

Paycom Software, Inc.
 Form 424B5
 September 17, 2015
Table of Contents

Filed Pursuant to Rule 424(b)(5)

Registration No. 333-204164

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered⁽¹⁾	Proposed maximum offering price per share⁽²⁾	Proposed maximum aggregate offering price⁽¹⁾⁽²⁾	Amount of registration fee⁽²⁾
Common Stock, \$0.01 par value per share	5,175,000	\$37.95	\$196,391,250	\$22,820.67

(1) Includes 675,000 shares of common stock that may be sold upon exercise of the underwriter's option to purchase additional shares.

(2) Calculated in accordance with Rule 457(r) under the Securities Act of 1933, as amended.

Table of Contents**Prospectus Supplement
(To Prospectus dated May 14, 2015)****4,500,000 Shares****Paycom Software, Inc.****Common Stock**

This prospectus supplement relates to the sale of up to 4,500,000 shares of our common stock, par value \$0.01 per share, by the selling stockholders and supplements and amends the prospectus dated May 14, 2015. This prospectus supplement, together with the accompanying prospectus, may be used by the selling stockholders identified in this prospectus supplement to resell shares of our common stock.

Our common stock is listed on the New York Stock Exchange, or the NYSE, under the symbol PAYC. The last reported sale price of our common stock on September 15, 2015 was \$40.60 per share.

We are an emerging growth company as that term is defined under the federal securities laws and, as such, are subject to certain reduced public company reporting requirements.

Investing in our common stock involves risks. See Risk Factors beginning on page S-5 of this prospectus supplement and page 4 of the accompanying prospectus.

	Price to Public	Underwriting Discounts and Commissions⁽¹⁾	Proceeds to Selling Stockholders
Per share	\$ 37.95	\$ 0.39	\$ 37.56
Total	\$ 170,775,000	\$ 1,755,000	\$ 169,020,000

(1) See Underwriting for a description of the compensation payable to the underwriter. Certain of the selling stockholders have granted the underwriter a 30-day option to purchase up to an additional 675,000 shares of common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

Delivery of the shares of our common stock is expected on or about September 21, 2015.

Barclays

The date of this prospectus supplement is September 15, 2015.

Table of Contents

TABLE OF CONTENTS

Prospectus Supplement

	Page
<u>ABOUT THIS PROSPECTUS SUPPLEMENT</u>	S-ii
<u>PROSPECTUS SUPPLEMENT SUMMARY</u>	S-1
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	S-4
<u>RISK FACTORS</u>	S-5
<u>USE OF PROCEEDS</u>	S-7
<u>PRICE RANGE OF COMMON STOCK</u>	S-7
<u>DIVIDEND POLICY</u>	S-7
<u>SELLING STOCKHOLDERS</u>	S-8
<u>MATERIAL U.S. FEDERAL TAX CONSIDERATIONS FOR NON-U.S. HOLDERS</u>	S-10
<u>UNDERWRITING</u>	S-13
<u>LEGAL MATTERS</u>	S-17
<u>EXPERTS</u>	S-17
<u>WHERE YOU CAN FIND ADDITIONAL INFORMATION</u>	S-17
<u>INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE</u>	S-18

Prospectus

	Page
<u>ABOUT THIS PROSPECTUS</u>	1
<u>THE COMPANY</u>	2
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	3
<u>RISK FACTORS</u>	4
<u>USE OF PROCEEDS</u>	4
<u>SELLING STOCKHOLDERS</u>	4
<u>DESCRIPTION OF CAPITAL STOCK</u>	5
<u>PLAN OF DISTRIBUTION</u>	12
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	17
<u>INCORPORATION BY REFERENCE</u>	18
<u>EXPERTS</u>	19

LEGAL MATTERS

S-i

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This document has two parts, a prospectus supplement and an accompanying prospectus dated May 14, 2015. This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the SEC, utilizing a shelf registration process. Under this shelf registration process, the selling stockholders named in a prospectus supplement may, from time to time, offer and sell shares of our common stock in one or more offerings or resales.

The accompanying prospectus provides you with a general description of our common stock. This prospectus supplement, which describes certain matters relating to us and the specific terms of this offering of shares of our common stock, adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference herein. Any statement that we make in the accompanying prospectus will be modified or superseded by any inconsistent statement made by us in this prospectus supplement.

The rules of the SEC allow us to incorporate by reference information into this prospectus supplement. This information incorporated by reference is considered to be a part of this prospectus supplement, and information that we file later with the SEC, to the extent incorporated by reference, will automatically update and supersede this information. See [Incorporation of Certain Documents by Reference](#).

We are responsible for the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any related free-writing prospectus we prepare or distribute. Neither we, the underwriter, nor the selling stockholders have authorized anyone to give you any other information, and we take no responsibility for any other information that others may give you. The selling stockholders may only offer to sell, and seek offers to buy, shares of our common stock in jurisdictions where offers and sales are permitted.

You should assume that the information appearing in this prospectus supplement and the accompanying prospectus is accurate as of the date on its respective cover, and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates.

If the description of the offering varies between this prospectus supplement and the accompanying prospectus, you should rely on the information in this prospectus supplement. Any statement made in this prospectus supplement or in a document incorporated by reference in this prospectus supplement will be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained in this prospectus supplement or in any other subsequently filed document that is also incorporated by reference in this prospectus supplement modifies or supersedes that statement. Any statement so modified or superseded will not, except as so modified or superseded, constitute a part of this prospectus supplement. Before making an investment in our common stock, you should carefully read this prospectus supplement, the accompanying prospectus and any applicable free writing prospectus, together with the information incorporated and deemed to be incorporated by reference herein as described under [Incorporation of Certain Documents by Reference](#) and the additional information described under the heading [Where You Can Find Additional Information](#).

Except where the context otherwise requires or where otherwise indicated, references in this prospectus supplement and the accompanying prospectus to Paycom, we, us, our and the Company refer to Paycom Software, Inc., a Delaware corporation, and its consolidated subsidiaries.

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

*This summary highlights important features of this offering and the information included or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary does not contain all of the information that you should consider before investing in our common stock. You should read carefully the entire prospectus supplement, the accompanying prospectus and the documents incorporated by reference, especially the risks of investing in our common stock discussed under *Risk Factors* in this prospectus supplement as well as the consolidated financial statements and notes to those consolidated financial statements incorporated by reference into this prospectus supplement and the accompanying prospectus.*

Company Overview

We are a leading provider of comprehensive, cloud-based human capital management, or HCM, software delivered as Software-as-a-Service, or SaaS. We provide functionality and data analytics that businesses need to manage the complete employment life cycle from recruitment to retirement. Our solution requires virtually no customization and is based on a core system of record maintained in a single database for all HCM functions, including talent acquisition, time and labor management, payroll, talent management and human resources, or HR, management applications. Our user-friendly software allows for easy adoption of our solution by employees, enabling self-management of their HCM activities in the cloud, which reduces the administrative burden on employers and increases employee productivity.

Organizations need sophisticated, flexible and intuitive applications that can quickly adapt to their evolving HCM requirements, streamline their HR processes and systems and enable them to control costs. We believe that the HCM needs of most organizations are currently served either by legacy providers offering outdated on-premise products or multiple providers that partner together in an attempt to replicate a comprehensive product. These approaches often result in large up-front capital requirements, extended delivery times, high costs, low scalability and challenges with system integration. According to the International Data Corporation, the U.S. markets for payroll services and HCM applications is estimated to collectively total approximately \$23.7 billion in 2015, and we believe there is a substantial opportunity for our solution to address these HCM needs.

Because our solution was developed in-house and is based on a single platform, there is no need to integrate, update or access multiple databases, which are common issues with competitor offerings that use multiple third-party systems in order to link together their HCM offerings. Additionally, our solution maintains data integrity for accurate, actionable and real-time analytics and business intelligence and helps clients minimize the risk of compliance errors due to inaccurate or missing information. We deliver feature-rich applications while maintaining excellence in information security and quality management standards as evidenced by our International Organization for Standardization certifications. As a part of our client retention effort, a specialist within a dedicated team is assigned to each client to provide industry-leading, personalized service.

The key benefits of our differentiated solution as compared to competing products are:

Comprehensive HCM solution;

Personalized support provided by trained personnel;

Software-as-a-Service delivery model;

Cloud-based architecture; and

Scalability to grow with our clients.

We sell our solution directly through our internally trained, client-focused and highly skilled sales force based in offices across the United States. We have 36 sales teams located in 23 states and plan to open additional sales offices to further expand our presence in the U.S. market. We believe that as a result of our focus on client

S-1

Table of Contents

retention, we enjoy high client satisfaction as evidenced by an average annual revenue retention rate of 91% from existing clients for the three years ended December 31, 2014. We believe our revenue retention rate understates our client loyalty because this rate also includes former clients that were acquired or otherwise ceased operations.

Corporate Information

We were founded in 1998. Paycom is a Delaware corporation that was formed in October 2013 in anticipation of our initial public offering. Our principal executive offices are located at 7501 W. Memorial Road, Oklahoma City, Oklahoma 73142 and our telephone number is (405) 722-6900. Our website is www.paycom.com. Information contained on our website or that can be accessed through our website is not incorporated by reference in this prospectus supplement or the accompanying prospectus.

Table of Contents

The Offering

Common stock offered by the selling stockholders	4,500,000 shares (or 5,175,000 shares if the underwriter exercises in full its option to purchase additional shares)
Option to purchase additional shares	The underwriter has a 30-day option to purchase up to an additional 675,000 shares of common stock from the selling stockholders
Common stock to be outstanding after this offering	59,107,191 shares
Selling stockholders	The selling stockholders in this offering consist of Welsh, Carson, Anderson & Stowe X, L.P., WCAS Capital Partners, IV, L.P., certain executive officers and affiliates thereof and certain other selling stockholders. See Selling Stockholders.
Use of Proceeds	We will not receive any proceeds from the sale of any shares of our common stock offered by the selling stockholders, including the sale of shares by the selling stockholders upon the exercise by the underwriter of its option to purchase additional shares.
Risk Factors	See Risk Factors on page S-5 of this prospectus supplement and other information included in or incorporated by reference in this prospectus supplement and the accompanying prospectus for a discussion of factors you should carefully consider before deciding to invest in our common stock.
Emerging growth company status	Commencing January 1, 2016, we will no longer be an emerging growth company, and thus will no longer be permitted to rely on the reduced disclosure requirements applicable to emerging growth companies.
Controlled company status	Following the completion of this offering, we will no longer be a controlled company as defined in the NYSE Listed Company Manual and, as a result, will no longer qualify for exemptions from certain corporate governance requirements. If we are unable to comply with applicable corporate governance requirements, we may become subject to enforcement actions by the NYSE. See Risk Factors.

NYSE trading symbol

PAYC

S-3

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus, including the documents incorporated or deemed to be incorporated by reference into this prospectus supplement and the accompanying prospectus, contain forward-looking statements and information relating to us that are based on the beliefs of our management as well as assumptions made by, and information currently available to, us. These statements include, but are not limited to, statements about our strategies, plans, objectives, expectations, intentions, expenditures, assumptions and other statements contained in this prospectus supplement and the accompanying prospectus that are not historical facts. When used in this document, words such as anticipate, believe, estimate, expect, intend, may, plan and project and similar expressions to us are intended to identify forward-looking statements. These statements reflect our current views with respect to future events, are not guarantees of future performance and involve risks and uncertainties that are difficult to predict. Further, certain forward-looking statements are based upon assumptions as to future events that may not prove to be accurate.

These forward-looking statements include, but are not limited to, statements regarding our business strategy; anticipated future operating results and operating expenses, cash flows, capital resources and liquidity; trends, opportunities and risks affecting our business, industry and financial results; future expansion or growth plans and potential for future growth; technology; market opportunities, our ability to attract new clients to purchase our solution and market acceptance of our solution and applications; our ability to retain clients and induce them to purchase additional applications; our ability to accurately forecast future revenues and appropriately plan our expenses; alternate ways of addressing HCM needs or new technologies generally by us and our competitors; continued acceptance of SaaS as an effective method for delivering HCM solutions and other business management applications; the attraction and retention of qualified employees and key personnel; our ability to protect and defend our intellectual property; costs associated with defending intellectual property infringement and other claims; events in the markets for our solution and alternatives to our solution, as well as in the United States and global markets generally; future regulatory, judicial and legislative changes in our industry; changes in the competitive environment in our industry and the markets in which we operate; that our growth will generally mirror improvements in the labor market; that we will continue with our plan to open additional sales offices, and be able to effectively execute such plan, in the future; that our existing cash and cash equivalents will be sufficient to meet our working capital and capital expenditure needs over the next twelve months; our ability to create additional jobs at our corporate headquarters; our ability to expand our corporate headquarters within an expected timeframe; and our expectation of increasing our capital expenditures and investment activity as our business grows.

These forward-looking statements involve known and unknown risks, inherent uncertainties and other factors, which may cause our actual results, performance, time frames or achievements to be materially different from any future results, performance, time frames or achievements expressed or implied by the forward-looking statements. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements. Actual results and the timing of certain events may differ materially from those contained in these forward-looking statements.

All forward-looking statements speak only at the date of this prospectus supplement or the accompanying prospectus. You should not place undue reliance on these forward-looking statements. Although we believe that our plans, intentions and expectations reflected in or suggested by the forward-looking statements we make in this prospectus supplement or the accompanying prospectus are reasonable, we can give no assurance that these plans, intentions or expectations will be achieved. We disclose important factors that could cause our actual results to differ materially from our expectations under the caption **Risk Factors** in this prospectus supplement or the accompanying prospectus or any prospectus supplement or in the documents incorporated by reference in this prospectus or any prospectus supplement or the accompanying prospectus. These cautionary statements qualify all forward-looking statements

attributable to us or persons acting on our behalf. We do not undertake any obligation to update or revise any forward-looking statements except as required by law, including the securities laws of the United States and the rules and regulations of the SEC.

S-4

Table of Contents

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein or therein, including risk factors described under the caption Risk Factors in our most recent Annual Report on Form 10-K for the year ended December 31, 2014 and our Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, which are incorporated by reference herein. You should also consider any Risk Factors contained in any document that we file with the SEC after the date of this prospectus supplement that is incorporated by reference herein. The market or trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment in the offered securities.

Risks Relating to this Offering and Our Common Stock

This offering will result in a substantial amount of previously unregistered shares of our common stock being registered and sold, which may depress the market price of our common stock.

Of the 59,107,191 shares of our common stock issued and outstanding as of September 14, 2015, approximately 46.8% were held by the selling stockholders. The shares of common stock being sold in this offering were not freely tradable on the NYSE prior to the completion of this offering and the sale by the selling stockholders of the shares of common stock in this offering will increase the number of shares of our common stock eligible to be traded on the NYSE, which could depress the market price of our common stock.

Substantial blocks of our total outstanding shares may be sold into the market when the lock-up period ends. If there are substantial sales of shares of our common stock, the price of our common stock could decline.

The price of our common stock could decline if there are substantial sales of our common stock, particularly sales by our directors, executive officers and significant stockholders. Upon the completion of this offering, 59,107,191 shares of our common stock will be outstanding. All of the shares of common stock sold in this offering will be eligible for sale in the public market, unless they are held by our affiliates. Shares held by directors, executive officers and other affiliates will be subject to volume limitations under Rule 144 under the Securities Act of 1933, as amended, or the Securities Act, and restrictions under the terms of various restricted stock award agreements.

After this offering, our officers, directors and selling stockholders will be subject to lock-up agreements with the underwriter or us that restrict their ability to sell shares of common stock until 46 days after the date of this prospectus supplement. After the lock-up agreements expire, an additional 23,088,270 shares of common stock (or 22,413,270 shares of common stock if the underwriter exercises in full its option to purchase additional shares) will be eligible for sale in the public market, subject in many cases to the limitations of either Rule 144 or Rule 701 under the Securities Act. Under a registration rights agreement, we agreed to register shares of common stock owned by certain stockholders, or the RRA Parties, for public sale in the United States. After giving effect to this offering, we may be required to register up to 18,573,597 shares of common stock (or 17,898,597 shares of common stock if the underwriter exercises in full its option to purchase additional shares) owned by the RRA Parties, as well as any shares of common stock the RRA Parties acquire after the date of this prospectus supplement and any additional shares of common stock the RRA Parties hold in street name. We have also registered shares of common stock that we intend to issue in the future under our employee equity incentive plan. Once we issue these shares, they will be able to be sold freely in the public market upon issuance, subject to existing lock-up agreements.

The underwriter may permit our stockholders to sell shares prior to the expiration of the restrictive provisions contained in those lock-up agreements. The market price of the shares of our common stock could

S-5

Table of Contents

decline as a result of the sale of a substantial number of our shares of common stock in the public market, the availability of shares for sale or the perception in the market that the holders of a large number of shares intend to sell their shares. In addition, the sale of these shares by stockholders could impair our ability to raise capital through the sale of additional stock.

Following the completion of this offering, we will no longer be a controlled company as defined in the NYSE Listed Company Manual and, as a result, will no longer qualify for exemptions from certain corporate governance requirements. If we are unable to comply with applicable corporate governance requirements, we may become subject to enforcement actions by the NYSE.

The parties to the Amended and Restated Stockholders Agreement, or the Stockholders Agreement, which include Welsh, Carson, Anderson & Stowe X, L.P., or WCAS X, WCAS Capital Partners IV, L.P., or WCAS Capital IV, WCAS Management Corporation, Chad Richison, Shannon Rowe, William X. Kerber, III, Jeffrey D. York, Robert J. Levenson, the Estate of Richard Aiello and certain of their affiliates or related entities, or, collectively, the Stockholders Agreement Parties, hold more than 50% of the voting power for the election of directors prior to the completion of this offering. Accordingly, we rely upon the controlled company exception with respect to certain NYSE corporate governance requirements. Pursuant to this exception, we are exempt from the rules that would otherwise require that our board of directors consist of a majority of independent directors and that our compensation committee and nominating and corporate governance committee be composed entirely of independent directors.

After this offering, however, the Stockholders Agreement Parties will no longer hold more than 50% of the voting power for the election of directors. As a result, we will no longer be a controlled company as defined in the NYSE Listed Company Manual and, subject to certain phase-in periods, we will be required to have a board of directors consisting of a majority of independent directors and a nominating and corporate governance committee and compensation committee consisting of entirely independent directors. Within 90 days of the completion of this offering, both our nominating and corporate governance committee and compensation committee will be required to consist of a majority of independent directors, and within one year of the completion of this offering, both committees will be required to consist solely of independent directors and our board of directors will be required to consist of a majority of independent directors. During these phase-in periods, our stockholders will not have the same protections afforded to stockholders of companies that have committees of their boards of directors that consist solely of independent directors and boards of directors that consist of a majority of independent directors. Further, if, within the phase-in periods, we are not able to recruit additional directors that would qualify as independent, or otherwise comply with the NYSE listing requirements, we may be subject to enforcement actions by the NYSE.

Table of Contents**USE OF PROCEEDS**

We will not receive any of the proceeds from the sale of shares by the selling stockholders in this offering, including the sale of shares by the selling stockholders upon the exercise by the underwriter of its option to purchase additional shares.

PRICE RANGE OF COMMON STOCK

Our common stock is traded on the NYSE under the symbol PAYC. Our initial public offering was priced at \$15.00 per share on April 14, 2014. The following table sets forth for the periods indicated the high and low intra-day sale prices per share of our common stock as reported on the NYSE:

	High	Low
Fiscal Year 2014:		
Second Quarter (from April 15, 2014)	\$ 17.92	\$ 13.01
Third Quarter	\$ 19.24	\$ 12.28
Fourth Quarter	\$ 29.42	\$ 14.32
Fiscal Year 2015:		
First Quarter	\$ 35.86	\$ 22.76
Second Quarter	\$ 39.75	\$ 29.36
Third Quarter (through September 15, 2015)	\$ 41.58	\$ 29.80

On September 15, 2015, the last reported sale price of our common stock on the NYSE was \$40.60 per share.

DIVIDEND POLICY

We do not currently plan to pay a regular dividend on our common stock. The declaration, amount and payment of any future dividends on shares of common stock will be at the sole discretion of our board of directors and we may reduce or discontinue entirely the payment of such dividends at any time. Our board of directors may take into account general and economic conditions, our financial condition and operating results, our available cash and current and anticipated cash needs, capital requirements, contractual, legal, tax and regulatory restrictions and implications of the payment of dividends by us to our stockholders or by our subsidiaries to us, and such other factors as our board of directors may deem relevant. While there are no restrictions on the payment of dividends that currently apply under our existing loan agreements, such agreements prohibit the payment of dividends if an event of default exists. In addition, any financing agreements that we may enter into the future may prohibit or restrict the payment of dividends.

Table of Contents**SELLING STOCKHOLDERS**

The following table presents information concerning the beneficial ownership of shares of our common stock by the selling stockholders assuming 59,107,191 shares of common stock were issued and outstanding as of September 14, 2015, which includes 4,500,000 shares to be sold by the selling stockholders in connection with this offering (or 5,175,000 shares if the underwriter exercises in full its option to purchase additional shares).

The information in the table below with respect to each selling stockholder has been obtained from such selling stockholder. When we refer to the selling stockholders in this prospectus supplement, we mean the selling stockholders listed in the table below as offering shares, as well as their respective pledgees, donees, assignees, transferees and successors and others who may hold any of such selling stockholder's interest. The selling stockholders may be deemed to be underwriters within the meaning set forth in the Securities Act.

Except as described herein or under the heading **Certain Relationships and Related Party Transactions** in our Definitive Proxy Statement on Schedule 14A filed with the SEC on March 30, 2015, which is incorporated by reference herein, none of the selling stockholders identified below nor any of their respective affiliates, officers, directors or principal equity holders (5% or more) has held any position or office or had any other material relationship with us during the past three years.

Name of Selling Stockholder ⁽¹⁾	Shares Beneficially Owned Prior to this Offering		Shares to be Sold in this Offering		Shares Beneficially Owned After the Offering		
	Number	%	Excluding Exercise of Option	Including Exercise of Option	Excluding Exercise of Option	%	Including Exercise of Option
Carson, Anderson & Stowe X, L.P. ⁽²⁾⁽³⁾⁽⁴⁾	11,882,740	20.10%	2,838,224	3,506,127	9,044,516	15.30%	8,376,613
Capital Partners IV, L.P. ⁽²⁾⁽³⁾⁽⁴⁾	126,271	*	30,160	37,257	96,111	*	89,014
Michison ⁽³⁾⁽⁵⁾	10,419,879	17.63%	1,000,000	1,000,000	9,419,879	15.94%	9,419,879
D. York ⁽³⁾⁽⁴⁾⁽⁶⁾	1,210,391	2.05%	120,000	120,000	1,090,391	1.84%	1,090,391
W. X. Kerber III ⁽³⁾⁽⁷⁾	1,188,175	2.01%	115,000	115,000	1,073,175	1.82%	1,073,175
Paycom Software, Inc. ⁽⁸⁾	1,347,742	2.28%	100,000	100,000	1,247,742	2.11%	1,247,742
Rockesky Family Foundation ⁽³⁾⁽⁴⁾⁽⁹⁾	71,350	*	71,350	71,350	0	*	0
Robert R. Rather ⁽³⁾⁽⁴⁾⁽⁹⁾⁽¹⁰⁾	131,597	*	55,000	55,000	76,597	*	76,597
W. Boelte ⁽¹¹⁾	483,319	*	40,000	40,000	443,319	*	443,319
J. Levenson ⁽³⁾⁽⁴⁾⁽¹²⁾	285,000	*	35,000	35,000	250,000	*	250,000
Gregory J. Regan ⁽³⁾⁽⁴⁾⁽⁹⁾	34,731	*	27,380	27,380	7,351	*	7,351
William J. Raynor ⁽³⁾⁽⁴⁾⁽⁹⁾⁽¹³⁾	152,145	*	25,000	25,000	127,145	*	127,145
2012 Descendants Trust u/a dated October 26, 2012 ⁽¹⁴⁾	40,093	*	10,093	10,093	30,000	*	30,000
2012 Descendants Trust u/a dated October 26, 2012 ⁽¹⁴⁾	40,093	*	10,093	10,093	30,000	*	30,000
M. Pezold ⁽¹⁵⁾	129,449	*	10,000	10,000	119,449	*	119,449
Robert J. Pezold ⁽³⁾⁽⁴⁾⁽⁹⁾	80,555	*	8,200	8,200	72,355	*	72,355
William J. Donovan ⁽³⁾⁽⁴⁾⁽⁹⁾	44,740	*	4,500	4,500	40,240	*	40,240

* Less than one percent of common stock outstanding.

- (1) Unless otherwise indicated, the address of each beneficial owner in the table above is c/o Paycom Software, Inc., 7501 W. Memorial Road, Oklahoma City, Oklahoma 73142.
- (2) The general partner of WCAS X is WCAS X Associates LLC, or X Associates. The managing members of X Associates are Patrick Welsh, Bruce Anderson, Russell Carson, Anthony de Nicola, Paul Queally, Jonathan Rather, Sanjay Swani, Christopher Solomon, Scott Mackesy, Sean Traynor, Eric Lee, Michael Donovan, Brian Regan, Thomas Scully and Tony Ecock. As a result, and by virtue of the relationships described above, each of the managing members of X Associates may be deemed to share beneficial ownership of the shares owned by WCAS X. The general partner of WCAS Capital

Table of Contents

IV is WCAS CP IV Associates LLC, or CP Associates. The managing members of CP Associates are Patrick Welsh, Bruce Anderson, Russell Carson, Anthony de Nicola, Paul Queally, Jonathan Rather, Sanjay Swani, Christopher Solomon, Scott Mackesy, Sean Traynor, Eric Lee, Michael Donovan, Brian Regan, Thomas Scully and Tony Ecock. As a result, and by virtue of the relationships described above, each of the managing members of CP Associates may be deemed to share beneficial ownership of the shares owned by WCAS Capital IV. The address of WCAS X, WCAS Capital IV and each of the entities and persons identified in this footnote is 320 Park Avenue, Suite 2500, New York, New York 10022.

- (3) The stockholder is a party to the Stockholders Agreement.
- (4) The stockholder or one or more of its affiliates is a party to the Registration Rights Agreement, dated as of December 30, 2013, or the Registration Rights Agreement.
- (5) Includes 5,670,999 shares of common stock owned by Ernest Group, Inc., 229,135 shares of common stock owned by The Ruby Group, Inc. and 778,110 shares of restricted stock. Mr. Richison is the sole director of Ernest Group, Inc. and Ernest Group, Inc. is wholly owned by Mr. Richison and certain trusts for Mr. Richison's children, for which Mr. Richison serves as trustee. Ernest Group, Inc. is a party to the Registration Rights Agreement. Mr. Richison may be deemed to beneficially own the shares of common stock owned by Ernest Group, Inc. Mr. Richison is the sole director and sole shareholder of The Ruby Group, Inc. and may be deemed to beneficially own the shares of common stock owned by The Ruby Group, Inc. Mr. Richison has served our President, Chief Executive Officer and a member of the board of directors since he founded the Company in 1998. Mr. Richison plans to sell 1,000,000 shares of common stock by Ernest Group, Inc.
- (6) Includes 146,558 shares of restricted stock. Mr. York has served as our Chief Sales Officer since 2007.
- (7) Consists of 679,877 shares of common stock owned by WK-EGI, Inc., 351,377 shares of common stock owned by William X. Kerber Revocable Trust u/a dated 6/18/2015, or the Kerber Trust, and 156,921 shares of restricted stock. Mr. Kerber is the sole director of WK-EGI, Inc. and WK-EGI, Inc. is wholly owned by Mr. Kerber and certain trusts for which Mr. Kerber serves as trustee. Mr. Kerber is the trustee of the Kerber Trust. Mr. Kerber has served as our Chief Information Officer since July 2007. Mr. Kerber may be deemed to beneficially own the shares of common stock owned by WK-EGI, Inc. Mr. Kerber plans to sell 115,000 shares of common stock owned by WK-EGI, Inc.
- (8) Shannon Rowe is the sole director of SR-EGI, Inc. and SR-EGI, Inc. is wholly owned by Ms. Rowe and certain trusts for the benefit of Ms. Rowe's children. Ms. Rowe is the sister of Chad Richison, our President and Chief Executive Officer, and is a party to the Stockholders Agreement. Ms. Rowe may be deemed to beneficially own the shares of common stock owned by SR-EGI, Inc.
- (9) The address of this selling stockholder is c/o Welsh, Carson Anderson & Stowe, 320 Park Avenue, Suite 2500, New York, New York 10022.
- (10) Includes 101,049 shares of common stock owned by Mr. Rather and 30,548 shares of common stock owned by JMR4 Holdings LLC. Mr. Rather is a Member of JMR4 Holdings LLC and may be deemed to beneficially own the shares of common stock owned by JMR4 Holdings LLC. Mr. Rather plans to sell 15,000 shares of common stock owned by JMR4 Holdings LLC and 40,000 shares owned individually.
- (11) Includes 156,921 shares of restricted stock. Mr. Boelte has served as our Chief Financial Officer since February 2006.
- (12) Includes 60,000 shares of common stock owned by Lenox Capital Group, LLC, for which Mr. Levenson is the managing member. Mr. Levenson serves on our board of directors. Mr. Levenson plans to sell an aggregate of 35,000 shares of common stock in this offering, consisting of 10,000 shares of common stock owned by Lenox Capital Group, LLC and 25,000 shares of common stock owned individually.
- (13) Includes 125,191 shares of common stock owned by Mr. Traynor and 26,954 shares of common stock owned by The Traynor Family LLC. Mr. Traynor is the Managing Member of The Traynor Family LLC and may be deemed to beneficially own the shares of common stock owned by The Traynor Family LLC. Mr. Traynor plans to sell 25,000 shares owned individually.
- (14) The address of this selling stockholder is One Meadowlands Plaza, East Rutherford, New Jersey 07073.

(15) Includes 101,138 shares of restricted stock. Ms. Pezold has served as our Chief Operating Officer since March 2015.

S-9

Table of Contents

MATERIAL U.S. FEDERAL TAX CONSIDERATIONS FOR NON-U.S. HOLDERS

The following is a general discussion of the material U.S. federal tax considerations for a non-U.S. holder of the acquisition, ownership and disposition of shares of our common stock. For purposes of this discussion, a non-U.S. holder is any beneficial owner of shares of our common stock, other than a partnership (or entity or arrangement treated as a partnership for U.S. federal income tax purposes), that is not for U.S. federal income tax purposes any of the following:

an individual citizen or resident of the United States;

a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized in the United States or under the laws of the United States or any state or the District of Columbia;

an estate whose income is subject to U.S. federal income tax regardless of its source; or

a trust (i) the administration of which is subject to the primary supervision of a U.S. court and which has one or more U.S. persons who have the authority to control all substantial decisions of the trust or (ii) which has made a valid election to be treated as a U.S. person.

If a partnership (or an entity or arrangement treated as a partnership for U.S. federal income tax purposes) holds our common stock, the tax treatment of a partner in the partnership will generally depend on the status of the partner and the activities of the partnership. Accordingly, we urge partnerships that hold shares of our common stock and partners in such partnerships to consult their own tax advisors regarding the tax treatment of acquiring, holding and disposing of shares of our common stock.

This discussion assumes that a non-U.S. holder will hold our common stock as a capital asset (generally, property held for investment). This discussion does not address all aspects of U.S. federal income taxation or any aspects of state, local or non-U.S. taxation, nor does it consider any U.S. federal income tax considerations that may be relevant to non-U.S. holders which may be subject to special treatment under U.S. federal income tax laws, including, without limitation, U.S. expatriates, controlled foreign corporations, passive foreign investment companies, insurance companies, tax-exempt or governmental organizations, dealers in securities or currency, banks or other financial institutions, and investors that hold our common stock as part of a hedge, straddle or conversion transaction. Furthermore, the following discussion is based on current provisions of the Code, and Treasury Regulations and administrative and judicial interpretations thereof, all as in effect on the date hereof, and all of which are subject to change, possibly with retroactive effect.

We urge each prospective investor to consult a tax advisor regarding the U.S. federal, state, local and non-U.S. income and other tax considerations for acquiring, holding and disposing of shares of our common stock.

Dividends on Common Stock

If we pay dividends on our common stock, those payments will constitute dividends for U.S. tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those dividends exceed our current and accumulated earnings and profits, the dividends will

constitute a return of capital and will first reduce a holder's adjusted tax basis in its common stock, but not below zero, and then will be treated as gain from the sale of the common stock (see Gain on Disposition of Common Stock).

Any dividend paid out of earnings and profits to a non-U.S. holder of our common stock generally will be subject to U.S. withholding tax at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable tax treaty. To receive the benefit of a reduced treaty rate, a non-U.S. holder generally must provide us with an Internal Revenue Service, or IRS, Form W-8BEN or Form W-8BEN-E (or other applicable form) certifying qualification for the reduced rate. A non-U.S. holder eligible for a reduced rate of U.S. federal withholding tax pursuant to an applicable income tax treaty may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

Table of Contents

Notwithstanding the foregoing, dividends received by a non-U.S. holder that are effectively connected with the conduct of a trade or business within the United States by the non-U.S. holder will be exempt from such withholding tax. To obtain this exemption, the non-U.S. holder must provide us with an IRS Form W-8ECI properly certifying such exemption. Such effectively connected dividends, although not subject to withholding tax, generally will be subject to federal income tax on a net income basis at the same graduated tax rates generally applicable to U.S. persons, subject to any applicable tax treaty providing otherwise. In addition to the income tax described above, dividends received by corporate non-U.S. holders that are effectively connected with the conduct of a trade or business in the United States by the corporate non-U.S. holder may be subject to a branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable tax treaty.

Gain on Disposition of Shares of Our Common Stock

A non-U.S. holder generally will not be subject to U.S. federal income tax on any gain realized upon the sale or other disposition of shares of our common stock unless:

the gain is effectively connected with the conduct of a trade or business within the United States by the non-U.S. holder and, if required by an applicable tax treaty, is attributable to a U.S. permanent establishment maintained by such non-U.S. holder;

the non-U.S. holder is an individual who is present in the United States for a period or periods aggregating 183 days or more during the calendar year in which the sale or disposition occurs and certain other conditions are met; or

we become a U.S. real property holding corporation, or USRPHC, for U.S. federal income tax purposes, and the non-U.S. holder holds or has held, directly or indirectly, at any time within the shorter of (i) the five-year period preceding the disposition and (ii) the non-U.S. holder's holding period, more than 5% of our common stock. Generally, a corporation is a U.S. real property holding corporation if the fair market value of its U.S. real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests and its other assets used or held for use in a trade or business.

In the case of a non-U.S. holder described in the first bullet point immediately above, the gain will be subject to U.S. federal income tax on a net income basis generally in the same manner as if the non-U.S. holder were a U.S. person as defined under the Code (unless an applicable income tax treaty provides otherwise), and a non-U.S. holder that is a foreign corporation may be subject to an additional branch profits tax equal to 30% of its effectively connected earnings and profits attributable to such gain (or at such lower rate as may be specified by an applicable income tax treaty). In the case of an individual non-U.S. holder described in the second bullet point immediately above, except as otherwise provided by an applicable income tax treaty, the gain, which may be offset by certain U.S.-source capital losses, will be subject to a flat 30% tax.

We believe we are not and do not anticipate becoming a USRPHC for U.S. federal income tax purposes. If, however, we are or become a USRPHC, so long as our common stock is considered to be regularly traded on an established securities market, only a non-U.S. holder who actually or constructively holds or held (at any time during the shorter of the five year period ending on the date of disposition or the non-U.S. holder's holding period) more than 5% of our common stock will be subject to U.S. federal income tax, under the third bullet point immediately above, on the disposition of our common stock. Each non-U.S. holder should consult with its tax advisor about the consequences

that could result if we are, or become, a USRPHC.

Backup Withholding and Information Reporting

Generally, we must report annually to the IRS the amount of dividends paid to each non-U.S. holder, and the amount, if any, of tax withheld with respect to those dividends. A similar report is sent to each non-U.S. holder. These information reporting requirements apply even if withholding was not required. Pursuant to tax treaties or other agreements, the IRS may make its reports available to tax authorities in the recipient's country of residence.

S-11

Table of Contents

Payments of dividends to a non-U.S. holder may be subject to backup withholding (at a rate of 28%) unless the non-U.S. holder establishes an exemption, for example, by properly certifying its non-U.S. status on an IRS Form W-8BEN or Form W8BEN-E or another appropriate version of IRS Form W-8. Notwithstanding the foregoing, backup withholding also may apply if we have actual knowledge, or reason to know, that the beneficial owner is a U.S. person that is not an exempt recipient.

Payments of proceeds from the sale or other disposition by a non-U.S. holder of shares of our common stock effected outside the United States by or through a foreign office of a broker generally will not be subject to information reporting or backup withholding. However, information reporting will apply to those payments if the broker does not have documentary evidence that the holder is a non-U.S. holder, an exemption is not otherwise established, and the broker has certain relationships with the United States.

Payments of proceeds from the sale or other disposition by a non-U.S. holder of shares of our common stock effected by or through a U.S. office of a broker generally will be subject to information reporting and backup withholding (at a rate of 28%) unless the non-U.S. holder establishes an exemption, for example, by properly certifying its non-U.S. status on an IRS Form W-8BEN or Form W-8BEN-E or another appropriate version of IRS Form W-8. Notwithstanding the foregoing, information reporting and backup withholding also may apply if the broker has actual knowledge, or reason to know, that the holder is a U.S. person that is not an exempt recipient.

Backup withholding is not an additional tax. Rather, the U.S. income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund may be obtained, provided that the required information is timely furnished to the IRS.

Foreign Account Tax Compliance Act

The Foreign Account Tax Compliance Act (FATCA) imposes withholding tax at a rate of 30% on certain types of withholdable payments (including dividends and proceeds from the sale of stock in a U.S. corporation, including our common stock) made to foreign financial institutions and certain other non-financial foreign entities (all as specially defined for purposes of these rules) unless various U.S. information reporting and due diligence requirements (generally relating to ownership by U.S. persons of interests in or accounts with those foreign entities) have been satisfied. Withholding under FATCA on withholdable payments to foreign financial institutions and non-financial foreign entities began on July 1, 2014 with respect to dividends on shares of our common stock, if any, and will begin on January 1, 2017 with respect to gross proceeds of a disposition of shares of our common stock. Non-U.S. holders should consult their own tax advisors regarding the possible implications of FATCA on their investment in shares of our common stock.

Estate Tax

Our common stock owned or treated as owned by an individual who is not a citizen or resident of the United States (as specifically defined for U.S. federal estate tax purposes) at the time of death will be includible in the individual's gross estate for U.S. federal estate tax purposes and may be subject to U.S. federal estate tax unless an applicable estate tax treaty provides otherwise.

THE SUMMARY OF MATERIAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS ABOVE IS INCLUDED FOR GENERAL INFORMATION PURPOSES ONLY. POTENTIAL PURCHASERS OF OUR COMMON STOCK ARE URGED TO CONSULT THEIR TAX ADVISORS TO DETERMINE THE UNITED STATES FEDERAL, STATE, LOCAL AND NON-UNITED STATES TAX CONSEQUENCES OF PURCHASING, OWNING AND DISPOSING OF SHARES OF OUR COMMON

STOCK.

S-12

Table of Contents**UNDERWRITING**

Under the terms and subject to the conditions contained in an underwriting agreement dated the date of this prospectus supplement, Barclays Capital Inc., as underwriter in this offering, has agreed to purchase from the selling stockholders 4,500,000 shares of common stock.

The underwriting agreement provides that the obligation of the underwriter to purchase the shares of common stock included in this offering is subject to approval of legal matters by counsel and to other conditions. The underwriter is obligated to purchase all of the shares if it purchases any of the shares (other than those shares of common stock covered by its option to purchase additional shares as described below).

The underwriter has advised us that it proposes to offer the shares of common stock directly to the public at the public offering price on the cover of this prospectus supplement and to selected dealers, which may include the underwriter, at such offering price less a selling concession not in excess of \$0.10 per share. After the offering, the underwriter may change the offering price and other selling terms. Sales of shares made outside of the United States may be made by affiliates of the underwriter.

The following table summarizes the compensation and estimated expenses the selling stockholders will pay in connection with this offering. These amounts are shown assuming both no exercise and full exercise of the underwriter's option to purchase additional shares.

	Per Share	No Exercise	Total Full Exercise
Public offering price	\$ 37.95	\$ 170,775,000	\$ 196,391,250
Underwriting discounts and commissions	\$ 0.39	\$ 1,755,000	\$ 2,018,250
Total proceeds to selling stockholders (before expenses)	\$ 37.56	\$ 169,020,000	\$ 194,373,000

We have agreed to reimburse the underwriter for certain expenses related to the review and clearance of this offering by the Financial Industry Regulatory Authority in an amount up to \$30,000.

Certain of the selling stockholders have granted the underwriter an option exercisable for 30 days after the date of this prospectus supplement to purchase, from time to time, in whole or in part, up to an aggregate of 675,000 shares of common stock from such selling stockholders at the public offering price less underwriting discounts and commissions.

We have agreed that for a period of 45 days after the date of the final prospectus we will not offer, sell, issue, contract to sell, issue, pledge or otherwise dispose of, directly or indirectly, or file with the Securities and Exchange Commission a registration statement under the Securities Act relating to, any shares of our common stock or securities convertible into shares of our common stock.

We, our executive officers, directors and selling stockholders have agreed that, for a period of 45 days after the date of the final prospectus subject to certain limited exceptions as described below, we and they will not directly or indirectly, without the prior written consent of the underwriter, (1) offer for sale, sell, pledge, or otherwise dispose of (or enter into any transaction or device that is designed to, or could be expected to, result in the disposition by any person at any time in the future of) any shares of common stock (including, without limitation, shares of common stock that may be deemed to be beneficially owned by them in accordance with the rules and regulations of the SEC

and shares of common stock that may be issued upon exercise of any options or warrants) or securities convertible into or exercisable or exchangeable for, or that represent the right to receive shares of, common stock (other than shares that may be sold in this offering), (2) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of shares of common stock, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of common stock or other securities, in cash or otherwise, (3) cause to be filed a registration

S-13

Table of Contents

statement, including any amendments thereto, with respect to the registration of any shares of common stock or securities convertible, exercisable or exchangeable into common stock or any of our other securities, or (4) publicly disclose the intention to do any of the foregoing.

Each of the lock-up agreements contain certain exceptions, including the disposition of shares of common stock purchased in open market transactions after the completion of this offering, certain bona fide gifts, sales, transfers or other dispositions of shares of any class of our common stock, including by will or intestacy, made exclusively between and among the holder and members of the holder's family or certain other persons, and the adoption of a Rule 10b5-1 sales plan; provided, in certain cases, that no filing shall be required under the Exchange Act and the holder agrees not to make any filing or public announcement in connection with the transfer or disposition during the 45-day lock-up period.

The underwriter, in its sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time. When determining whether or not to release common stock and other securities from lock-up agreements, the underwriter will consider, among other factors, the holder's reasons for requesting the release, the number of shares of common stock and other securities for which the release is being requested and market conditions at the time.

We and the selling stockholders have agreed to indemnify the underwriter against certain liabilities under the Securities Act, or contribute to payments that the underwriter may be required to make in that respect.

In connection with the offering, the underwriter, to the extent permitted by law, may purchase and sell shares in the open market. Purchases and sales in the open market may include short sales, purchases to cover short positions, and stabilizing purchases.

Short sales involve secondary market sales by the underwriter of a greater number of shares than it is required to purchase in the offering. This short position may be either a covered short position or a naked short position. In a covered short position, the number of shares involved in the sales made by the underwriters in excess of the number of shares they are obligated to purchase is not greater than the number of shares that they may purchase by exercising their option to purchase additional shares. In a naked short position, the number of shares involved is greater than the number of shares in their option to purchase additional shares. The underwriter may close out any short position by either exercising its option to purchase additional shares and/or purchasing shares in the open market. In determining the source of shares to close out the short position, the underwriter will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through their option to purchase additional shares. A naked short position is more likely to be created if the underwriter is concerned that there could be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.

Covering transactions involve purchases of shares in the open market after the distribution has been completed in order to cover short positions.

To close a short position, the underwriter must purchase shares in the open market after the distribution has been completed. A short position is more likely to be created if the underwriter is concerned that there may

be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.

Stabilizing transactions involve bids to purchase shares so long as the stabilizing bids do not exceed a specified maximum.

Purchases to cover short positions and stabilizing purchases, as well as other purchases by the underwriter for its own accounts, may have the effect of preventing or retarding a decline in the market price of the shares. They may also cause the price of the shares to be higher than the price that would otherwise exist in the open market in the absence of these transactions. The underwriter may conduct these transactions on the NYSE, in the

Table of Contents

over-the-counter market or otherwise. If the underwriter commences any of these transactions, it may discontinue them at any time.

Neither we nor the underwriter make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the common stock. In addition, neither we nor the underwriter make any representation that the underwriter will engage in these stabilizing transactions or that any transaction, once commenced, will not be discontinued without notice.

Our common stock is listed on the NYSE under the symbol PAYC.

The underwriter and certain of its affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The underwriter and certain of its affiliates have, from time to time, performed, and may in the future perform, various commercial and investment banking and financial advisory services for the issuer and its affiliates, for which they received or may in the future receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriter and certain of its affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of the issuer or its affiliates. If the underwriter or its affiliates have a lending relationship with us, the underwriter or certain of its affiliates routinely hedge, and the underwriter or its affiliates may hedge their credit exposure to us consistent with their customary risk management policies. Typically, the underwriter and its affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities or the securities of our affiliates, including potentially the shares of common stock offered hereby. Any such credit default swaps or short positions could adversely affect future trading prices of the shares of common stock offered hereby. The underwriter and certain of its affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

A prospectus in electronic format may be made available on the web sites maintained by the underwriter, or selling group members, if any, participating in this offering and the underwriter participating in this offering may distribute prospectuses electronically. The underwriter may agree to allocate a number of shares to the underwriter and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriter and selling group members that will make internet distributions on the same basis as other allocations.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date), our common stock will not be offered to the public in that Relevant Member State prior to the publication of a prospectus in relation to the common stock that has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that, with effect from and including the Relevant Implementation Date, an offer of common stock may be made to the public in that Relevant Member State at any time:

to any legal entity that is a qualified investor as defined in the Prospectus Directive;

to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the

S-15

Table of Contents

Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the manager for any such offer; or

in any other circumstances which do not require the publication by the issuer of a prospectus pursuant to Article 3(2) of the Prospectus Directive.

For the purposes of this provision, the expression an offer of common stock to the public in relation to any stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the common stock to be offered so as to enable an investor to decide to purchase or subscribe to the common stock, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State. The expression Prospectus Directive means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State) and includes any relevant implementing measure in each Relevant Member State, and the expression 2010 PD Amending Directive means Directive 2010/73/EU.

United Kingdom

Our common stock may not be offered or sold and will not be offered or sold to any persons in the United Kingdom other than persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or as agent) for the purposes of their businesses and in compliance with all applicable provisions of the Financial Services and Markets Act 2000 (FSMA) with respect to anything done in relation to our common stock in, from or otherwise involving the United Kingdom.

In addition, the underwriter:

has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of section 21 of FSMA) to persons who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act of 2000 (Financial Promotion) Order 2005 or in circumstances in which section 21 of FSMA does not apply to us; and

has complied with, and will comply with all applicable provisions of FSMA with respect to anything done by it in relation to the common stock in, from or otherwise involving the United Kingdom.

Notice to Prospective Investors in Canada

The shares of common stock offered hereby may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the shares of common stock offered hereby must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed

by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriter is not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Table of Contents

LEGAL MATTERS

The validity of the common stock being offered by this prospectus supplement will be passed upon for us by Haynes and Boone, LLP, Dallas, Texas. Certain legal matters will be passed upon for certain of the selling stockholders by Kirkland & Ellis LLP, New York, New York. The underwriter is being represented by Goodwin Procter LLP, Menlo Park, California in connection with the offering.

EXPERTS

The audited financial statements incorporated by reference in this prospectus supplement and elsewhere in the registration statement have been so incorporated by reference in reliance upon the report of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read, without charge, and copy, at prescribed rates, all or any portion of the registration statement or any reports, statements or other information that we file with the SEC at the public reference room at the SEC's principal office at 100 F Street N.E., Washington, DC, 20549. You may request copies of these documents, for a copying fee, by writing to the SEC. You may call the SEC at 1-800-SEC-0330 for further information on the operation of its public reference room. The SEC also maintains a web site that contains reports, proxy and information statements and other information about issuers, such as us, who file electronically with the SEC. The address of that website is <http://www.sec.gov>.

These periodic and current reports and all amendments to those reports are available free of charge on our website at investors.paycom.com. The information on, or that may be accessed through, our website is not incorporated into this prospectus supplement and should not be considered a part of this prospectus supplement. Purchasers of our common stock should rely only on the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus filed with the SEC.

This prospectus supplement and the accompanying prospectus are part of a registration statement that we have filed with the SEC under the Securities Act. Statements in this prospectus supplement or the accompanying prospectus about these documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should refer to the actual documents for a more complete description of the relevant matters. You may inspect a copy of the registration statement at the SEC's Public Reference Room in Washington, D.C. or through the SEC's website, as provided above.

Table of Contents

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference certain information we have filed with the SEC into this prospectus supplement, which means we are disclosing important information to you by referring you to other information we have filed with the SEC. The information we incorporate by reference is considered part of this prospectus supplement. We specifically are incorporating by reference the following documents filed with the SEC (excluding any disclosures that are furnished and not filed with the SEC):

our Annual Report on Form 10-K for the year ended December 31, 2014 (including the information from our Definitive Proxy Statement on Schedule 14A filed with the SEC on March 30, 2015 specifically incorporated by reference in our Annual Report from Form 10-K for the year ended December 31, 2014), filed with the SEC on February 26, 2015;

our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2015, filed with the SEC on May 13, 2015;

our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2015, filed with the SEC on August 7, 2015;

our Current Report on Form 8-K dated March 6, 2015, filed with the SEC on March 12, 2015;

our Current Report on Form 8-K dated March 10, 2015, filed with the SEC on March 17, 2015;

our Current Report on Form 8-K dated March 25, 2015, filed with the SEC on March 30, 2015;

our Current Report on Form 8-K dated May 5, 2015, filed with the SEC on May 8, 2015;

our Current Report on Form 8-K dated May 14, 2015, filed with the SEC on May 20, 2015;

our Current Report on Form 8-K dated July 8, 2015, filed with the SEC on July 10, 2015; and

the description of our common stock, which is contained in our Registration Statement on Form 8-A (File No. 001-36393), filed with the SEC on April 3, 2014, including any subsequent amendment or any report filed for the purpose of updating such description.

All reports and definitive proxy or information statements subsequently filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of this prospectus supplement and prior to the sale of all securities registered hereunder or termination of the registration statement of which this prospectus supplement and the

accompanying prospectus form a part (excluding any disclosures that are furnished and not filed with the SEC) shall be deemed to be incorporated by reference into this prospectus supplement and to be part hereof from the date of filing of such reports and other documents.

Notwithstanding the foregoing, we are not incorporating by reference any documents, portions of documents, exhibits or other information that is deemed to have been furnished to, rather than filed with, the SEC.

Any statement contained in this prospectus supplement or in a document incorporated by reference into this prospectus supplement shall be deemed to be modified or superseded for the purposes of this prospectus supplement to the extent that a statement contained herein or in any subsequently filed document that is also incorporated by reference in this prospectus supplement modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

Table of Contents

You may request a copy of the filings incorporated herein by reference, including exhibits to such documents that are specifically incorporated by reference, at no cost, by writing or calling us at the following address or telephone number:

Paycom Software, Inc.
7501 W. Memorial Road
Oklahoma City, Oklahoma 73142
(405) 722-6900

Statements contained in this prospectus supplement as to the contents of any contract or other documents are not necessarily complete, and in each instance investors are referred to the copy of the contract or other document filed as an exhibit to the registration statement, each such statement being qualified in all respects by such reference and the exhibits and schedules thereto.

S-19

Table of Contents

Prospectus

Paycom Software, Inc.

Common Stock

The selling stockholders to be named in a prospectus supplement may offer and sell shares of our common stock from time to time in amounts, at prices and on terms that will be determined at the time of the offering.

This prospectus describes the general manner in which the shares of our common stock may be offered and sold by the selling stockholders. The specific manner in which shares of common stock may be offered and sold will be described in a prospectus supplement. Information about the selling stockholders, including the relationship between the selling stockholders and us, will also be included in the applicable prospectus supplement. The prospectus supplement or any free writing prospectus may also add, update or change information contained in this prospectus.

You should read this prospectus and the applicable prospectus supplement and free writing prospectus, as well as the documents incorporated by reference herein or therein, carefully before you invest in our common stock.

We will not receive any of the proceeds from the sale by the selling stockholders of shares of our common stock. The selling stockholders may offer and sell shares of our common stock to or through one or more agents, underwriters, dealers or other third parties or directly to one or more purchasers on a continuous or delayed basis. If the selling stockholders use any agents, underwriters or dealers to sell shares of our common stock, we will name them and describe their compensation in a prospectus supplement.

Our common stock is listed on the New York Stock Exchange under the symbol **PAYC**. The last reported sale price of our common stock on May 13, 2015 was \$38.15 per share.

We are an emerging growth company, as that term is defined under the federal securities laws and, as such, are subject to certain reduced public company reporting requirements.

Investing in our common stock involves risks. See Risk Factors beginning on page 4 of this prospectus and any risk factors described in any applicable prospectus supplement, in any free writing prospectus and in the documents we incorporate by reference.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is May 14, 2015

Table of Contents

TABLE OF CONTENTS

	Page
<u>ABOUT THIS PROSPECTUS</u>	1
<u>THE COMPANY</u>	2
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	3
<u>RISK FACTORS</u>	4
<u>USE OF PROCEEDS</u>	4
<u>SELLING STOCKHOLDERS</u>	4
<u>DESCRIPTION OF CAPITAL STOCK</u>	5
<u>PLAN OF DISTRIBUTION</u>	12
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	17
<u>INCORPORATION BY REFERENCE</u>	18
<u>EXPERTS</u>	19
<u>LEGAL MATTERS</u>	19

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus is part of an automatic shelf registration statement that we filed with the Securities and Exchange Commission, or the SEC, as a well-known seasoned issuer as defined in Rule 405 under the Securities Act of 1933, as amended, or the Securities Act. By using a shelf registration statement, the selling stockholders to be named in one or more prospectus supplements may, from time to time, offer and sell shares of our common stock in one or more offerings. Each time that the selling stockholders sell shares of common stock, we will provide a prospectus supplement, which will be delivered with this prospectus, containing specific information about the selling stockholders and the terms of that offering. The applicable prospectus supplement may also add, update or change information contained in this prospectus.

We are responsible for the information contained or incorporated by reference in this prospectus, any accompanying prospectus supplement and in any related free-writing prospectus we prepare, authorize or distribute. Neither we nor the selling stockholders have authorized anyone to give you any other information, and we take no responsibility for any other information that others may give you. The selling stockholders may only offer to sell, and seek offers to buy, shares of our common stock in jurisdictions where offers and sales are permitted.

You should assume that the information appearing in this prospectus and the applicable prospectus supplement to this prospectus is accurate as of the date on its respective cover, and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates.

If the description of the offering varies between any prospectus supplement and this prospectus, you should rely on the information in the applicable prospectus supplement. Any statement made in this prospectus or in a document incorporated by reference in this prospectus will be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or in any other subsequently filed document that is also incorporated by reference in this prospectus modifies or supersedes that statement. Any statement so modified or superseded will not, except as so modified or superseded, constitute a part of this prospectus. Before making an investment in our common stock, you should carefully read this prospectus, any applicable prospectus supplement and any applicable free writing prospectus, together with the information incorporated and deemed to be incorporated by reference herein as described under [Incorporation of Certain Documents by Reference](#) and the additional information described under the heading [Where You Can Find Additional Information](#).

This prospectus may not be used to sell any shares of our common stock unless accompanied by a prospectus supplement.

The registration statement of which this prospectus is a part, including the exhibits to the registration statement, provides additional information about us and our common stock. Wherever references are made in this prospectus to information that will be included in a prospectus supplement, to the extent permitted by applicable law, rules or regulations, we may instead include such information or add, update or change the information contained in this prospectus by means of a post-effective amendment to the registration statement of which this prospectus is a part, through filings we make with the SEC that are incorporated by reference into this prospectus or by any other method as may then be permitted under applicable law, rules or regulations. The registration statement, including the exhibits to the registration statement and any post-effective amendment thereto, can be obtained from the SEC, as described under the heading [Where You Can Find Additional Information](#).

Except where the context otherwise requires or where otherwise indicated, references in this prospectus to Paycom, we, us, our and the Company refer to Paycom Software, Inc., a Delaware corporation, and its consolidated subsidiaries.

Table of Contents

THE COMPANY

We are a leading provider of comprehensive, cloud-based human capital management, or HCM, software delivered as Software-as-a-Service, or SaaS. We provide functionality and data analytics that businesses need to manage the complete employment life cycle from recruitment to retirement. Our solution requires virtually no customization and is based on a core system of record maintained in a single database for all HCM functions, including talent acquisition, time and labor management, payroll, talent management and human resources, or HR, management applications. Our user-friendly software allows for easy adoption of our solution by employees, enabling self-management of their HCM activities in the cloud, which reduces the administrative burden on employers and increases employee productivity.

Organizations need sophisticated, flexible and intuitive applications that can quickly adapt to their evolving HCM requirements, streamline their HR processes and systems and enable them to control costs. We believe that the HCM needs of most organizations are currently served either by legacy providers offering outdated on-premise products or multiple providers that partner together in an attempt to replicate a comprehensive product. These approaches often result in large up-front capital requirements, extended delivery times, high costs, low scalability and challenges with system integration. According to the International Data Corporation, the U.S. markets for payroll services and HCM applications is estimated to collectively total approximately \$23.7 billion in 2015, and we believe there is a substantial opportunity for our solution to address these HCM needs.

Because our solution was developed in-house and is based on a single platform, there is no need to integrate, update or access multiple databases, which are common issues with competitor offerings that use multiple third-party systems in order to link together their HCM offerings. Additionally, our solution maintains data integrity for accurate, actionable and real-time analytics and business intelligence and helps clients minimize the risk of compliance errors due to inaccurate or missing information. We deliver feature-rich applications while maintaining excellence in information security and quality management standards as evidenced by our International Organization for Standardization certifications. As a part of our client retention effort, a specialist within a dedicated team is assigned to each client to provide industry-leading, personalized service.

The key benefits of our differentiated solution as compared to competing products are:

Comprehensive HCM solution;

Personalized support provided by trained personnel;

Software-as-a-Service delivery model;

Cloud-based architecture; and

Scalability to grow with our clients.

We sell our solution directly through our internally trained, client-focused and highly skilled sales force based in offices across the United States. We believe that as a result of our focus on client retention, we enjoy high client

satisfaction as evidenced by an average annual revenue retention rate of 91% from existing clients for the three years ended December 31, 2014. We believe our revenue retention rate understates our client loyalty because this rate also includes former clients that were acquired or otherwise ceased operations.

Corporate Information

We were founded in 1998. Paycom is a Delaware corporation that was formed in October 2013 in anticipation of our initial public offering. Our principal executive offices are located at 7501 W. Memorial Road, Oklahoma City, Oklahoma 73142 and our telephone number is (405) 722-6900. Our website is www.paycom.com. Information contained on our website or that can be accessed through our website is not incorporated by reference in this prospectus.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including any prospectus supplement or free writing prospectus, including the documents incorporated or deemed to be incorporated by reference into this prospectus, contains forward-looking statements and information relating to us that are based on the beliefs of our management as well as assumptions made by, and information currently available to, us. These statements include, but are not limited to, statements about our strategies, plans, objectives, expectations, intentions, expenditures, assumptions and other statements contained in this prospectus and any prospectus supplement or free writing prospectus that are not historical facts. When used in this such document, words such as anticipate, believe, estimate, expect, intend, may, plan and project and similar they relate to us are intended to identify forward-looking statements. These statements reflect our current views with respect to future events, are not guarantees of future performance and involve risks and uncertainties that are difficult to predict. Further, certain forward-looking statements are based upon assumptions as to future events that may not prove to be accurate.

These forward-looking statements include, but are not limited to, statements regarding our business strategy; anticipated future operating results and operating expenses, cash flows, capital resources and liquidity; trends, opportunities and risks affecting our business, industry and financial results; future expansion or growth plans and potential for future growth; technology; market opportunities, our ability to attract new clients to purchase our solution and market acceptance of our solution and applications; our ability to retain clients and induce them to purchase additional applications; our ability to accurately forecast future revenues and appropriately plan our expenses; alternate ways of addressing HCM needs or new technologies generally by us and our competitors; continued acceptance of SaaS as an effective method for delivering HCM solutions and other business management applications; the attraction and retention of qualified employees and key personnel; our ability to protect and defend our intellectual property; costs associated with defending intellectual property infringement and other claims; events in the markets for our solution and alternatives to our solution, as well as in the United States and global markets generally; future regulatory, judicial and legislative changes in our industry; changes in the competitive environment in our industry and the markets in which we operate; that our growth will generally mirror improvements in the labor market; that we will enter into, or fulfill our obligations under, the agreement with the Oklahoma City Economic Development Trust; our plan and ability to open additional sales offices and increase the number of sales personnel or sales teams in the future; that our existing cash and cash equivalents will be sufficient to meet our working capital and capital expenditure needs over the next twelve months; our ability to create additional jobs at our corporate headquarters; our ability to expand our corporate headquarters within an expected timeframe; and our expectation of increasing our capital expenditures and investment activity as our business grows.

These forward-looking statements involve known and unknown risks, inherent uncertainties and other factors, which may cause our actual results, performance, time frames or achievements to be materially different from any future results, performance, time frames or achievements expressed or implied by the forward-looking statements. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements. Actual results and the timing of certain events may differ materially from those contained in these forward-looking statements.

All forward-looking statements appearing in this prospectus and the applicable prospectus supplement speak only at the date of this prospectus or the applicable prospectus supplement on its respective cover. You should not place undue reliance on these forward-looking statements. Although we believe that our plans, intentions and expectations reflected in or suggested by the forward-looking statements we make in this prospectus are reasonable, we can give no assurance that these plans, intentions or expectations will be achieved. We disclose important factors that could cause our actual results to differ materially from our expectations under the caption **Risk Factors** in this prospectus or any prospectus supplement or in the documents incorporated by reference in this prospectus or any prospectus supplement.

These cautionary statements qualify all forward-looking statements attributable to us or persons acting on our behalf. We do not undertake any obligation to update or revise any forward-looking statements except as required by law, including the securities laws of the United States and the rules and regulations of the SEC.

Table of Contents

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described under the caption "Risk Factors" in our most recent Annual Report on Form 10-K for the year ended December 31, 2014, which are incorporated by reference herein. You should also consider any "Risk Factors" contained in any applicable prospectus supplement, and in any document that we file with the SEC after the date of this prospectus that is incorporated by reference herein. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The market or trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment. Please note that additional risks not presently foreseen by us or that we currently deem immaterial may also impair our business and operations.

USE OF PROCEEDS

All shares of common stock sold in this offering will be sold by the selling stockholders. We will not receive any of the proceeds from such sales.

SELLING STOCKHOLDERS

Information about the selling stockholders, including their identities, the common stock to be registered on their behalf and the amounts to be sold by them, will be set forth in a prospectus supplement, in a post-effective amendment or in filings we make with the SEC under the Exchange Act that are incorporated by reference into this prospectus. The selling stockholders may include certain of our affiliates.

Table of Contents

DESCRIPTION OF CAPITAL STOCK

General

The following summary describes the most important terms of our capital stock. Our authorized capital stock consists of one hundred million shares of common stock, par value \$0.01 per share, and ten million shares of preferred stock, par value \$0.01 per share. As of May 11, 2015, we had 58,370,980 shares of common stock outstanding, including 1,320,296 shares of restricted stock.

Common Stock

Dividend Rights

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of our common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

Voting Rights

Except as required by law or matters relating solely to the terms of preferred stock, each outstanding share of common stock is entitled to one vote on all matters submitted to a vote of stockholders. Holders of shares of our common stock have no cumulative voting rights. Except in respect of matters relating to the election and removal of directors on our board of directors and as otherwise provided in our amended and restated certificate of incorporation, or the certificate of incorporation, or required by law, all matters to be voted on by our stockholders must be approved by a majority of the shares present in person or by proxy at the meeting and entitled to vote on the subject matter. In the case of election of directors, all matters to be voted on by our stockholders must be approved by a plurality of the votes entitled to be cast by all shares of our common stock.

Liquidation

In the event of the liquidation, dissolution or winding up of our company, holders of our common stock are entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then outstanding shares of preferred stock.

Rights and Preferences

Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of our preferred stock that we may designate in the future.

Undesignated Preferred Stock

Our board of directors may, without further action by our stockholders, from time to time, direct the issuance of shares of preferred stock in a series and may, at the time of issuance, determine the designations, powers, preferences, privileges, and relative participating, optional or special rights as well as the qualifications, limitations or restrictions thereof, including, but not limited to:

the designation of the series;

the number of shares of the series, which our board of directors may, except where otherwise provided in the preferred stock designation, increase or decrease, but not below the number of shares then outstanding;

Table of Contents

whether dividends, if any, will be cumulative or non-cumulative and the dividend rate of the series;

the dates at which dividends, if any, will be payable;

the redemption rights and price or prices, if any, for shares of the series;

the terms and amounts of any sinking fund provided for the purchase or redemption of shares of the series;

the amounts payable on shares of the series in the event of any voluntary or involuntary liquidation, dissolution or winding-up of the affairs of our company;

whether the shares of the series will be convertible into shares of any other class or series, or any other security, of our company or any other entity, and, if so, the specification of the other class or series or other security, the conversion price or prices or rate or rates, any rate adjustments, the date or dates as of which the shares will be convertible and all other terms and conditions upon which the conversion may be made;

restrictions on the issuance of shares of the same series or of any other class or series; and

the voting rights, if any, of the holders of the series.

Satisfaction of any dividend preferences of outstanding shares of preferred stock would reduce the amount of funds available for the payment of dividends on shares of our common stock. Holders of shares of preferred stock may be entitled to receive a preference payment in the event of our liquidation before any payment is made to the holders of shares of our common stock. Under specified circumstances, the issuance of shares of preferred stock may render more difficult or tend to discourage a merger, tender offer or proxy contest, the assumption of control by a holder of a large block of our securities or the removal of incumbent management. We may issue shares of preferred stock with voting and conversion rights which could adversely affect the holders of shares of our common stock and the market value of our common stock. We do not have any shares of preferred stock outstanding and we have no present intention to issue any shares of preferred stock.

Equity Grants

As of May 11, 2015, no shares of our common stock were issuable upon exercise of outstanding options and 1,320,296 shares of restricted stock were outstanding under the Paycom Software, Inc. 2014 Long-Term Incentive Plan.

Stockholders Agreement

The Company, Welsh, Carson, Anderson & Stowe X, L.P., or WCAS X, WCAS Capital Partners IV, L.P., or WCAS Capital IV, and WCAS Management Corporation (referred to collectively with WCAS X, WCAS Capital IV and certain of their affiliated funds, as the WCAS Funds), Chad Richison, Shannon Rowe, William X. Kerber, III, Jeffrey D. York, Robert J. Levenson and the Estate of Richard Aiello and certain of their affiliates or related entities are

parties to the Amended and Restated Stockholders Agreement, dated as of March 10, 2014, or the Stockholders Agreement. In March 2015, we entered into separate Joinders to the Stockholders Agreement, or the Joinders, with Robert Minicucci, Sanjay Swani and an entity affiliated with him, and other managing members of the general partners of WCAS X and WCAS Capital IV that received an in-kind distribution of shares of our common stock. Pursuant to the Joinders, Messrs. Minicucci and Swani, the entity affiliated with Mr. Swani, and the other managing members of the general partners of WCAS X and WCAS Capital IV became parties to the Stockholders Agreement, and shares owned by them became subject to the Stockholders Agreement. Holders of such shares are either entitled to designate three representatives (along with WCAS X and any of its affiliates) or one representative (along with WCAS Capital IV and any of its affiliates), as applicable. Among other things, the Stockholders Agreement provides that for so long as the parties thereto continue to collectively hold 40% of our issued and outstanding shares of common stock, each party will vote

Table of Contents

and take all other necessary and desirable action within such party's control to (i) cause the authorized number of directors of our board of directors to be established at seven and (ii) elect to our board of directors:

three representatives designated by the holders of a majority of the shares of our common stock held by WCAS X and any of its affiliates to which shares of our common stock are transferred pursuant to the Stockholders Agreement;

one representative designated by the holders of a majority of the shares of our common stock held by WCAS Capital IV and any of its affiliates to which shares of our common stock are transferred pursuant to the Stockholders Agreement; and

subject to certain conditions, one representative designated by the holders of a majority of the shares of our common stock held by Chad Richison, Shannon Rowe, William X. Kerber III, Jeffrey D. York, Robert J. Levenson and the Estate of Richard Aiello and any of their affiliates, who shall be Chad Richison for so long as he is employed by us.

As such, the WCAS Funds have effectively designated four representatives to our board of directors. Messrs. Levenson, Swani and Minicucci were designated by WCAS X. Mr. Mulvee was designated by WCAS Capital IV.

Under the Stockholders Agreement, each of the Stockholders Agreement Parties has also appointed WCAS X Associates, LLC, or X Associates, as such person's true and lawful proxy and attorney-in-fact and granted an irrevocable proxy to X Associates to vote at any annual or special meeting of stockholders or to take any action by written consent in lieu of such meeting for the election or removal of directors and other related matters expressly covered by the Stockholders Agreement. X Associates may exercise the irrevocable proxy granted to it under the Stockholders Agreement in the event that a Stockholders Agreement Party fails to vote in accordance with the terms of the Stockholders Agreement.

The Stockholders Agreement will terminate upon the latest of the date on which (i) Chad Richison ceases to be our chief executive officer, (ii) the date on which Chad Richison ceases to be a director and (iii) the parties to the Stockholders Agreement collectively own less than 40% of our issued and outstanding shares of our common stock.

As of May 11, 2015, to our knowledge, the parties to the Stockholders Agreement beneficially owned or controlled, in the aggregate, 38,168,272 shares of our common stock, or approximately 65.4% of our outstanding shares.

Registration Rights Agreement

We and Paycom Payroll, LLC, the WCAS Funds, WCAS Paycom Holdings, Inc., or WCAS Holdings, the Estate of Richard Aiello, Robert J. Levenson, Sue Ann Jordan, Chad Richison, Jeffrey D. York and/or certain of their affiliates or related entities are parties to a registration rights agreement dated as of December 30, 2013, or the Registration Rights Agreement. As of May 11, 2015, to our knowledge, the parties to the Registration Rights Agreement collectively owned approximately 30,385,902 shares of our common stock.

The parties to the Registration Rights Agreement are entitled to certain rights with respect to registration of shares of our common stock, or registrable securities, under the Securities Act. The holders of these registrable securities will possess the registration rights contained in the Registration Rights Agreement that are described in additional detail

below.

Demand Registration Rights

Under the Registration Rights Agreement, upon the written request of the holders of a majority of the registrable securities owned by WCAS Holdings and its affiliates to register all or part of their registrable securities on a registration statement under the Securities Act, we will be obligated to register the sale of all

Table of Contents

registrable securities that holders may request in writing to be registered within 20 days of the mailing of a notice by us to all holders of such registration. We are required to effect no more than four registration statements on Form S-1, subject to certain exceptions, and an unlimited number of registration statements on Form S-3. We may postpone the filing of a registration statement for up to 120 days once in a 12-month period if in the good faith judgment of our Board of Directors such registration would be materially harmful to our economic prospects, and we are not required to effect the filing of a registration statement within six months following the effective date of a previous registration of the registrable securities.

Piggyback Registration Rights

If we register any of our securities for public sale, we will have to register all registrable securities that the holders of such securities request in writing be registered within 20 days of mailing of notice by us to all holders of the proposed registration, subject to certain exceptions. This right, however, does not apply to a registration statement on Form S-8 or S-4 or a demand registration. The managing underwriter of any underwritten offering will have the right to limit, due to marketing reasons, the number of shares registered by these holders.

Form S-3 Registration Rights

To the extent we are eligible to use a registration statement on Form S-3, the holders of a majority of the registrable securities owned by WCAS Holdings and its affiliates can request that we register all or a portion of their shares on a registration statement on Form S-3. We are required to use our best efforts to file one or more registration statements on Form S-3 upon the exercise of these rights, subject to certain exceptions.

Registration Expenses

We are required to pay all expenses incurred in connection with each of the registrations described above, except for underwriting discounts and commissions.

Expiration of Registration Rights

The registration rights described above will terminate as to any stockholder as such time as the stockholder no longer holds shares of our common stock.

Anti-Takeover Effects of Our Certificate of Incorporation and Bylaws and Certain Provisions of Delaware Law

Our certificate of incorporation and our bylaws contain provisions that may delay, defer or discourage another party from acquiring control of us. We expect that these provisions, which are summarized below, will discourage coercive takeover practices or inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with the board of directors, which we believe may result in an improvement of the terms of any such acquisition in favor of our stockholders. However, they also give the board of directors the power to discourage acquisitions that some stockholders may favor.

Classified Board of Directors

In accordance with the terms of our certificate of incorporation and bylaws, our board of directors is divided into three classes, as nearly equal in number as practicable, with members of each class serving staggered three-year terms. Our bylaws provide that the authorized number of directors shall be determined as set forth in the Stockholders Agreement, provided that following the time the Stockholders Agreement is terminated the number of directors shall

be fixed exclusively from time to time solely by resolution of the board of directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes as the board of directors may determine in its discretion. Our certificate of incorporation and bylaws also provide that any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors. Our classified board of directors could have the effect of delaying or discouraging an acquisition of us or a change in our management.

Table of Contents

Undesignated Preferred Stock

The ability to authorize undesignated preferred stock under our certificate of incorporation will make it possible for our board of directors to issue preferred stock with super majority voting, special approval, dividend or other rights or preferences on a discriminatory basis that could impede the success of any attempt to acquire us or otherwise effect a change in control of us. These and other provisions may have the effect of deferring, delaying or discouraging hostile takeovers, or changes in control or management of our company.

Requirements for Advance Notification of Stockholder Meetings, Nominations and Proposals

Our certificate of incorporation and bylaws provide that special meetings of the stockholders may be called only by the majority of our board of directors or the president. Our bylaws prohibit the conduct of any business at a special meeting other than as specified in the notice for such meeting. These provisions may have the effect of deferring, delaying or discouraging hostile takeovers, or changes in control or management of our company.

Our bylaws include advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors. In order for any matter to be properly brought before a meeting, a stockholder will have to comply with advance notice requirements and provide us with certain information. Subject to the terms of the Stockholders Agreement, vacancies and newly created directorships may be filled only by a vote of a majority of the directors then in office, even though less than a quorum, and not by the stockholders. Our bylaws allow the chairman of a meeting of the stockholders to adopt rules and regulations for the conduct of meetings which may have the effect of precluding the conduct of certain business at a meeting if the rules and regulations are not followed. These provisions may also defer, delay or discourage a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of our company.

Our certificate of incorporation provides that the board of directors is expressly authorized to make, alter, or repeal our bylaws and that our stockholders may only amend our bylaws with the approval of not less than a majority of the total voting power of all of our outstanding securities entitled to vote generally in the election of directors.

No Cumulative Voting

Delaware General Corporation Law provides that stockholders are not entitled to the right to cumulate votes in the election of directors unless our certificate of incorporation provides otherwise and our certificate of incorporation does not expressly provide for cumulative voting.

Action by Written Consent

Pursuant to Section 228 of the Delaware General Corporation Law, any action required to be taken at any annual or special meeting of the stockholders may be taken without a meeting, without prior notice and without a vote if a consent or consents in writing, setting forth the action so taken, is signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares of our stock entitled to vote thereon were present and voted, unless our certificate of incorporation provides otherwise. Our certificate of incorporation provides that stockholders may only act by written consent until such date that the parties to the Stockholder Agreement cease collectively to beneficially own (directly or indirectly) more than 50% of the outstanding shares of common stock, or the Trigger Date.

Amendment Provisions

The Delaware General Corporation Law provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws,

Table of Contents

unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our bylaws may be amended or repealed by a majority vote of our board of directors or the affirmative vote of the holders of a majority of the total voting power of all outstanding securities of the Company entitled to vote in an annual election of directors. In addition, the affirmative vote of the holders of a majority of the total voting power of all outstanding securities of the Company entitled to vote in an annual election of directors is required to amend certain provisions of our certificate of incorporation prior to the Trigger Date. From and after the Trigger Date, the affirmative vote of the holders of at least 66 2/3% of the total voting power of all outstanding securities of the Company entitled to vote in annual election of directors will be required to amend certain provisions of our certificate of incorporation.

Authorized but Unissued Shares

The authorized but unissued shares of common stock and preferred stock are available for future issuance without stockholder approval, subject to any limitations imposed by the New York Stock Exchange. These additional shares may be used for a variety of corporate finance transactions, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved shares of common stock and preferred stock could make more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise, and thereby protect the continuity of our management and possibly deprive the stockholders of opportunities to sell their shares at prices higher than prevailing market prices.

Section 203 of Delaware General Corporation Law

In our certificate of incorporation, we have elected not to be governed by Section 203 of Delaware General Corporation Law. However, our certificate of incorporation contains provisions that are similar to Section 203. Specifically, our certificate of incorporation provides that we may not engage in certain business combinations with any interested stockholder for a three-year period following the time that the person became an interested stockholder, unless:

prior to the time the person became an interested stockholder, our board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;

upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the Company outstanding at the time the transaction commenced, excluding certain shares; or

at or subsequent to the time the person became an interested stockholder, the business combination is approved by our board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. Subject to certain exceptions, an interested stockholder is a person who, together with affiliates and associates, owns or, within the previous three years owned, 15% or more of our voting stock. In our case, however, the principal investors (meaning WCAS X and WCAS Capital IV, and their respective affiliates, employees and representatives, and Chad Richison and his affiliates) and any of their direct or indirect transferees

receiving 15% or more of our voting stock will not be deemed to be interested stockholders regardless of the percentage of our voting stock owned by them, and accordingly will not be subject to such restrictions, subject to certain exceptions for the acquisition of additional shares of common stock. This provision could delay mergers or other takeover or change in control attempts with respect to us and, accordingly, may discourage attempts to acquire us.

Choice of Forum

Our certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or if no Court of Chancery located within the State of

Table of Contents

Delaware has jurisdiction, the Federal District Court for the District of Delaware) will be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by our directors, officers, or other employees to us or to our stockholders, (iii) any action asserting a claim against us or any director, officer or other employee arising pursuant to any provision of the Delaware General Corporation Law, our certificate of incorporation or bylaws or (iv) any action asserting a claim against us or any director, officer or other employee that is governed by the internal affairs doctrine. It is possible that a court could rule that this provision is not applicable or is unenforceable. Any person or entity purchasing or otherwise acquiring shares of capital stock of the Company will be deemed to have notice of and consented to this provision of our certificate of incorporation.

Limitations of Liability and Indemnification

Our certificate of incorporation provides for indemnification of our directors, officers, employees and other agents to the fullest extent permitted by the Delaware General Corporation Law, and our bylaws provide for indemnification of our directors, officers, employees, fiduciaries and other agents to the fullest extent permitted by the Delaware General Corporation Law.

In addition, our certificate of incorporation provides that no director will be liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director. The effect of this provision is to restrict our rights and the rights of our stockholders in derivative suits to recover monetary damages against a director for breach of fiduciary duty as a director, except that a director will be personally liable for:

any breach of his or her duty of loyalty to us or our stockholders;

acts or omissions not in good faith which involve intentional misconduct or a knowing violation of law;

the payment of dividends or the redemption or purchase of stock in violation of Delaware law; or

any transaction from which the director derived an improper personal benefit.

To the extent our directors, officers and controlling persons are indemnified under the provisions contained in our certificate of incorporation, our bylaws, Delaware law or contractual arrangements against liabilities arising under the Securities Act, we have been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

We have entered and intend to continue to enter into indemnification agreements with our directors which, subject to certain exceptions, require us to indemnify such persons to the fullest extent permitted by applicable law, including indemnification against certain expenses, including attorneys' fees, judgments, fines or penalties or other amounts paid in settlement in connection with any legal proceedings to which the director was, or is threatened to be made, a party by reason of the fact that such director is or was a director, officer, employee, fiduciary or agent of the Company or was serving as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise at the express written request of the Company, provided that such director or officer acted in good faith and in a manner that the director or officer reasonably believed to be in, or not opposed to, the best interest of the Company and, with respect to any criminal proceeding, in a manner in which such person would have had no

reasonable cause to believe his conduct was unlawful. Subject to certain limitations, these indemnification agreements also require us to advance expenses to our directors in advance of the final disposition of any action or proceeding for which indemnification is required or permitted.

Listing

Our common stock is listed on the New York Stock Exchange under the symbol PAYC.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC.

Table of Contents

PLAN OF DISTRIBUTION

The selling stockholders may sell the securities offered by this prospectus from time to time in one or more transactions, including without limitation:

directly to one or more purchasers;

through agents;

to or through underwriters, brokers or dealers (acting as agent or principal); or

through a combination of any of these methods.

In addition, the manner in which the selling stockholders may sell some or all of the securities covered by this prospectus includes any method permitted by law, including, without limitation, through:

a block trade in which a broker-dealer will attempt to sell as agent, but may position or resell a portion of the block, as principal, in order to facilitate the transaction;

purchases by a broker-dealer, as principal, and resale by the broker-dealer for its account;

ordinary brokerage transactions and transactions in which a broker solicits purchasers; or

privately negotiated transactions.

The selling stockholders may also enter into hedging transactions. For example, the selling stockholders may:

enter into transactions with a broker-dealer or affiliate thereof in connection with which such broker-dealer or affiliate will engage in short sales of the common stock pursuant to this prospectus, in which case such broker-dealer or affiliate may use shares of common stock received from the selling stockholders to close out its short positions;

sell securities short and redeliver such shares to close out the short positions;

enter into option or other types of transactions that require the selling stockholders to deliver common stock to a broker-dealer or an affiliate thereof, who will then resell or transfer the common stock under this

prospectus; or

loan or pledge the common stock to a broker-dealer or an affiliate thereof, who may sell the loaned shares or, in an event of default in the case of a pledge, sell the pledged shares pursuant to this prospectus.

The securities covered by this prospectus may be sold:

on a national securities exchange;

in the over-the-counter market; or

in transactions otherwise than on an exchange or in the over-the-counter market, or in combination.

In addition, the selling stockholders may enter into derivative or hedging transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. In connection with such a transaction, the third parties may sell securities covered by and pursuant to this prospectus and an applicable prospectus supplement or free writing prospectus, as the case may be. If so, the third party may use securities borrowed from the selling stockholders or others to settle such sales and may use securities received from the selling stockholders to close out any related short positions. The selling stockholders may also loan or pledge securities covered by this prospectus and an applicable prospectus supplement to third parties, who may sell the loaned securities or, in an event of default in the case of a pledge, sell the pledged securities pursuant to this prospectus and the applicable prospectus supplement or free writing prospectus, as the case may be.

Table of Contents

A prospectus supplement with respect to each offering of securities will state the terms of the offering of the securities, including:

the name or names of any underwriters or agents and the amounts of securities underwritten or purchased by each of them, if any;

the public offering price or purchase price of the securities and the net proceeds to be received by the selling stockholders from the sale;

any options under which underwriters or agents may purchase additional securities from us;

any delayed delivery arrangements;

any underwriting discounts or agency fees and other items constituting underwriters' or agents' compensation;

any discounts or concessions allowed or reallocated or paid to dealers;

any securities exchange or markets on which the securities may be listed; and

other material items of the offering.

The offer and sale of the securities described in this prospectus by the selling stockholders, the underwriters or the third parties described above may be effected from time to time in one or more transactions, including privately negotiated transactions, either:

at a fixed price or prices, which may be changed;

at market prices prevailing at the time of sale;

at prices related to the prevailing market prices; or

at negotiated prices.

General

Any public offering price and any discounts, commissions, concessions or other items constituting compensation allowed or reallocated or paid to underwriters, dealers, agents or remarketing firms may be changed from time to time. Any selling stockholders, underwriters, dealers, agents and remarketing firms that participate in the distribution of the offered securities may be underwriters as defined in the Securities Act. Any discounts or commissions they receive from the selling stockholders and any profits they receive on the resale of the offered securities may be treated as underwriting discounts and commissions under the Securities Act. The selling stockholders will identify any underwriters, agents or dealers and describe their commissions, fees or discounts in the applicable prospectus supplement or free writing prospectus, as the case may be.

The selling stockholders and other persons participating in the sale or distribution of the securities will be subject to the Securities Act, and the rules and regulations thereunder, including Regulation M. This regulation may limit the timing of purchases and sales of any of the securities by the selling stockholders or any other person. The anti-manipulation rules under the Securities Act may apply to sales of securities in the market and to the activities of the selling stockholders and any affiliates of the selling stockholders. Furthermore, Regulation M may restrict the ability of any person engaged in the distribution for a period of up to five business days before the distribution. These restrictions may affect the marketability of the securities and the ability of any person or entity to engage in market-making activities with respect to the securities.

The selling stockholders are not restricted as to the price or prices at which they may sell the securities. Sales of such securities may have an adverse effect on the market price of the securities.

Moreover, it is possible that a significant number of shares of common stock could be sold at the same time, which may have an adverse effect on the market price of the securities.

Table of Contents

We cannot assure you that the selling stockholders will sell all or any portion of the securities offered hereby.

The specific terms of the lock-up provisions, if any, in respect of any given offering will be described in the applicable prospectus supplement.

Underwriters and Agents

If underwriters are used in a sale, they will acquire the offered securities for their own account. The underwriters may resell the offered securities in one or more transactions, including negotiated transactions. These sales may be made at a fixed public offering price or prices, which may be changed, at market prices prevailing at the time of the sale, at prices related to such prevailing market price or at negotiated prices. The selling stockholders may offer the securities to the public through an underwriting syndicate or through a single underwriter. The underwriters in any particular offering will be mentioned in the applicable prospectus supplement or free writing prospectus, as the case may be.

Unless otherwise specified in connection with any particular offering of securities, the obligations of the underwriters to purchase the offered securities will be subject to certain conditions contained in an underwriting agreement that we and the applicable selling stockholders will enter into with the underwriters at the time of the sale to them. The underwriters will be obligated to purchase all of the securities of the series offered if any of the securities are purchased, unless otherwise specified in an applicable prospectus supplement in connection with any particular offering of securities. Any initial offering price and any discounts or concessions allowed, reallocated or paid to dealers may be changed from time to time.

The selling stockholders may designate agents to sell the offered securities. Unless otherwise specified in connection with any particular offering of securities, the agents will agree to use their best efforts to solicit purchases for the period of their appointment. The selling stockholders may also sell the offered securities to one or more remarketing firms, acting as principals for their own accounts or as agents for us or any selling stockholders. These firms will remarket the offered securities upon purchasing them in accordance with a redemption or repayment pursuant to the terms of the offered securities. A prospectus supplement or free writing prospectus, as the case may be will identify any remarketing firm and will describe the terms of its agreement, if any, with the selling stockholders and its compensation.

In connection with offerings made through underwriters or agents, the selling stockholders may enter into agreements with such underwriters or agents pursuant to which the selling stockholders receive outstanding securities in consideration for the securities being offered to the public for cash. In connection with these arrangements, the underwriters or agents may also sell securities covered by this prospectus to hedge their positions in these outstanding securities, including in short sale transactions. If so, the underwriters or agents may use the securities received from the selling stockholders under these arrangements to close out any related open borrowings of securities.

Dealers

The selling stockholders may sell the offered securities to dealers as principals. The selling stockholders may negotiate and pay dealers' commissions, discounts or concessions for their services. The dealer may then resell such securities to the public either at varying prices to be determined by the dealer or at a fixed offering price agreed to with the selling stockholders at the time of resale. Dealers engaged by the selling stockholders may allow other dealers to participate in resales.

Direct Sales

The selling stockholders may choose to sell the offered securities directly. In this case, no underwriters or agents would be involved.

Table of Contents

Institutional Purchasers

The selling stockholders may authorize agents, dealers or underwriters to solicit certain institutional investors to purchase offered securities on a delayed delivery basis pursuant to delayed delivery contracts providing for payment and delivery on a specified future date. The applicable prospectus supplement or free writing prospectus, as the case may be will provide the details of any such arrangement, including the offering price and commissions payable on the solicitations.

The selling stockholders will enter into such delayed contracts only with institutional purchasers that the selling stockholders approve. These institutions may include commercial and savings banks, insurance companies, pension funds, investment companies and educational and charitable institutions.

Indemnification; Other Relationships

We and the selling stockholders may have or enter into agreements with agents, underwriters, dealers and remarketing firms to indemnify them against certain civil liabilities, including liabilities under the Securities Act. Agents, underwriters, dealers and remarketing firms, and their affiliates, may engage in transactions with, or perform services for, the selling stockholders in the ordinary course of business. This includes commercial banking and investment banking transactions.

We may agree to indemnify in certain circumstances the selling stockholders against certain liabilities, including liabilities under the Securities Act. The selling stockholders may agree to indemnify us in certain circumstances against certain liabilities, including liabilities under the Securities Act.

Market-Making, Stabilization and Other Transactions

In connection with any offering of common stock, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, syndicate covering transactions and stabilizing transactions. Short sales involve syndicate sales of common stock in excess of the number of shares to be purchased by the underwriters in the offering, which creates a syndicate short position. Covered short sales are sales of shares made in an amount up to the number of shares represented by the underwriters over-allotment option. In determining the source of shares to close out the covered syndicate short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option. Transactions to close out the covered syndicate short involve either purchases of the common stock in the open market after the distribution has been completed or the exercise of the over-allotment option. The underwriters may also make naked short sales of shares in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing shares of common stock in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of bids for or purchases of shares in the open market while the offering is in progress for the purpose of pegging, fixing or maintaining the price of the securities.

In connection with any offering, the underwriters may also engage in penalty bids. Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a syndicate covering transaction to cover syndicate short positions. Stabilizing transactions, syndicate covering transactions and penalty bids may cause the price of the securities to be higher than it would be in the absence of the transactions. The underwriters may, if they commence these transactions, discontinue them at any time.

Fees and Commissions

In compliance with the guidelines of the Financial Industry Regulatory Authority, Inc., or FINRA, the aggregate maximum discount, commission or agency fees or other items constituting underwriting compensation

Table of Contents

to be received by any FINRA member or independent broker-dealer will not exceed such amount as is determined to be unfair or unreasonable under applicable FINRA rules. If more than 5% of the net proceeds of any offering of common stock made under this prospectus will be received by a FINRA member participating in the offering or affiliates or associated persons of such FINRA member or any other facts and circumstances relating to the participation of a FINRA member in the offering would give rise to a conflict of interest under FINRA rules, the offering will be conducted in accordance with FINRA Rule 5121.

Table of Contents

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read, without charge, and copy, at prescribed rates, all or any portion of the registration statement or any reports, statements or other information that we file with the SEC at the public reference room at the SEC's principal office at 100 F Street N.E., Washington, DC, 20549. You may request copies of these documents, for a copying fee, by writing to the SEC. You may call the SEC at 1-800-SEC-0330 for further information on the operation of its public reference room. The SEC also maintains a web site that contains reports, proxy and information statements and other information about issuers, such as us, who file electronically with the SEC. The address of that website is <http://www.sec.gov>.

These periodic and current reports and all amendments to those reports are available free of charge on our website at investors.paycom.com. The information on, or that may be accessed through, our website is not incorporated into this prospectus and should not be considered a part of this prospectus. Purchasers of our common stock should rely only on the information contained or incorporated by reference in this prospectus, any applicable prospectus supplement and in any free writing prospectus filed with the SEC.

This prospectus and any prospectus supplement are part of a registration statement that we have filed with the SEC under the Securities Act and does not contain all of the information in the registration statement. The full registration statement may be obtained from the SEC or us, as provided below. Forms of the documents establishing the terms of the offered securities are or may be filed as exhibits to the registration statement. Statements in this prospectus or any prospectus supplement about these documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should refer to the actual documents for a more complete description of the relevant matters. You may inspect a copy of the registration statement at the SEC's Public Reference Room in Washington, D.C. or through the SEC's website, as provided above.

Table of Contents

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference certain information we have filed with the SEC into this prospectus, which means we are disclosing important information to you by referring you to other information we have filed with the SEC. The information we incorporate by reference is considered part of this prospectus. We specifically are incorporating by reference the following documents filed with the SEC (excluding any disclosures that are furnished and not filed with the SEC):

our Annual Report on Form 10-K for the year ended December 31, 2014, filed with the SEC on February 26, 2015;

our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2015, filed with the SEC on May 13, 2015;

our Current Report on Form 8-K dated March 6, 2015, filed with the SEC on March 12, 2015;

our Current Report on Form 8-K dated March 10, 2015, filed with the SEC on March 17, 2015;

our Current Report on Form 8-K dated March 25, 2015, filed with the SEC on March 30, 2015;

our Current Report on Form 8-K dated May 5, 2015, filed with the SEC on May 8, 2015; and

the description of our common stock, which is contained in our Registration Statement on Form 8-A (File No. 001-36393), filed with the SEC on April 3, 2014, including any subsequent amendment or any report filed for the purpose of updating such description.

All reports and definitive proxy or information statements subsequently filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of this prospectus and prior to the sale of all securities registered hereunder or termination of the registration statement of which this prospectus forms a part (excluding any disclosures that are furnished and not filed with the SEC) shall be deemed to be incorporated by reference into this prospectus and to be part hereof from the date of filing of such reports and other documents.

Notwithstanding the foregoing, we are not incorporating by reference any documents, portions of documents, exhibits or other information that is deemed to have been furnished to, rather than filed with, the SEC.

Any statement contained in a document incorporated by reference into this prospectus shall be deemed to be modified or superseded for the purposes of this prospectus or any prospectus supplement to the extent that a statement contained herein or any prospectus supplement or in any subsequently filed document that is also incorporated by reference in this prospectus or any prospectus supplement modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus or any prospectus supplement.

Edgar Filing: Paycom Software, Inc. - Form 424B5

You may request a copy of the filings incorporated herein by reference, including exhibits to such documents that are specifically incorporated by reference, at no cost, by writing or calling us at the following address or telephone number:

Paycom Software, Inc.

7501 W. Memorial Road

Oklahoma City, Oklahoma 73142

(405) 722-6900

Statements contained in this prospectus as to the contents of any contract or other documents are not necessarily complete, and in each instance investors are referred to the copy of the contract or other document filed as an exhibit to the registration statement, each such statement being qualified in all respects by such reference and the exhibits and schedules thereto.

Table of Contents

EXPERTS

The audited financial statements incorporated by reference in this prospectus and elsewhere in the registration statement have been so incorporated by reference in reliance upon the report of Grant Thornton LLP, independent registered public accountants, and upon the authority of said firm as experts in accounting and auditing.

LEGAL MATTERS

Unless otherwise specified in a prospectus supplement accompanying this prospectus, Haynes and Boone, LLP will pass upon the validity of the securities offered hereby. If any legal matters relating to offerings made in connection with this prospectus are passed upon by other counsel for underwriters, dealers or agents, such counsel will be named in the prospectus supplement relating to any such offering.

Table of Contents