For the years ended December 31, 2016, 2015 and 2014

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Treasury Stock		Total Shareholders' Equity
	Shares	Amount				Shares	Amount	
(In thousands)								
Balance at December 31, 2013	48,148	$481	$182,176	$(46)	$202,210	(15,310)	$(138,502)	$ 246,319
Net income	—	—	—	—	58,940	—	—	58,940
Issuance of shares pursuant to stock compensation plan	—	—	(17,449)	—	—	855	32,129	14,680
Stock compensation	—	—	14,819	—	—	—	—	14,819
Issuance of shares pursuant to employee stock purchase plan	—	—	2,235	—	—	53	1,909	4,144
Federal income tax benefit related to exercise of stock options	—	—	19,415	—	—	—	—	19,415
Treasury stock purchases	—	—	—	—	—	(294)	(22,817)	(22,817)
Issuance of shares for acquisition	—	—	193	—	—	17	1,280	1,473
Balance at December 31, 2014	48,148	481	201,389	(46)	261,150	(14,679)	(126,001)	336,973
Net income	—	—	—	—	64,869	—	—	64,869
Issuance of shares pursuant to stock compensation plan	—	—	4,332	—	—	1,118	18,828	23,160
Stock compensation	—	—	20,182	—	—	—	—	20,182
Issuance of shares pursuant to employee stock purchase plan	—	—	3,879	—	—	43	792	4,671
Federal income tax benefit related to exercise of stock options	—	—	45,314	—	—	—	—	45,314
Treasury stock purchases	—	—	—	—	—	(5)	(645)	(645)
Issuance of shares for acquisition	—	—	332,659	—	—	2,149	31,674	364,333
Balance at December 31, 2015	48,148	481	607,755	(46)	326,019	(11,374)	(75,352)	858,857
Net income	—	—	—	—	109,857	—	—	109,857
Issuance of shares pursuant to stock compensation plan	—	—	(82,273)	—	—	827	105,800	23,527
Stock compensation	—	—	29,747	—	—	—	—	29,747
Issuance of shares pursuant to employee stock purchase plan	—	—	1,434	—	—	47	4,802	6,236
Treasury stock purchases	—	—	—	—	—	(882)	(112,699)	(112,699)
Balance at December 31, 2016	48,148	$481	$556,663	$(46)	$435,876	(11,382)	$ (77,449)	$ 915,525

See accompanying notes.

Consolidated Statements of Cash Flows

For the years ended December 31,	2016	2015	2014
(In thousands)			
Cash flows from operating activities:			
Net income	$ 109,857	$ 64,869	$ 58,940
Adjustments to reconcile net income to cash provided by operations:			
Depreciation and amortization	50,301	19,574	14,605
Share-based compensation expense	29,747	20,182	14,819
Provision for losses – accounts receivable	4,484	1,756	1,897
Deferred income tax benefit	(28,939)	(7,956)	(3,804)
Changes in operating assets and liabilities, exclusive of effects of acquired companies:			
Accounts receivable	(30,227)	(28,172)	(8,912)
Income tax receivable	18,185	24,255	29,117
Prepaid expenses and other current assets	2,229	(3,054)	(3,696)
Accounts payable	387	652	1,586
Accrued liabilities	10,717	490	6,326
Deferred revenue	25,118	41,731	31,961
Net cash provided by operating activities	191,859	134,327	142,839
Cash flows from investing activities:			
Cost of acquisitions, net of cash acquired	(9,394)	(339,961)	(3,242)
Purchase of cost method investment	—	(15,000)	—
Purchase of marketable security investments	(20,316)	(31,907)	—
Proceeds from marketable security investments	16,837	900	808
Additions to property and equipment	(37,726)	(12,501)	(9,343)
(Increase) decrease in other	(121)	10	222
Net cash used by investing activities	(50,720)	(398,459)	(11,555)
Cash flows from financing activities:			
(Decrease) increase in net borrowings on revolving line of credit	(56,000)	66,000	—
Purchase of treasury shares	(111,838)	(645)	(22,817)
Contributions from employee stock purchase plan	6,236	4,671	4,144
Proceeds from exercise of stock options	23,527	23,160	14,680
Debt issuance costs	—	(2,134)	—
Net cash (used) provided by financing activities	(138,075)	91,052	(3,993)
Net increase (decrease) in cash and cash equivalents	3,064	(173,080)	127,291
Cash and cash equivalents at beginning of period	33,087	206,167	78,876
Cash and cash equivalents at end of period	$ 36,151	$ 33,087	$206,167

See accompanying notes.

Notes to Consolidated Financial Statements

(Tables in thousands, except per share data)

(1) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Description Of Business

We provide integrated software systems and related services for the public sector, with a focus on local governments. We develop and market a broad line of software solutions and services to address the information technology ("IT") needs of cities, counties, schools and other local government entities. In addition, we provide professional IT services, including software and hardware installation, data conversion, training, and for certain customers, product modifications, along with continuing maintenance and support for customers using our systems. We also provide subscription-based services such as software as a service ("SaaS") arrangements, which utilize the Tyler private cloud, and electronic document filing solutions ("e-filing"). In addition, we provide property appraisal outsourcing services for taxing jurisdictions.

Principles Of Consolidation

The consolidated financial statements include our parent company and a subsidiary, which is wholly-owned. All significant intercompany balances and transactions have been eliminated in consolidation. Comprehensive income (loss) is defined as the change in equity of a business enterprise during a period from transactions, and other events and circumstances from non-owner sources and includes all components of net income (loss) and other comprehensive income (loss). We had no items of other comprehensive income (loss) during the years ended December 31, 2016, 2015 and 2014.

Cash And Cash Equivalents

Cash in excess of that necessary for operating requirements is invested in short-term, highly liquid, income-producing investments. Investments with original maturities of three months or less are classified as cash and cash equivalents, which primarily consist of cash on deposit with several banks and money market funds. Cash and cash equivalents are stated at cost, which approximates market value.

Revenue Recognition

We earn revenue from software licenses, royalties, subscription-based services, software services, post-contract customer support ("PCS" or "maintenance"), hardware, and appraisal services.

Software Arrangements:

For the majority of our software arrangements, we provide services that range from installation, training, and basic consulting to software modification and customization to meet specific customer needs. If the arrangement does not require significant production, modification or customization or where the software services are not considered essential to the functionality of the software, revenue is recognized when all of the following conditions are met

- persuasive evidence of an arrangement exists
- delivery has occurred
- our fee is fixed or determinable
- collectability is probable

Notes to Consolidated Financial Statements

For multiple element arrangements, each element of the arrangement is analyzed and we allocate a portion of the total arrangement fee to the elements based on the relative fair value of the element using vendor-specific objective evidence of fair value ("VSOE"), regardless of any separate prices stated within the contract for each element. Fair value is considered the price a customer would be required to pay if the element was sold separately based on our historical experience of stand-alone sales of these elements to third-parties. For PCS, we use renewal rates for continued support arrangements to determine fair value. For software services, we use the fair value we charge our customers when those services are sold separately. We monitor our transactions to determine that we maintain and periodically revise VSOE to reflect fair value. In software arrangements in which we have the fair value of all undelivered elements but not of a delivered element, we apply the "residual method," in compliance with Accounting Standards Codification ("ASC") 985-605, Software Revenue Recognition. Under the residual method, if the fair value of all undelivered elements is determinable, the fair value of the undelivered elements is deferred and the remaining portion of the arrangement fee is allocated to the delivered element(s) and is recognized as revenue assuming the other revenue recognition criteria are met. In software arrangements in which we do not have VSOE for all undelivered elements, revenue is deferred until fair value is determined or all elements for which we do not have VSOE have been delivered. Alternatively, if sufficient VSOE does not exist and the only undelivered element is services that do not involve significant modification or customization of the software, the entire fee is recognized over the period during which the services are expected to be performed.

Software Licenses and Royalties

We recognize the revenue allocable to software licenses and specified upgrades upon delivery of the software product or upgrade to the customer, unless the fee is not fixed or determinable or collectability is not probable. If the fee is not fixed or determinable, software license revenue is generally recognized as payments become due from the customer. If collectability is not considered probable, revenue is recognized when the fee is collected. Arrangements that include software services, such as training or installation, are evaluated to determine whether those services are essential to the product's functionality.

A majority of our software arrangements involve "off-the-shelf" software. We consider software to be off-the-shelf software if it can be added to an arrangement with minor changes in the underlying code and it can be used by the customer for the customer's purpose upon installation. For off-the-shelf software arrangements, we recognize the software license fee as revenue after delivery has occurred, customer acceptance is reasonably assured, that portion of the fee represents a non-refundable enforceable claim and is probable of collection, and the remaining services such as training are not considered essential to the product's functionality.

For arrangements that involve significant production, modification or customization of the software, or where software services are otherwise considered essential, we recognize revenue using contract accounting and apply the provisions of the Construction type and Production type Contracts as discussed in ASC 605-35. We generally use the percentage-of-completion method to recognize revenue from these arrangements. We measure progress-to-completion primarily using labor hours incurred, or value added. The percentage-of-completion method generally results in the recognition of reasonably consistent profit margins over the life of a contract because we have the ability to produce reasonably dependable estimates of contract billings and contract costs. We use the level of profit margin that is most likely to occur on a contract. If the most likely profit margin cannot be precisely determined, the lowest probable level of profit margin in the range of estimates is used until the results can be estimated more precisely. These arrangements are often implemented over an extended time period and occasionally require us to revise total cost estimates. Amounts recognized in revenue are calculated using the progress-to-completion measurement after giving effect to any changes in our cost estimates. Changes to total estimated contract costs, if any, are recorded in the period they are determined. Estimated losses on uncompleted contracts are recorded in the period in which we first determine that a loss is apparent. For arrangements that include new product releases for which it is difficult to estimate final profitability except to assume that no loss will ultimately be incurred, we recognize revenue under the completed contract method. Under the completed contract method, revenue is recognized only when a contract is completed or substantially complete. Historically these amounts have been immaterial.

Notes to Consolidated Financial Statements

We recognize royalty revenue when earned under the terms of our third party royalty arrangements, provided the fees are considered fixed or determinable and realization of payment is probable. Currently, our third party royalties are variable in nature and such amounts are not considered fixed or determinable until we receive notice of amounts earned. Typically, we receive notice of royalty revenues earned on a quarterly basis in the immediate quarter following the royalty reporting period.

Software Services

Some of our software arrangements include services considered essential for the customer to use the software for the customer's purposes. For these software arrangements, both the software license revenue and the services revenue are recognized as the services are performed using the percentage-of-completion contract accounting method. When software services are not considered essential, the fee allocable to the service element is recognized as revenue as we perform the services.

Computer Hardware Equipment

Revenue allocable to computer hardware equipment is recognized when we deliver the equipment and collection is probable.

Post-Contract Customer Support

Our customers generally enter into PCS agreements when they purchase our software licenses. PCS includes telephone support, bug fixes, and rights to upgrades on a when-and-if available basis. Our PCS agreements are typically renewable annually. Revenue allocated to PCS is recognized on a straight-line basis over the period the PCS is provided. All significant costs and expenses associated with PCS are expensed as incurred.

Subscription-Based Services:

Subscription-based services consist of revenues derived from SaaS arrangements, which utilize the Tyler private cloud, and electronic filing transactions.

For SaaS arrangements, we evaluate whether the customer has the contractual right to take possession of our software at any time during the hosting period without significant penalty and whether the customer can feasibly maintain the software on the customer's hardware or enter into another arrangement with a third-party to host the software. In cases where the customer has the contractual right to take possession of our software at any time during the hosting period without significant penalty and the customer can feasibly maintain the software on the customer's hardware or enter into another arrangement with a third-party to host the software, we recognize the license, professional services and hosting services revenues pursuant to ASC 985-605, Software Revenue Recognition.

For SaaS arrangements that do not meet the criteria for recognition under ASC 985-605, we account for the elements under ASC 605-25, Multiple Element Arrangements, using all applicable facts and circumstances, including whether (i) the element has stand-alone value, (ii) there is a general right of return and (iii) the revenue is contingent on delivery of other elements. We allocate contract value to each element of the arrangement that qualifies for treatment as a separate element based on VSOE, and if VSOE is not available, third-party evidence, and if third-party evidence is unavailable, estimated selling price. We recognize hosting services ratably over the term of the arrangement, which range from one to 10 years but are typically for a period of five to seven years. For professional services associated with SaaS arrangements that we determine do not have stand-alone value to the customer or are contingent on delivery of other elements, we recognize the services revenue ratably over the remaining contractual period once we have provided the customer access to the software and we may begin billing for hosting services. We record amounts that have been invoiced in accounts receivable and in deferred revenue or revenues, depending on whether the revenue recognition criteria have been met.

Notes to Consolidated Financial Statements

Electronic filing transaction fees primarily pertain to documents filed with the courts by attorneys and other third-parties via our e-filing services and retrieval of filed documents via our access services. The elements for these arrangements are accounted for under ASC 605-25. For each document filed with a court, the filer generally pays a transaction fee and a court filing fee to us and we remit a portion of the transaction fee and the filing fee to the court. We record as revenue the transaction fee, while the portion of the transaction fee remitted to the courts is recorded as cost of sales as we are acting as a principal in the arrangement. Court filing fees collected on behalf of the courts and remitted to the courts are recorded on a net basis and thus do not affect the statement of comprehensive income. In some cases, we are paid on a fixed fee basis and recognize the revenue ratably over the contractual period.

Costs of performing services under subscription-based arrangements are expensed as incurred, except for certain direct and incremental contract origination and set-up costs associated with SaaS arrangements. Such direct and incremental costs are capitalized and amortized ratably over the related SaaS hosting term.

Appraisal Services:

For our property appraisal projects, we recognize revenue using the proportional performance method of revenue recognition since many of these projects are implemented over one to three year periods and consist of various unique activities. Under this method of revenue recognition, we identify each activity for the appraisal project, with a typical project generally calling for bonding, office set up, training, routing of map information, data entry, data collection, data verification, informal hearings, appeals and project management. Each activity or act is specifically identified and assigned an estimated cost. Costs which are considered to be associated with indirect activities, such as bonding costs and office set up, are expensed as incurred. These costs are typically billed as incurred and are recognized as revenue equal to cost. Direct contract fulfillment activities and related supervisory costs such as data collection, data entry and verification are expensed as incurred. The direct costs for these activities are determined and the total contract value is then allocated to each activity based on a consistent profit margin. Each activity is assigned a consistent unit of measure to determine progress towards completion and revenue is recognized for each activity based upon the percentage complete as applied to the estimated revenue for that activity. Progress for the fulfillment activities is typically based on labor hours or an output measure such as the number of parcel counts completed for that activity. Estimated losses on uncompleted contracts are recorded in the period in which we first determine that a loss is apparent.

Allocation of Revenue in Statements of Comprehensive Income

In our statements of comprehensive income, we allocate revenue to software licenses, software services, maintenance and hardware and other based on the VSOE of fair value for elements in each revenue arrangement and the application of the residual method for arrangements in which we have established VSOE of fair value for all undelivered elements. In arrangements where we are not able to establish VSOE of fair value for all undelivered elements, revenue is first allocated to any undelivered elements for which VSOE of fair value has been established. We then allocate revenue to any undelivered elements for which VSOE of fair value has not been established based upon management's best estimate of fair value of those undelivered elements and apply a residual method to determine the license fee. Management's best estimate of fair value of undelivered elements for which VSOE of fair value has not been established is based upon the VSOE of similar offerings and other objective criteria.

Other

The majority of deferred revenue consists of unearned maintenance revenue that has been billed based on contractual terms in the underlying arrangement with the remaining balance consisting of payments received in advance of revenue being earned under software licensing, subscription-based services, software and appraisal services and hardware installation. Unbilled revenue is not billable at the balance sheet date but is recoverable over the remaining life of the contract through billings made in accordance with contractual agreements. The termination clauses in our contracts generally provide for the payment for the value of products delivered and services performed in the event of an early termination.

Notes to Consolidated Financial Statements

Prepaid expenses and other current assets include direct and incremental costs such as commissions associated with arrangements for which revenue recognition has been deferred. Such costs are expensed at the time the related revenue is recognized.

Use of Estimates

The preparation of our financial statements in conformity with accounting principles generally accepted in the United States ("GAAP") requires us 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. Significant items subject to such estimates and assumptions include the application of the percentage-of-completion and proportional performance methods of revenue recognition, the carrying amount and estimated useful lives of intangible assets, determination of share-based compensation expense and valuation allowance for receivables. Actual results could differ from estimates.

Property and Equipment, Net

Property, equipment and purchased software are recorded at original cost and increased by the cost of any significant improvements after purchase. We expense maintenance and repairs when incurred. Depreciation and amortization is calculated using the straight-line method over the shorter of the asset's estimated useful life or the term of the lease in the case of leasehold improvements. For income tax purposes, we use accelerated depreciation methods as allowed by tax laws.

Research and Development Costs

We expensed research and development costs of $43.2 million during 2016, $29.9 million during 2015, and $25.7 million during 2014.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred taxes arise because of different treatment between financial statement accounting and tax accounting, known as "temporary differences." We record the tax effect of these temporary differences as "deferred tax assets" (generally items that can be used as a tax deduction or credit in the future periods) and "deferred tax liabilities" (generally items that we received a tax deduction for, which have not yet been recorded in the income statement). The deferred tax assets and liabilities are measured using enacted tax rules and laws that are expected to be in effect when the temporary differences are expected to be recovered or settled. A valuation allowance would be established to reduce deferred tax assets if it is more likely than not that a deferred tax asset will not be "realized."

Share-Based Compensation

We have a stock option plan that provides for the grant of stock options to key employees, directors and non-employee consultants. Stock options generally vest after three to six years of continuous service from the date of grant and have a contractual term of 10 years. We account for share-based compensation utilizing the fair value recognition pursuant to ASC 718, Stock Compensation. See Note 9 – "Share-Based Compensation" for further information. During fourth quarter of 2016, we adopted Accounting Standards Update ("ASU") No. 2016-09 "Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting," See "New Accounting Pronouncements" below for further information.

Notes to Consolidated Financial Statements

Goodwill and Other Intangible Assets

Goodwill

Goodwill represents the excess of the purchase price over the fair value of net assets acquired, including identifiable intangible assets, in connection with our business combinations. Upon acquisition, goodwill is assigned to the reporting unit that is expected to benefit from the synergies of the business combination, which is the reporting unit to which the related acquired technology is assigned. A reporting unit is the operating segment, or a business unit one level below that operating segment, for which discrete financial information is prepared and regularly reviewed by executive management. We assess goodwill for impairment annually as of April, or more frequently whenever events or changes in circumstances indicate its carrying value may not be recoverable.

When testing goodwill for impairment quantitatively, we first compare the fair value of each reporting unit with its carrying amount. If the carrying amount of a reporting unit exceeds its fair value, a second step is performed to measure the amount of potential impairment. In the second step, we compare the implied fair value of reporting unit goodwill with the carrying amount of the reporting unit's goodwill. If the carrying amount of reporting unit goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized. The fair values calculated in our impairment tests are determined using discounted cash flow models involving several assumptions. The assumptions that are used are based upon what we believe a hypothetical marketplace participant would use in estimating fair value. We evaluate the reasonableness of the fair value calculations of our reporting units by comparing the total of the fair value of all of our reporting units to our total market capitalization.

Our annual goodwill impairment analysis, which we performed quantitatively during the second quarter of 2016, did not result in an impairment charge.

Other Intangible Assets

We make judgments about the recoverability of purchased intangible assets other than goodwill whenever events or changes in circumstances indicate that an impairment may exist. Customer base and acquired software each comprise approximately half of our purchased intangible assets other than goodwill. We review our customer turnover each year for indications of impairment. Our customer turnover has historically been very low. There have been no significant impairments of intangible assets in any of the periods presented. If indications of impairment are determined to exist, we measure the recoverability of assets by a comparison of the carrying amount of the asset to the estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of the assets exceeds their estimated future cash flows, an impairment charge is recognized for the amount by which the carrying amount of the assets exceeds the fair value of the assets.

Impairment of Long-Lived Assets

We periodically evaluate whether current facts or circumstances indicate that the carrying value of our property and equipment or other long-lived assets to be held and used may not be recoverable. If such circumstances are determined to exist, we measure the recoverability of assets to be held and used by a comparison of the carrying amount of the asset or appropriate grouping of assets and the estimated undiscounted future cash flows expected to be generated by the assets. If the carrying amount of the assets exceeds their estimated future cash flows, an impairment charge is recognized for the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of would be separately presented in the balance sheet and reported at the lower of the carrying amount or fair value less costs to sell, and are no longer depreciated. The assets and liabilities of a disposed group classified as held for sale would be presented separately in the appropriate asset and liability sections of the balance sheet. There have been no significant impairments of long-lived assets in any of the periods presented.

Notes to Consolidated Financial Statements

Costs of Computer Software

We capitalize software development costs upon the establishment of technological feasibility and prior to the availability of the product for general release to customers. Software development costs primarily consist of personnel costs and rent for related office space. We begin to amortize capitalized costs when a product is available for general release to customers. Amortization expense is determined on a product-by-product basis at a rate not less than straight-line basis over the product's remaining estimated economic life. We have not capitalized any internal software development costs in any of the periods presented.

Fair Value of Financial Instruments

Cash and cash equivalents, accounts receivables, accounts payables, short-term obligations and certain other assets at cost approximate fair value because of the short maturity of these instruments. The fair value of our revolving line of credit approximates book value as of December 31, 2016, because our interest rates reset approximately every 30 days or less. See Note 6 – "Revolving Line of Credit" for further discussion.

As of December 31, 2016, we have $33.5 million in investment grade corporate and municipal bonds with maturity dates ranging from 2016 through mid-2018. We intend to hold these bonds to maturity and have classified them as such. We believe cost approximates fair value because of the relatively short duration of these investments. The fair values of these securities are considered Level II as they are based on inputs from quoted prices in markets that are not active or from other observable market data. These investments are included in short-term investments and non-current investments and other assets.

As of December 31, 2016, we have $15.0 million invested in convertible preferred stock representing a 20% interest in Record Holdings Pty Limited, a privately held Australian company specializing in digitizing the spoken word in court and legal proceedings. The fair value of this investment is based on valuations using Level III, unobservable inputs that are supported by little or no market value activity and that are significant to the fair value of the investment.

Concentrations of Credit Risk and Unbilled Receivables

Financial instruments that potentially subject us to significant concentrations of credit risk consist principally of cash and cash equivalents, accounts receivable from trade customers, and investments in marketable securities. Our cash and cash equivalents primarily consists of operating account balances and money market funds, which are maintained at several major domestic financial institutions and the balances often exceed insured amounts. As of December 31, 2016, we had cash and cash equivalents of $36.2 million. We perform periodic evaluations of the credit standing of these financial institutions.

Concentrations of credit risk with respect to receivables are limited due to the size and geographical diversity of our customer base. Historically, our credit losses have not been significant. As a result, we do not believe we have any significant concentrations of credit risk as of December 31, 2016.

We maintain allowances for doubtful accounts and sales adjustments, which are provided at the time the revenue is recognized. Since most of our customers are domestic governmental entities, we rarely incur a loss resulting from the inability of a customer to make required payments. Events or changes in circumstances that indicate that the carrying amount for the allowances for doubtful accounts and sales adjustments may require revision, include, but are not limited to, deterioration of a customer's financial condition, failure to manage our customer's expectations regarding the scope of the services to be delivered, and defects or errors in new versions or enhancements of our software products.

Notes to Consolidated Financial Statements

The following table summarizes the changes in the allowances for doubtful accounts and sales adjustments:

Years Ended December 31,	2016	2015	2014
Balance at beginning of year	$ 1,640	$ 1,725	$ 1,113
Provisions for losses – accounts receivable	4,484	1,756	1,897
Collection of accounts previously written off	—	153	—
Deductions for accounts charged off or credits issued	(2,728)	(1,994)	(1,285)
Balance at end of year	$ 3,396	$ 1,640	$ 1,725

The termination clauses in most of our contracts provide for the payment for the value of products delivered or services performed in the event of early termination. Our property appraisal outsourcing service contracts can range up to three years and, in a few cases, as long as five years, in duration. In connection with these contracts, as well as certain software service contracts, we may perform work prior to when the software and services are billable and/or payable pursuant to the contract. We have historically recorded such unbilled receivables (costs and estimated profit in excess of billings) in connection with (1) property appraisal services contracts accounted for using proportional performance accounting in which the revenue is earned based upon activities performed in one accounting period but the billing normally occurs subsequently and may span another accounting period; (2) software services contracts accounted for using the percentage-of-completion method of revenue recognition using labor hours as a measure of progress towards completion in which the services are performed in one accounting period but the billing for the software element of the arrangement may be based upon the specific phase of the implementation; (3) software revenue for which we have objective evidence that the customer-specified objective criteria has been met but the billing has not yet been submitted to the customer; (4) some of our contracts provide for an amount to be withheld from a progress billing (generally between 5% and 20% retention) until final and satisfactory project completion is achieved; and (5) in a limited number of cases, we may grant extended payment terms, generally to existing customers with whom we have a long-term relationship and favorable collection history.

We have recorded unbilled receivables of $33.6 million and $29.7 million at December 31, 2016 and 2015, respectively. Included in unbilled receivables are retention receivables of $5.0 million and $4.7 million at December 31, 2016 and 2015, respectively, and these retentions become payable upon the completion of the contract or completion of our fieldwork and formal hearings. Unbilled receivables and retention receivables expected to be collected in excess of one year have been included with accounts receivable, long-term portion in the accompanying consolidated balance sheets.

Indemnification

Most of our software license agreements indemnify our customers in the event that the software sold infringes upon the intellectual property rights of a third-party. These agreements typically provide that in such event we will either modify or replace the software so that it becomes non-infringing or procure for the customer the right to use the software. We have recorded no liability associated with these indemnifications, as we are not aware of any pending or threatened infringement actions that are possible losses. We believe the estimated fair value of these intellectual property indemnification clauses is minimal.

Notes to Consolidated Financial Statements

We have also agreed to indemnify our officers and board members if they are named or threatened to be named as a party to any proceeding by reason of the fact that they acted in such capacity. We maintain directors' and officers' liability insurance coverage to protect against any such losses. We have recorded no liability associated with these indemnifications. Because of our insurance coverage, we believe the estimated fair value of these indemnification agreements is minimal.

Reclassifications

Certain amounts for previous years have been reclassified to conform to the current year presentation.

New Accounting Pronouncements

New Accounting Pronouncements Adopted in 2016

Improvements to Employee Share-Based Payment Accounting. In March 2016, the Financial Accounting Standards Board ("FASB") issued ASU No. 2016-09, "Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting" which simplifies several aspects of the accounting for employee share-based payment transactions, including the accounting for income taxes, forfeitures, and statutory tax withholding requirements, as well as classification in the statement of cash flows. This standard is effective for our interim and annual reporting periods beginning December 15, 2016, and early adoption is permitted. We elected to early adopt this standard in fourth quarter of 2016. The impact of the early adoption was as follows:

- The standard eliminates additional paid in capital ("APIC") pools and requires excess tax benefits and tax deficiencies to be recorded in the income statement as a discrete item when the awards vest or are settled. The adoption of this guidance on a prospective basis resulted in the recognition of excess tax benefits in our provision for income taxes.
- The standard requires excess tax benefits to be recognized regardless of whether the benefit reduces taxes payable. The adoption of this guidance is applied on a modified retrospective basis; however, it did not have an impact on our retained earnings as of January 1, 2016, as we had previously recognized all our excess tax benefits.
- As permitted, we have elected to continue to estimate forfeitures expected to occur to determine the amount of stock-based compensation cost to be recognized in each period. As such, the guidance relating to forfeitures did not have an impact on our retained earnings as of January 1, 2016.
- The new guidance changes the calculation of common stock equivalents for earnings per share purposes.
- As permitted, we elected to apply the statement of cash flows guidance that cash flows related to excess tax benefits be presented as an operating activity retrospectively.

Notes to Consolidated Financial Statements

Adoption of the new standard resulted in the recognition of excess tax benefits in our provision for income taxes rather than APIC of $29.6 million for the period ended December 31, 2016. As of December 31, 2016, the change in the calculation of common stock equivalents added approximately 519,000 weighted average shares for the diluted earnings per share calculations. The impact to our previously reported quarterly results for fiscal year 2016 is as follows:

	Three Months Ended March 31, 2016		Three Months Ended June 30, 2016		Three Months Ended September 30, 2016	
(In thousands, except per share amounts)	As Reported	As Adjusted	As Reported	As Adjusted	As Reported	As Adjusted
Income statements:						
Income tax provision	$ 10,495	$ 9,350	$11,323	$ 5,188	$ 14,155	$ 989
Net income	$ 17,079	$ 18,224	$18,872	$25,007	$ 22,264	$ 35,430
Basic earnings per common share	$ 0.47	$ 0.50	$ 0.52	$ 0.69	$ 0.61	$ 0.97
Diluted earnings per common share	$ 0.44	$ 0.47	$ 0.49	$ 0.65	$ 0.58	$ 0.91
Diluted weighted average common shares outstanding	38,557	39,071	38,196	38,738	38,506	39,062
Statement of cash flows:						
Net cash provided by operating activities	$ 40,270	$ 41,321	$13,877	$19,520	$ 67,091	$ 79,213
Net cash (used) provided by financing activities	$(15,860)	$(16,911)	$ 5,668	$ 25	$(77,973)	$(90,095)

Presentation of Financial Statements – Going Concern. In August 2014, the FASB issued ASU No. 2014-15, "Presentation of Financial Statements – Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern." The guidance requires an entity to evaluate whether there are conditions or events, in the aggregate, that raise substantial doubt about the entity's ability to continue as a going concern within one year after the date that the financial statements are issued (or within one year after the financial statements are available to be issued when applicable) and to provide related footnote disclosures in certain circumstances. The guidance is effective for the annual period ending after December 15, 2016, and for annual and interim periods thereafter. We adopted this standard in the fourth quarter of 2016 and its adoption did not have an impact on our consolidated financial statements.

Recent Accounting Guidance not yet Adopted

Revenue from Contracts with Customers. On May 28, 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers." This ASU is the result of a convergence project between the FASB and the International Accounting Standards Board. The core principle behind ASU No. 2014-09 is that an entity should recognize revenue to depict the transfer of promised goods and services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for delivering those goods and services. This model involves a five-step process that includes identifying the contract with the customer, identifying the performance obligations in the contract, determining the transaction price, allocating the transaction price to the performance obligations in the contract and recognizing revenue when (or as) the entity satisfies the performance obligations. The ASU allows two methods of adoption: a full retrospective approach where three years of financial information are presented in accordance with the new standard, and a modified retrospective approach where the ASU is applied to the most current period presented in the financial statements. We currently anticipate adopting the standard using the full retrospective method to restate each prior reporting period presented. Our ability to adopt using the full retrospective method is dependent on system readiness, including software procured from third-party providers, and the completion of our analysis of information necessary to restate prior period financial statements.

The new standard requires application no later than annual reporting periods beginning after December 15, 2017, including interim reporting periods therein; however, public entities are permitted to elect to early adopt the new standard. We are assessing the financial impact of adopting the new standard and the methods of adoption; however, we are currently unable to provide a reasonable estimate regarding the financial impact. We will adopt the new standard in fiscal year 2018.

Notes to Consolidated Financial Statements

We anticipate this standard will have a material impact on our consolidated financial statements. While we are continuing to assess all potential impacts of the standard, we currently believe the most significant impact relates to our accounting for software license fees, installation fees, and incremental cost of obtaining a contract. Specifically, under the new standard we expect software license fees under perpetual agreements will no longer be subject to 100% discount allocations from other elements in the contract. Discounts in arrangements will be allocated across all deliverables increasing license revenues and decreasing revenues allocated to other performance obligations. In addition, in most cases, net license fees (total license fees less any allocated discounts) will be recognized at the point in time that control of the software license transfers to the customer versus our current policy of recognizing revenue only to the extent billable per the contractual terms. Time-based license fees currently recognized over the license term will no longer be recognized over the period of the license and will instead be recognized at the point in time that control of the software license transfers to the customer. Installation fees will no longer be considered distinct performance obligations and therefore will be recognized over the term of the arrangement or life of the performance obligation. We expect revenue related to our SaaS offerings and professional services to remain substantially unchanged. Due to the complexity of certain contracts, the actual revenue recognition treatment required under the standard will be dependent on contract-specific terms and may vary in some instances from recognition at the time of billing. Application of the new standard requires that incremental costs directly related to obtaining a contract (typically sales commissions plus any associated fringe benefits) must be recognized as an asset and expensed over the expected life of the arrangement, unless that life is less than one year. Currently, we defer sales commissions and recognize expense over the relevant initial contractual term. With the adoption the new standard, we expect amortization periods to extend past the initial term.

Leases. On February 25, 2016, the FASB issued its new lease accounting guidance in ASU No. 2016-02, "Leases (Topic 842)." Under the new guidance, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date:

- A lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis; and
- A right-of-use asset, which is an asset that represents the lessee's right to use, or control the use of, a specified asset for the lease term.

Lessees (for capital and operating leases) and lessors (for sales-type, direct financing, and operating leases) must apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. The modified retrospective approach would not require any transition accounting for leases that expired before the earliest comparative period presented. Lessees and lessors may not apply a full retrospective transition approach.

The ASU is effective for fiscal years beginning after December 15, 2018, including interim periods therein. Early application is permitted for all business entities upon issuance. We are assessing the financial impact of adopting the new standard; however, we are currently unable to provide a reasonable estimate regarding the financial impact. We expect to adopt the new standard in fiscal year 2019.

(2) ACQUISITIONS

2016

During 2016, we acquired a business for approximately $7.4 million in cash paid. This acquisition is immaterial to our consolidated financial statements. The operating results of this small acquisition are included with the operating results of the Enterprise Software segment since its date of acquisition. The purchase price allocation for this acquisition is reflected in the accompanying consolidated balance sheet as of December 31, 2016 and is preliminary.

Notes to Consolidated Financial Statements

2015

On November 16, 2015, we acquired all the capital stock of New World Systems Corporation ("NWS"), which provides public safety and financial solutions for local governments. The purchase price, net of cash acquired of $22.5 million, comprised of $337.5 million in cash, of which $4.0 million was accrued at December 31, 2015, and 2.1 million shares of Tyler common stock valued at $362.8 million, which was based on the closing price on November 16, 2015. We also incurred fees of approximately $5.9 million for financial advisory, legal, accounting, due diligence, valuation and other various services necessary to complete the acquisition. These fees were expensed in 2015 and are included in selling, general and administrative expenses.

In 2016, we paid $2.0 million related to the working capital holdback of $4.0 million and reduced the accrued liability. Our final valuation of the fair market value of NWS' assets and liabilities resulted in adjustments to the preliminary opening balance sheet. These adjustments related to a reduction in deferred revenue and related deferred income taxes and additional reserves for accounts receivable and contingencies resulting in a net decrease to goodwill of approximately $7.4 million.

On May 29, 2015, we acquired all of the capital stock of Brazos Technology Corporation ("Brazos"), which provides mobile hand held solutions primarily to law enforcement agencies for field accident reporting and electronically issuing citations. The purchase price, net of cash acquired of $312,000 and including debt assumed of $733,000, was $6.1 million in cash and 12,500 shares of Tyler common stock valued at $1.5 million.

The operating results of NWS and Brazos are included with the operating results of the Enterprise Software segment since their dates of acquisition. The fair value of the assets and liabilities acquired are based on valuations using Level III, unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

(3) PROPERTY AND EQUIPMENT, NET

Property and equipment, net consists of the following at December 31:

	Useful Lives (years)	2016	2015
Land	—	$ 9,958	$ 8,146
Building and leasehold improvements	5-39	94,924	77,020
Computer equipment and purchased software	3-5	55,627	42,245
Furniture and fixtures	5	19,897	16,661
Transportation equipment	5	447	252
		180,853	144,324
Accumulated depreciation and amortization		(56,585)	(43,212)
Property and equipment, net		$124,268	$101,112

Depreciation expense was $13.4 million during 2016, $9.1 million during 2015, and $7.9 million during 2014.

In 2016, we purchased an office building in Falmouth, Maine, that was previously leased from an entity owned by an executive's father and brother, for approximately $9.7 million, and paid $8.0 million for construction to expand a building in Yarmouth, Maine.

We own office buildings in Bangor, Falmouth and Yarmouth, Maine; Lubbock and Plano, Texas; Troy, Michigan; and Moraine, Ohio. We lease some space in these buildings to third-party tenants. These leases expire between 2017 and 2025 and are expected to provide rental income of approximately $1.6 million during 2017, $1.9 million during 2018, $1.9 million during 2019, $1.7 million during 2020, $1.4 million during 2021, and $5.2 million thereafter. Rental income from third-party tenants was $1.7 million in 2016, $913,000 in 2015, and $945,000 in 2014.

Notes to Consolidated Financial Statements

(4) GOODWILL AND OTHER INTANGIBLE ASSETS

Other intangible assets and related accumulated amortization consists of the following at December 31:

	2016	2015
Gross carrying amount of acquisition intangibles:		
Customer related intangibles	$ 186,231	$181,671
Acquired software	176,096	172,666
Trade name	11,065	10,765
Leases acquired	3,694	3,694
	377,086	368,796
Accumulated amortization	(109,827)	(73,418)
Total intangibles, net	$ 267,259	$295,378

Total amortization expense for intangibles was $36.4 million in 2016, $10.3 million in 2015, and $6.4 million during 2014.

The allocation of acquisition intangible assets is summarized in the following table:

	December 31, 2016			December 31, 2015		
	Gross Carrying Amount	Weighted Average Amortization Period	Accumulated Amortization	Gross Carrying Amount	Weighted Average Amortization Period	Accumulated Amortization
Non-amortizable intangibles:						
Goodwill	$650,237	—	$ —	$653,666	—	$ —
Amortizable intangibles:						
Customer related intangibles	186,231	15 years	51,491	181,671	15 years	38,754
Acquired software	176,096	7 years	55,115	172,666	7 years	32,880
Trade name	11,065	12 years	2,740	10,765	12 years	1,747
Leases acquired	3,694	9 years	481	3,694	9 years	37

The changes in the carrying amount of goodwill for the two years ended December 31, 2016 are as follows:

	Enterprise Software	Appraisal and Tax	Total
Balance as of 12/31/2014	$117,585	$6,557	$124,142
Goodwill acquired during 2015 related to the purchase of NWS	527,618	—	527,618
Goodwill acquired during 2015 related to the purchase of Brazos	1,906	—	1,906
Balance as of 12/31/2015	647,109	6,557	653,666
Goodwill acquired during 2016 related to a small acquisition	3,943	—	3,943
Purchase price adjustments related to NWS acquisition	(7,372)	—	(7,372)
Balance as of 12/31/2016	$643,680	$6,557	$650,237

Notes to Consolidated Financial Statements

Estimated annual amortization expense relating to acquired leases will be recorded as a reduction to hardware and other revenue and is expected to be $442,000 in 2017, $426,000 in 2018, $373,000 in 2019, $314,000 in 2020, $312,000 in 2021 and $1.3 million thereafter. Estimated annual amortization expense relating to acquisition intangibles, including acquired software, for which the amortization expense is recorded as cost of revenues, for the next five years is as follows:

2017	$35,120
2018	34,443
2019	33,107
2020	31,660
2021	31,302

(5) ACCRUED LIABILITIES

Accrued liabilities consist of the following at December 31:

	2016	2015
Accrued wages, bonuses and commissions	$38,996	$32,006
Other accrued liabilities	16,993	17,150
	$55,989	$49,156

(6) REVOLVING LINE OF CREDIT

On November 16, 2015, we entered into a $300.0 million Credit Agreement (the "Credit Facility") with the various lenders party thereto and Wells Fargo Bank, National Association, as Administrative Agent. The Credit Facility provides for a revolving credit line of up to $300.0 million, including a $10.0 million sublimit for letters of credit. The Credit Facility matures on November 16, 2020. Borrowings under the Credit Facility may be used for general corporate purposes, including working capital requirements, acquisitions and share repurchases.

Borrowings under the Credit Facility bear interest at a rate of either (1) Wells Fargo Bank's prime rate (subject to certain higher rate determinations) plus a margin of 0.25% to 1.00% or (2) the 30, 60, 90 or 180 day LIBOR rate plus a margin of 1.25% to 2.00%. As of December 31, 2016, our interest rate was 1.96%. The Credit Facility is secured by substantially all our assets. The Credit Facility requires us to maintain certain financial ratios and other financial conditions and prohibits us from making certain investments, advances, cash dividends or loans, and limits incurrence of additional indebtedness and liens. As of December 31, 2016, we were in compliance with those covenants.

As of December 31, 2016, we had $10.0 million in outstanding borrowings and unused borrowing capacity of $287.8 million under the Credit Facility. In addition, as of December 31, 2016, we had two outstanding letters of credit totaling $2.2 million in favor of a client contract and the expansion of an office building in Yarmouth, Maine. Both letters of credit guarantee our performance under each contract and both expire in 2017.

We paid interest of $1.9 million in 2016 and $223,000 in 2015.

Notes to Consolidated Financial Statements

(7) INCOME TAX

The income tax provision (benefit) on income from operations consists of the following:

Years Ended December 31,	2016	2015	2014
Current:			
Federal	$ 41,366	$44,841	$34,504
State	7,023	6,670	4,827
	48,389	51,511	39,331
Deferred	(28,939)	(7,956)	(3,804)
	$ 19,450	$43,555	$35,527

Reconciliation of the U.S. statutory income tax rate to our effective income tax expense rate for operations follows:

Years Ended December 31,	2016	2015	2014
Federal income tax expense at statutory rate	$ 45,257	$37,949	$33,064
State income tax, net of federal income tax benefit	4,807	3,715	2,867
Domestic production activities deduction	(3,947)	(466)	(1,720)
Excess tax benefits related to stock option exercises	(29,582)	—	—
Non-deductible business expenses	2,979	2,414	1,485
Other, net	(64)	(57)	(169)
	$ 19,450	$43,555	$35,527

Due to the adoption of ASU No. 2016-09, federal and state excess tax benefits from stock option exercises for the year ended December 31, 2016 are reflected as a reduction of the provision for income taxes, whereas they were previously accounted for as an increase to shareholders' equity. See Note 1 "Summary of Significant Accounting Policies" for additional information related to this adoption.

The tax effects of the major items recorded as deferred tax assets and liabilities as of December 31 are:

	2016	2015
Deferred income tax assets:		
Operating expenses not currently deductible	$ 18,721	$ 9,953
Stock option and other employee benefit plans	19,665	13,504
Capital loss and credit carryforward	—	179
Total deferred income tax assets	38,386	23,636
Deferred income tax liabilities:		
Intangible assets	(103,754)	(111,653)
Property and equipment	(3,207)	(2,781)
Other	(204)	(228)
Total deferred income tax liabilities	(107,165)	(114,662)
Net deferred income tax liabilities	$ (68,779)	$ (91,026)

Notes to Consolidated Financial Statements

Although realization is not assured, we believe it is more likely than not that all the deferred tax assets will be realized. Accordingly, we believe no valuation allowance is required for the deferred tax assets. However, the amount of the deferred tax asset considered realizable could be adjusted in the future if estimates of reversing taxable temporary differences are revised. There were no unrecognized tax benefits during any of the reported periods.

The Internal Revenue Service ("IRS") is examining our U.S. income tax return for the year 2012. As of February 21, 2017, no significant adjustments have been proposed by any taxing jurisdiction. We are unable to make a reasonable estimate as to when cash settlements, if any, will occur.

We are subject to U.S. federal tax as well as income tax of multiple state and local jurisdictions. We are no longer subject to United States federal income tax or state and local income tax examinations for years before 2011.

We paid income taxes, net of refunds received, of $30.2 million in 2016, $27.3 million in 2015, and $10.2 million in 2014.

(8) SHAREHOLDERS' EQUITY

The following table details activity in our common stock:

	Years Ended December 31,					
	2016		2015		2014	
	Shares	Amount	Shares	Amount	Shares	Amount
Stock option exercises	827	$ 23,527	1,118	$ 23,160	855	$ 14,680
Purchases of common stock	(882)	(112,699)	(5)	(645)	(294)	(22,817)
Employee stock plan purchases	47	6,236	43	4,671	53	4,144
Shares issued for acquisitions	—	—	2,149	364,333	17	1,473

Subsequent to December 31, 2016 and through February 21, 2017, we repurchased 42,000 shares for an aggregate purchase price of $6.2 million. As of February 21, 2017, we had authorization from our board of directors to repurchase up to 2.0 million additional shares of our common stock.

(9) SHARE-BASED COMPENSATION

Share-Based Compensation Plan

We have a stock option plan that provides for the grant of stock options to key employees, directors and non-employee consultants. Stock options generally vest after three to six years of continuous service from the date of grant and have a contractual term of 10 years. Once options become exercisable, the employee can purchase shares of our common stock at the market price on the date we granted the option. We account for share-based compensation utilizing the fair value recognition pursuant to ASC 718, Stock Compensation. During fourth quarter of 2016, we adopted ASU No. 2016-09 "Improvements to Employee Share-Based Payment Accounting," See Note 1 – "Summary of Significant Accounting Policies" for further information.

As of December 31, 2016, there were 2.9 million shares available for future grants under the plan from the 20.0 million shares previously approved by the shareholders.

Notes to Consolidated Financial Statements

Determining Fair Value of Stock Compensation

Valuation and Amortization Method. We estimate the fair value of share-based awards granted using the Black-Scholes option valuation model. We amortize the fair value of all awards on a straight-line basis over the requisite service periods, which are generally the vesting periods.

Expected Life. The expected life of awards granted represents the period of time that they are expected to be outstanding. The expected life represents the weighted-average period the stock options are expected to be outstanding based primarily on the options' vesting terms, remaining contractual life and the employees' expected exercise based on historical patterns.

Expected Volatility. Using the Black-Scholes option valuation model, we estimate the volatility of our common stock at the date of grant based on the historical volatility of our common stock.

Risk-Free Interest Rate. We base the risk-free interest rate used in the Black-Scholes option valuation model on the implied yield currently available on U.S. Treasury zero-coupon issues with an equivalent remaining term equal to the expected life of the award.

Expected Dividend Yield. We have not paid any cash dividends on our common stock in more than ten years and we do not anticipate paying any cash dividends in the foreseeable future. Consequently, we use an expected dividend yield of zero in the Black-Scholes option valuation model.

Expected Forfeitures. We use historical data to estimate pre-vesting option forfeitures. We record share-based compensation only for those awards that are expected to vest.

The following weighted average assumptions were used for options granted:

Years Ended December 31,	2016	2015	2014
Expected life (in years)	6.0	6.0	6.0
Expected volatility	29.3%	28.3%	30.9%
Risk-free interest rate	1.8%	1.7%	1.8%
Expected forfeiture rate	—%	1.7%	3.0%

The following table summarizes share-based compensation expense related to share-based awards which is recorded in the statements of comprehensive income:

Years Ended December 31,	2016	2015	2014
Cost of software services, maintenance and subscriptions	$ 6,548	$ 3,380	$ 2,177
Selling, general and administrative expenses	23,199	16,802	12,642
Total share-based compensation expenses	29,747	20,182	14,819
Tax benefit	(30,059)	(5,986)	(4,237)
Net (decrease) increase in net income	$ (312)	$14,196	$10,582

Adoption of ASU 2016-09 resulted in the recognition of excess tax benefits in our provision for income taxes rather than paid-in capital of $29.6 million for period ended December 31, 2016.

Notes to Consolidated Financial Statements

Stock Option Activity

Options granted, exercised, forfeited and expired are summarized as follows:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2013	5,720	$ 34.66		
Granted	675	94.15		
Exercised	(855)	17.17		
Forfeited	(3)	37.44		
Outstanding at December 31, 2014	5,537	44.61		
Granted	747	145.71		
Exercised	(1,118)	20.71		
Forfeited	(2)	19.61		
Outstanding at December 31, 2015	5,164	64.43		
Granted	846	147.25		
Exercised	(827)	28.43		
Forfeited	(27)	95.33		
Outstanding at December 31, 2016	5,156	83.64	7	$320,924
Exercisable at December 31, 2016	2,311	58.07	6	$198,460

We had unvested options to purchase 2.8 million shares with a weighted average grant date exercise price of $104.91 as of December 31, 2016 and unvested options to purchase 3.1 million shares with a weighted average grant date exercise price of $78.86 as of December 31, 2015. As of December 31, 2016, we had $80.1 million of total unrecognized compensation cost related to unvested options, net of expected forfeitures, which is expected to be amortized over a weighted average amortization period of 3.2 years.

Other information pertaining to option activity was as follows during the twelve months ended December 31:

	2016	2015	2014
Weighted average grant-date fair value of stock options granted	$ 46.89	$ 45.17	$ 31.32
Total intrinsic value of stock options exercised	103,703	149,542	69,768

Employee Stock Purchase Plan

Under our Employee Stock Purchase Plan ("ESPP") participants may contribute up to 15% of their annual compensation to purchase common shares of Tyler. The purchase price of the shares is equal to 85% of the closing price of Tyler shares on the last day of each quarterly offering period. As of December 31, 2016, there were 847,000 shares available for future grants under the ESPP from the 2.0 million shares previously approved by the stockholders.

Notes to Consolidated Financial Statements

(10) EARNINGS PER SHARE

Basic earnings and diluted earnings per share data were computed as follows:

Years Ended December 31,	2016	2015	2014
Numerator for basic and diluted earnings per share:			
Net income	$109,857	$64,869	$58,940
Denominator:			
Weighted-average basic common shares outstanding	36,448	34,137	33,011
Assumed conversion of dilutive securities:			
Stock options	2,513	2,415	2,390
Denominator for diluted earnings per share – Adjusted weighted-average shares	38,961	36,552	35,401
Earnings per common share:			
Basic	$ 3.01	$ 1.90	$ 1.79
Diluted	$ 2.82	$ 1.77	$ 1.66

Stock options representing the right to purchase common stock of 786,000 shares in 2016, 417,000 shares in 2015, and 481,000 shares in 2014 were not included in the computation of diluted earnings per share because their inclusion would have had an anti-dilutive effect. During fourth quarter of 2016, we adopted ASU No. 2016-09 requiring the recognition of excess tax benefits as a component of income tax expense; these benefits were historically recognized in equity. As the standard required a prospective method of adoption, our 2016 net income includes a $29.6 million income tax benefit due to the adoption that did not occur in the comparable periods presented above. In addition, the standard updates the method of calculating diluted shares resulting in the inclusion of 519,000 additional shares in our diluted EPS calculation that is not comparable to the other periods presented. Refer to Note 1 “Summary of Significant Accounting Policies” for further discussion of this new accounting standard.

(11) LEASES

We lease office facilities for use in our operations, as well as transportation, computer and other equipment. Most of our leases are non-cancelable operating lease agreements and they expire at various dates through 2023. In addition to rent, the leases generally require us to pay taxes, maintenance, insurance and certain other operating expenses.

Rent expense was approximately $6.7 million in 2016, $7.2 million in 2015, and $6.7 million in 2014, which included rent expense associated with related party lease agreements of $330,000 in 2016, $1.8 million in 2015, and $1.7 million in 2014.

Future minimum lease payments under all non-cancelable leases at December 31, 2016 are as follows:

Years Ending December 31,	
2017	$ 5,177
2018	4,221
2019	3,556
2020	3,273
2021	2,059
Thereafter	601
Total	$18,887

Notes to Consolidated Financial Statements

(12) EMPLOYEE BENEFIT PLANS

We provide a defined contribution plan for the majority of our employees meeting minimum service requirements. The employees can contribute up to 30% of their current compensation to the plan subject to certain statutory limitations. We contribute up to a maximum of 3% of an employee’s compensation to the plan. We made contributions to the plan and charged operating results $6.9 million during 2016, $5.3 million during 2015, and $4.3 million during 2014.

(13) COMMITMENTS AND CONTINGENCIES

Other than routine litigation incidental to our business, there are no material legal proceedings pending to which we are party or to which any of our properties are subject.

(14) SEGMENT AND RELATED INFORMATION

We are a major provider of integrated information management solutions and services for the public sector, with a focus on local and state governments.

We provide our software systems and services and appraisal services through four business units, which focus on the following products:

- Financial management, education and planning, regulatory and maintenance software solutions
- Financial management, municipal courts, and land and vital records management software solutions
- Courts and justice and public safety software solutions
- Appraisal and tax software solutions and property appraisal services

In accordance with ASC 280-10, Segment Reporting, the financial management, education and planning, regulatory and maintenance software solutions unit; financial management, municipal courts and land and vital records management software solutions unit; and the courts and justice and public safety software solutions unit meet the criteria for aggregation and are presented in one reportable segment, Enterprise Software (“ES”). The ES segment provides municipal and county governments and schools with software systems and services to meet their information technology and automation needs for mission-critical “back-office” functions such as financial management and courts and justice and public safety processes. The Appraisal and Tax (“A&T”) segment provides systems and software that automate the appraisal and assessment of real and personal property as well as property appraisal outsourcing services for local governments and taxing authorities. Property appraisal outsourcing services include: the physical inspection of commercial and residential properties; data collection and processing; computer analysis for property valuation; preparation of tax rolls; community education; and arbitration between taxpayers and the assessing jurisdiction.

We evaluate performance based on several factors, of which the primary financial measure is business segment operating income. We define segment operating income for our business units as income before noncash amortization of intangible assets associated with their acquisition, interest expense and income taxes. Segment operating income includes intercompany transactions. The majority of intercompany transactions relate to contracts involving more than one unit and are valued based on the contractual arrangement. Segment operating income for corporate primarily consists of compensation costs for the executive management team and certain accounting and administrative staff and share-based compensation expense for the entire company. Corporate segment operating income also includes revenues and expenses related to a company-wide user conference. The accounting policies of the reportable segments are the same as those described in Note 1, “Summary of Significant Accounting Policies.”

Segment assets include net accounts receivable, prepaid expenses and other current assets and net property and equipment. Corporate assets consist of cash and investments, prepaid insurance, intangibles associated with acquisitions, deferred income taxes and net property and equipment mainly related to unallocated information and technology assets.

Notes to Consolidated Financial Statements

ES segment capital expenditures in 2016 included $17.7 million for the expansion of an existing building and purchase of a building and land.

As of the Year Ended December 31, 2016	Enterprise Software	Appraisal and Tax	Corporate	Totals
Revenues				
Software licenses and royalties	$ 68,844	$ 5,462	$ —	$ 74,306
Subscriptions	135,516	7,188	—	142,704
Software services	158,478	16,326	—	174,804
Maintenance	304,380	18,589	—	322,969
Appraisal services	—	26,287	—	26,287
Hardware and other	11,942	16	3,015	14,973
Intercompany	6,742	—	(6,742)	—
Total revenues	$685,902	$73,868	$ (3,727)	$ 756,043
Depreciation and amortization expense	43,962	984	5,355	50,301
Segment operating income	190,817	18,286	(41,832)	167,271
Capital expenditures	23,843	1,432	11,448	36,723
Segment assets	$295,260	$31,769	$1,030,916	$1,357,945

As of the Year Ended December 31, 2015	Enterprise Software	Appraisal and Tax	Corporate	Totals
Revenues				
Software licenses and royalties	$ 54,376	$ 4,632	$ —	$ 59,008
Subscriptions	107,090	4,843	—	111,933
Software services	129,068	10,784	—	139,852
Maintenance	227,586	17,951	—	245,537
Appraisal services	—	25,065	—	25,065
Hardware and other	6,935	12	2,680	9,627
Intercompany	4,025	—	(4,025)	—
Total revenues	$529,080	$63,287	$ (1,345)	$ 591,022
Depreciation and amortization expense	15,413	867	3,294	19,574
Segment operating income	141,401	15,477	(38,490)	118,388
Capital expenditures	6,112	646	6,746	13,504
Segment assets	$265,877	$22,283	$1,068,410	$1,356,570

As of the Year Ended December 31, 2014	Enterprise Software	Appraisal and Tax	Corporate	Totals
Revenues				
Software licenses and royalties	$ 46,047	$ 3,018	$ —	$ 49,065
Subscriptions	84,322	3,526	—	87,848
Software services	104,146	9,675	—	113,821
Maintenance	195,881	16,815	—	212,696
Appraisal services	—	21,802	—	21,802
Hardware and other	5,398	11	2,460	7,869
Intercompany	2,812	—	(2,812)	—
Total revenues	$438,606	$54,847	$ (352)	$ 493,101
Depreciation and amortization expense	11,140	866	2,599	14,605
Segment operating income	114,993	11,603	(25,370)	101,226
Capital expenditures	3,644	359	5,446	9,449
Segment assets	$170,369	$16,463	$ 382,980	$ 569,812

Notes to Consolidated Financial Statements

	Years Ended December 31,		
Reconciliation of reportable segment operating income to the Company's consolidated totals:	2016	2015	2014
Total segment operating income	$167,271	$118,388	$101,226
Amortization of acquired software	(22,235)	(4,440)	(1,858)
Amortization of customer and trade name intangibles	(13,731)	(5,905)	(4,546)
Other (expense) income, net	(1,998)	381	(355)
Income before income taxes	$129,307	$108,424	$ 94,467

(15) QUARTERLY FINANCIAL INFORMATION (unaudited)

The following table contains selected financial information from unaudited statements of income for each quarter of 2016 and 2015.

	Quarters Ended							
	2016				2015			
	Dec. 31	Sept. 30	June 30	Mar. 31	Dec. 31 [b]	Sept. 30	June 30	Mar. 31
Revenues	$193,281	$194,497	$188,972	$179,293	$158,916	$150,845	$146,295	$134,966
Gross profit	92,817	93,480	86,936	82,118	73,222	71,833	68,253	63,879
Income before income taxes [a]	35,119	36,419	30,195	27,574	19,540	31,744	29,781	27,359
Net income [a]	31,196	35,430	25,007	18,224	8,618	20,142	18,836	17,273
Earnings per diluted share	$ 0.80	$ 0.91	$ 0.65	$ 0.47	$ 0.23	$ 0.55	$ 0.52	$ 0.48
Shares used in computing diluted earnings per share [a]	38,975	39,062	38,738	39,071	37,864	36,349	36,097	35,895

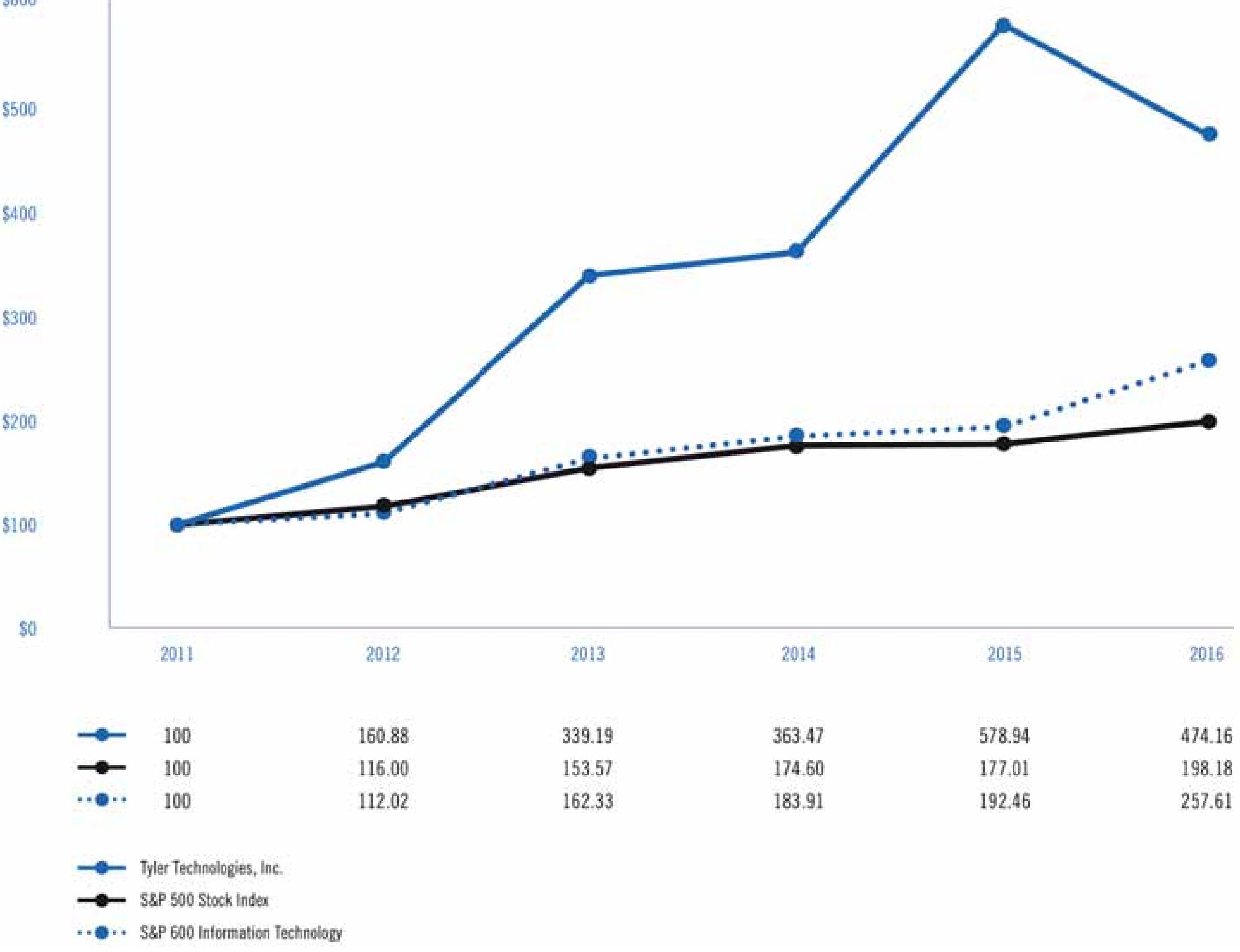
(a) During fourth quarter 2016, we adopted ASU No. 2016-09 requiring the recognition of excess tax benefits as a component of income tax expense; these benefits were historically recognized in equity. As the standard required a prospective method of adoption, our fourth quarter 2016 net income includes a $9.2 million income tax benefit due to the adoption that did not occur in the comparable prior year periods presented above. The three months ended March 31, June 30, and September 30, 2016, respectively, have been adjusted for the newly adopted standard. Refer to Note 1 "Summary of Significant Accounting Policies" for further discussion of this new accounting standard.

(b) Operating results for the three months ended December 31, 2015, include $5.9 million for financial advisory, legal, accounting, due diligence, valuation and other expenses necessary to complete the NWS acquisition as well as $3.5 million amortization expense related to NWS acquisition intangibles.

Performance Graph

The following table compares total shareholder returns for Tyler over the last five years to the Standard and Poor's 500 Stock Index and the Standard and Poor's 600 Information Technology Index assuming a $100 investment made on December 31, 2011. Each of the three measures of cumulative total return assumes reinvestment of dividends. The stock performance shown on the graph below is not necessarily indicative of future price performance.

COMPARISON OF CUMULATIVE FIVE YEAR TOTAL RETURN



	2011	2012	2013	2014	2015	2016
Tyler Technologies, Inc.	100	160.88	339.19	363.47	578.94	474.16
S&P 500 Stock Index	100	116.00	153.57	174.60	177.01	198.18
S&P 600 Information Technology	100	112.02	162.33	183.91	192.46	257.61

STOCKHOLDER INFORMATION

CORPORATE OFFICERS

John S. Marr Jr.
Chairman of the Board
Chief Executive Officer

H. Lynn Moore Jr.
President

Brian K. Miller
Executive Vice President
Chief Financial Officer and Treasurer

Matthew B. Bieri
Chief Information Officer

S. Brett Cate
Chief Sales Officer

Samantha B. Crosby
Chief Marketing Officer

Abigail M. Diaz
Chief Legal Officer and Secretary

Bruce E. Graham
Chief Strategy Officer

Jeffrey S. Green
Chief Technology Officer

Robert J. Sansone
Chief Human Resources Officer

W. Michael Smith
Chief Accounting Officer

BOARD OF DIRECTORS

John S. Marr Jr.[1]
Chairman of the Board
Chief Executive Officer
Tyler Technologies, Inc.

Donald R. Brattain[2, 4]
President
Brattain and Associates, LLC

Glenn A. Carter[3, 4]
Retired Chief Executive Officer
DataProse, Inc.

Brenda A. Cline[2, 3]
Executive Vice President
Kimbell Art Foundation

J. Luther King Jr.[2, 4]
Chief Executive Officer
Luther King Capital Management

Larry D. Leinweber
President
The Ascent Group

Daniel M. Pope[3]
Mayor
City of Lubbock, Texas

Dustin R. Womble[1]
Retired Executive Vice President
Tyler Technologies, Inc.

John M. Yeaman[1]
Retired Chairman of the Board
Tyler Technologies, Inc.

[1] Executive Committee
[2] Audit Committee
[3] Nominating and Governance Committee
[4] Compensation Committee

OPERATIONAL LEADERSHIP

ENTERPRISE GROUP

Andrew D. Teed
President
Enterprise Group
Appraisal & Tax Division

Christopher P. Hepburn
President
ERP & School Division

Dane L. Womble
President
Local Government Division

JUSTICE GROUP

D. Bret Dixon
President
Justice Group

Bruce E. Graham
President
Courts & Justice Division

Greg T. Sebastian
President
Public Safety Division

CORPORATE HEADQUARTERS

5101 Tennyson Parkway
Plano, Texas 75024
972.713.3700
www.tylertech.com

TRANSFER AGENT AND REGISTRAR

American Stock Transfer & Trust Company
59 Maiden Lane
Plaza Level
New York, New York 10038
800.937.5449
718.236.2641 fax
www.amstock.com

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Ernst & Young LLP
Dallas, Texas

ANNUAL MEETING OF STOCKHOLDERS

Wednesday, May 10, 2017
9:30 a.m. Central Time
The Park Cities Hilton Hotel
5954 Luther Lane
Dallas, Texas 75225

CERTIFICATIONS

We submitted an unqualified Annual CEO Certification to the New York Stock Exchange (NYSE) as required by the NYSE Listed Company rules. We also filed with the Securities and Exchange Commission the Chief Executive Officer and Chief Financial Officer certifications required under Section 302 of the Sarbanes-Oxley Act as exhibits to our Annual Report on Form 10-K.

INVESTOR INFORMATION

Our annual report on Form 10-K is available on the company's website at www.tylertech.com.

A copy of the Form 10-K or other information may also be obtained by contacting the Investor Relations Department at corporate headquarters.

INVESTOR RELATIONS

972.713.3714
info@tylertech.com

COMMON STOCK

Listed on the New York Stock Exchange under the symbol "TYL"

Empowering people who serve the public®

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972.713.3700 | www.tylertech.com