

T H R I V E



ANNUAL
REPORT
2017



BUILD TOGETHER
THRIVE TOGETHER

Annual Report 2017

A thriving community is a fertile landscape where people and businesses grow. It budgets responsibly and uses tax dollars wisely. It builds thoughtfully, shares information freely, and listens responsively. A thriving community empowers its citizens, protects its resources and people, and rallies around its neighbors in times of need. And, a thriving community plans intelligently so future generations can have better lives.

For decades, Tyler Technologies has been an innovative partner, working to make local government more accessible, responsive, and efficient through fully integrated technology and services. Each year, we measure our success not only by our financial performance, but also by the ways in which we're working with our clients to create thriving communities.

2017 moved us toward this shared vision of a community in which every citizen thrives.



A LETTER TO OUR SHAREHOLDERS

JOHN S. MARR JR. - CHAIRMAN AND CEO

2017 was another successful year for Tyler Technologies as we achieved new highs in virtually every significant financial measure. Tyler's GAAP revenues grew 11 percent to \$841 million, and non-GAAP revenues rose 9 percent to \$842 million. Subscription revenues increased 22 percent to \$174 million, and comprised 21 percent of our total revenues. We have achieved greater than 20 percent growth in subscription revenues in 44 of the last 48 quarters. GAAP net income for the year was \$164 million, or \$4.18 per diluted share, up 49 percent. Non-GAAP net income increased 13 percent to \$154 million, or \$3.92 per diluted share.

2017 also marked a year of increased internal investment, as our spend on research and development (R&D) grew 10 percent to \$47 million. With our strong cash flow and a mergers and acquisitions (M&A) market with increasingly high valuation expectations, we believe that investing more of our cash in Tyler's development initiatives will help us drive revenue growth and generate attractive long-term

returns. We completed three relatively small acquisitions during the year, each of which broadens our product offerings and makes



our existing solutions more competitive. We also significantly increased our capital expenditures in 2017, investing heavily in assets to support our fast-growing cloud

business and completing a major expansion of our Yarmouth, Maine, office facility.

Even with increased R&D expense, we improved our GAAP operating margin 170 basis points to 19.1 percent, and our non-GAAP operating margin expanded 30 basis points to 28 percent. Cash provided from operations grew 2 percent over 2016 to \$196 million. Our balance sheet grew even stronger, as we ended 2017 with \$250

million in cash and investments, and no debt. The strength of our balance sheet positions us well for continued investment in our business

through product development initiatives, while supporting our efforts to seek out strategic acquisitions at reasonable valuations. Our disciplined approach to acquisitions, coupled with discretionary investments in products with high growth potential, solidifies our leadership position across multiple product areas. Investments in product development improve our competitive position as we pursue new business opportunities. They also contribute to our clients' success by bringing more value to our existing suites of products. Tyler's breadth of products and depth of expertise in local government, along with our record of consistently investing in our products, gives our clients the benefit of a family of products that is both comprehensive and specialized.

Reaching Milestones

Along with our exceptional financial performance, Tyler reached several milestones in 2017. Bookings for the year were just over \$1 billion, an increase of 15 percent over 2016. As a result, our backlog surpassed \$1 billion

for the first time in our history during the third quarter, ending the year at more than \$1.1 billion, up 18 percent. In addition, we continued to grow our team of talented professionals — the lifeblood of our business — ending the year with more than 4,000 employees.

During 2017, Tyler also executed the largest software contract in our history — a \$36 million agreement with Cook County, Illinois, for Tyler's Odyssey Case Manager™ and Brazos™ e-citation solutions. With this agreement, we now serve courts in seven of the 10 most populous counties in the nation with Odyssey®. We also added two new statewide Odyssey contracts in Vermont and Kansas.

We're very pleased with the substantial progress we made in 2017 with our New World™ public safety offering, which we acquired in 2015. Our win rates in the public safety market accelerated as the market embraced our vision for the Tyler Alliance initiative for public safety and courts, advanced with major development projects launched early in the year. Our significant public safety wins included a contract with the city of Orlando, Florida, for Tyler's New World solution. While the city's police department had been using a Tyler records management solution, the new agreement for computer-aided dispatch (CAD),

mobile and field-based reporting solutions will connect the city's fire and police departments on one enterprise-wide system to provide targeted, timely and relevant information to first responders.

The first quarter of 2017 saw two major contracts for appraisal, tax, and related solutions. Tyler signed a \$20.4 million joint agreement with the New York State Department of Taxation and Finance and the New York State Office of Information Technology Services to provide our iasWorld® computer-assisted mass appraisal (CAMA) software and related solutions. In March, Tyler signed a \$7.2 million, five-year software-as-service (SaaS) agreement with Anoka County, Minnesota, for a unified land and tax record management solution that includes

our iasWorld appraisal and tax administration software, Eagle™ land and vital records solution, and Tyler Cashiering™ software. And an \$8 million SaaS contract for iasWorld CAMA, signed in the second quarter with the city of Philadelphia, Pennsylvania, means that Tyler systems will now manage assessments for more than half of the parcels in the commonwealth.

Tyler's Munis® product expanded into Arkansas with the signing of its first contract in the state — the city of Fort Smith. In Georgia, Tyler signed a \$7.5 million, five-

year SaaS contract for Munis and ExecuTime™ with the Clayton County Public Schools. This agreement expands our presence in Clayton County, located in the suburban Atlanta area, which also uses our Odyssey court solution and seven other Tyler solutions, including appraisal and tax, public safety, and community development.

The Cloud Effect

The mix of new business continued to shift to the cloud in 2017, with subscriptions comprising 37 percent of the total contract value of new software deals, compared to 28 percent in 2016. While the increase of subscriptions in the bookings mix creates a short-term headwind to revenue and margin growth, the higher recurring revenues will ultimately drive greater long-term growth. Since we are not forcing a transition to the cloud but, instead, allow clients to choose whether our on-premises or cloud-based model best meets their needs, we expect the mix of license and subscription agreements to vary from quarter to quarter. We are confident that Tyler has a strong position from which to manage any short-term pressures that come with a long-term shift toward the cloud.

Thriving by Helping Our Clients Thrive

We're pleased with Tyler's achievements and results in 2017, which we attribute to our perpetual enhancement of core products and our ongoing exploration of new capabilities to help our clients achieve their goals. Core development and new opportunities support the vision of connected communities that we introduced in 2016 — connecting government organizations to their citizens and other jurisdictions through a thriving digital infrastructure. As our clients thrive, Tyler Technologies will continue to thrive. By staying true to our strategy for growth and executing on our strengths, we look forward to making 2018 another banner year for Tyler Technologies.

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We continued to grow our team of talented professionals — the lifeblood of our business — ending the year with more than 4,000 employees.
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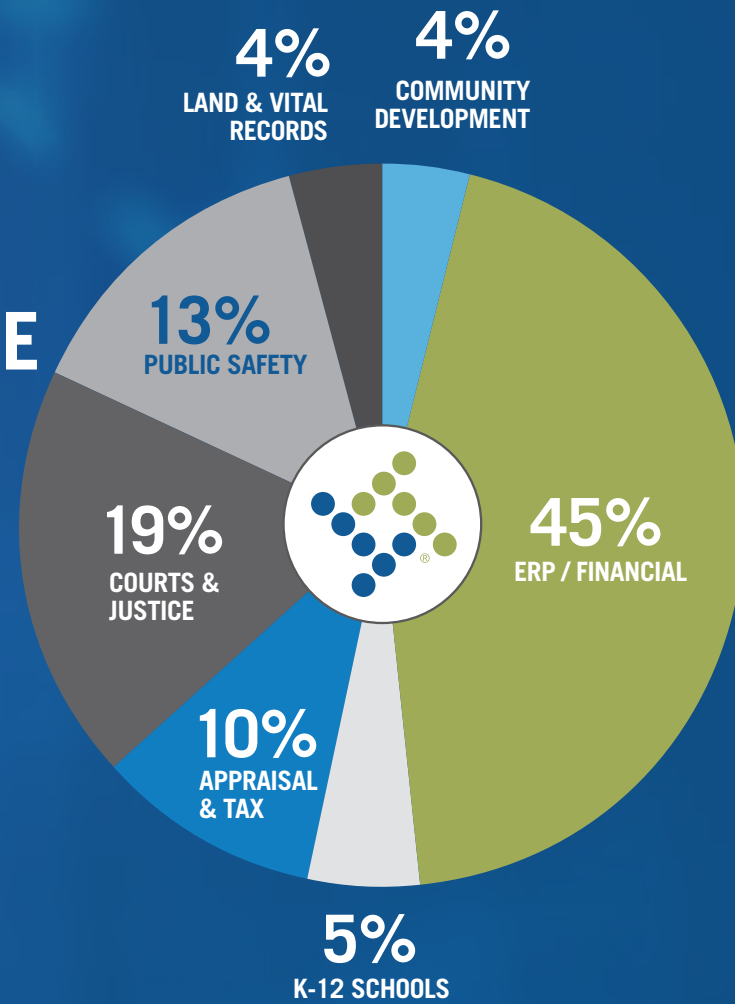
John S. Marr Jr.
Chairman and
Chief Executive Officer
March 16, 2018



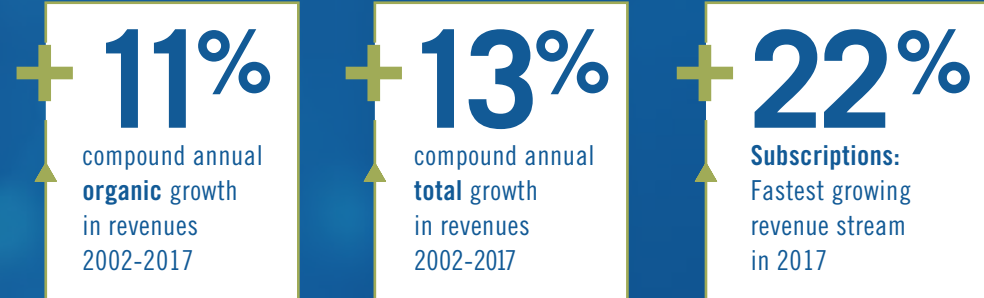
THRIVING TOGETHER



REVENUE MIX

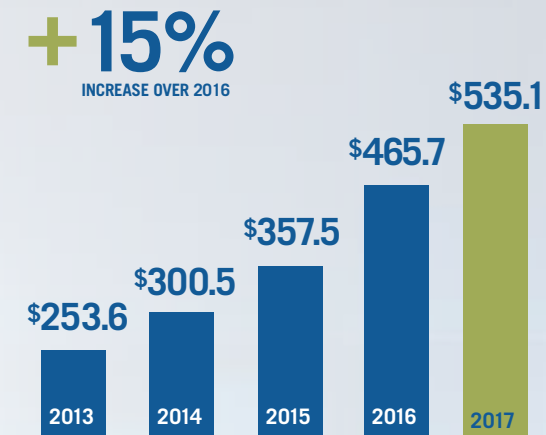


SUBSCRIPTIONS
37%
 OF TOTAL NEW SOFTWARE CONTRACT VALUE



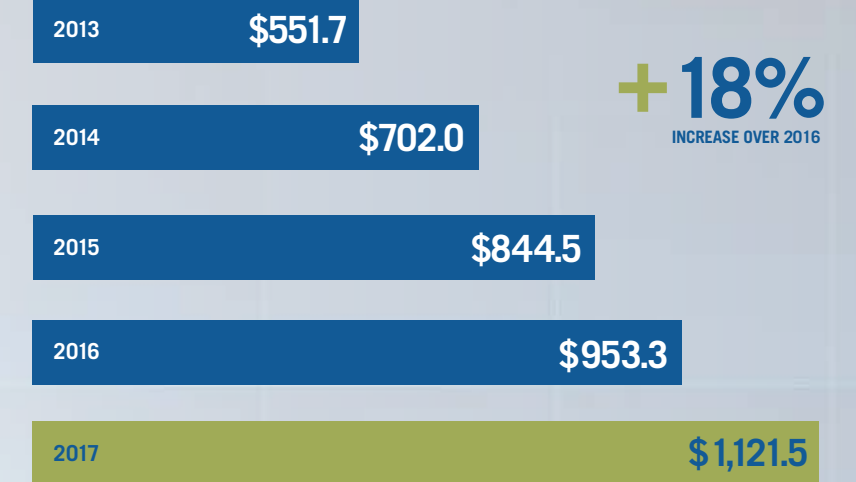
RECURRING REVENUE

IN MILLIONS



BACKLOG

IN MILLIONS



ANNUAL EARNINGS
 per diluted share



TOTAL REVENUES (GAAP)
IN MILLIONS



2017 NON-GAAP NET INCOME

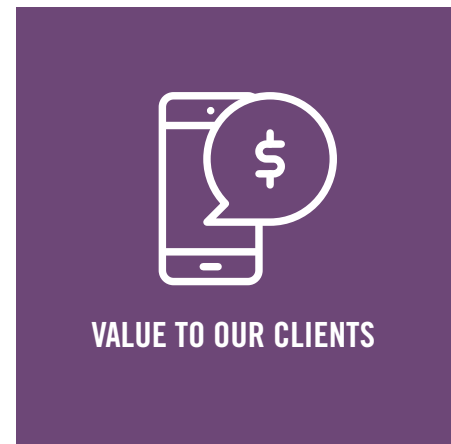
\$153.9 M ^{+13%}
FROM 2016
▲▲▲ \$3.92 per diluted share

2017 GAAP NET INCOME

\$163.9 M ^{+49%}
FROM 2016
▲▲▲ \$4.18 per diluted share

YEAR END CASH AND INVESTMENTS: \$250M
DEBT: NONE

+11%
OVER 2016



4 MEASURES OF **OUR SUCCESS**

Our goal each year is to make Tyler a stronger and more valuable company than we were the year before. We do this by balancing short-term objectives with long-term strategic investments and initiatives. We benchmark each year against four factors we believe are the keys to our success: financial performance, competitive advantage, value to our clients, and organizational strength.





FINANCIAL PERFORMANCE

Tyler's financial success in 2017 was not buoyed by a single vertical or product. The individual strength of each solution, along with the synergy of all divisions working together, continues to drive growth and earnings.

Balancing Short-Term and Long-Term Objectives

Every year, our leadership team has the task of balancing short-term objectives with the long-term strategic investments and initiatives that have made Tyler a leader in the local government marketplace.

In recent years, Tyler shareholders have reaped the rewards of our sustained double-digit revenue growth, thanks, in part, to strategic acquisitions that supplemented our organic growth and significantly expanded our market presence. The current M&A environment has made it challenging to acquire quality assets at values we find compelling, and so our focus in 2017 was primarily on making internal investments that can be strong catalysts for future growth.

Investing in Our Products

Our adherence to a steady and disciplined course of internal reinvestment over several years of strong growth has allowed us to make significant

enhancements across each of our core product lines. This strategy to invest internally in products and to nurture the investments already made continues to bear fruit.

With the acquisition of New World Systems (NWS) in late 2015, Tyler gained a robust portfolio of software applications that boosted our presence in the public safety market. We launched additional internal investments in these products to integrate them into the Tyler family and to develop expanded features and functionality to enhance the product suite. As evidenced by strong progress in the marketplace in 2017, these investments are driving value. Investments in the public safety organization have led to improved processes and increased client satisfaction, which in turn drove higher win rates in 2017 and solidified Tyler Technologies as an industry leader in public safety.

Tyler has also made significant internal investments in justice solutions that are driving subscription revenues from our e-filing and SaaS subscriptions. In the third quarter, we saw our first subscription revenues from an amended contract with the Administrative

Office of the Illinois Courts, a current statewide e-filing client, for re:Search®, a paperless solution that provides a more efficient way for attorneys, judges, and other constituents to access important case records and documents.

A \$15 million investment in our data centers and infrastructure in 2017 has been validated by strong demand for SaaS subscriptions. This investment in infrastructure also supports future growth for our cloud business.

Assessing Opportunities

In 2016, we undertook an extensive white-space initiative to assess our current solutions, as well as segments of the market we don't currently serve. Continuing analysis of the competitive landscape assists our senior management team in prioritizing Tyler's expansion opportunities and determining what we should build internally versus what we should acquire. In 2017, three carefully considered acquisitions added new products to complement our existing lineup.

In May 2017, Tyler acquired Modria, an innovative company specializing in online dispute resolution (ODR), and began integrating Modria® with Tyler's courts and justice solutions. In December, Tyler signed an agreement with Ohio Court of Claims to provide Modria as an enhancement to Odyssey Case Manager™ and Odyssey File & Serve™. While Modria's operations did not have a material impact on Tyler's 2017 revenue or earnings, we are optimistic about the opportunity to create a meaningful recurring revenue stream from ODR, as we did with our industry-leading expansion of e-filing for courts.



CLIENT STORY
METCOM 911



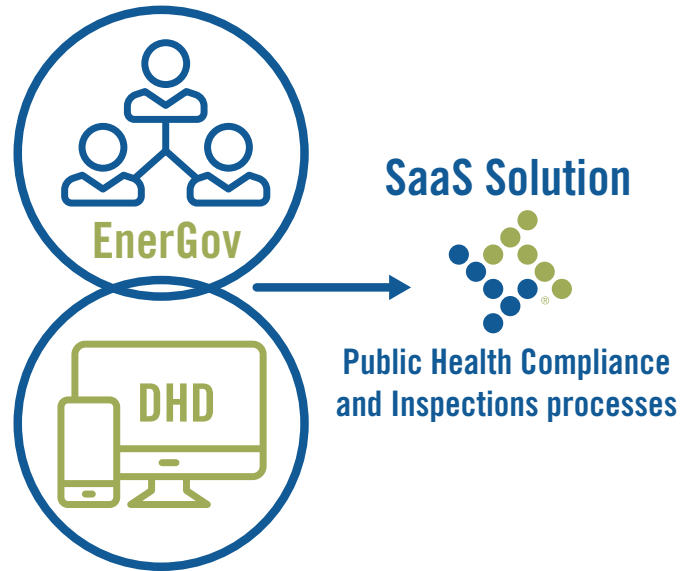
The devastating series of wildfires that ravaged the western United States in 2017 showed how quickly a small fire incident can grow into a massive disaster.

For METCOM 911, the multiagency public dispatch center serving 36 Oregon communities in Marion, Linn, and Clackamas counties, upgrading their computer-aided dispatch (CAD) software to Tyler's New World™ enterprise CAD system enabled them to enhance the speed and quality of their response to emergencies of all types. The Esri®-powered GIS technology in New World CAD includes robust digital mapping capabilities so dispatchers can send the closest emergency crews to the right location via the quickest route, estimate arrival times, and share other mission-critical information with first responders in real time.

When a lightning-sparked house fire necessitated a region-wide response, METCOM 911 dispatchers were able to efficiently coordinate a collaborative response to the fire while continuing to respond dynamically to other emergencies as they unfolded.



In August, Tyler acquired the assets of Digital Health Department (DHD), a company that provides environmental health software for local governments. DHD software extends Tyler's EnerGov™ enterprise permitting, licensing, and regulatory solution, offering a SaaS solution for public health compliance and inspections processes.



Tyler also acquired audio and digital two-way radio communications technology and related assets from Radio 10-33, LLC, in November. Once integrated with Tyler's public safety solutions, the advanced technology will enable emergency communication centers, law enforcement, fire and EMS crews, and others to monitor, record, instantly play back, and save E-911 transmissions as MP3 or MP4 video files with metadata.

By pursuing selective acquisitions and making significant investments in our products and infrastructure, Tyler is strengthening our position for future growth while continuing to deliver favorable returns to our shareholders.





COMPETITIVE ADVANTAGE

To reinforce Tyler's competitive position, we invested \$47 million in research and development and grew our development team by 6 percent in 2017. The competitive advantage gained by this strategy is evidenced in several ways.

Thriving in Multiple Environments

Tyler's versatility and strength in both on-premises and hosted environments provides a unique competitive advantage, allowing Tyler solutions to appeal to a broad segment of the market. Tyler clients have the flexibility to implement technology in the way that works best for them.

Building a Digital Infrastructure

A second competitive advantage is Tyler's development of foundational solutions and processes that provide seamless functionality across multiple Tyler solutions, including:

- Tyler Identity™, a single sign-on authentication engine
- Tyler Atlas™, a map-based location data exchange
- Tyler Payments™, a payment solution for Tyler and third party applications.

All are cloud-based solutions that enable users to access the right information at the right time

through a user-friendly interface. Although these solutions are in different stages of development and deployment, they are providing the foundation for Tyler Nexus and Tyler Alliance —

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Together, these solutions provide a seamless, role-based user experience.
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Tyler's initiatives to create a digital infrastructure of connected, best-of-breed products built on a common foundation. Together, these solutions provide a seamless, role-based user experience for local jurisdictions and their constituents alike.

Continuous Product Innovation

A third way in which Tyler advances our competitive position is to continually invest in new products or enhancements such as Tyler EAM™, an enterprise asset management solution.

Tyler EAM enables organizations to track and manage physical assets throughout their life cycle with detailed inventory, preventive maintenance, inspections, on-demand work orders, condition assessments, and more. The first module launched in 2017, providing clients with robust functionality both in the office and in the field, using web-enabled programs and mobile apps that allow personnel on site to easily see their work and manage work orders. This allows for efficient and timely responses to issues like a broken water main or scheduled maintenance on street lights. Tyler EAM integrates with Tyler's financial and planning, regulatory, and maintenance solutions.

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CLIENT STORY
WAYNE COUNTY, MICHIGAN



Choosing a cloud-based solution solved several challenges for Bernard Youngblood, Wayne County, Michigan's Register of Deeds. He searched for a solution to process, record, and index deeds, land contracts, mortgages, liens, lease agreements, and other vital documents for the county's almost 2 million citizens.

With more than a half-million documents recorded and imaged each year, plus an index of land transactions dating back to 1703, the solution had to be robust enough to process and image new records, protect data, and alleviate the burden of manual complex systems with limited IT staff.

Youngblood chose Tyler Technologies and Tyler's Eagle™ land and vital records cloud-based solution to ensure that the trove of approximately 17 million records is securely backed up, lessening the risk of data loss due to a disaster, while reducing IT costs.

Having formed the first Deed Fraud Unit in the nation with the Wayne County sheriff's and prosecutor's offices, Youngblood also recognized the value of adding the Eagle Fraud Guard™ online notification system to Eagle's public access feature, Eagle Self-Service™, to actively protect Wayne County citizens from land record fraud.

“At the end of my exhaustive analysis, it became crystal clear I could only entrust my name and reputation to one vendor and one group of professionals, those of Tyler Technologies.”

— Bernard Youngblood
Register of Deeds, Wayne County, Michigan



An Insider's View

Tyler also enjoys a competitive advantage thanks to the high percentage of our employees who have worked in the public sector. Across the organization, approximately 33 percent of the Tyler workforce has been a local government employee at some point in their career, resulting in firsthand knowledge of what our clients experience on a day-to-day basis.

High win rates, investments in our core products, and consistent execution across our business have continued to secure our leadership position in the financial, courts, school, tax, and appraisal arenas. Strategic acquisitions and product development have also bolstered our presence in public safety and justice.

Along with creating
additional value
for our existing clients,

with every new client relationship,
Tyler solidifies our market position

← and opens →

new opportunities
to widen our competitive advantage.





VALUE TO OUR CLIENTS

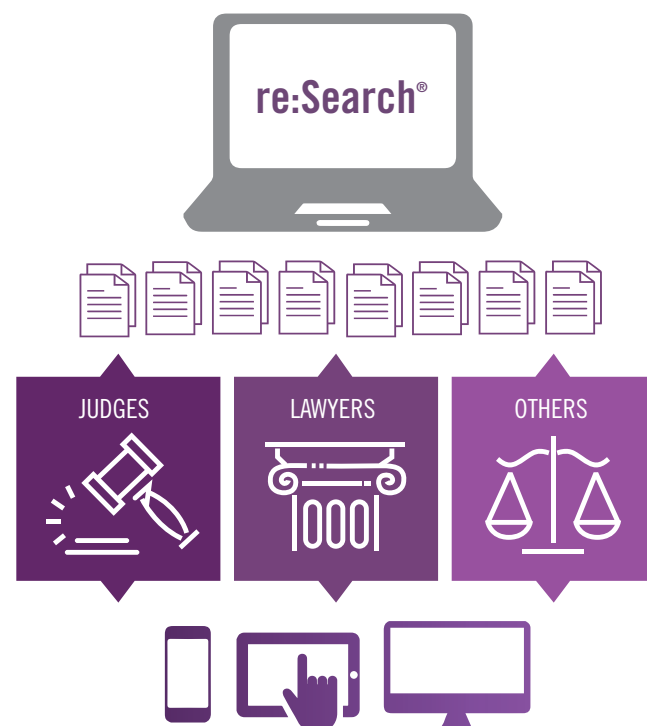
Nothing is more important to Tyler Technologies than building long-term client relationships. We add value for them by gathering feedback and anticipating changing demands for features and functions like mobile technology and paperless processes. And we offer evergreen upgrades and ongoing training to help clients do more with their technology.

Value Through Innovation

One example of an enhancement that is adding value for our clients is Tyler's New World CrewForce™ mobile application for first responders, which launched in November 2017. Available to licensed users of Tyler's New World™ public safety solution, the application uses Google® Street View along with Esri®-powered maps to provide emergency personnel with valuable contextual cues to effectively navigate and coordinate their response to a fire, accident, or other emergency. The app acts like a virtual assistant, understanding spoken commands and responding to users in real time. It also enables emergency response crews to estimate arrival times of all responders and to easily communicate with each other via the chat feature. New World

CrewForce supports our commitment to developing leading technology that enhances the ability of our clients to better serve their communities.

Another example of adding value through innovation is the deployment of re:Search®.



This extension of our statewide e-filing solutions for courts is a web-based portal that allows immediate and secure access to a consolidated database of case information, providing attorneys, judges, and other constituents a simple, consistent way to view and obtain case records and documents from counties across a state. re:Search integrates with Odyssey® as well as other case management systems to access court information and provide an efficient way to share important case records and documents at any time and on any device. This solution also offers courts an increased opportunity for fee revenue while improving access and transparency and reducing the need for paper.

Value Through Commitment

A prime example of increasing value to clients has long been Tyler's perpetual licensing approach, which protects and extends our clients' investments with regular and significant, yet manageable, software enhancements without additional license fees. Building on that evergreen approach, our EverGuide® initiative — Tyler's continuous improvement commitment to helping our clients maximize the value of their investment — adds training and consulting to help our clients get the most from their software.

Value Through Community

Tyler's concern for clients goes beyond business. When hurricanes Harvey, Irma, and Maria barreled toward the Gulf and Atlantic coasts, Puerto Rico, and the U.S. Virgin Islands, Tyler's disaster recovery team reached out to our 269 clients with contracted disaster recovery services who were in the path of the storms. Our team made sure our clients had



CLIENT STORY HORRY COUNTY, SOUTH CAROLINA



The laid-back beach towns and natural beauty of Horry County, South Carolina, are two reasons tourists flock to the region in the summer. But Horry County officials are anything but laid back when it comes to using innovative technology. A thought leader in IT and geographic information system (GIS) technology in the public sector, Timothy Oliver, GIS/IT director for Horry County, is finding new ways to take advantage of Esri® integration with Tyler's EnerGov™ software.

When Hurricane Matthew threatened to devastate the beaches along the Grand Strand, Oliver's team used a drone to capture high-quality aerial views of before-and-after images of dunes. Esri's ArcGIS software quickly integrated the GIS data to calculate the amount of sand loss and erosion caused by the hurricane, cutting filing time for recovery from weeks to days.

A less dramatic but equally important way Horry County is using drone technology with Tyler's Esri-enabled EnerGov software is to recover storm water fees for new commercial buildings. When an automatic workflow in EnerGov requests a final inspection, an alert is sent to GIS staff, who then know it's time to fly the drones and map surface data. By identifying new properties upon final inspection, Horry County can begin billing storm water fees in the first month, instead of months or years later. This has resulted in the recovery of a significant amount of revenue for the county each year.



response plans in place and were implementing procedures to secure and recover their critical data with minimal disruption.

More than 800 Tyler clients were affected by the hurricanes, and we've heard many stories about Tyler software's dependable performance during and after the storms. In one Texas region, Tyler's Incode® public safety solutions provided critical functionality to several communities inundated by Harvey's torrential rains that enabled neighboring jurisdictions to coordinate search and rescue efforts, saving almost 200 lives. After the storms, Tyler employees were quick to aid in relief efforts by volunteering their time and making donations to relief organizations. Through any conditions, Tyler employees go above and beyond to serve our clients.

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Whenever we have any kind of problem requiring Tyler support, we are treated with respect and a sense of urgency. Each member of your team has always gone above and beyond what is expected to assist us until we reach a solution. I always feel as though I am calling a friend for advice, rather than a call center.

Permit Service Representative, Missouri City, Texas

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ORGANIZATIONAL STRENGTH

A final measure of our success is the strength of the operations organization and the quality of our staff. This proved to be another year in which the dedication, professionalism, and expertise of our employees set Tyler Technologies apart from other companies in our market.

Tyler strives to maintain our core values and create a nurturing environment where all Tyler employees can thrive. This commitment extends to maintaining the physical environment on our campuses as well as to a vibrant corporate culture that embraces social responsibility and advances individual empowerment.

An Environment That Nurtures

Tyler has made investments in our local office communities by improving and expanding our campuses and making them more environmentally friendly. At our corporate headquarters in Plano, Texas, Tyler installed solar panels backed with batteries, becoming the first company in North Texas to have a commercial solar and storage project. The solar panels will allow Tyler to reduce reliance on the electrical grid and even store sufficient energy for our headquarters to withstand a power outage of several hours.

To accommodate the projected addition of 575 new jobs in Maine within the next decade, Tyler completed a major building expansion of our Yarmouth campus that is home to our ERP & School Division. The four-story addition features new amenities that promote employee well-being and professional development as well as a large client training and development lab. Tyler also purchased a building in Latham, New York, to house a growing staff in our transportation group. These expansions demonstrate our desire to be a good corporate citizen and neighbor in the communities in which we operate, and to create an atmosphere where our employees can flourish.



Helping Our People Grow

Ensuring that our employees have the opportunity to grow and thrive is a major measure of success. We believe in the strength of a multigenerational, diverse, and empowered workforce.

Tyler's Leadership Development Program was established to identify and develop leadership talent and create a common developmental experience and process across Tyler. The program works to reinforce our leadership competencies in the culture and will ensure we have leaders ready to rise as opportunities emerge. Leadership candidates were hand selected and have individual leadership development plans in place.

Tyler also hosted our first national Tyler Mesh conference in June 2017. The conference brought together product owners, quality assurance analysts, developers, release managers, software developers, and software operations employees from across the Tyler organization. The conference gave them the opportunity to collaborate face to face, share ideas, hear from leaders, recognize outstanding work, and build rapport. Tyler's investment in this collaborative conference is already generating valuable returns in terms of the energy, camaraderie, and ideas generated among attendees and presenters.

Another initiative to champion personal and career development for Tyler employees is the Women's Leadership Network, launched in early 2017. The network was formed to inspire women across the Tyler organization to recognize their potential as individuals, to share common experiences,

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CLIENT STORY
WASHINGTON COUNTY, PA



Washington County, Pennsylvania, completed its first property reassessment in 35 years with Tyler's CLT Appraisal Services™ and iasWorld® property appraisal and tax administration software. The assessment encompassed all classes of real property from residential, commercial, and industrial properties to public utilities and agricultural properties.

The time span and shifting market conditions since the last reassessment were cause for major disparities in fair market values across the approximate 117,000 parcels in the county. The value inequities ranged from 10 to 25 percent on the counties existing tax roll, which presented a public relations challenge.

Washington County and Tyler embarked on a community outreach campaign, working to be transparent with the county's residents about how the values were calculated to avoid misunderstandings about adjustments to taxable values. Tyler provided training to county staff and members of the board of appeals so they could educate their constituents and made presentations to various civic groups and school boards so everyone felt included and informed.



and to connect young talent with mentors. In addition, employees were featured in “Women in Technology,” a yearlong intranet series profiling women who have made significant contributions to Tyler’s success, as nominated and selected by Tyler employees.

Tyler has been recognized across the country for providing a supportive, innovative, and healthy work environment across its many campuses. Tyler was named to “Best Places to Work” lists in Dallas, Phoenix, Detroit, Lubbock, and Maine, including ranking No. 10 on the Maine Biz 2017 “Best Places to Work in Maine” list, and No. 19 on the Dallas Morning News “Top 100 Places to Work 2017” list.



**No. 10 on the Maine Biz 2017
“Best Places to Work in Maine” list**

**No. 19 on the Dallas Morning News
“Top 100 Places to Work 2017”**

While it’s gratifying to be recognized externally, Tyler is proudest of our employees’ dedication to client service, keeping relationships strong and enabling us to be bold in our collective vision of transformational government.



IN CONCLUSION

Tyler Technologies' success has always been rooted in the strength of our client relationships and the unmatched level of service every Tyler professional provides. After a significant growth streak in the past several years, we've taken full advantage of the current business climate to bring added value to our clients. We've also made tremendous progress on developing and implementing technologies that will continue to advance our vision of connected communities in the coming years.

During this period, we've built on our successes while adding to our capabilities and increasing our industry-leading position in the public sector. By nurturing and developing our employees and client relationships, Tyler remains confident that our strength is steadfast into the future.

The fundamentals of our strategy remain sound, and our plans to invest in the company at a high level while remaining opportunistic with respect to external investments leave Tyler in a strong position as we enter 2018.

By being a true partner to our clients, Tyler will continue to thrive, our clients will thrive, and our communities will thrive — building a brighter future for our nation and the world.



2017 FINANCIAL INFORMATION

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

	2017	2016	2015	2014	2013
Reconciliation of non-GAAP total revenues					
GAAP total revenues	\$840,662	\$756,043	\$591,022	\$493,101	\$416,643
Non-GAAP adjustments:					
Add: Write-downs of acquisition-related deferred revenue	663	15,063	3,186	—	—
Add: Amortization of acquired leases	444	444	37	—	—
Non-GAAP total revenues	\$841,769	\$771,550	\$594,245	\$493,101	\$416,643
Reconciliation of non-GAAP gross profit and margin					
GAAP gross profit	\$399,140	\$355,351	\$277,187	\$233,371	\$193,203
Non-GAAP adjustments:					
Add: Write-downs of acquisition-related deferred revenue	663	15,063	3,186	—	—
Add: Amortization of acquired leases	444	444	37	—	—
Add: Share-based compensation expense included in cost of revenues	9,415	6,548	3,380	2,177	1,509
Add: Amortization of acquired software	21,686	22,235	4,440	1,858	2,078
Non-GAAP gross profit	\$431,348	\$399,641	\$288,230	\$237,406	\$196,790
GAAP gross margin	47.5%	47.0%	46.9%	47.3%	46.4%
Non-GAAP gross margin	51.2%	51.8%	48.5%	48.1%	47.2%
Reconciliation of non-GAAP operating income and margin					
GAAP operating income	\$160,930	\$131,305	\$108,043	\$ 94,822	\$ 67,128
Non-GAAP adjustments:					
Add: Write-downs of acquisition-related deferred revenue	663	15,063	3,186	—	—
Add: Amortization of acquired leases	444	444	37	—	—
Add: Share-based compensation expense	37,348	29,747	20,182	14,819	11,653
Add: Employer portion of payroll tax related to employee stock transactions	1,102	1,001	1,506	514	982
Add: Acquisition-related costs	—	—	5,875	—	—
Add: Amortization of acquired software	21,686	22,235	4,440	1,858	2,078
Add: Amortization of customer and trade name intangibles	13,912	13,731	5,905	4,546	4,517
Non-GAAP adjustments subtotal	\$ 75,155	\$ 82,221	\$ 41,131	\$ 21,737	\$ 19,230
Non-GAAP operating income	\$236,085	\$213,526	\$149,174	\$116,559	\$ 86,358
GAAP operating margin	19.1%	17.4%	18.3%	19.2%	16.1%
Non-GAAP operating margin	28.0%	27.7%	25.1%	23.6%	20.7%
Reconciliation of non-GAAP net income and earnings per share					
GAAP net income	\$163,945	\$109,857	\$ 64,869	\$ 58,940	\$ 39,101
Non-GAAP adjustments:					
Add: Total non-GAAP adjustments to operating income	75,155	82,221	41,131	21,737	19,230
Less: Tax impact related to non-GAAP adjustments	(85,192)	(56,230)	(13,318)	(6,658)	(6,014)
Non-GAAP net income	\$153,908	\$135,848	\$ 92,682	\$ 74,019	\$ 52,317
GAAP earnings per diluted share	\$ 4.18	\$ 2.82	\$ 1.77	\$ 1.66	\$ 1.13
Non-GAAP earnings per diluted share	\$ 3.92	\$ 3.49	\$ 2.54	\$ 2.09	\$ 1.51
Detail of share-based compensation expense					
Cost of software services, maintenance and subscriptions	\$ 9,415	\$ 6,548	\$ 3,380	\$ 2,177	\$ 1,509
Selling, general and administrative expenses	27,933	23,199	16,802	12,642	10,144
Total share-based compensation expense	\$ 37,348	\$ 29,747	\$ 20,182	\$ 14,819	\$ 11,653

Stock Market Data

Our common stock is traded on the New York Stock Exchange under the symbol "TYL." At December 31, 2017, we had approximately 1,367 stockholders of record. Most of our stockholders hold their shares in street name; therefore, there are substantially more than 1,367 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
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
2017	First Quarter	\$166.86	\$142.75
	Second Quarter	178.09	152.00
	Third Quarter	182.49	165.14
	Fourth Quarter	188.22	168.12

We did not pay any cash dividends in 2017 or 2016. 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 do not anticipate paying a cash dividend in the foreseeable future.

Selected Financial Data

For the Years Ended December 31,	2017 ^(a)	2016 ^(b)	2015 ^(c)	2014	2013
(In thousands, except per share data)					
STATEMENT OF OPERATIONS DATA:					
Revenues	\$ 840,662	\$ 756,043	\$ 591,022	\$493,101	\$416,643
Cost and expenses:					
Cost of revenues	441,522	400,692	313,835	259,730	223,440
Selling, general and administrative expenses	176,974	167,161	133,317	108,260	98,289
Research and development expense	47,324	43,154	29,922	25,743	23,269
Amortization of customer and trade name intangibles	13,912	13,731	5,905	4,546	4,517
Operating income	160,930	131,305	108,043	94,822	67,128
Other income (expense), net	698	(1,998)	381	(355)	(1,309)
Income before income taxes	161,628	129,307	108,424	94,467	65,819
Income tax (benefit) provision ^(a)	(2,317)	19,450	43,555	35,527	26,718
Net income	163,945	109,857	64,869	58,940	39,101
Net earnings per diluted share	\$ 4.18	\$ 2.82	\$ 1.77	\$ 1.66	\$ 1.13
Weighted average diluted shares ^(b)	39,246	38,961	36,552	35,401	34,590
STATEMENT OF CASH FLOWS DATA:					
Cash flows provided by operating activities ^(b)	\$ 195,755	\$ 191,859	\$ 134,327	\$142,839	\$ 94,297
Cash flows used by investing activities	(85,395)	(50,720)	(398,459)	(11,555)	(25,658)
Cash flows provided (used) by financing activities ^(b)	39,415	(138,075)	91,052	(3,993)	3,831
BALANCE SHEET DATA:					
Total assets	\$1,589,592	\$1,357,945	\$1,356,570	\$569,812	\$444,488
Revolving line of credit	—	10,000	66,000	—	—
Shareholders' equity	1,167,094	915,525	858,857	336,973	246,319

(a) 2017 includes the significant impact of the enactment of the Tax Cuts and Jobs Act ("Tax Act"). The most significant impact of the Tax Act to us is the reduction in the U.S. federal corporate income tax rate from 35% to 21%. The impact of the rate reduction on our 2017 income tax provision is a \$21.6 million tax benefit due to the remeasurement of deferred tax assets and liabilities. Refer to Note – 7 "Income Tax" for further discussion on the impact of the Tax Act.

(b) During 2016, we early 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 prior periods presented above. In 2016, ASU No. 2016-09 updated the method of calculating diluted shares resulting in the inclusion of 519,000 additional shares in our diluted earnings per share calculation, which is not comparable to the other prior periods presented. The adoption of ASU No. 2016-09 also required 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.

(c) 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 non-recurring financial advisory, legal, accounting, due diligence, valuation and other expenses necessary to complete the NWS acquisition.

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 revenues increased 11% in 2017 compared to 2016.

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

Recent Acquisitions

On November 29, 2017, we acquired audio and digital two-way radio communications technology and related assets from Radio 10-33, LLC an audio and digital two-way radio communications company. The total purchase price was \$1.4 million.

On August 2, 2017, we acquired substantially all of the assets and assumed certain liabilities of Digital Health Department, Inc. ("DHD"), a company that provides environmental health software, offering a software-as-a-service (SaaS) solution for public health compliance and inspections processes. The total purchase price, net of debt assumed, was \$3.9 million.

On May 30, 2017, we acquired all of the capital stock of Modria.com, Inc., a company that specializes in online dispute resolution for government and commercial entities. The total purchase price, net of debt assumed, was \$7.0 million.

The operating results of these acquisitions are included in our results of operations of the Enterprise Software segment from the date of the acquisition. The impact of these acquisitions, individually and in the aggregate, on our operating results is not material.

On December 22, 2017, the Tax Act was enacted. The Tax Act amends the Internal Revenue Code to reduce tax rates and modify policies, credits and deductions for individuals and businesses. For businesses, the Tax Act reduces the U.S. corporate federal tax rate from 35% to 21% and transitions from a worldwide tax system to a territorial tax system. The impact of the rate reduction on our 2017 income tax provision is a \$21.6 million tax benefit due to the remeasurement of deferred tax assets and liabilities. Refer to Note 7 "Income Tax" for further discussion on the impact of the Tax Act.

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 64% of our revenue in 2017. 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 2017, 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, 2017, our total employee count increased to 4,069 from 3,831 at December 31, 2016.
- **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 as the market price of our stock increases. Other administrative expenses tend to grow at a slower rate than revenues.

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

- **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.

Recent Accounting Guidance not yet Adopted

Revenue from Contracts with Customers. On May 28, 2014, the Financial Accounting Standards Board ("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 have adopted the new standard effective January 1, 2018 using the full retrospective method which will require each prior reporting period presented to be recast in future issuance of our financial statements. In preparation for adoption of the standard, we have implemented internal controls and key system functionality to enable the preparation of financial information and have reached conclusions on key accounting assessments related to the standard. During the fourth quarter of fiscal 2017, we have substantially completed data conversion activities required to recast our prior period results. We continue to perform an in-depth review of our preliminary results; therefore, we are in the process of completing our analysis necessary to recast prior period results. We do not believe there are any remaining significant implementation topics associated with the adoption of this ASU that have not yet been addressed.

This standard will have a material impact on our consolidated balance sheets and statement of shareholders' equity. The impact of the standard on consolidated revenue and costs of revenue will be dependent upon the mix of revenue streams due to our accounting for software license fees, allocation of discounts across all performance obligations and to the incremental costs of obtaining a contract. Specifically, under the new standard 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. Revenue related to our software as a service ("SaaS") offerings, post-contract customer support ("PCS") renewals and professional services 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.

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

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 on a systematic basis that is consistent with the transfer to the customer of the goods and services to which the asset relates, 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 of the new standard, amortization periods will 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 will adopt the new standard in fiscal year 2019.

Outlook

The local government software market continues to be active, and our backlog at December 31, 2017 reached \$1.1 billion, a 18% 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.

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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 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

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

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.

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 2017, did not result in an impairment charge. During 2017, 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.

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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.

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.

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, 2017, 2016 and 2015.

Years Ended December 31,	Percentage of Total Revenues		
	2017	2016	2015
Revenues:			
Software licenses and royalties	9.0%	9.8%	10.0%
Subscriptions	20.6	18.9	18.9
Software services	22.3	23.1	23.7
Maintenance	43.0	42.7	41.6
Appraisal services	3.0	3.5	4.2
Hardware and other	2.1	2.0	1.6
Total revenues	100.0	100.0	100.0
Operating Expenses:			
Cost of software licenses, royalties and acquired software	3.0	3.3	1.0
Cost of software services, maintenance and subscriptions	46.1	46.2	48.2
Cost of appraisal services	1.9	2.2	2.7
Cost of hardware and other	1.5	1.3	1.1
Selling, general and administrative expenses	21.1	22.1	22.6
Research and development expense	5.6	5.7	5.1
Amortization of customer and trade name intangibles	1.7	1.8	1.0
Operating income	19.1	17.4	18.3
Other income (expense), net	0.1	(0.3)	0.1
Income before income taxes	19.2	17.1	18.4
Income tax (benefit) provision	(0.3)	2.6	7.4
Net income	19.5%	14.5%	11.0%

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

2017 Compared to 2016

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)	2017	2016	Change	
			\$	%
ES	\$67,840	\$68,844	\$(1,004)	(1)%
A&T	7,854	5,462	2,392	44
Total software licenses and royalties revenue	\$75,694	\$74,306	\$ 1,388	2%

Software license and royalties revenue was flat compared to the prior year. Software license revenue declined as a percentage of the revenue mix due to an increase in the percentage of new software clients choosing our subscription-based option, rather than purchasing the software under a traditional perpetual license arrangement.

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 2017 was approximately 53% selecting perpetual software license arrangements and approximately 47% selecting subscription-based arrangements compared to a client mix in 2016 of approximately 68% selecting perpetual software license arrangements and approximately 32% selecting subscription-based arrangements.

Subscriptions.

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

(\$ in thousands)	2017	2016	Change	
			\$	%
ES	\$165,651	\$135,516	\$30,135	22%
A&T	7,859	7,188	671	9
Total subscriptions revenue	\$173,510	\$142,704	\$30,806	22%

Subscription-based 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.

Subscription-based revenue increased 22% compared to 2016. New SaaS clients as well as existing clients who converted to our SaaS model provided the majority of the subscriptions revenue increase. In 2017, we added 374 new SaaS clients and 88 existing clients elected to convert to our SaaS model. The average contract sizes in 2017 were 64% and 44% higher than 2016 for new clients and clients converting to our SaaS model, respectively. Also, e-filing services contributed approximately \$8.5 million of the subscriptions revenue increase in 2017. The increase in e-filing revenue is attributed to new e-filing clients, as well as increased volumes as the result of several existing clients mandating e-filing.

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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)	2017	2016	Change	
			\$	%
ES	\$167,934	\$158,478	\$ 9,456	6%
A&T	19,215	16,326	2,889	18
Total software services revenue	\$187,149	\$174,804	\$12,345	7%

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. Software services revenue grew 7% 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 partially due to completing recognition of a majority of the acquisition-related deferred service revenue that was fair valued at rates below Tyler's average service rate in prior periods.

Maintenance.

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

(\$ in thousands)	2017	2016	Change	
			\$	%
ES	\$339,951	\$304,380	\$35,571	12%
A&T	21,618	18,589	3,029	16
Total maintenance revenue	\$361,569	\$322,969	\$38,600	12%

We provide maintenance and support services for our software products and certain third-party software. 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. In addition, the increase is partially due to completing recognition of a majority of the acquisition-related deferred maintenance revenue that was fair valued at rates below Tyler's average maintenance rate in prior periods.

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Appraisal services.

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

(\$ in thousands)	2017	2016	Change	
			\$	%
ES	\$ —	\$ —	\$ —	—%
A&T	25,023	26,287	(1,264)	(5)
Total appraisal services revenue	\$25,023	\$26,287	\$(1,264)	(5)%

In 2017, appraisal services revenue decreased 5% compared to the prior year primarily due to the successful completion of several large revaluation projects in mid-2017. The appraisal services business is somewhat cyclical and driven in part by statutory revaluation cycles in various states.

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)	2017	2016	Change	
			\$	%
Software licenses and royalties	\$ 3,321	\$ 2,964	\$ 357	12%
Acquired software	21,686	22,235	(549)	(2)
Software services, maintenance and subscriptions	387,634	348,939	38,695	11
Appraisal services	16,286	16,411	(125)	(1)
Hardware and other	12,595	10,143	2,452	24
Total cost of revenues	\$441,522	\$400,692	\$40,830	10%

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

Gross margin percentage	2017	2016	Change
Software licenses, royalties and acquired software	67.0%	66.1%	0.9%
Software services, maintenance and subscriptions	46.3	45.5	0.8
Appraisal services	34.9	37.6	(2.7)
Hardware and other	28.9	32.3	(3.4)
Overall gross margin	47.5%	47.0%	0.5%

Software licenses, royalties and acquired software. Cost of software licenses, royalties and acquired software is primarily comprised of amortization expense for acquired software and third-party software costs. We do not have any direct costs associated with royalties. The gross margin increase of 0.9% is due to higher incremental margins on software license revenues, in part due to slightly lower amortization expense for acquired software resulting from acquisitions.

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 2017, the software services, maintenance and subscriptions gross margin increased 0.8% compared to the prior year. Our implementation and support staff has grown by 220 employees since December 31, 2016. Many of these additions occurred in early to mid-2017 and are contributing to revenue

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in 2017. 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. Reduced recognition of acquisition-related deferred revenue associated with software services and maintenance obligations completed in prior periods also resulted in higher gross margins.

Appraisal services. Appraisal services revenue comprised approximately 3.0% of total revenue. The appraisal services gross margin decreased 2.7% compared to 2016 due to the reduction in higher margin projects substantially complete by early 2017 and lower volume of revenues in the current period to cover relatively fixed costs.

Our 2017 blended gross margin increased 0.5% compared to 2016. Our overall gross margin was positively impacted by a product mix that included more higher-margin recurring revenues from subscriptions and maintenance and improved margin on revenues from software licenses offset by the lower-margin revenues from appraisal services as described above.

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 years ended December 31:

(\$ in thousands)	2017	2016	Change	
			\$	%
Selling, general and administrative expenses	\$176,974	\$167,161	\$9,813	6%

SG&A as a percentage of revenue was 21.1% in 2017 compared to 22.1% in 2016. SG&A expense increased approximately 6% mainly due to compensation costs related to increased staff levels, merit increases and higher stock compensation expense. We have added 28 employees mainly to our sales and finance teams since December 31, 2016. In addition, our 2017 stock compensation expense rose \$4.7 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 new product development. The following table sets forth a comparison of our research and development expense for the years ended December 31:

(\$ in thousands)	2017	2016	Change	
			\$	%
Research and development expense	\$47,324	\$43,154	\$4,170	10%

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.

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Research and development expense increased 10% in 2017 compared to the prior year period, mainly due to research and development efforts related to new Tyler product development initiatives, primarily in our public safety solutions, offset by reduced development efforts for Microsoft Dynamics AX. As a result of the Microsoft Dynamics AX amendment, we have redeployed certain development resources to enhance functionality on several existing solutions and these costs are being recorded in cost of revenues – software services, maintenance and subscriptions.

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:

(\$ in thousands)	2017	2016	Change	
			\$	%
Amortization of customer and trade name intangibles	\$13,912	\$13,731	\$181	1%

Amortization of customer and trade name intangibles increased due to the impact of intangibles added with several small acquisitions completed in 2016 and 2017.

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 is as follows (in thousands):

2018	\$13,819
2019	12,534
2020	11,402
2021	11,282
2022	10,792

Amortization expense relating to acquired leases will be recorded as a reduction to hardware and other revenue and is expected to be \$425,000 in 2018, \$373,000 in 2019, \$313,000 in 2020, \$312,000 in 2021, \$312,000 in 2022 and \$1.0 million thereafter.

Other

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

(\$ in thousands)	2017	2016	Change	
			\$	%
Other income (expense), net	\$698	\$(1,998)	\$2,696	N/M

Other income (expense) 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. Other income (expense), net decrease compared to the prior period is attributed to significantly lower debt levels in the current period, as we repaid all borrowings under the revolving line of credit in January 2017, and correspondingly higher levels of cash investments.

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Income Tax (Benefit) Provision

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

(\$ in thousands)	2017	2016	Change	
			\$	%
Income tax (benefit) provision	\$(2,317)	\$19,450	\$(21,767)	(112)%
Effective income tax rate	(1.4)%	15.0%		

The decrease in the income tax provision during 2017 was primarily driven by the enactment of the Tax Act which reduced the statutory U.S. federal corporate income tax rate from 35% to 21%. The impact of the rate reduction on our 2017 income tax provision is a \$21.6 million tax benefit due to the remeasurement of deferred tax assets and liabilities. See Note 7 – “Income Tax” for additional information related to the Tax Act. The income tax provision is also lower due to the increase in the excess tax benefits from stock option exercises as compared to prior period. We experienced significant stock option exercise activity in 2017 and 2016 that generated excess tax benefits of \$40.6 million and \$29.6 million, respectively.

The change in the effective income tax rate in 2017 compared to 2016 is also primarily attributable to the impact of the Tax Act and the changes in excess tax benefits related to stock option exercises realized. Excluding the impact of the Tax Act and the excess tax benefits, our income tax provision and effective tax rate in 2017 would have been \$59.9 million and 37.1%, respectively. Excluding the excess tax benefits, 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 2017 and 2016 differed from the statutory United States federal corporate income tax rate of 35% due to state income taxes, the domestic production activities deduction, the research tax credit, non-deductible share-based compensation expense, disqualifying incentive stock option dispositions, and non-deductible business expenses.

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:

(\$ in thousands)	2016	2015	Change	
			\$	%
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, our longer-term software license growth rate is 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:

(\$ in thousands)	2016	2015	Change	
			\$	%
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 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 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	
			\$	%
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	
			\$	%
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	
			\$	%
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.

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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	
			\$	%
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. Cost of software licenses, royalties and acquired software is 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 grew by 169 employees in 2016. 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 added 369 implementation and support employees. These additions contributed to the revenue growth in 2016. In addition, the NWS revenue mix included 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

The following table sets forth a comparison of selling, general and administrative expenses for the years ended December 31:

(\$ in thousands)	2016	2015	Change	
			\$	%
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 added 22 employees mainly to our sales and finance teams in 2016. 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

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

(\$ in thousands)	2016	2015	Change	
			\$	%
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.

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:

(\$ in thousands)	2016	2015	Change	
			\$	%
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.

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Other

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

(\$ in thousands)	2016	2015	Change	
			\$	%
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.

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	
			\$	%
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.

Excluding the excess tax benefits, 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.

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FINANCIAL CONDITION AND LIQUIDITY

As of December 31, 2017, we had cash and cash equivalents of \$185.9 million compared to \$36.2 million at December 31, 2016. We also had \$63.8 million invested in investment grade corporate bonds, municipal bonds and asset-backed securities as of December 31, 2017. These investments mature between 2017 through 2021 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, 2017, we had no outstanding borrowings and one outstanding letter of credit totaling \$0.5 million in favor of a client contract. The letter of credit guarantees our performance under the contract and expires in 2018. 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)	2017	2016	2015
Cash flows provided (used) by:			
Operating activities	\$195,755	\$ 191,859	\$ 134,327
Investing activities	(85,395)	(50,720)	(398,459)
Financing activities	39,415	(138,075)	91,052
Net increase (decrease) in cash and cash equivalents	\$149,775	\$ 3,064	\$(173,080)

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.

In 2017, operating activities provided cash of \$195.8 million compared to \$191.9 million in 2016. Operating activities that provided cash were primarily comprised of net income of \$163.9 million, non-cash depreciation and amortization charges of \$53.9 million and non-cash share-based compensation expense of \$37.3 million. Working capital, excluding cash, increased approximately \$63.6 million mainly due to higher accounts receivable related to annual maintenance and subscription billings as well as milestone billings for several contracts, timing of income tax payments, and the deferred taxes associated with stock option activity during the period. These increases were offset slightly by the growth in deferred revenue balances and timing of payments of payroll related taxes and vendor invoices.

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 94 days at December 31, 2017, compared to 93 days at December 31, 2016. 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 \$85.4 million in 2017 compared to \$50.7 million in 2016. We invested \$59.8 million and received \$28.8 million in proceeds from investment grade corporate bonds, municipal bonds and asset-backed securities with maturity dates ranging from 2017 through 2021. Approximately \$43.1 million was invested in property and equipment. We purchased an office building in Latham, New York for approximately \$2.9 million and paid \$2.1 million for building improvements. We paid \$19.4 million for construction to expand our office building in Yarmouth, Maine. We also made three small acquisitions with a combined cash purchase price of \$11.3 million. The remaining additions were for computer equipment, furniture and fixtures in support of internal growth, particularly with respect to our cloud-based offerings. These expenditures were funded from cash generated from operations.

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In 2016, we 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. We invested \$20.3 million in investment grade corporate and municipal bonds. 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 our office building in Yarmouth, Maine. 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. These expenditures were funded from cash generated from operations.

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 a small acquisition with a purchase price of \$6.1 million in cash and 12,500 shares of Tyler common stock valued at \$1.5 million and 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. These expenditures were funded from cash generated from operations, cash on hand and bank borrowings.

Financing activities provided cash of \$39.4 million in 2017 compared to cash used of \$138.1 million in 2016. Financing activities in 2017 were comprised of \$10.0 million net payments on our revolving line of credit offset by collections of \$56.9 million from stock option exercises and employee stock purchase plan activity. We also purchased approximately 44,000 shares of our common stock for an aggregate purchase price of \$6.6 million.

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. Cash provided by financing activities in 2015 resulted from net borrowings of \$66.0 million and collections of \$27.8 million from stock option exercises and employee stock purchase plan activity. We also 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.

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, 2017, 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.

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

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

December 31, 2017, our interest rate was 4.75% under the prime rate option or approximately 2.78% under the 30-day LIBOR option. 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, 2017, we were in compliance with those covenants.

As of December 31, 2017, we had no outstanding borrowings and had unused borrowing capacity of \$299.5 million under the Credit Facility. We paid interest of \$804,000 in 2017, \$1.9 million in 2016, and \$223,000 in 2015.

We paid income taxes, net of refunds received, of \$36.0 million in 2017, \$30.2 million in 2016, and \$27.3 million in 2015. In 2017, we experienced significant stock option exercise activity that generated net tax benefits of \$40.6 million and reduced tax payments accordingly. In 2016 and 2015, excess tax benefits were \$29.6 million and \$45.3 million, respectively.

The Tax Act, enacted on December 22, 2017, reduced the U.S. federal corporate income tax rate from 35% to 21% effective January 1, 2018. We expect that the Tax Act will have a positive impact on liquidity in future years due to the decrease in the U.S. corporate income tax rate.

We anticipate that 2018 capital spending will be between \$22 million and \$25 million, including approximately \$1 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 2018, 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 2025. Most leases contain renewal options and some contain purchase options.

Summarized in the table below are our obligations to make future payments under our Credit Facility and lease obligations at December 31, 2017 (in thousands):

	2018	2019	2020	2021	2022	Thereafter	Total
Revolving line of credit	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Lease obligations	5,428	4,201	3,644	2,366	812	499	16,950
Total future payment obligations	\$5,428	\$4,201	\$3,644	\$2,366	\$812	\$499	\$16,950

As of December 31, 2017, 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.

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

Capitalization

At December 31, 2017, our capitalization consisted of no outstanding borrowings and \$1.2 billion 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.

In 2017, our effective average interest rate for borrowings was 2.20%. As of December 31, 2017, our interest rate was 4.75% under the prime rate option or approximately 2.78% under the 30-day LIBOR option. The Credit Facility is secured by substantially all of our assets. 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%.

As of December 31, 2017, we had no outstanding borrowings under the Credit Facility and therefore are not subject to any interest risk.

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, 2017. 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, 2017.

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, 2017. 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, 2017, Tyler's internal control over financial reporting was effective based on those criteria.

Tyler's internal control over financial reporting as of December 31, 2017 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 44 hereof.

Changes in Internal Control Over Financial Reporting – During the quarter ended December 31, 2017, 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

To the Shareholders and the Board of Directors of Tyler Technologies, Inc.

Opinion on the Financial Statements

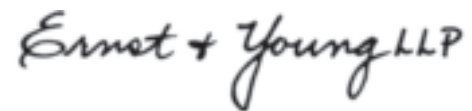
We have audited the accompanying consolidated balance sheets of Tyler Technologies, Inc. (the Company) as of December 31, 2017 and 2016, the related consolidated statements of comprehensive income, cash flows and shareholders' equity for each of the three years in the period ended December 31, 2017, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2017, 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 21, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.



We have served as the Company's auditor since 1966.

Dallas, Texas
February 21, 2018

Report of Independent Registered Public Accounting Firm

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Tyler Technologies, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Tyler Technologies, Inc.'s internal control over financial reporting as of December 31, 2017, 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). In our opinion, Tyler Technologies, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), consolidated balance sheets of the Company as of December 31, 2017 and 2016, the related consolidated statements of comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2017, and the related notes and our report dated February 21, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

The Company'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 are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

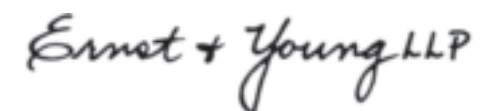
We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

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.

Definition and Limitations of Internal Control Over Financial Reporting

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.



Dallas, Texas
February 21, 2018

Consolidated Statements of Comprehensive Income

For the years ended December 31,	2017	2016	2015
(In thousands, except per share amounts)			
Revenues:			
Software licenses and royalties	\$ 75,694	\$ 74,306	\$ 59,008
Subscriptions	173,510	142,704	111,933
Software services	187,149	174,804	139,852
Maintenance	361,569	322,969	245,537
Appraisal services	25,023	26,287	25,065
Hardware and other	17,717	14,973	9,627
Total revenues	840,662	756,043	591,022
Cost of revenues:			
Software licenses and royalties	3,321	2,964	1,632
Acquired software	21,686	22,235	4,440
Software services, maintenance and subscriptions	387,634	348,939	285,340
Appraisal services	16,286	16,411	15,922
Hardware and other	12,595	10,143	6,501
Total cost of revenues	441,522	400,692	313,835
Gross profit	399,140	355,351	277,187
Selling, general and administrative expenses	176,974	167,161	133,317
Research and development expense	47,324	43,154	29,922
Amortization of customer and trade name intangibles	13,912	13,731	5,905
Operating income	160,930	131,305	108,043
Other income (expense), net	698	(1,998)	381
Income before income taxes	161,628	129,307	108,424
Income tax (benefit) provision	(2,317)	19,450	43,555
Net income	\$163,945	\$109,857	\$ 64,869
Earnings per common share:			
Basic	\$ 4.40	\$ 3.01	\$ 1.90
Diluted	\$ 4.18	\$ 2.82	\$ 1.77

See accompanying notes.

Consolidated Balance Sheets

December 31,	2017	2016
(In thousands, except par value and share amounts)		
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 185,926	\$ 36,151
Accounts receivable (less allowance for losses of \$5,427 in 2017 and \$3,396 in 2016)	227,127	200,334
Short-term investments	43,159	20,273
Prepaid expenses	27,252	21,039
Income tax receivable	11,339	2,895
Other current assets	1,997	2,268
Total current assets	496,800	282,960
Accounts receivable, long-term	7,536	2,480
Property and equipment, net	152,315	124,268
Other assets:		
Goodwill	657,987	650,237
Other intangibles, net	236,444	267,259
Non-current investments and other assets	38,510	30,741
	\$1,589,592	\$1,357,945
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 8,174	\$ 7,295
Accrued liabilities	64,675	55,989
Deferred revenue	309,461	298,217
Total current liabilities	382,310	361,501
Revolving line of credit	—	10,000
Deferred revenue, long-term	1,274	2,140
Deferred income taxes	38,914	68,779
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 2017 and 2016	481	481
Additional paid-in capital	626,867	556,663
Accumulated other comprehensive loss, net of tax	(46)	(46)
Retained earnings	599,821	435,876
Treasury stock, at cost; 10,262,182 and 11,381,733 shares in 2017 and 2016, respectively	(60,029)	(77,449)
Total shareholders' equity	1,167,094	915,525
	\$1,589,592	\$1,357,945

See accompanying notes.

Consolidated Statements of Shareholders' Equity

For the years ended December 31, 2017, 2016 and 2015

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Treasury Stock		Total Shareholders' Equity
	Shares	Amount				Shares	Amount	
<i>(In thousands)</i>								
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
Net income	—	—	—	—	163,945	—	—	163,945
Issuance of shares pursuant to stock compensation plan	—	—	28,174	—	—	1,113	21,671	49,845
Stock compensation	—	—	37,348	—	—	—	—	37,348
Issuance of shares pursuant to employee stock purchase plan	—	—	4,682	—	—	51	2,362	7,044
Treasury stock purchases	—	—	—	—	—	(44)	(6,613)	(6,613)
Balance at December 31, 2017	48,148	\$481	\$626,867	\$(46)	\$599,821	(10,262)	\$(60,029)	\$1,167,094

See accompanying notes.

Consolidated Statements of Cash Flows

For the years ended December 31,

	2017	2016	2015
<i>(In thousands)</i>			
Cash flows from operating activities:			
Net income	\$163,945	\$ 109,857	\$ 64,869
Adjustments to reconcile net income to cash provided by operations:			
Depreciation and amortization	53,925	50,301	19,574
Share-based compensation expense	37,348	29,747	20,182
Provision for losses – accounts receivable	4,110	4,484	1,756
Deferred income tax benefit	(29,865)	(28,939)	(7,956)
Changes in operating assets and liabilities, exclusive of effects of acquired companies:			
Accounts receivable	(35,558)	(30,227)	(28,172)
Income tax receivable	(8,444)	18,185	24,255
Prepaid expenses and other current assets	(5,897)	2,229	(3,054)
Accounts payable	878	387	652
Accrued liabilities	6,050	10,717	490
Deferred revenue	9,263	25,118	41,731
Net cash provided by operating activities	195,755	191,859	134,327
Cash flows from investing activities:			
Cost of acquisitions, net of cash acquired	(11,344)	(9,394)	(339,961)
Purchase of cost method investment	—	—	(15,000)
Purchase of marketable security investments	(59,779)	(20,316)	(31,907)
Proceeds from marketable security investments	28,786	16,837	900
Additions to property and equipment	(43,057)	(37,726)	(12,501)
(Increase) decrease in other	(1)	(121)	10
Net cash used by investing activities	(85,395)	(50,720)	(398,459)
Cash flows from financing activities:			
(Decrease) increase in net borrowings on revolving line of credit	(10,000)	(56,000)	66,000
Purchase of treasury shares	(7,474)	(111,838)	(645)
Contributions from employee stock purchase plan	7,044	6,236	4,671
Proceeds from exercise of stock options	49,845	23,527	23,160
Debt issuance costs	—	—	(2,134)
Net cash provided (used) by financing activities	39,415	(138,075)	91,052
Net increase (decrease) in cash and cash equivalents	149,775	3,064	(173,080)
Cash and cash equivalents at beginning of period	36,151	33,087	206,167
Cash and cash equivalents at end of period	\$185,926	\$ 36,151	\$ 33,087

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 two subsidiaries, which are 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, 2017, 2016 and 2015.

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 and online 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 ten 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 \$47.3 million during 2017, \$43.2 million during 2016, and \$29.9 million during 2015.

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.” On December 22, 2017, the Tax Cuts and Jobs Act (the “Tax Act”) was enacted into law. The Tax Act amends the Internal Revenue Code to reduce tax rates and modify policies, credits and deductions for individuals and businesses. For businesses, the Tax Act reduces the corporate U.S. federal tax rate from a maximum of 35% to a flat 21% rate and transitions from a worldwide tax system to a territorial tax system. Under ASC 740 Income Taxes, the effects of changes in tax rates and laws are recognized in the period in which the new legislation is enacted. In the case of U.S. corporate federal income taxes, the enactment date is the date the bill becomes law (i.e., upon presidential signature). See Note 7 – “Income Tax” for further discussion related to the Tax Act.

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.

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 2017, 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, 2017, 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, 2017, we have \$63.8 million in investment grade corporate bonds, municipal bonds and asset-backed securities with maturity dates ranging from 2017 through 2021. 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, 2017, 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 investment in convertible preferred stock is accounted under the cost method because the Company does not have the ability to exercise significant influence over the investee and the securities do not have readily determinable fair values. Our investment is carried at cost less any impairment write-downs. Annually, the Company's cost method investments are assessed for impairment. The Company does not reassess the fair value of cost method investments if there are no identified events or changes in circumstances that may have a significant adverse effect on the fair value of the investments. This investment is included in non-current investments and other assets in the accompanying consolidated balance sheets.

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, 2017, we had cash and cash equivalents of \$185.9 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, 2017.

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,	2017	2016	2015
Balance at beginning of year	\$ 3,396	\$ 1,640	\$ 1,725
Provisions for losses – accounts receivable	4,110	4,484	1,756
Collection of accounts previously written off	—	—	153
Deductions for accounts charged off or credits issued	(2,079)	(2,728)	(1,994)
Balance at end of year	\$ 5,427	\$ 3,396	\$ 1,640

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 \$42.6 million and \$33.6 million at December 31, 2017 and 2016, respectively. Included in unbilled receivables are retention receivables of \$7.2 million and \$5.0 million at December 31, 2017 and 2016, 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.

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.

Notes to Consolidated Financial Statements

Reclassifications

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

New Accounting Pronouncements

Recent Accounting Guidance not yet Adopted

Revenue from Contracts with Customers. On May 28, 2014, the Financial Accounting Standards Board (“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 have adopted the new standard effective January 1, 2018 using the full retrospective method which will require each prior reporting period presented to be recast in future issuance of our financial statements. In preparation for adoption of the standard, we have implemented internal controls and key system functionality to enable the preparation of financial information and have reached conclusions on key accounting assessments related to the standard. During the fourth quarter of fiscal 2017, we have substantially completed data conversion activities required to recast our prior period results. We continue to perform an in-depth review of our preliminary results; therefore, we are in the process of completing our analysis necessary to recast prior period results. We do not believe there are any remaining significant implementation topics associated with the adoption of this ASU that have not yet been addressed.

This standard will have a material impact on our consolidated balance sheets and statement of shareholders’ equity. The impact of the standard on consolidated revenue and costs of revenue will be dependent upon the mix of revenue streams due to our accounting for software license fees, allocation of discounts across all performance obligations and to the incremental costs of obtaining a contract. Specifically, under the new standard 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. Revenue related to our software as a service (“SaaS”) offerings, post-contract customer support (“PCS”) renewals and professional services 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 on a systematic basis that is consistent with the transfer to the customer of the goods and services to which the asset relates, 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 of the new standard, amortization periods will extend past the initial term.

Notes to Consolidated Financial Statements

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 will adopt the new standard in fiscal year 2019.

(2) ACQUISITIONS

2017

On November 29, 2017, we acquired audio and digital two-way radio communications technology and related assets from Radio 10-33, LLC. The total purchase price was \$1.4 million, all of which was paid in cash.

On August 2, 2017, we acquired substantially all of the assets and assumed certain liabilities of Digital Health Department, Inc. (“DHD”), a company that provides environmental health software, offering a software-as-a-service (SaaS) solution for public health compliance and inspections processes. The total purchase price, net of debt assumed, was \$3.9 million, all of which was paid in cash.

The purchase price allocations for the acquisitions noted above are not yet complete. As of December 31, 2017, the preliminary estimates of fair values assumed at the acquisition dates for intangibles, liabilities, deferred revenue, and related deferred taxes are subject to change as valuations are finalized.

On May 30, 2017, we acquired all of the capital stock of Modria.com, Inc., a company that specializes in online dispute resolution for government and commercial entities. The total purchase price, net of debt assumed, was \$7.0 million, of which \$6.1 million was paid in cash and \$0.9 million was accrued as of December 31, 2017. As of December 31, 2017, the purchase price allocation for this acquisition is complete and our balance sheet reflects the allocation of the purchase price to the assets acquired based on their fair value at the date 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.

The operating results of these acquisition are included in our results of operations of the Enterprise Software segment from their respective dates of acquisition. The impact of these acquisitions, individually and in the aggregate, on our operating results, assets and liabilities is not material.

Notes to Consolidated Financial Statements

2016

On May 31, 2016, we acquired all of the capital stock of ExecuTime Software, LLC, a leading provider of time, attendance, and advanced scheduling software solutions. The total purchase price, net of debt assumed, was \$7.4 million. 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. The operating results of this acquisition are included in our results of operations of the Enterprise Software segment from the date of the acquisition. The impact of this acquisition on our operating results is not material.

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 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, 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 from their respective 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)	2017	2016
Land	—	\$ 9,958	\$ 9,958
Building and leasehold improvements	5-39	116,214	94,924
Computer equipment and purchased software	3-5	72,531	55,627
Furniture and fixtures	5	24,834	19,897
Transportation equipment	5	476	447
		224,013	180,853
Accumulated depreciation and amortization		(71,698)	(56,585)
Property and equipment, net		\$152,315	\$124,268

Depreciation expense was \$17.3 million during 2017, \$13.4 million during 2016, and \$9.1 million during 2015.

Notes to Consolidated Financial Statements

In 2017, we purchased an office building in Latham, New York for approximately \$2.9 million and paid \$2.1 million for improvements to that building. We also paid \$19.4 million for construction to expand our office building in Yarmouth, Maine.

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 our office building in Yarmouth, Maine.

We own office buildings in Bangor, Falmouth and Yarmouth, Maine; Lubbock and Plano, Texas; Troy, Michigan; Latham, New York; and Moraine, Ohio. We lease space in some of these buildings to third-party tenants. These leases expire between 2019 and 2025 and are expected to provide rental income of approximately \$1.5 million during 2018, \$1.4 million during 2019, \$1.4 million during 2020, \$1.4 million during 2021, \$1.5 million during 2022, and \$4.3 million thereafter. Rental income from third-party tenants was \$1.5 million in 2017, \$1.7 million in 2016, and \$0.9 million in 2015.

(4) GOODWILL AND OTHER INTANGIBLE ASSETS

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

	2017	2016
Gross carrying amount of acquisition intangibles:		
Customer related intangibles	\$ 187,717	\$ 186,231
Acquired software	179,466	176,096
Trade names	11,435	11,065
Leases acquired	3,694	3,694
	382,312	377,086
Accumulated amortization	(145,868)	(109,827)
Total intangibles, net	\$ 236,444	\$ 267,259

Total amortization expense for intangibles was \$36.0 million in 2017, \$36.4 million in 2016, and \$10.3 million during 2015.

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

	December 31, 2017			December 31, 2016		
	Gross Carrying Amount	Weighted Average Amortization Period	Accumulated Amortization	Gross Carrying Amount	Weighted Average Amortization Period	Accumulated Amortization
Non-amortizable intangibles:						
Goodwill	\$657,987	—	\$ —	\$650,237	—	\$ —
Amortizable intangibles:						
Customer related intangibles	187,717	15 years	64,375	186,231	15 years	51,491
Acquired software	179,466	7 years	76,800	176,096	7 years	55,115
Trade names	11,435	11 years	3,768	11,065	12 years	2,740
Leases acquired	3,694	10 years	925	3,694	9 years	481

Notes to Consolidated Financial Statements

The changes in the carrying amount of goodwill for the two years ended December 31, 2017 are as follows:

	Enterprise Software	Appraisal and Tax	Total
Balance as of 12/31/2015	\$647,109	\$6,557	\$653,666
Goodwill acquired with acquisitions	3,943	—	3,943
Purchase price adjustments related to purchase of NWS	(7,372)	—	(7,372)
Balance as of 12/31/2016	643,680	6,557	650,237
Goodwill acquired with acquisitions	7,750	—	7,750
Balance as of 12/31/2017	\$651,430	\$6,557	\$657,987

Estimated annual amortization expense related to acquired leases will be recorded as a reduction to hardware and other revenue and is expected to be \$425,000 in 2018, \$373,000 in 2019, \$313,000 in 2020, \$312,000 in 2021, \$312,000 in 2022 and \$1.0 million thereafter.

Estimated annual amortization expense related to acquisition intangibles, including acquired software, for which the amortization expense is recorded as cost of revenues, is as follows:

2018	\$35,278
2019	33,920
2020	32,495
2021	32,136
2022	28,665

(5) ACCRUED LIABILITIES

Accrued liabilities consist of the following at December 31:

	2017	2016
Accrued wages, bonuses and commissions	\$43,688	\$38,996
Other accrued liabilities	20,987	16,993
	\$64,675	\$55,989

(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, 2017, our interest rate was 4.75% under the prime rate option or approximately 2.78% under the 30-day LIBOR option. 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, 2017, we were in compliance with those covenants.

Notes to Consolidated Financial Statements

As of December 31, 2017, we had no outstanding borrowings and had unused borrowing capacity of \$299.5 million under the Credit Facility. In addition, as of December 31, 2017, we had one outstanding letter of credit for \$0.5 million in favor of a client contract. The letter of credit guarantees our performance under the contract and expires in 2018.

We paid interest of \$804,000 in 2017, \$1.9 million in 2016, and \$223,000 in 2015.

(7) INCOME TAX

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

Years Ended December 31,	2017	2016	2015
Current:			
Federal	\$ 22,882	\$ 41,366	\$44,841
State	4,666	7,023	6,670
	27,548	48,389	51,511
Deferred	(29,865)	(28,939)	(7,956)
	\$ (2,317)	\$ 19,450	\$43,555

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

Years Ended December 31,	2017	2016	2015
Federal income tax expense at statutory rate	\$ 56,570	\$ 45,257	\$37,949
State income tax, net of federal income tax benefit	4,824	4,807	3,715
Domestic production activities deduction	(2,617)	(3,947)	(466)
Excess tax benefits related to stock option exercises	(40,624)	(29,582)	—
Tax Act adjustments	(21,625)	—	—
Tax credits	(3,578)	—	—
Non-deductible business expenses	4,573	2,979	2,414
Other, net	160	(64)	(57)
	\$ (2,317)	\$ 19,450	\$43,555

On December 22, 2017, the Tax Act was enacted into law. The Tax Act amends the Internal Revenue Code to reduce tax rates and modify policies, credits and deductions for individuals and businesses. For businesses, the Tax Act reduces the U.S. corporate federal tax rate from a maximum of 35% to a flat 21% rate and transitions from a worldwide tax system to a territorial tax system. The Tax Act also adds many new provisions including changes to bonus depreciation, the deduction for executive compensation and a tax on global intangible low-taxed income (GILTI). The most significant impact of the Tax Act to us is the reduction in the U.S. federal corporate income tax rate from 35% to 21%. The impact of the rate reduction on our 2017 income tax provision is a \$21.6 million tax benefit due to the remeasurement of deferred tax assets and liabilities. We have reported provisional amounts for the income tax effects of the Tax Act for which the accounting is incomplete but a reasonable estimate could be determined. There were no specific impacts of the Tax Act that could not be reasonably estimated which we accounted for under prior tax law. Based on a continued analysis of the estimates and further guidance on the application of the law, it is anticipated that additional revisions may occur throughout the allowable measurement period. Overall, the changes due to the Tax Act will favorably affect income tax expense and future U.S. earnings.

Due to the adoption of ASU No. 2016-09 in 2016, federal and state excess tax benefits from stock option exercises for years subsequent to 2015 are reflected as a reduction of the provision for income taxes, whereas they were previously accounted for as an increase to shareholders' equity.

Notes to Consolidated Financial Statements

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

	2017	2016
Deferred income tax assets:		
Operating expenses not currently deductible	\$ 11,232	\$ 18,721
Stock option and other employee benefit plans	15,932	19,665
Total deferred income tax assets	27,164	38,386
Deferred income tax liabilities:		
Intangible assets	(60,189)	(103,754)
Property and equipment	(5,699)	(3,207)
Other	(190)	(204)
Total deferred income tax liabilities	(66,078)	(107,165)
Net deferred income tax liabilities	\$(38,914)	\$(68,779)

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.

We are subject to U.S. federal tax, as well as income tax of multiple state, local and foreign jurisdictions. We are routinely subject to income tax examinations by these taxing jurisdictions, but we do not have a history of, nor do we expect any, material adjustments to result from these examinations. During 2017, the Internal Revenue Service issued a “no change” letter upon completion of their examination of our 2012 tax year. With few exceptions, major U.S. federal, state and foreign jurisdictions are no longer subject to examinations for years before 2013. As of February 20, 2018, no significant adjustments have been proposed by any taxing jurisdiction.

We paid income taxes, net of refunds received, of \$36.0 million in 2017, \$30.2 million in 2016, and \$27.3 million in 2015.

(8) SHAREHOLDERS' EQUITY

The following table details activity in our common stock:

	Years Ended December 31,					
	2017		2016		2015	
	Shares	Amount	Shares	Amount	Shares	Amount
Stock option exercises	1,113	\$ 49,845	827	\$ 23,527	1,118	\$ 23,160
Purchases of common stock	(44)	(6,613)	(882)	(112,699)	(5)	(645)
Employee stock plan purchases	51	7,044	47	6,236	43	4,671
Shares issued for acquisitions	—	—	—	—	2,149	364,333

As of February 20, 2018, we had authorization from our board of directors to repurchase up to 2.0 million additional shares of our common stock.

Notes to Consolidated Financial Statements

(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.

As of December 31, 2017, there were 2.1 million shares available for future grants under the plan from the 20.0 million shares previously approved by the shareholders.

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,	2017	2016	2015
Expected life (in years)	6.0	6.0	6.0
Expected volatility	28.1%	29.3%	28.3%
Risk-free interest rate	2.0%	1.8%	1.7%
Expected forfeiture rate	—%	—%	1.7%

Notes to Consolidated Financial Statements

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,	2017	2016	2015
Cost of software services, maintenance and subscriptions	\$ 9,415	\$ 6,548	\$ 3,380
Selling, general and administrative expenses	27,933	23,199	16,802
Total share-based compensation expenses	37,348	29,747	20,182
Tax benefit	(40,624)	(30,059)	(5,986)
Net (increase) decrease in net income	\$ (3,276)	\$ (312)	\$14,196

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, 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		
Granted	824	176.26		
Exercised	(1,113)	44.80		
Forfeited	(50)	134.83		
Outstanding at December 31, 2017	4,817	107.91	7	\$334,940
Exercisable at December 31, 2017	2,355	78.40	6	\$232,366

We had unvested options to purchase 2.4 million shares with a weighted average grant date exercise price of \$136.51 as of December 31, 2017, and unvested options to purchase 2.8 million shares with a weighted average grant date exercise price of \$104.91 as of December 31, 2016. As of December 31, 2017, we had \$88.2 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:

	2017	2016	2015
Weighted average grant-date fair value of stock options granted	\$ 55.56	\$ 46.89	\$ 45.17
Total intrinsic value of stock options exercised	137,699	103,703	149,542

Notes to Consolidated Financial Statements

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, 2017, there were 797,000 shares available for future grants under the ESPP from the 2.0 million shares previously approved by the stockholders.

(10) EARNINGS PER SHARE

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

Years Ended December 31,	2017	2016	2015
Numerator for basic and diluted earnings per share:			
Net income	\$163,945	\$109,857	\$64,869
Denominator:			
Weighted-average basic common shares outstanding	37,273	36,448	34,137
Assumed conversion of dilutive securities:			
Stock options	1,973	2,513	2,415
Denominator for diluted earnings per share – Adjusted weighted-average shares	39,246	38,961	36,552
Earnings per common share:			
Basic	\$ 4.40	\$ 3.01	\$ 1.90
Diluted	\$ 4.18	\$ 2.82	\$ 1.77

Stock options representing the right to purchase common stock of 1,343,000 shares in 2017, 786,000 shares in 2016, and 417,000 shares in 2015 were not included in the computation of diluted earnings per share because their inclusion would have had an anti-dilutive effect.

(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 2025. In addition to rent, the leases generally require us to pay taxes, maintenance, insurance and certain other operating expenses.

Rent expense was approximately \$6.9 million in 2017, \$6.7 million in 2016, and \$7.2 million in 2015, which included rent expense associated with related party lease agreements of \$150,000 in 2017, \$330,000 in 2016, and \$1.8 million in 2015.

Future minimum lease payments under all non-cancelable leases at December 31, 2017 are as follows:

Years Ending December 31,	
2018	\$ 5,428
2019	4,201
2020	3,644
2021	2,366
2022	812
Thereafter	499
Total	\$16,950

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 \$7.9 million during 2017, \$6.9 million during 2016, and \$5.3 million during 2015.

(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; and
- 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."

Notes to Consolidated Financial Statements

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.

ES segment capital expenditures included \$24.4 million in 2017 and \$17.7 million in 2016 for the expansion of existing buildings and purchases of buildings and land.

For the year ended December 31, 2017	Enterprise Software	Appraisal and Tax	Corporate	Totals
Revenues				
Software licenses and royalties	\$ 67,840	\$ 7,854	\$ —	\$ 75,694
Subscriptions	165,651	7,859	—	173,510
Software services	167,934	19,215	—	187,149
Maintenance	339,951	21,618	—	361,569
Appraisal services	—	25,023	—	25,023
Hardware and other	13,094	10	4,613	17,717
Intercompany	10,425	—	(10,425)	—
Total revenues	\$764,895	\$81,579	\$ (5,812)	\$ 840,662
Depreciation and amortization expense	44,517	760	8,648	53,925
Segment operating income	228,254	20,238	(51,964)	196,528
Capital expenditures	28,096	1,181	16,341	45,618
Segment assets	\$338,965	\$44,464	\$1,206,163	\$1,589,592

For 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

Notes to Consolidated Financial Statements

For 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

Reconciliation of reportable segment operating income to the Company's consolidated totals:	Years Ended December 31,		
	2017	2016	2015
Total segment operating income	\$196,528	\$167,271	\$118,388
Amortization of acquired software	(21,686)	(22,235)	(4,440)
Amortization of customer and trade name intangibles	(13,912)	(13,731)	(5,905)
Other income (expense), net	698	(1,998)	381
Income before income taxes	\$161,628	\$129,307	\$108,424

Notes to Consolidated Financial Statements

(15) QUARTERLY FINANCIAL INFORMATION (unaudited)

The following table contains selected financial information from unaudited statements of income for each quarter of 2017 and 2016:

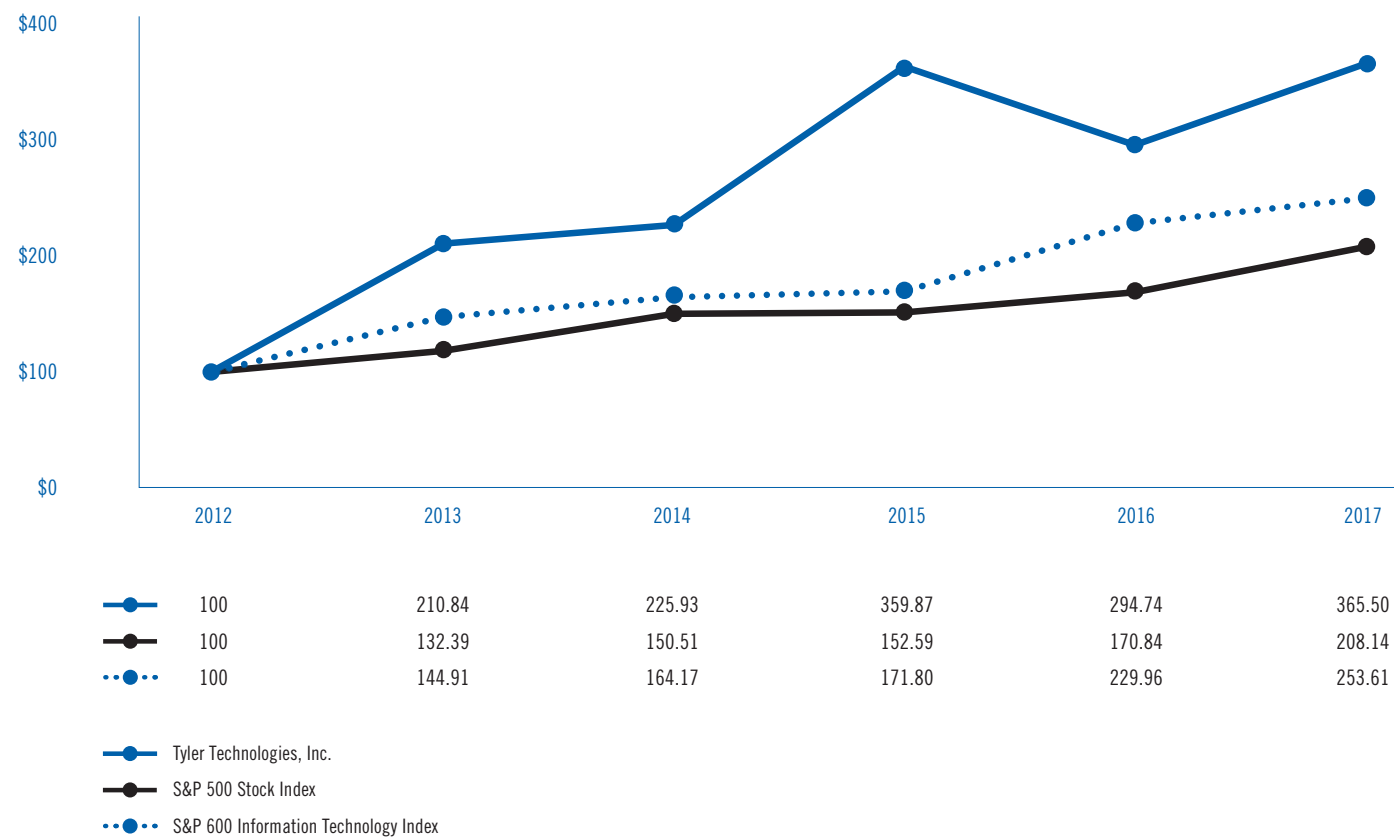
	Quarters Ended							
	2017				2016			
	Dec. 31 ^(a)	Sept. 30	June 30	Mar. 31	Dec. 31	Sept. 30	June 30	Mar. 31
Revenues	\$217,851	\$214,146	\$209,123	\$199,542	\$193,281	\$194,497	\$188,972	\$179,293
Gross profit	105,500	103,429	95,863	94,348	92,817	93,480	86,936	82,118
Income before income taxes	45,173	43,522	36,974	35,959	35,119	36,419	30,195	27,574
Net income	61,798	38,263	31,578	32,306	31,196	35,430	25,007	18,224
Earnings per diluted share	\$ 1.56	\$ 0.97	\$ 0.81	\$ 0.83	\$ 0.80	\$ 0.91	\$ 0.65	\$ 0.47
Shares used in computing diluted earnings per share	39,499	39,342	39,201	38,932	38,975	39,062	38,738	39,071

(a) Fourth quarter 2017 includes the significant impact of the enactment of the Tax Act. The most significant impact of the Tax Act to us is the reduction in the U.S. federal corporate income tax rate from 35% to 21%. The impact of the rate reduction on our 2017 income tax provision is a \$21.6 million tax benefit due to the remeasurement of deferred tax assets and liabilities. Refer to Note 7 – "Income Tax" for further discussion on the impact the Tax Act.

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, 2012. 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



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.

H. Lynn Moore Jr.¹
President
Tyler Technologies, Inc.

Donald R. Brattain^{2, 3, 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

Daniel M. Pope
Mayor
City of Lubbock, Texas

Dustin R. Womble¹
Retired Executive Vice President
Tyler Technologies, Inc.

¹Executive Committee

²Audit Committee

³Nominating and Governance Committee

⁴Compensation Committee

CORPORATE HEADQUARTERS

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INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Ernst & Young LLP
Dallas, Texas

ANNUAL MEETING OF STOCKHOLDERS

Wednesday, May 9, 2018
9:30 a.m. Central Time
Renaissance Dallas at Plano Legacy West
6007 Legacy Drive
Plano, Texas 75024

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

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info@tylertech.com

COMMON STOCK

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

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



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