Online Program Management Request for Proposal

Presented to: University of Montana

illustration by Lucy Vigrass

Joseph Morgan
Vice President, University Partnership Development
(786) 449-0284
joseph.morgan1@pearson.com

February 4, 2019

Bob Hlynosky
Procurement Officer
University of Montana
Emma B. Lommasson Center 236
Missoula, MT 59812-2304

Re: RFP # UM-RFP2019-3108

Dear Mr. Hlynosky and the Selection Committee:

The University of Montana (UM) stands at a unique moment in its remarkable history with an opportunity to reimagine global engagement, diversity, and inclusion through the development and expansion of online education. It seeks a strategic partner who shares its optimism, has the breadth of expertise to support rich learning experiences across the entire university, and stands prepared to help redefine what is possible in education.

Pearson invented the Online Program Management (OPM) business model nearly 25 years ago; defined at that time by a singular programmatic approach. We were first to reinvent the model by building suites of programs across specific disciplines (e.g., BBA-MBA, BS-MS Accounting, BS-MS Finance, BS-MS Business Analytics) allowing our clients to match program offerings with student interests and market opportunity. As the market evolved and our Academic Partners searched for ways to increase diversity, inclusion, and global engagement, Pearson was at the forefront of that transformation as well.

Today, we are the only OPM provider that works across the entirety of the academic continuum, from programmatic engagements to full enterprise-level OPM solutions. For example, on the programmatic end of the spectrum, Pearson currently supports two highly ranked graduate degree programs at the University of Maryland, Smith School of Business, 12 graduate programs across five schools at Ohio University, and we serve at the enterprise-level supporting more than 170 certificate, bachelors, masters, and doctoral degree programs at Arizona State University

Pearson currently partners with more than 40 institutions and supports more than 62,000 active students across 300 online degrees programs. Our partners include 10 of the 62 leading research institutions that are a part of the prestigious Association of American Universities (AAU) and 26 of the top 200 ranked universities in the country, according to the 2018 *U.S. News and World Report* Best Colleges Rankings. Pearson enables our academic partners to expand beyond preconceived notions of

geographic boundaries, technical capabilities, and infrastructure constraints to deliver a clear and indisputable return on investment for students and expand global reach for the university.

Sample of Pearson Academic Partners

Additionally, our 25-year track record has taught us the importance of exceptional institutional stewardship and the recognition of that which is the sole purview of the university. It is why the institution retains control of the pedagogical vision, instruction and content, faculty hiring, admission standards, brand, accreditation, and central administration. Pearson considers its methodologies to be fundamental tenets of any enduring OPM partnership and appreciated by our clients who seek the flexibility to expand their global reach while retaining control of what is unique to their institution.

At the time of this submission, Pearson's market cap was valued in excess of $9 billion. It is a global organization with 30,000 employees operating in 70 countries exclusively focused on education and prepared to, once again, redefine the future of online education in partnership with the University of Montana. There is no other provider with the experience, flexibility, breadth of skills, and financial wherewithal to support the University of Montana's near and long-term strategies.

Thank you for considering our response to the University of Montana's Online Program Management Request for Proposal. We look forward to the privilege of earning your business helping your learners achieve their educational goals, while ensuring the quality and reputation of the University of Montana is protected and enhanced.

Sincerely,

Joseph Morgan
Vice President, University Partnership Development

All correspondence regarding this proposal should be directed to:

Joseph Morgan
Vice President, University Partnership Development
Pearson Online Learning Services
2145 MetroCenter Blvd., Suite 400
Orlando, FL 32835-7632
Primary phone #: 786.449.0284
Secondary phone #: 800.511.5636

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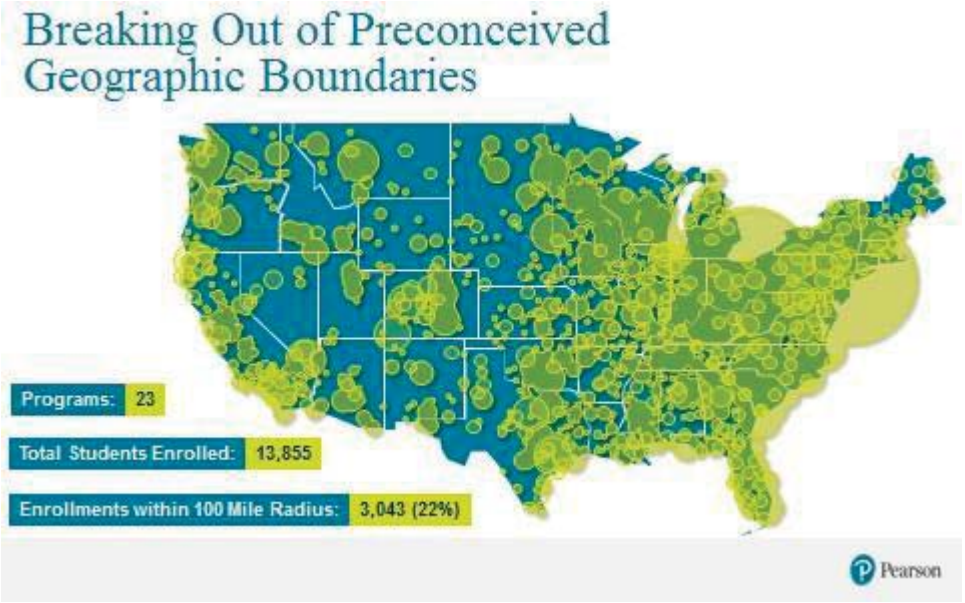
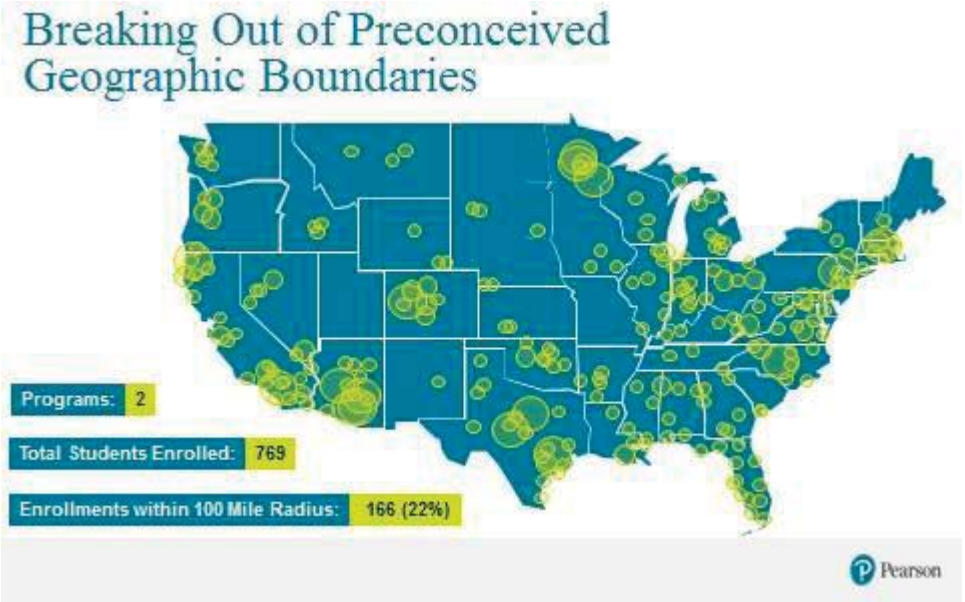

Breaking Out of Preconceived Geographic Boundaries
Programs: 23
Total Students Enrolled: 13,855
Enrollments within 100 Mile Radius: 3,043 (22%)
Pearson


Breaking Out of Preconceived Geographic Boundaries
Programs: 2
Total Students Enrolled: 769
Enrollments within 100 Mile Radius: 166 (22%)
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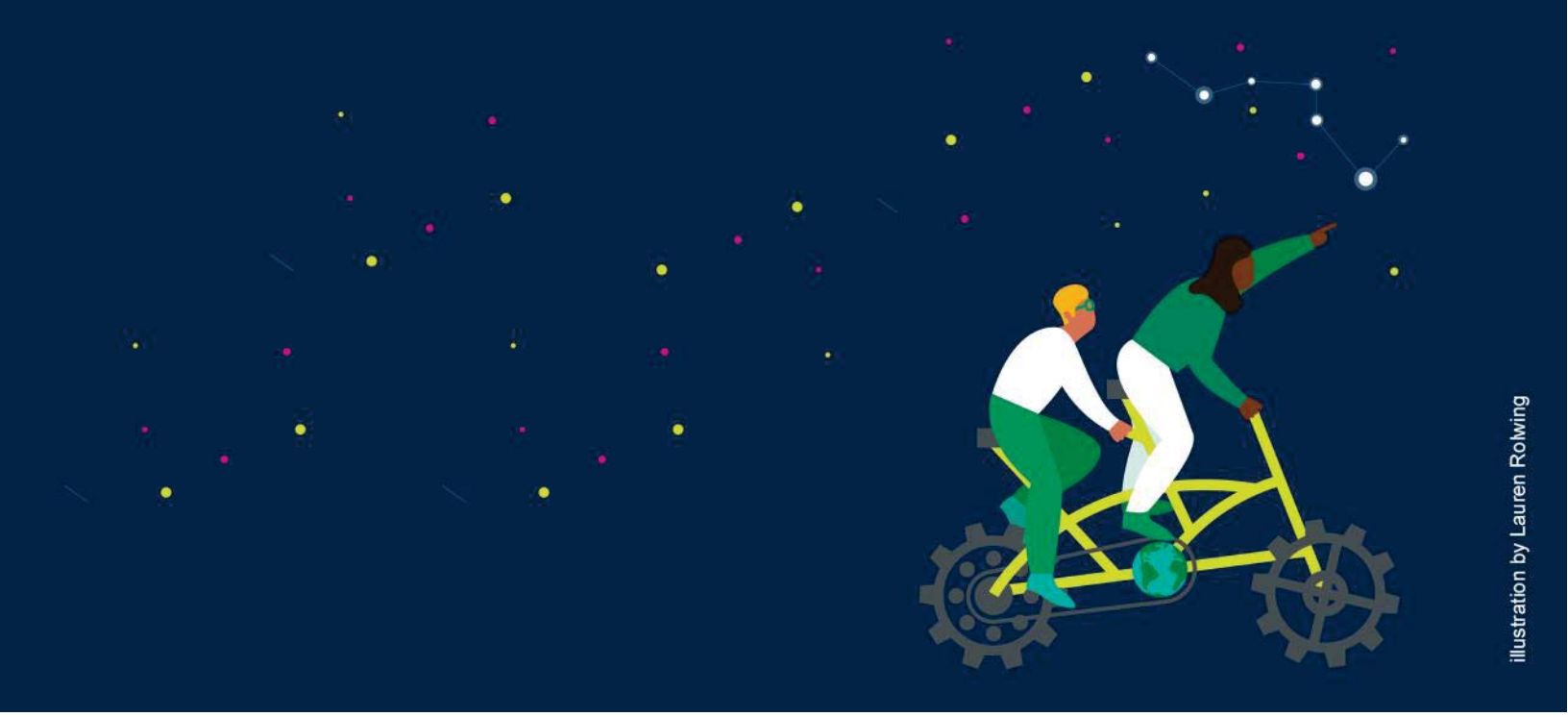


Scope of Work

3.0 Requirements

A. General

1. Provide information about your company to include:
   a. A brief description of your company, including history, organizational structure, names of principles, location of headquarters and other offices, number and location of employees, and types of services offered.

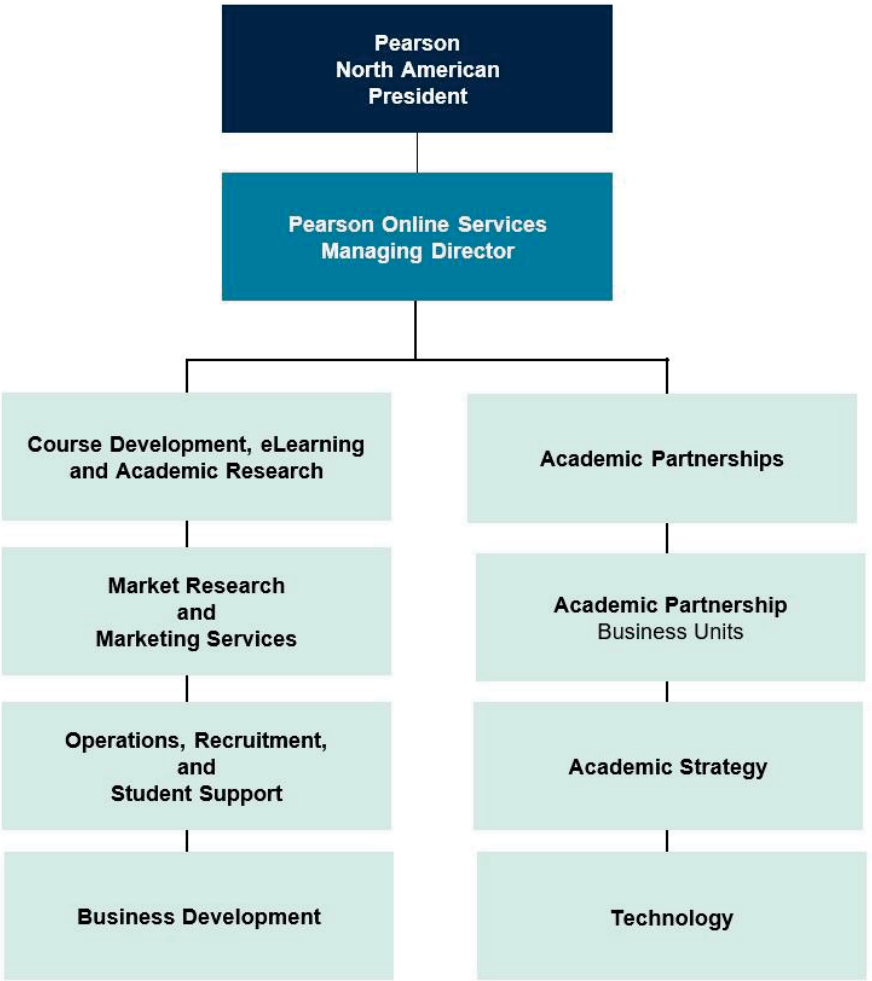
Pearson Education, the global leader in education services, technology, and content, reaches more than 130 million learners worldwide. We trace our beginnings to 1724, and leverage more than a century of proven content, technologies, and services to create award-winning, full-service learning solutions that are specifically aligned to the learning objectives of your institution and specifically designed to create measurable results. Our clients represent every segment of education—public and private colleges and universities, education associations and organizations, corporations, community colleges, and both public and private K–12 schools.

As the leading partner to educational institutions and organizations, we have a mission of changing lives through learning using pedagogically proven learning tools. Built upon deep educational experience and innovative technologies, Pearson's education solutions enable truly personalized learning experiences that empower students to learn the way they learn best—when, where, and how they want.

Our North American business includes more than 16,800 employees with representation covering all 50 states, and physical offices across 16 states supporting operations, technology, and assessment services. We have multiple North America locations, the largest include: Chicago, IL; Indianapolis, IN; Hoboken, NJ; Boston, MA; New York, NY; San Francisco, CA; and Dallas, TX. Anticipated locations for this contract would include: Orlando, FL; San Diego, CA; Denver, CO; Toronto, Canada; Dallas, TX; and Chicago, IL.

At the time of this submission, Pearson's market cap was valued in excess of $9 billion. It is a global organization with 30,000 employees operating in 70 countries exclusively focused on education and prepared to, once again, redefine the future of online education in partnership with the University of Montana.

Pearson's OPM office is primarily located in Orlando, FL.



b. If subcontractors are proposed, provide similar information for each proposed subcontractor.

We do not use subcontractors.

c. Include any information that may be of value to the University of Montana in evaluating your company's qualifications, including what differentiates you from other companies in this sector.

As you review Pearson's response, we believe it is important to draw distinctions between our partnership model and others in the OPM industry. Pearson's partnership model is differentiated in the following ways:

1. The Learner—Pearson's North Star

Pearson believes fundamentally that education is the key to success. For many people, learning is the route to a job to support their family or the skills to help them make progress in their careers. For others, it is simply a lifelong passion for discovery. For every learner, at every stage of their life, education is the path to opportunity and fulfillment.

As a trusted partner to many of the leading global universities, we apply outcomes-focused, evidenced-based design to our products and services, that are used to help more learners learn more. It is at the heart of who we are and our vision for the future of learning. This preoccupation and commitment to learner outcomes that matter, provides benefits to our university partners and Pearson. Our unique approach leads to better business outcomes, stronger financial returns for both parties. It also affords Pearson greater opportunities to continually invest and reinvent the OPM industry. Several proprietary product examples include:

- **Pearson's Career Success**—Provides a suite of assessments, instructional modules, and tools to support students' career development and successful job search. This product was informed by extensive research with employers, higher education institutions and organizations, and instructors.
- **Pearson Writer**—Is a revolutionary digital tool for writers at all levels. Available online and via a mobile app. it provides instant feedback on student writing to help them revise, edit, and improve their writing.
- **Smarthinking**—A proprietary service providing institutions and students with on-demand individual instruction and support from expert tutors across a wide

variety of subjects—from beginner to advance, 24 hours per day. 90% of Smarthinking tutors have a PhD or Master's degree.

- **Data Analytics**—Pearson puts data at the center of our partnerships, both in how we use machine learning and other analytical techniques to optimize operations across the student lifecycle, as well as in how we use data-driven insight to help institutions better understand their current and potential learners.

  Pearson has more data on students—spanning the entire student lifecycle—than any other OPM provider given the breadth of our institutional relationships and time in the market. We believe this offers transformational possibilities to understand learner interests across disciplines, consumer segments, types of programs, among other "lenses" to understand the market.

2. Differentiated Processes

Pearson is unique among providers in many ways. Competing providers are numerous and growing, as many try to catch up. But the origins of operational and cultural approaches we've developed over past 25 years and hundreds of partnerships make a difference, and they are difficult to understand from a vantage point that only affords a view of the surface. Details are important. Nuance matters. There is considerable distance between us and our competitors.

1. **Research and Assessment Foundation**—Pearson's approach to inform program selection is unique and industry leading. It suggests groups of related programs across degree levels, as well as emerging fields, and enables niche programs to be supported among a portfolio of larger ones.
2. **Enterprise Level Expertise**—Pearson is the only company that supports enterprise-wide online initiatives with top-tier universities, including our partnerships with ASU Online, Maryville University, and Rutgers Online.
3. **Services Delivered by Pearson Staff**—There is no outsourcing of core services anywhere in the value chain. This strength ensures complete coordination of services optimizing the partnership experience for UM and the learning experience for students and faculty.
4. **Cross-Functional Teams**—The cross-functional team structure ensures personalized attention and deep knowledge of your online programs that is aligned with the university's culture and processes. Our staff operates authentically as an extension of yours.

5. **Course Development**—Hallmarks include relieving faculty of the need to become experts at instructional design, course construction, the LMS, or other associated technologies. We replace that with a personal one-to-one relationship with one of our Instructional Designers who manages the course development process, backed by our custom media development, quality assurance, and project management teams. The result are courses that are instructionally sound, media rich, inspire community development, and innovative in their approach.
6. **Program Planning**—Developed over 25 years and hundreds of program partnerships, our process for program planning (Program and Institutional Readiness Assessments) is tried and true. The planning process results in a financial pro forma that is detailed, informed by the richest data set, and carefully considers resource needs and expenses incurred by both parties.
7. **Academic Strategy**—Our Academic Strategy team works closely with our Academic Partners and our Market Research team to make data-informed decisions in program development, while also identifying trends in student needs, labor analytics, discipline-specific innovations, and university and career pathways that lead to employability and lifelong learning.
8. **Program Funding**—Pearson offers options to finance the development, launch, and operation of online programs at UM. Our proposal allows UM to consider fee for service, cost plus, or revenue sharing as options to expand quickly into online education beyond your current footprint.
9. **Marketing**—We are the largest Higher Education marketer in the world (spending more than $150 million annually) and use heuristic formulas derived through extensive research to drive testing and optimization of marketing assets. Our Brand DNA process for extracting and articulating a brand strategy for your online programs is unrivaled.
10. **Corporate and Organizational Partnerships**—Pearson has established relationships with more than 500 corporate and organization partners and leverages these relationships to create a high-converting lead channel for our university partners.
11. **University Retains Control**—Pearson provides expertise, enabling services and resources, and UM retains control over your academics and reputation. UM's administrators and faculty make all academic and course-related decisions, establish all admissions criteria, make all admissions decisions, and approves all marketing materials. We respect the values of higher education.

12. **Corporate Strength of Pearson**—The depth and strength of Pearson means unrivaled access to resources from content, products, services, and solutions to investment capital.
13. **Financial Strength and Stability**—Financial viability is an important consideration when selecting an OPM partner. At the time of this submission, Pearson's market cap was valued in excess of $9 billion. We are global organization and the world's largest education company, with more than 30,000 employees in more than 70 countries providing a range of educational products and services to institutions, governments, and direct-to-individual learners that help people everywhere aim higher and fulfill their true potential. Based upon Pearson's financial strength and stability, the company can identify and invest in academic institutions for the long-term. As a publicly traded company (NYSE symbol: PSO), all Pearson financial reports are available at: https://www.pearson.com/corporate/investors/investor-information.html
14. **Technology Agnostic**—We prefer to use your existing application, student information management, and learning management systems and we have the expertise to integrate and support each. This has the added benefit of not obligating UM's organization to learn new systems.
15. **Information Systems Integration is Not Required**—We prefer to use your existing application, student information management, and learning management systems for several reasons:
    - University systems are already connected and provide valuable decision support through the data collection and reporting they provide to the university
    - University staff are familiar with these systems and processes
    - Eliminates the risks inherent in a third-party collecting and managing student and university data
    - Prevents the need for costly and troublesome integration with third-party systems
    - Authentication and other information security practices would match those that exist for every other student at UM
    - Provides a seamless brand experience for students

2. Provide an overview of your leadership team, including length of experience working with online academic programs for higher education.

The following table details the roles of the leadership team supporting and leading the partnership with UM.

Area of Responsibility	Name	Department
Overall Project Management (Pre-Contract)	Joseph Morgan	Vice President, University Partnerships
	Stephen Dalla Betta	Sr. Vice President, Business Development
Overall Project Management (Post-Contract)	Iwan Streichenberger	Managing Director, North America Services
	Matt Evans	Sr. Vice President, Academic Partnerships
Market Research & Marketing Operations	Matt Celano	Sr. Vice President, Marketing and Recruiting
Program Development	Matt Evans	Sr. Vice President, Academic Partnerships
Ongoing Customer Service	Caitie Georgeoff	Student Support Services, Academic Strategy and Research

Senior Leadership, Pearson Online Learning Services

Iwan Streichenberger, Managing Director

Iwan joined Pearson Online Learning Services in 2018 as a senior leader, responsible for the overall performance of the Pearson Online Learning Services organization. Iwan has extensive global experience; and is a digital transformation leader with broad and deep general management experience, operational knowledge, and leadership skills within complex industries undergoing massive changes. He has more than 20 years of experience in technology, media and entertainment, consumer goods, and education technology. He has worked with top tier consulting firms, large multinationals, and innovative start-ups, such as: inBloom, Promethean, Houghton Mifflin, The Boston Consulting Group, and more

Iwan has worked and lived throughout the world, including France, South Africa, Massachusetts, California, and Georgia. Iwan speaks French and English fluently, and is intermediate in German. He earned his Master in Management from ESCP Europe and completed the Advanced Management Program at Harvard Business School in 2014. Iwan enjoys

spending time with his wife and two children as well mountain biking, skiing, sailing, and golf.

Caitie Georgeoff, M.B.A, Student Support Services, Academic Strategy and Research

Caitie is responsible for the strategic design and implementation of operational practices and technology that encompass student advising, student success, student experience, instructor recruitment, academic strategy, and research. She leads our Student Support Services and Academic Strategy and Research teams for all our university partners.

Caitie has spent the last 17 years holding various roles within academic and student affairs and joined Pearson in 2009. Her professional passions focus on the student experience and outcomes, operational design, technology enabled solutions, and developing high-performing teams. Caitie has an MBA in Operations Management, and a B.A. from Iowa State University.

Caitie enjoys spending time with her two daughters, gardening, and enjoying nature. She volunteers her time participating in her local K–12 school district's leadership committee.

Matt Celano, Senior Vice President, Marketing and Recruitment

Matt Celano has more than 20 years of experience helping companies transform their customer acquisition models through digital innovation of complex web products, and interactive marketing. As Senior Vice President of Marketing and Recruitment, Matt spearheads a full-service, performance-based student acquisition agency of 800+ subject matter experts across Account Services, New Program Development & Launch, Media & Analytics, Brand Strategy, Creative & Web Development, and Recruitment Operations teams.

Matt received a B.S. in Business Administration from the University of Central Florida and progressive leadership training through the Dow Center's Advanced Leadership Training Program. He holds five business patents and numerous certifications in areas such as Optimization, Web Analytics, and Online Testing. Matt has three kids and is an avid fisherman.

Matt Evans, Senior Vice President, Academic Partnerships

Matt is Sr. Vice President, Academic Partnerships where he leads the team responsible for delivering on the goals of our university partners nationally. Previously, he was Vice President in Pearson's Corporate Finance & Strategy team that was responsible for all acquisition, disposal, and strategic planning activities for North America.

Prior to joining Pearson, Matt was a Venture Partner at Salmon River Capital, investing in growth companies in the education and e-commerce sectors. Earlier, Matt served as head of national expansion at New Leaders for New Schools, a social enterprise that recruits and trains principals for

	public schools across the US and worked in Merrill Lynch's investment banking group. Past and current boards include: Big Fish Games, the leading casual gaming company (sold to Churchill Downs Inc. for $885 million) and Imagine H2O, the leading accelerator of water technology innovation whose participants represent 10% of VC investment in the sector. Matt holds a B.A. from Amherst College, magna cum laude, and an MBA from Harvard Business School.
Stephen Dalla Betta, Senior Vice President, Business Development	
	Stephen Dalla Betta is passionately dedicated to improving learner outcomes through the intersection of education, technology, and people. As the leader of Business Development for Pearson Online Services, he is responsible for creating and growing long-term investment partnerships with universities and colleges. Stephen's prior experience at Pearson includes leading teams focused on program management (PMO), strategic account management, software development, online tutoring, and help-desk services. Stephen previously held senior leadership roles in K–12 non-profit education as the co-founder and CEO of a college-prep charter school serving high-needs communities and as COO of a national non-profit teach and school leader professional-development services organization.
Joseph Morgan, Vice President, University Partnerships	
	Prior to joining Pearson in the summer of 2016, Joe Morgan was Founder/CEO of MaverixLab. MaverixLab works to develop the innovation ecosystem in Miami through business incubation and providing skills-based technical education. Before starting MaverixLab, Joe was the CEO of Noodle, a vertical search engine for both formal and informal education. Noodle was recognized by Forbes and by Mashable as 1 of 5 start-ups transforming education. Joe served as SVP of Strategy and Marketing for Kaplan and Founder/CEO of Colloquy (both were wholly owned by the Washington Post Company). Earlier in his career, Joe was President of one of the fastest growing companies in restaurant/retailing with more than 2,100 locations operating in 13 countries. Past and current board seats include: The Education Industry Association, Noodle Education and MaxerixLab. Joe Morgan graduated from the University of Miami School of Law with a Juris Doctorate degree.

3. Identify staff that will be assigned to the engagement and provide vitae (up to 2 pages per person) for nominated staff including description of their roles in similar engagements. Describe explicitly their location and the means by which they will communicate and work with UM. Identify the time period that the staff will be assigned to the engagement.

In addition to executive management, Pearson will build a dedicated cross-functional team to serve UM and is led by Afshin Mikaili as Partnership Director (see Afshin's résumé attached as ***Appendix A***).

Pearson uses a highly-scalable model whereby our key account managers are responsible for a limited number of institutions depending on the volume and growth rate of online programs within each institution. The Partnership Director's (PD) responsibilities include building the relationship and communication channels between Pearson and UM pertaining to the online programs. Additionally, the PD facilitates new forms of communication between campus entities that transform policies and procedures (be they common or custom), driving strong efficacy outcomes for students and for UM.

The PD is complemented by a team of managers, each with deep experience in a specific function, such as Marketing, Recruitment, and Student Support Services. Other subject matter experts may become an extension of this core team as warranted, (e.g., Course Development and Pearson products). Each function assigns staff to the cross-functional program team to form a group dedicated to UM and its programs. This team operates as a single Business Unit within Pearson and, under the leadership of the PD and Senior Vice President (SVP) of Academic Partnerships, represents the comprehensive set of skills necessary to service all scope obligations to UM.

1. Partnership Director; Location: Chicago, IL
2. Associate Directors of Marketing, Recruiting Services, Student Support Services, Retention Management; Location: Chicago, IL
3. Managers of Marketing, Retention; Location: Chicago, IL
4. Enrollment Advisors; Location: Chicago, IL
5. Student Success Coaches; Location: Chicago, IL
6. Lead Instructional Designer; Location: Chicago, IL or virtual
7. Instructional Designers: Chicago, IL, virtual, or other POLS locations

During any program launch Pearson is on campus to establish working relationships with the relevant UM staff, faculty, and administration and to develop communication protocol. Post launch, Pearson and the university establishes a mutually agreed upon, standing video/audio conference call, which takes place either weekly or bi-weekly but no less frequently than every 4 weeks. Every quarter, Pearson travels to campus for Cross Functional Steering Committee Meetings.

Please refer to ***Appendix B: Cross Functional Steering Committee Outline***.

Upon achieving predefined enrollment and/or program targets, often Pearson will have a Partnership Manager located on campus creating additional opportunities for efficient decision-making.

4. Describe your company's experience as an enabler of online academic programs for higher education, specifically:
   a. Number of years as the service provider in this sector.

      Pearson invented the OPM business model 25 years ago.

b. Number and names of current partner institutions.

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c. Breadth of programs supported.

Pearson currently partners with more than 40 institutions and supports more than 62,000 active students across 300 online undergraduate, graduate degrees, and certificate programs.

5. Describe your company's experience with online academic programs. In addition, discuss any successes and challenges your company has encountered with these programs.

Pearson invented the OPM model more than 25 years ago.

As mentioned above, Pearson currently partners with 40 institutions and supports more than 62,000 active students across 300 online degrees programs. Our partners include eight of the 62 leading research institutions that are a part of the prestigious Association of American Universities (AAU) and 26 of the top 200 ranked universities in the country, according to the 2018 *U.S. News and World Report* Best Colleges Rankings.

- **Program Selection**—Pearson's approach to program selection is unique and industry leading. It suggests groups of related programs across degree levels as well as emerging fields and enables niche programs to be supported among a portfolio of stronger ones.
- **Program Planning**—Developed over 25 years and hundreds of program partnerships, our process for program planning (Program and Institutional Readiness Assessments) is tried and true. We routinely hear compliments about the enormous difference in working with us as compared to other providers from schools that have experienced both. The planning process results in a pro forma that is detailed, informed by the richest data set, and carefully considers resource needs and expenses incurred by both parties. Until these steps are taken, neither party can feel confident that the revenue share agreement sets the partnership up for success. For this reason, it is unwise, and we are unwilling to commit to a revenue sharing proposal without following this process. For either of us to succeed, we both must succeed.
- **Services are delivered by Pearson Staff**—Pearson does not subcontract or outsource our services. These are core competencies to Pearson and we have more than 25 years partnering with colleges and universities in this way.

- **Cross-Functional Program Teams**—The cross-functional team structure ensures personalized attention and deep knowledge of your online programs that are aligned with UM's culture and internal processes.
- **True Partnership**—Pearson invests its capital and shares the financial risk with UM.
- **Launch**—An intentional by-product of our intense focus on planning is a smooth launch with no surprises, enabled by our experience and the extraordinarily thorough nature of our planning.
- **Committed to Your Success**—When Pearson invests in a partnership, we are committed to the individual success of UM. There is no cross-selling of leads. Prospective student leads that come in for UM programs are for the exclusive use of those programs. Additionally, our partner institutions benefit from customized marketing campaigns focused on their programs. Marketing assets developed for UM are used exclusively for that purpose. We do not group our partner institutions together into alliances or consortiums.
- **University Retains Control**—Pearson provides expertise, enabling services and resources, but you retain control over your academics and reputation. Your administrators and faculty make all academic and course related decisions; establishes all admissions criteria, makes all admit decisions, and approves all marketing materials.
- **Our People**—There are several online service providers in the market-place, and this process will showcase many of them for you. The people you will engage with every day and develop working relationships with are the absolute best part of the services we offer to you and any of our academic partners. They make the difference; their passion motivates them to do more, take the extra step, and check and double check that their clients' needs are being met. They are committed experts not only in their roles, but in their dedication to achieving the highest level of the customer experience for our academic partners and their respective students.
- **Avoiding Challenges, Mistakes, and Misalignment**—Over the 25 years of developing the OPM industry, we attribute our success to the work and consensus building that is done at the front end of the partnership development process. It is more than simply picking a program and building the courses. Enduring relationships and programs are built by collaborating and ultimately obtaining alignment around five critical areas.

1. **Admissions Requirements**—Absolutely, unequivocally your decision. We provide a point of view, backed by research and come to consensus before launch.
2. **Tuition & Fees**—This is particularly important when compared to competition. Ultimately, this is your decision.
3. **Program Structure**—Can we create multiple pathways, accelerated options allowing for differentiated offerings.
4. **Marketing Approach**—You retain authority to approve, it is the university's positioning, visuals, copy and naming convention that we work with through our Brand DNA document.
5. **University Wide Considerations**—In a consultative approach we will bring our best thinking and options to those discussions.

6. Describe your company's ability to provide the staff, resources, technology, and management necessary to perform the scope of services.

As more thoroughly described in the response to question #3, Pearson can immediately develop a highly-scalable staffing model whereby the Partnership Director's (PD) responsibilities include building the relationship and communication channels between UM and Pearson. The PD is complemented by a team of managers, each with deep experience in a specific function, such as Marketing, Recruitment, and Student Support Services. Other subject matter experts may become an extension of this core team as warranted, (e.g., Course Development and Pearson

products). Each function assigns staff to the cross-functional program team to form a group dedicated to UM and its programs. We have the capacity to immediately deploy a highly-experienced team, all necessary technology and integration strategies and the resources to expand UM online offerings.

7. Provide points of contact for five (5) universities of similar size and type that your company has successfully served in the past. Of particular interest are points of contact where faculty and/or instructors are covered by a collective bargaining agreement and have traditions of faculty shared governance.

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8. Describe how your company will work with different programs at the University requiring differing levels and types of services.

Program Readiness Assessment

Leveraging the information developed in the market viability research, the Program Readiness Assessment (PRA) defines the course delivery model, admissions requirements, and the program structure. It provides critical inputs needed to complete a comprehensive financial pro forma that forecasts student enrollments, revenue, and all forms of expenses, including faculty and administrative resources needed by UM. The PRA helps administrators and faculty understand how the online program will scale comfortably and efficiently, without compromising the quality of the program, overall student outcomes, or overwhelming faculty.

Our Academic Strategists will collaborate with UM's faculty and administrators to construct an instructional model with an expandable faculty base to support program growth. The model is highly adaptable to the academic needs of each degree program, and it's crucial that faculty participate in its development as we seek to design an efficient delivery approach that meets the academic requirements of the program. An eloquent delivery model can significantly reduce the frequency of courses being offered and thereby reduce faculty burden and expense.

An example of a potential carousel model for a graduate program with 12 courses follows. Each circle represents an academic semester. A vertical line within the semester indicates those courses are offered in half semester lengths sequentially. The horizontal line indicates the courses are offered concurrently. Students must complete all courses in one section of the model before progressing to the next. In this example courses 1 and 2 are foundation courses for all new students and must be taught every semester. Courses 3 through 10 are offered only once every fourth semester and courses 11 and 12 represent a capstone experience that must be offered every semester once students reach this point in the program. This model is only an illustration; in practice there are nearly as many adaptations of this modeling concept as there are academic programs.

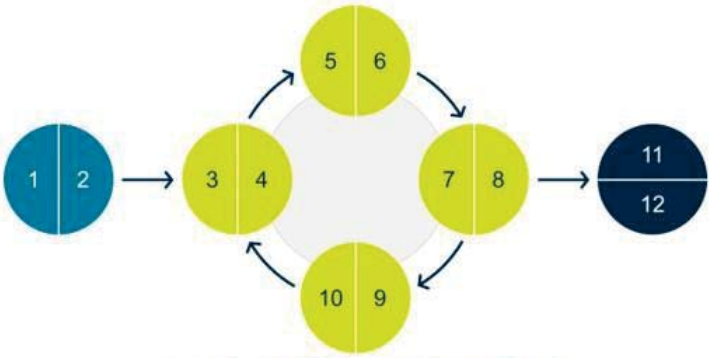
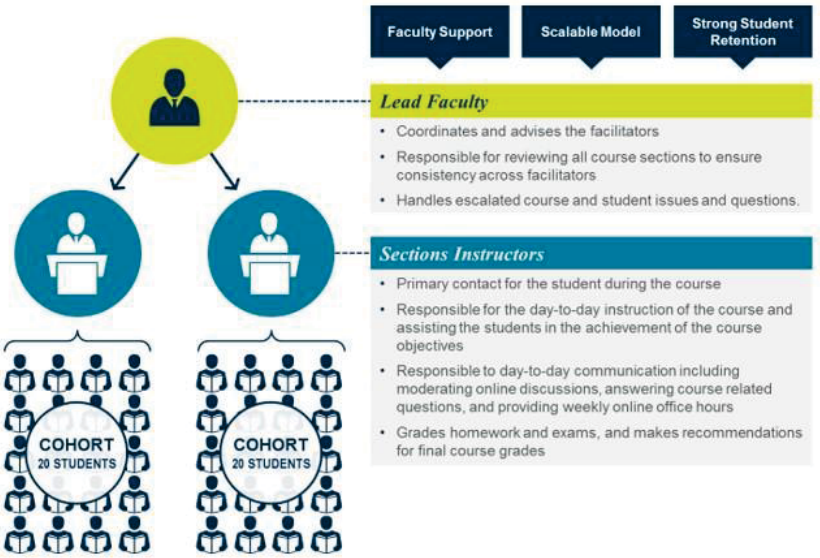


Figure: Graduate Program Carousel Model

Pearson advocates for the Master Teacher model where a UM faculty member would serve as the instructor of record who develops and manages an online course. Under the supervision of the instructor of record, credentialed supporting faculty are assigned to manage a small cohort of about 20–25 students each. Supporting faculty members are added as course enrollments grow and they would handle the day-to-day communication with students, improving speed to response. The instructor of record designs the course and ensures consistency and quality each time it's taught but leaves the daily management of the courses to the supporting faculty, sometimes called Section Instructors.

The Master Teacher model enables UM to leverage its existing faculty more fully, to comfortably scale its online offerings while delivering a positive student experience under a manageable faculty load.

The following figure illustrates and explains the "Master Teacher" model:



Please see ***Appendix C: Program Readiness Assessment Planning Template***.

Institutional Readiness Assessment

The Institutional Readiness Assessment (IRA) is a comprehensive review of the institution's ability to deliver student services to a large population of distributed students. Pearson takes a process-mapping approach by conducting on-campus interviews with key functional staff to collect data about how services are currently delivered. Consultants then map the findings against industry standard best practices to produce a gap analysis report with recommendations and identify critical touch points between our organizations for operational effectiveness. The IRA gives Pearson more insight into how UM operates and how our services will need to be integrated for seamless support.

The Institutional Readiness Assessment Report covers the following internal university functions: Marketing/Communications, Admissions, Registrar, Student Accounts, Financial Aid, Instructional Technology, Student Success (learning assistance, disability services, counseling services), Library, and Bookstore operations.

Please refer to ***Appendix D: Institutional Readiness Assessment Planning and Report Template***.

9. Describe the process of program launch, including project management, establishment of benchmarks, and timeframes.

While the Business Unit serves an institution for the entire contract term, a special Launch team is commissioned during the final contract negotiations phase to develop a launch implementation plan customized to your launch and timeframe. The Launch team has a Launch Manager running the project plan in addition to representatives of the core functional areas, overseen by the Director. The Launch team's mission is to facilitate an orderly start (or transition) for new contracts and to then transition the operations over to the Business Unit led by the assigned PD. This preserves the effective use of best practices unique to start-up operations and for establishing new university relationships with an intentional overlap of activities with the ongoing operating Business Unit to affect solid knowledge transfer.

The Launch Project Plan and launch activities include collecting an inventory of existing institutional policies and procedures, all of which are documented in the prospectus. The

Launch team will identify opportunities to optimize the university's operations, and the ongoing PD and Business Unit team will pick up where the Launch team ends.

Our partners tend to recognize that Pearson's value-add includes a healthy transformation of the entire institution emanating from operational improvements that we advocated for in the online programs. Many optimization improvements are transferable to on-campus programs.

Launch activities begin prior to a contract being executed and include the following areas of action that have already been described. Those are: Marketplace Research, Program Planning (Program Readiness Assessment), Institutional Planning (Institutional Readiness Assessment), and pro forma development. For context, the following graphic illustrates the typical timeline associated with these activities.

After a definitive contract is reached, formal launch activities begin.

Pearson will develop project plans for assuming the operations of the existing programs, and a Launch Project Plan for new programs selected for launch.

All elements of the project plans will be informed by discovery sessions completed on-campus by the Academic Strategy team in the pre-planning phase. To ensure a smooth and efficient launch, the Project Management and Consulting team assigns a dedicated project manager and supporting associate project managers to a given launch.

The Project Management team builds project plans for the full project, with customized work streams for each participating college within the university. In addition to a detailed project plan, the team will develop a project scope document with requirements outlined, a project schedule with timelines for work streams outlined, a summary timeline updated and shared on a weekly basis with Pearson and UM stakeholders, a risk mitigation plan with lines of ownership identified, and a prospectus with program details, processes, and policies defined.

During the launch process Pearson will work with UM to develop process maps for all student services functions at the university. This will include defining how Pearson teams will work with university staff to guide the prospective student through the enrollment process. There will also be working sessions devoted to supporting the enrolled students in the online programs.

Drawing from experience transitioning prospective and current students from one support team to the other, the Project Management team will guide the development of a documented transition plan to include a defined communication strategy, affected stakeholders and systems, and workflow and milestone dates. These transition plans will be customized based on institution needs and approval will be obtained by key stakeholders at the university.

Throughout the launch process, Pearson builds a prospectus that systematically documents and defines all the information, processes, touch points, and key contacts for online programs we support. The prospectus is a document that both UM and Pearson will use on an ongoing basis to agree on the operational parameters of the online program and to capture any modifications in the online program that may occur over time.

The launch process includes diligent review cycles for all marketing, recruitment, course development, and student support services materials. The program market strategy document (Brand DNA) and all program assets, such as marketing copy and design, brochures, application checklists, welcome packets, etc., are sent to the appropriate stakeholders at UM for review and approval prior to deployment. A one-week review timeframe is established, with specific dates being shared at the onset of launch activities.

Our approach goes beyond documentation and review cycles. You will notice in the Launch Project Plan that leadership and staff who will become permanent members of the Cross-Functional team participate in the program launch activities beginning with the first launch visit. These people are immersed in the process, in the culture and values of UM, and build personal

relationships with key stakeholders at the university. They become deeply knowledgeable about the programs they represent and the professional fields those programs serve. The Cross-Functional team structure ensures personalized attention and deep knowledge of your online programs aligned with the university's culture and processes. This is critical to our ability to maximize results on your behalf, and to deliver the kind of experience students expect from UM.

Please see ***Appendix C: Sample Project Launch Plan*** for the complete document.

10. Describe the process of supporting UM faculty, staff and administrators in their efforts to document UM online programs to external entities, including, but not limited to: i) ranking organizations (e.g., US News and World Report), and ii) accrediting/licensing bodies.

Our Learning Design team follows backwards design in developing courses. In doing so, we create a course map that documents the alignment of objectives to all instructional materials and assessments. This documentation is used to ensure alignment in the course. And this can be used by faculty and administrators to demonstrate alignment to their accrediting bodies. In our collaboration with UM, we seek to understand key accreditation needs so that we can represent that in appropriate documentation.

Pearson Academic Strategists will research comparable academic programs and governing body regulations, and work with UM faculty to shape their program design.

- Pearson will provide program data to support accreditation and other approval processes.
- Pearson will aid in understanding and interpreting programmatic rankings. The Academic Strategy team will also provide recommendations on raising programmatic rankings.

Our Academic Strategy team has assisted many partners with regional accreditation and program accreditation through AACSB, CEPH, CAHME, CCNE, and CSWE, as a few examples. Most of the Academic Strategy team hold doctoral degrees and have extensive experience in academic affairs and student services. Through our collaborative conversations with academic units we will produce a document that reflects courses, faculty qualifications, instructional delivery, admissions requirements, and several other factors that prove beneficial to the accreditation process.

We have assisted partners in submitting programmatic documentation as well as provided support in research and institutional effectiveness. One example is a partner accredited by Middles States and did not offer any online programs at the time of contract. The Academic Strategy team worked with the institution on timelines, internal approvals, and external submission of documentation to Middle States. Through our collaborative effort, the partner received full accreditation of the online programs.

11. Describe your process in dealing with institutions and federal financial aid regulations (Pell Grants, SEOG, Return to Title IV, etc.)

Students also will apply, register, and access financial aid through UM's systems and resources. When students have questions about financial aid that are specific to their own circumstances those are directed to an identified contact within UM's financial aid office.

12. Have you been involved in any federal, state or institutional audits at any of your partner institutions? If so, describe.

No.

13. Describe any litigation, active or within the last five years, against your company.

Pearson has no known litigation or claim brought against the company within the last five years that would adversely affect Pearson's professional image or ability in relation to providing the services sought in the RFP.

14. Describe the company's processes for reporting learning outcome achievements, recruitment/marketing activities, enrollment projections, student attrition, and support issues.

UM will have 24/7 access to our proprietary dashboard system providing the university with critical information on engagement, learning outcomes, compliance, and survey results. Additionally, UM will participate in bi-monthly conference calls and quarterly on-campus meetings with its designated Pearson team. During those scheduled meetings UM will be provided roll-up reports and information on learning outcomes, marketing and recruiting, enrollment history and annual enrollment projections, student attrition, completion, and matriculation results.

15. Provide a plan with measurable deliverables that advances UM's mission and goals, consistent with its strategic plan (http://www.umt.edu/strategy/), capabilities, and academic and research competencies. Break the plan down to include sections addressing:
    a. Doctorate level programs
    b. Masters level and accreditation/licensure programs
    c. Bachelor's level programs and courses

University of Montana's Opportunity for Growth

Pearson envisions a three-prong growth strategy for UM that will create superior student outcomes, drive program-level enrollments at a national level, and intentionally grow to national marketing for the University of Montana brand. We believe that strategy is driven by an overarching brand opportunity and will be applied across Doctorate, Masters and Bachelor programs.

1. **Reversing the 80/20 Rule**

   By definition, the growth of your online programs requires an OPM provider to successfully find and enroll quality in-state students and those from beyond local, state, and regional boundaries. This is particularly meaningful for the University of Montana (UM) whose region (Montana, Idaho, Wyoming, North Dakota, and South Dakota) has a relatively small population and whose stated goal is to expand its national and global footprint. Yet the traditional OPM industry and each of our competitors claim that nearly 80% of your online learners will reside within 100 miles of the brick and mortar campus. The traditional OPM industry's advice—expand program offerings locally rather than attempt to attract distant students.

   Pearson finds this urban legend to be self-fulling, (of course it is where your institution is best known), contrived for the inadequacies of a meaningful, national student engagement strategy, unsustainable given the regional population, and completely without merit. Our approach, rooted in a deeply held conviction that we have a stake in making higher education more accessible, has achieved an opposite impact. Nearly 80% of students from mature Pearson partnership programs (those in market more than 2 years), come from outside the 100-mile radius of the brick and mortar campus. By leveraging Pearson's expertise, experience, and marketing scale ($150M in billings, Google and Facebooks largest higher education client) Montana can redefine its historical notions of student enrollment boundaries.

2. **Achieving 40**

Marketers are familiar with the prohibitive costs associated when applying mass media (television, radio, outdoor, print, etc.) to a very narrow audience and/or a small number of programs. In that situation it is far more effective to use targeted programmatic marketing, focused on capturing existing category demand and conversion—*"a potential student who knows exactly the program of interest."* Mass media is best used to create awareness for the institution and is highly effective to expand the potential audience and brand footprint, but it requires a large suite of programs before it is cost effective. Said differently, effective use of mass media does not require you to offer something for everyone, but it does require that you offer something for most.

If, over time, UM is prepared to grow a portfolio of online programs that addresses at least 40% of degree conferrals nationally (Total Addressable Market) and commits to a single URL strategy (e.g., UM Online), creating a destination for all online programs, we believe there is an opportunity to complement program-focused marketing with overall university brand, mass media marketing.

UM currently services less than 10% of the Total Addressable Market with its online initiatives. This increases to 40.3 under a proposed Pearson Rollout Plan (see below) of future program using existing on-campus offerings as the basis for that rollout. Pearson is prepared to work with UM to identify those programs that will increase the overall addressable market and enable the use of non-digital marketing channels such as TV, outdoor, print, and radio to expand UM's brand outreach.

Additionally, while many Online Program Management providers focus on graduate programs exclusively, Pearson has a great deal of experience growing online undergraduate degree enrollments. It is with that confidence that we are prepared to launch a suite of online undergraduate degrees to compliment the partnership's graduate offerings. The advantages to UM are significant:

- **Enormous Market**—Using the Bureau of Labor Statistics database, there are 36 million individuals over the age of 25 with 'some college' credits and no degree.
- **Significantly Less Competition**—186 of the top 200 universities offer online graduate programs. Only 9 of those top 200 universities offer more than 10 online undergraduate degrees. There is a window of opportunity and a relatively

unencumbered path to achieving 40% of the Total Addressable Market by adding online undergraduate degrees.
- **The Foundation**—Your portfolio of undergraduate online courses will serve as both the foundation for degree design and provide general education courses required for degree completion.

Our “Achieving 40” strategy envisions a long-term partnership with UM that would include multiple phases of online program expansion, including redevelopment of existing online programs and development of new ones. The proposed program rollout schedule is informed by our view of the optimal market focused approach, without consideration at this time to institutional readiness or willingness to participate, which we acknowledge must be considered as a subsequent step along with operational bandwidth capabilities.

The rollout schedule proposed is enables a rapid ascension into the national market and critical mass for national brand media. However, it generates an extended start-up investment by Pearson. We anticipate this to be a topic for further discussion.

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3. Leveraging the Full Scope of Services

Pearson routinely provides the services required by UM, as detailed within this RFP response. We provide the flexibility for each department or college within the university to select a mix of services that differs as needs warrant from one program to the next, while

leveraging the advantages of a university-wide approach to the market. Our customized solutions for universities may include:

- Marketplace viability research
- Program design and planning—Program Readiness Assessment
- University services and integration planning—Institutional Readiness Assessment
- University brand promotion
- Program-specific marketing for select online programs, or university-wide marketing of all online programs
- Student recruitment
- Smarthinking is a proprietary service providing institutions and students with on-demand individual instruction and support from expert tutors across a wide variety of subjects—from beginner to advance, 24 hours per day. 90% of Smarthinking tutors have a PhD or Master's degree.
- Pearson Writer is a revolutionary digital tool for writers and provides instant feedback on student writing to help them revise, edit, and improve their writing skills
- Retention-focused student support
- Field Placement Services
- Course development including media creation—each is custom developed for assigned UM faculty
- Faculty training and support
- 24/7 help desk technology services for students and faculty
- Career Success is a proprietary centralized hub that provides a self-directed roadmap for students to build marketable skills, create ePortfolios provide Job Market Trends and academic prep tools.
- Legal and regulatory consulting
- State and professional authorization administration
- Funding for university resource needs
- Faculty development of courses and instruction
- Administrative leadership at the program level
- State and professional authorization effort (if administered by the university)

d. Specialty programs targeting professional skill development (broadly stated) for corporate partners.

Corporate Outreach

The Corporate and Organizational Partnerships department at Pearson has developed a national strategy to build program enrollments and brands by partnering directly with employers including healthcare systems, businesses, police departments, school districts, and the military.

We have a robust team devoted to creating new industry partners along with enhancing existing university relationships that may exist today. Our strategic mission involves developing individualized, direct partnerships between our university partners and industry leaders. In doing so, we will work with partners to build relationships and pathways that meet the workforce and educational needs of all employees.

The Pearson team will serve as employee advisors for the lifetime of the partnership, with ongoing marketing and engagement of industry partners, as well as coaching, tutoring, and student support services. Pearson will routinely provide industry partners with anonymized, aggregated reports and dashboards on key metrics so organizational departments will have real-time insight into the utilization and success of educational benefits.

Our Corporate and Organizational Partnerships teams will work directly with you to develop a unique and targeted approach. We have three corporate partnerships models that we refine, optimize, and enhance specific to your university brand and program offerings:

- **Preferred Model**—We have access to more than 800 corporations (including more than 100 Fortune 500 companies) around the globe that partner with Pearson to offer tuition reimbursement or scholarship programs. Participation generally requires that the university agree to offer a 10% tuition reduction or scholarship and waive any application fees for students coming through this channel (the reduction is shared by both parties as that amount is deducted prior to our partnership revenue share calculation). Our team will focus on optimizing these relationships to yield the greatest value for our corporate leaders and university partners.

- **Tailored Model**—This model reflects a partnership that offers your degree and certificate programs to a group of many corporations, which may further be targeted to a specific industry, line of business, or a band level. This may include a curriculum that is tailored to suit the needs of this group by way of specialized cohorts or unique capstones.
- **Custom Model**—This model reflects a direct one-to-one partnership with one specific corporation for a true end-to-end training and development solution. Your degree and certificate offerings may be customized to this specific corporate partner by way of specific concentrations, unique professional development employee workshops, or other variations of the learning design that add mutually beneficial value to our corporate partnership and the university.

After a corporate partnership has been developed, our teams can work directly with these organizations to market and recruit high-quality employees that meet the admission requirements for your programs. The results render highly qualified students that convert and retain at above average rates.

Please see ***Appendix F*** for several short case studies highlighting some of our successes with corporate partnerships.

Identify estimated time to complete and implement key milestones associated with making available i) new degree programs, ii) existing fully-online degree programs, and iii) building out partially online degree programs

Program/Type (i.e. new/existing/partially online)	Milestone/Deliverable	Date to Start	Time to complete
New Degree Programs	Market Viability, PRA, IRA, Financial Plan, Course Dev. Term Sheet Signature, Launch Activities	Immediately upon being awarded the RFP	3 to 7 Months, marketing begins 60 days prior to completion of contractual agreement
Existing Fully Online	Term Sheet Signature, Migration Activities, Course Updates	Immediately upon being awarded the RFP	2 to 4 months, marketing begins upon completion of migration
Partially Online (build to fully online)	Term Sheet Signature, PRA, Migration Activity, Course Development, Launch	Immediately upon being awarded the RFP	2 to 6 months, marketing begins upon completion of existing course migration

B. Market Research

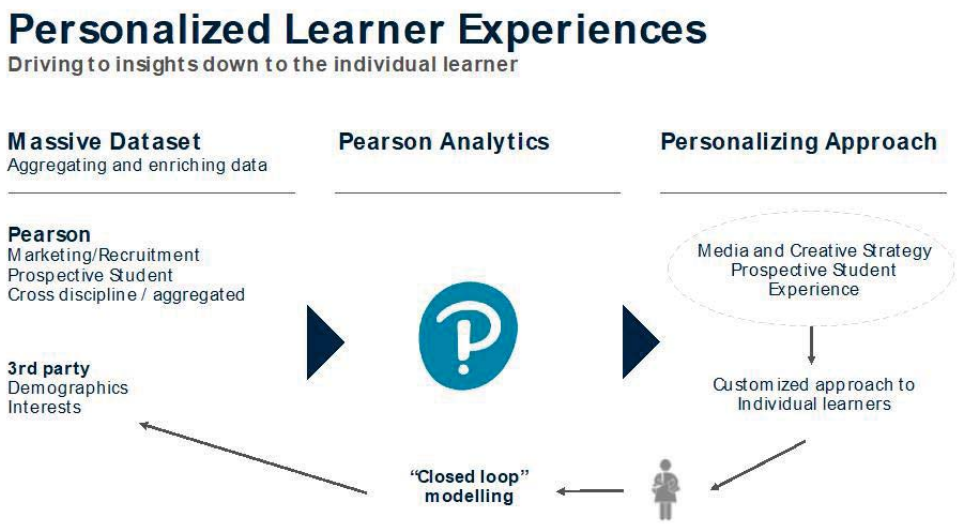
1. Describe in detail your firm's approach to market research and assessment including how data and processes are used in reporting, with examples of your company's success in regard to market research and assessment.

Pearson puts data at the center of our partnerships with institutions, both in how we use machine learning and other analytical techniques to optimize operations across the student lifecycle, as well as in how we use data-driven insight to help institutions better understand their current and potential learners.

Pearson has more data on students—spanning the entire student lifecycle—than any other OPM provider given the breadth of our institutional relationships and time in the market. We believe this offers transformational possibilities to understand learner interests across disciplines, consumer segments, types of programs, among other "lenses" to understand the market.

The figure below depicts how we bring to bear our data assets to bear to drive personalization. We aggregate datasets across the student lifecycle (and extend into other sources of data as well, such as corporate and third-party data depending on partnership focus) and use machine learning to develop personas that allow us to create customized approaches to individual

learners. As we gather more data as programs scale, this allows us to further refine our approaches (i.e., drilling in on what works, testing new approaches in collaboration with our partners, etc.), creating a closed loop analytical approach to iteratively improve our partnership performance.



In preparation for launch and as an ongoing activity, our team conducts deep and detailed analyses of data available through online tools specific to the many subfields within interactive marketing. This tells us a lot about how the market thinks about the degree programs being offered and how best to approach them.

Enrollment Experience Surveys (EES) are sent out to newly enrolled students during their first program term. These surveys seek to determine student satisfaction with the application and enrollment experience and are sent to students in all programs we support that agree to participate. The EES asks students many questions relating to their motivations for joining the program, their satisfaction with the enrollment process, and their relevant media consumption habits. This helps us tune the media channels and our messaging. We conduct surveys of people who expressed interest but didn't enroll for the same purposes.

Continuous improvement through live asset testing. We continuously and aggressively test all our marketing assets using A/B and multi-variate testing to optimize performance and

understand market behavior. This is discussed in more detail in the subsection titled *Testing and Asset Optimization*.

Our work with Arizona State University is an example of how our market research and assessment has identified opportunities to meet the Institution's very aggressive growth goals. Through our rigorous process we have assisted ASU in identifying more than 160 degree and certificate programs, we have influenced the naming convention to have highest marketplace recognition. Today, those programs have more than 43,000 active students.

Please see ***Appendix G: Sample Market Viability Research*** and ***Appendix H: Sample Competitive Set***.

2. Describe how your company conducts market research to aid in identifying and aligning current and potential degree/certificate programs with regards to:
   a. growth potential
   b. strong operating margins
   c. strong completion rates by students
   d. institutional mission
   e. institutional strengths.

Success in today's highly competitive online program marketplace requires effective planning. There are three areas critical to this effort, they are:

1. **Market Research.** We collect, analyze, and share market data with you to inform selection of the right program areas in which to compete.
2. Our Program Readiness Assessment evaluates current or planned online offerings and develops delivery designs to ensure your programs are scalable, efficient, and competitive. Informed by market research and the unique breadth of Pearson's experience, our **Program Readiness Assessment** facilitates the design effort collaboratively with you for each program.
3. Our **Institutional Readiness Assessment** provides analysis and guidance to ensure UM's central processes, systems, and resources are ready to deliver an exceptional experience to a new and larger number of students at-a-distance.

Market Research

The market viability research we conduct provides a thorough analysis of the potential for a particular degree program or set of related programs in the marketplace. A sample list of *some* of the research we conduct on your behalf:

- Audience profile (based on admissions requirements)
- Degree demand through degree conferrals and Google search volume
- Occupational outlook, both current and projected, using government and proprietary data sources
- Substitutable degree programs
- Marketing cost data—Google Search
- Detailed competitive program descriptions, including, but not limited to:
    - Tuition pricing
    - Number of credits
    - Time to complete the program
    - Prerequisites
    - Residency requirements of existing online programs
    - Concentrations
    - Specific courses included
    - Admissions requirements

This research allows Pearson to effectively recommend programs or sets of programs for further evaluation in the process. Research often suggests specific recommendations for how to make the program(s) more competitive. These recommendations center on optimal program characteristics, including the degree's naming convention, specific concentrations, tuition price, and admissions requirements.

Below is a sample list of research and assessment deliverables that UM will have access to as a Pearson partner:

- Program-specific research brief (including audience profile, degree demand, occupational outlook, substitutable degree programs, Google search data, and competitive listing)
- Full competitive set (including naming conventions, rankings, concentrations, course names, credit hours, time to completion, prerequisites, residency requirements, and tuition and fees among other data columns)
- Competitive pricing analysis (to aid in setting market-driven tuition rates)
- Suites and verticals analysis by university
- Program rollout plan
- Custom research (by request and based on availability)

Pearson's approach to program selection is unique and industry leading. It includes groups of related programs across degree levels and emerging fields and enables niche programs to be supported among a portfolio of stronger ones.

We have expertise in powering individual graduate programs, suites of programs, interdisciplinary models, multi-campus/systems-wide programs, and comprehensive undergraduate programs. Additionally, we work with a select few universities on an enterprise level, most notably Arizona State University (http://asuonline.asu.edu/). This gives us unmatched program market intelligence, among many other benefits.

Program Readiness Assessment

Leveraging our market viability research, the Program Readiness Assessment (PRA) defines the course delivery model, admissions requirements, and program structure. It provides critical inputs needed to complete a comprehensive financial pro forma that forecasts student enrollments, revenue, and expenses, including faculty and administrative resources needed by UM. The PRA helps administrators and faculty understand how the online program will scale comfortably and efficiently, without compromising the quality of the program, overall student outcomes, or overwhelming faculty.

Our Academic Strategists will collaborate with UM's faculty and administrators to construct an instructional model with an expandable faculty base to support program growth. The model is highly adaptable to the academic needs of each degree program, and it's crucial that faculty participate in its development, as we seek to design an efficient delivery approach that meets the academic requirements of the program. An elegant delivery model can significantly reduce the frequency of courses being offered and thereby reduce faculty burden and expense.

Institutional Readiness Assessment

The Institutional Readiness Assessment (IRA) is a comprehensive review of the institution's ability to deliver student services to a large population of distributed students. Pearson takes a process-mapping approach by conducting on-campus interviews with key functional staff to collect data about how services are currently delivered. Consultants then map the findings against industry standard best practices to produce a gap analysis report with recommendations and identify critical touch points between our organizations for operational effectiveness. The

IRA gives Pearson more insight into how UM operates and how our services will need to be integrated for seamless support.

The Institutional Readiness Assessment Report covers the following internal university functions: Marketing/Communications, Admissions, Registrar, Student Accounts, Financial Aid, Instructional Technology, Student Success (learning assistance, disability services, counseling services), Library, and Bookstore operations.

Please refer to the following appendices:

- ***Appendix C: PRA Planning Document Template***
- ***Appendix D: IRA Planning and Report Template***
- ***Appendix G: Sample Market Viability Research***
- ***Appendix H: Sample Competitive Set***
- ***Appendix I: Programmatic Pro Forma Illustration***

3. Describe your company's ability to identify specific groups or markets that you would target for recruiting/marketing activities for the University.

We would build a comprehensive marketing plan that would include the following phases:

Discovery

This phase is an exhaustive examination that sets the strategic direction for marketing the program(s). We leverage primary and secondary research. We conduct a competitive analysis to uncover points of parity and points of differentiation.

Expression

We execute the marketing strategies and continue to monitor analytics and mining key performance indicators.

Navigation

We are concerned not only with the performance of our marketing campaigns, but also the ways we should navigate the shifting competitive landscape. We remain agile in our strategies and best practices.

Integration

We continually integrate insights and results from cross-functional teams. We apply our findings and optimize our marketing assets.

As part of this marketing plan, we would execute a creative and media audit. These audits would inform the creation of a UM media strategy—including a paid search media strategy, social segments to target (e.g., job function, skills, education, industry, associations), and an SEO strategy. Segmented messaging would also be created for specific audiences and campaigns (e.g., brand, programmatic, retargeting, look-alikes).

C. Marketing and Recruitment

The partner shall work with the appropriate University official(s) regarding the universities brand guides and academic and administrative web policies.

1. Describe in detail your company's approach to marketing and brand management.

Marketing

The Marketing Department of Pearson is comprised of more than 200 marketing and advertising experts dedicated to the student and revenue goals of our university partners. This team includes research analysts, brand ambassadors, project managers, creative designers, and advertising specialists who work together to support the direct marketing lead generation efforts for our university partner's online programs. As your online partner, we build on and enhance the established brand of your university by blending key elements of your look and feel with our proven marketing strategies and tactics.

As an extension of your marketing team, we seek to apply design, message, and media best practices to your established brand guidelines. That means that all marketing assets are created by designers and copywriters who have studied UM guides and templates. Those assets are then vetted by the dedicated marketing operations team members who are ultimately responsible for adhering to the voice, look, feel, and detailed information that represent your brand and online degree programs. Finally, every asset comes to you for final approval prior to being published.

Market Research

Our marketing team uses and conducts its own research in many ways.

- We use the market-place research previously described.

- Another research method is the Brand DNA process, described in the subsection that immediately follows.
- In preparation for launch and as an ongoing activity, our team conducts deep and detailed analyses of data available through online tools specific to the many subfields within interactive marketing. This tells us a lot about how the market thinks about the degree programs being offered and how best to approach them.
- Enrollment Experience Surveys (EES) are sent out to newly enrolled students during their first program term. These surveys seek to determine student satisfaction with the application and enrollment experience and are sent to students in all programs we support that agree to participate. The EES asks students many questions relating to their motivations for joining the program, their satisfaction with the enrollment process, and their relevant media consumption habits. This helps us tune the media channels and our messaging. We conduct surveys of people who expressed interest but didn't enroll for the same purposes.
- We strive for continuous improvement through live asset testing. We continuously and aggressively test all our marketing assets using A/B and multi-variate testing to optimize performance and understand market behavior. This is discussed in more detail in the subsection titled *Testing and Asset Optimization*.

Brand Strategy Development

Our Brand DNA process sets the foundation for all marketing materials associated with a partner and program. Pearson develops a collection of specialized marketing assets for each program, depending on the media channels selected and audience segments identified.

The Brand DNA is a collaborative, interview- and research-based process that extracts the core strengths, differentiating characteristics, and goals of a degree program. It deeply investigates the needs and motivations of the target audience and aligns communication about the curricular and program offerings to the needs of the user. The outcome of the process is branded messaging and visuals that are strategic, consistent, and aimed at driving action.

Our Brand DNA process can support individual programs all the way through to a comprehensive university model. Given that each university is unique, the exact process will be defined to best meet UM's current and evolving needs. By segmenting target audiences into constituent groups and crafting unique messaging and creative assets to suit the needs of each

group, we are effectively able to have the specific conversation that a prospect is interested in—a conversation that creates the highest potential for conversion from lead to student.

The Brand DNA process results in important qualitative and quantitative outcomes:

- Higher traffic-to-lead and lead-to-student conversion rates.
- More focused recruitment calls and correspondence between prospective students and Pearson Enrollment Advisors that quickly get to the prospect's end motivations and pave the way for a smoother application process.
- More trusting and collaborative working relationships with our university Academic Partners.
- Faster and smoother asset and content approvals between the university and Pearson.

This activity occurs in close collaboration with the university's marketing and communications leadership. The Brand DNA document is reviewed and approved by the appropriate university personnel prior to beginning any asset development. This ensures we have correctly captured and articulated the program and university brand in the strategy document.

Please see ***Appendix J: Sample Brand DNA Document***.

Campaign Planning and Execution

Pearson takes a customized marketing and recruitment approach for every partner. Marketing campaign planning begins with research uncovered throughout the assessment phase. Audience profile, degree demand, competitive landscape, the Brand DNA work, and the identified media outlets to reach the target audience all play a part in the planning of the marketing campaign—with the goal of reaching the most qualified segments of the target audiences with the right messaging for the online program.

Our team will execute a multi-channel, targeted marketing campaign that uses direct response marketing, search engine optimization (SEO), database marketing, email, social media, paid search, conferences, organizational partnerships, online educational portals, and traditional advertising. Our Media Managers strategically time, track, and continually optimize our campaigns to best meet enrollment goals, resulting in an even, steady flow of predictable and high-quality inquiries that turn into enrolled students.

Pearson will manage and fund all marketing efforts, advertising, and tactical media buys relative to the overall promotion of the online programs that we support on behalf of UM. Our traffic generation efforts may include the following:

- Search engine optimization (SEO)
- Social media channels (Facebook, LinkedIn, Twitter, Instagram, You Tube, blogs)
- Outbound email
- Search engine marketing
- Internet advertising (including retargeting)
- Print advertising
- Direct mail
- Referral
- Radio
- Outreach—corporate/organizational partnerships and associations
- Online educational directories (listing services on a cost-per-lead basis)

Please see ***Appendix K*** for a sample set of marketing assets for all these channels.

SEO is the foundation of our lead generation strategy. By nature, SEO requires significant manual effort to produce highly engaging, authoritative content and promote it through social media and our network of websites, associations, and trade publications. In our experience, successful SEO strategies are a combination of on-page (architecture, meta tags, content) and off-page (trust, backlinks, social signals) techniques that require input from passionate faculty, consistent posting of valuable content, and extensive promotion to generate targeted traffic and backlinks from highly respected and relevant websites.

The first step in our SEO strategy is to complete an assessment of all web pages related to UM's online programs and the web pages that refer to them. After fully understanding the current landscape, we create short- and long-term optimization plans to capitalize on brand and program search terms. In our preliminary assessment, we see tremendous potential for improving rankings on current keywords and expanding the total targeted search term set. Through further discovery with the UM marketing teams and input on expansion of degree offerings, we will orchestrate an expedited SEO plan.

Our investment in SEO expertise resulted in increased volume and ratio of total media every year for the past five years.

In our discovery and assessment, our experts work with UM's team to define use of subdomains, subfolders, URL naming conventions, and the short- and long-term actions toward optimal rankings. This plan becomes the architecture for keyword optimization and content plans that will be executed in partnership.

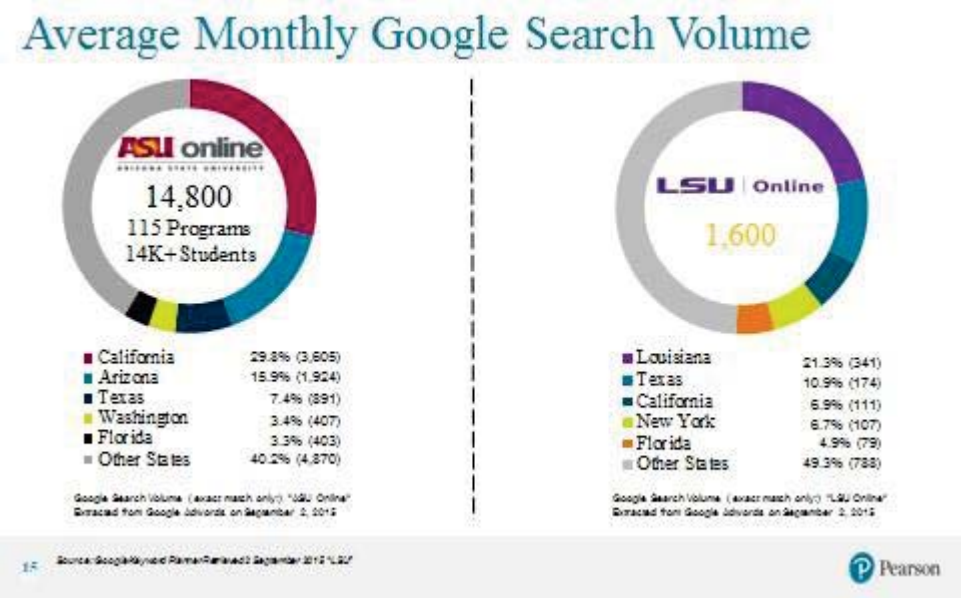
The hallmarks of our approach include deep collaboration between Pearson and UM for the purpose of reducing costs and improving effectiveness to benefit both parties in the partnership. Pearson seeks to develop a strong relationship with UM marketing/communications leadership, academic program leadership, and faculty, to leverage university/faculty developed content to publish for purposes of SEO. Please see ***Appendix K*** for a sample set of marketing assets including infographics developed for publication through this kind of relationship.

Dependencies exist between our ability to offer the best possible revenue share to UM and the level of collaboration UM is willing to engage in with us.

The following chart shows average monthly search volume for many prominent universities. Notice that Arizona State University (ASU) receives approximately the same level of search activity as Louisiana State University (LSU).

The following graph shows the monthly Google search volume specifically for a single portal, ASU Online, where information for all online programs can be found, as compared to LSU

Online. We support ASU Online. LSU Online is supported by a competitor; as you can see, our strengths differ from theirs in the ability to drive brand and search volume.



National Opportunity: Pearson believes the market for UM online programs spans the nation and beyond. Other OPM providers state that 80% of enrollments should come from within 100 miles of campus. We think that idea is narrowly focused.

Creative: Production, Delivery, and Optimization Support

Pearson's Creative team will provide direct support to the Business Unit supporting UM in asset development. This department leads the design and development of all marketing assets (web and traditional), and supports ongoing interactive channel management (paid search, email, social media, and content in support of SEO), and website, landing page, and email optimization testing conducted by the Media and Analytics team. The team includes copywriters, creative designers, programmers, production managers, and experienced leadership.

Development of creative assets begins once the Brand DNA work is complete and approved by UM. All asset development follows the Brand DNA to ensure alignment with program and university brand strategy. Media may include:

- Multiple landing pages including responsive design (mobile friendly)
- Paid search ads
- Paid social media ads across multiple platforms (LinkedIn, Facebook, Instagram, etc.)

- SEO content articles, interviews, and infographics
- Banner ads
- Integrated social media campaigns
- Alumni directed media
- Press releases
- Retargeting emails
- Print advertising
- Supporting materials for international partnerships
- Trade show event materials
- Radio advertisements

Traffic is sent to one of an array of landing pages built specifically for the online programs, or they can call us directly. Landing pages may focus specifically on a particular concentration, persona, or ad group to optimize conversion of visitors (page traffic) to inquiries (leads), or represent the university's offerings together. Each page enables prospective students to identify themselves as interested in the program and provide contact information for further engagement. Each lead is captured in our CRM system for action by our Recruitment Services team.

Pearson develops comprehensive promotional program websites that are content rich and focus on converting web visitors (traffic) into qualified inquiries who could become UM students. Websites are built using a dynamic content management system (CMS) allowing visitors to post comments or questions that Pearson enrollment staff can quickly respond to. The CMS allows for regular updates and up-to-date content to be added to the site.

For example, we worked with the faculty at one of our partners to leverage their students' field practice experiences and course assignments in the form of blogs to provide us with referenceable content for their program website and valuable back-links from the students' blog sites that Pearson taught them to create and manage. Pearson will make a long-term commitment to create a comprehensive website for UM that is relevant within the online program's industry through continuous content creation and link building. We will also develop dedicated social media assets to facilitate the discussion online about UM's programs.

Pearson makes extensive use of social media channels in our marketing. Our marketing plans include the development of customized, multi-faceted social media strategies that can: build

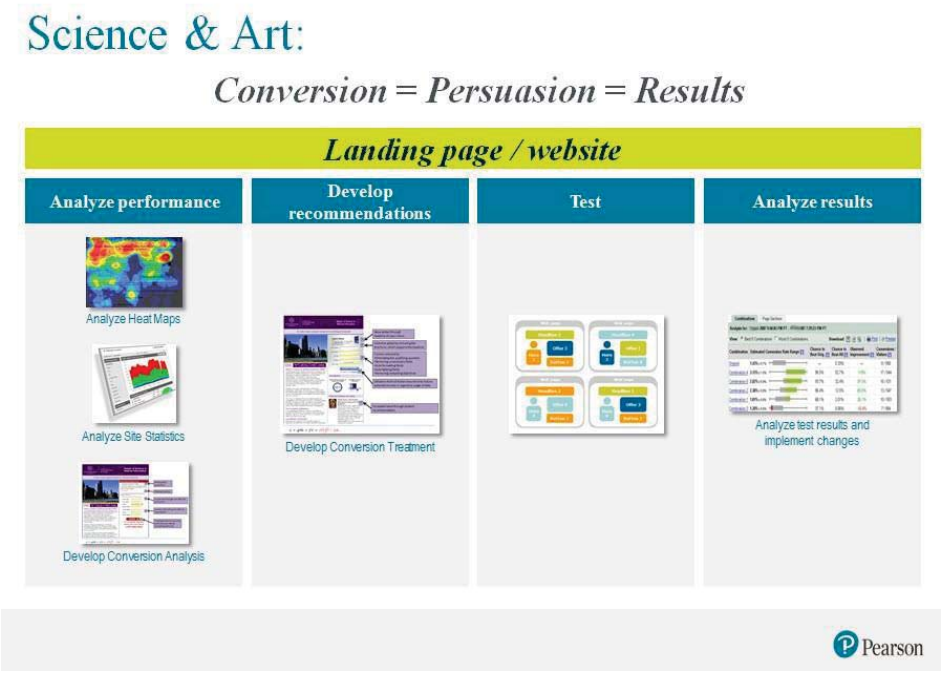
awareness; help you manage your reputation; and drive inquiries. A variety of social media channels are used including Facebook, YouTube, video blogs, Twitter, LinkedIn, and many more.

Testing and Optimization

Testing and optimization are at the heart of our marketing operations at Pearson. From the marketing messaging and creative development to our SEO and performance, we continually use market data and user feedback to inform strategic and tactical decisions. The end goal is for us to respond with real-time marketing tactics that will resonate with prospective students in a way that encourages affiliation with the university brand.

Pearson stringently tests and optimizes creative materials to continually improve conversion. A key differentiator between Pearson and its competitors is our focus on a second level of performance optimization at the asset level, in addition to the overall campaign level.

Pearson is unique in its commitment to asset testing and optimization using an empirically-derived heuristic formula for website and email conversion. A set of five variables represent the key attributes in the conversion sequence for web-based assets. Creative assets are evaluated and diagnosed with treatments that are based on the conversion formula, and then a testing plan is developed that may include extensive A/B and complex multivariate testing approaches to optimize conversion from website visitor to inquiry.



Pearson uses testing and optimization techniques to bolster our performance in the following areas:

- On-page conversion (traffic-to-lead)
- Audience segmentation messaging
- Creative asset performance (A/B and multi-variant testing)
- Keyword bids and search engine result page (SERP) placement
- Email open and click rates
- Lead to student conversion (through database marketing and webinar delivery)

Marketing Notes

1. Pearson is unique in our experience at providing full marketing support for the university's overall online presence, (e.g., ASU Online and Rutgers Online). Pearson often provides consultation to help our university partners better optimize their websites in synergy with our SEO efforts.

2. Faculty collaboration is also a regular part of the Pearson marketing strategies. We will request that UM stakeholders participate as members of our joint cross-functional team,

helping us to fully leverage ongoing faculty research, newly published works, speaking engagements, corporate outreach contacts, faculty blogging, and video content for the program websites and social media distribution.

3. Pearson is unique among our competitors in that we have developed the ability to generate prospective student inquiries (leads) internally without dependence on other third-party vendors; however, we do use other providers selectively where we find listings result in high-quality inquiries at attractive prices. Pearson generates the vast majority of inquiries for the online programs we support.

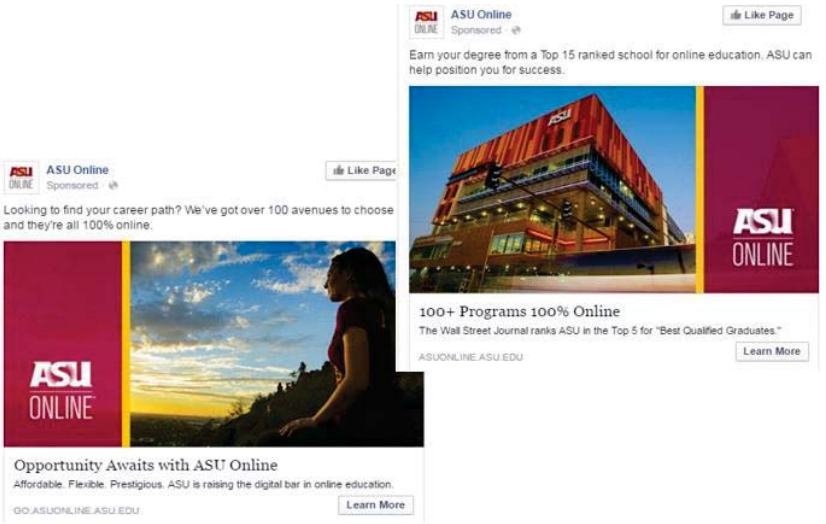
4. Interactive marketing assets and Pearson's program teams' email accounts are based on the "UM.edu" Internet domain, and will request that UM provide us with a sub-domain (CNAME) off the university website domain. This is optimal for search engine ranking performance and credibility in the eyes of prospective students. The services we provide are an extension of UM, and Pearson as an entity is invisible to prospective students.

5. We do not cross-market or cross-sell inquiries from one of our partners to another, unless there is a specific agreement in place between participating partners.

2. Provide examples of your integrated marketing and communication plan and execution with similar universities.

Pearson makes extensive use of social media channels in our marketing. Our marketing plans include the development of customized, multi-faceted social media strategies that can: build awareness; help you manage your reputation; and drive inquiries. A variety of social media channels are used including: Facebook, YouTube, video blogs, Twitter, LinkedIn, and many more.

These Facebook ads used in an advertising campaign resulted in ***239% Average Quarterly Growth*** to traffic to a landing page for all online programs, very similar to the type of broad-spectrum and higher-volume strategy that could be used for UM's new initiatives.



This Twitter advertisement also ***generated more than 27% in annual follower growth*** to the online program landing page. Other highlights in this example include ***a 32% level of engagement, 56% Tweet likes, and 44% mentions.***

Please visit a sampling of other program websites we support for our university partners at the following website URLs:

University Partner	Landing Page
University of Illinois at Chicago	http://healthinformatics.uic.edu/
University of New England	socialwork.une.edu
University of Southern California	communicationmgmt.usc.edu
University of Southern California	publicadmin.usc.edu
University of Southern California	http://onlinellm.usc.edu/
University of Southern California	mphdegree.usc.edu
University of Cincinnati	www.behavioranalysis.uc.edu
The George Washington University	http://healthcaremba.gwu.edu/
Northeastern University	http://onlinemba.neu.edu/
Northeastern University	http://onlinemsf.neu.edu/
Washington State University	http://omba.WSU.edu/
Wake Forest University	http://counseling.online.wfu.edu/

Please see ***Appendix K: Marketing Assets*** where we share other asset testing examples.

3. At what point, do you transition the student from your marketing and communication to the institution's? What is the process?

Pearson's best practice is to assist the student from first point of contact through developing a completed admissions file. We provide UM with a completed application based on your admissions criteria. It is the Institution that then makes the admissions decision. Upon being admitted into the program, that student enters the university's SIS systems and is introduced to his or her Student Success Advisor (a Pearson employee) who will support that individual throughout their time at UM.

The dedicated Pearson Student Success Advisor focuses on:

- **New student onboarding**—Establishing the coaching relationship is critical to the students' journey. This includes ensuring key steps are completed to maximize opportunity for success, preparing the students for the reality of going back to school, and helping with long- and short-term goal setting.
- **One-to-one relationship building**—Creating a personalized coaching relationship minimizes unnecessary attrition. Students are assigned a Student Advisor who will be their dedicated support system from acceptance to graduation. Our belief is that this consistency in a students' educational journey makes a student more likely to raise his/her hand when faced with challenges than to self-select out.
- **End-to-end support**—Although new students need an additional level of support and oversight, outreach and oversight remain constant from acceptance to graduation.

4. Describe your preliminary marketing plan to target qualified students that are beyond the University's current reach.

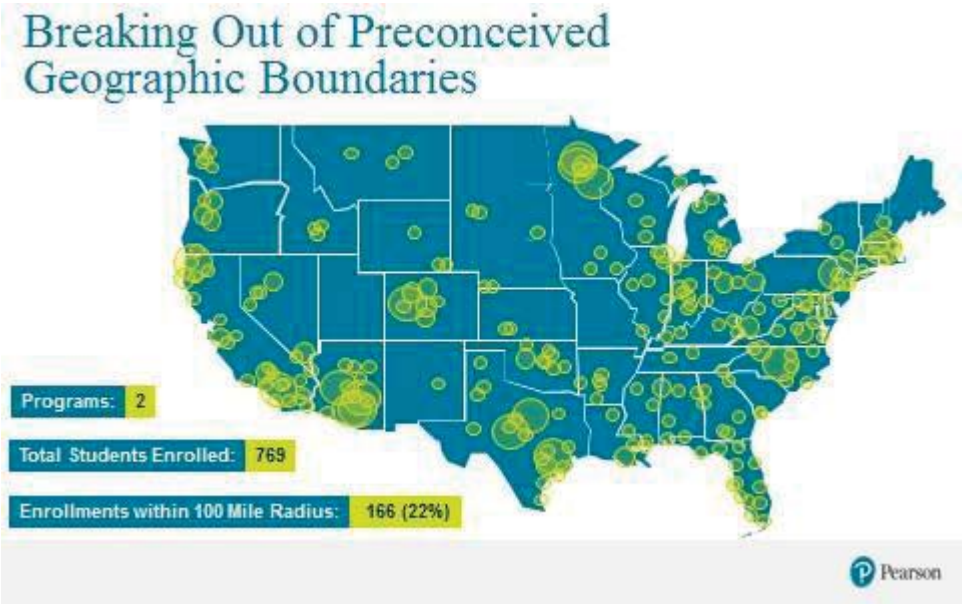
Reversing the 80/20 Rule

The growth of your online programs requires an OPM provider to successfully find and enroll quality in-state students and those from beyond local, state, and regional boundaries. This is particularly meaningful for the University of Montana (UM) whose region (Montana, Idaho, Wyoming, North Dakota, and South Dakota) has a relatively small population and whose stated goal is to expand its national and global footprint. Yet the traditional OPM industry and each of our competitors claim that nearly 80% of your online learners will reside within 100 miles of the

brick and mortar campus. The traditional OPM industry's advice—expand program offerings locally rather than attempt to attract distant students.

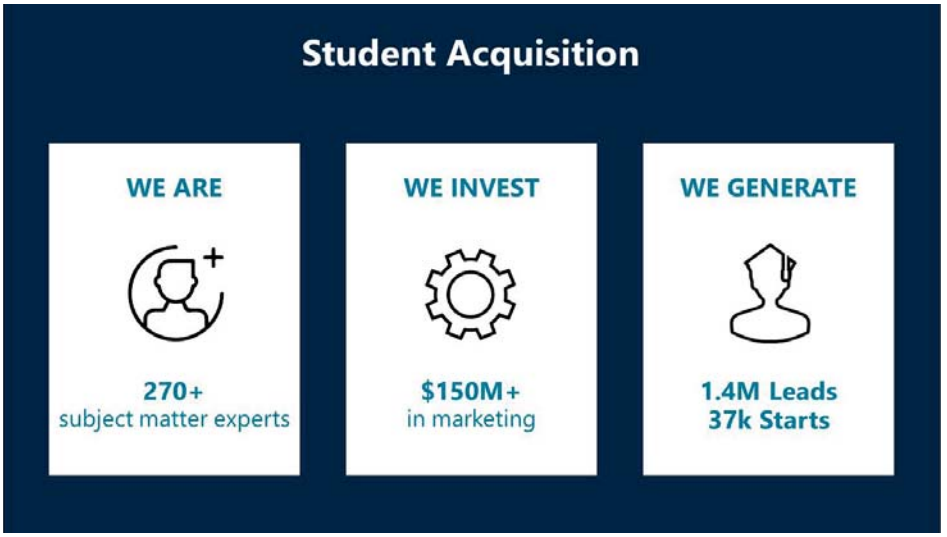
Pearson finds this urban legend to be self-fulling, (of course it is where your institution is best known), contrived for the inadequacies of a meaningful, national student engagement strategy, unsustainable given the regional population, and completely without merit. Our approach, rooted in a deeply held conviction that we have a stake in making higher education more accessible, has achieved an opposite impact. Nearly 80% of students from mature Pearson partnership programs (those in market more than 2 years), come from outside the 100-mile radius of the brick and mortar campus. By leveraging Pearson's expertise, experience, and marketing scale ($150M in billings, Google and Facebooks largest higher education client) Montana can redefine its historical notions of student enrollment boundaries.

The following graphs show the geographic distribution of students for two of our university partners. The first is a school in Ohio, and the second is a partner in Arizona. In both cases, the data illustrates the geographic diversity in the student populations you should expect from working with us. In fact, the average across all our partners and programs is between 70–80% of students in online programs come from outside the 100-mile radius of the school.



5. Describe your ability to provide high-quality expertise in marketing areas such as search engine optimization, customer relationship management, etc.

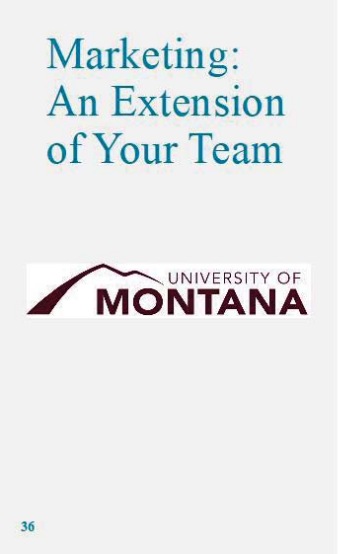
We are a full-service, performance-based marketing agency with a range of subject matter expertise. With more than 270 experts across the marketing department and more than 150 million dollars in direct marketing annual spend, we have industry power to work directly with both Google and Facebook and leverage and test new technologies.

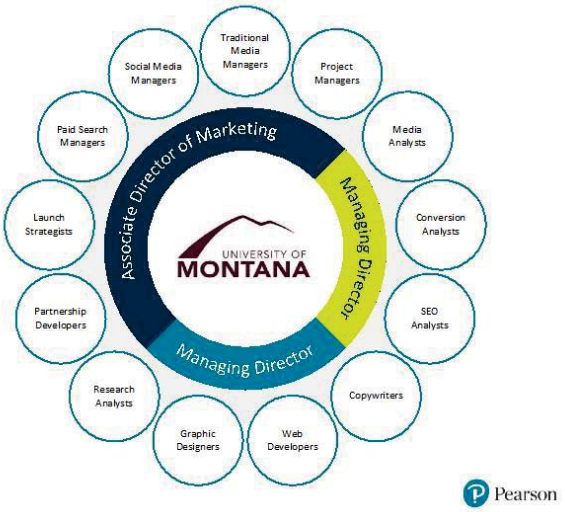


Our marketing team includes account/customer relationship managers, market research analysts, graphic designers, web developers, copywriters, SEO analysts, conversion analysts,

media analysts, project managers, traditional media managers, social media managers, paid search managers, launch strategists, association partnership developers, and database marketing specialists.

Upon partnering with Pearson, UM will be paired directly with a business unit that has a dedicated Partnership Director and dedicated student acquisition team based on the needs of UM. Together, they will operate as an extension of your marketing and recruiting team, working on your behalf to garner a high volume, quality potential students.





Each potential student's enrollment experience includes digital communications that provide brand-level messaging to build trust and community, action-driving messages to set expectations and introduce the value they'll receive throughout the enrollment experience.

All aspects of this experience are recorded in our CRM, which provide performance insights and trigger customer service activities based on the potential student's enrollment status.

6. Describe your ability to inform the University in situations where digital marketing might trigger a State Authorization requirement.

Prior to launching student acquisition efforts, we work with our Academic Partners to identify and complete actions required by State Authorization. Our in-house legal experts deeply understand each state's requirements and provide recommendations on the approach to

receive authorization. In the few cases where authorization is not viable, our student acquisition team follows best practices that:

- Suppress digital and traditional advertising in unauthorized states
- Alert website visitors about the conditions of their state's authorization
- Verbally discuss our inability to provide online education based on the potential student's location

7. Describe your company's plans to ensure that university approval is secured for all marketing collateral to include: marketing messages, approval of marks, and approval of distribution plan.

Prior to any creative asset and/or marketing collateral being released in the public domain, Pearson submits those materials to an UM designee for written approval. Because many of the materials are time sensitive, we establish an approval protocol early in the engagement.

8. Describe in detail your company's approach to recruiting from initial point of contact through admission and program start.

Recruitment, Admissions, and Enrollment Services

Pearson's Enrollment Advisors are well paid, highly-respected, professional positions in our organization. All have bachelor's degrees, a significant number hold advanced degrees, and in some cases, have experience in a field related to the program(s) they serve. In training, for example, our EAs are asked to shop for an online program they themselves might genuinely be interested in and keep a detailed journal of their experiences. We then debrief these journals among the training class, so they understand the different approaches to prospective students' experience, and brainstorm together about the best way to approach it from the prospective student's point of view. We set expectations of behavior in a very engaging way.

Our Enrollment Advisors take a consultative recruitment approach to working with prospective students asking questions to guide the prospective student in uncovering their needs and objectives and then helping them determine their fit for the program. This is not an aggressive "sales-type" approach, but rather a patient and persistent relationship process following a communication plan (reviewed and approved by UM) that ensures rapid and frequent contact with each prospective student and deep relationship building throughout the student recruitment cycle.

One of Pearson's most important distinctions from its competitors is that Pearson does not run a traditional "call center." This term connotes a paradigm of transactional interactions and low-skilled employees applying scripts. This notion is completely foreign to us. Our recruitment staff is dedicated to UM and will specialize in certain programs or set of closely related programs, rather than supporting a broad range of programs across academic disciplines and institutions. Enrollment Advisors become extremely knowledgeable regarding the programs they support. They learn to speak the language of their prospective students. It is this deep knowledge, the cross-functional program team environment, and the quality of our staff that sets Recruitment Services apart from other traditional call center solutions. We invite you to visit one of our facilities and meet our frontline staff.

CRM System, Process, Workflow, and Management Support

This service area makes extensive use of Pearson's proprietary CRM system (based on Microsoft Dynamics) that has been customized over 25 years specifically for dealing efficiently with new prospects and students. It allows our Enrollment Advisors to track prospective students through a set of statuses in the recruitment pipeline and report progress and provide new student forecasts on a weekly basis back to UM. Our CRM also allows for recruitment workflow with a call calendar that plans future call/email activity based on a prospect's status in the database and the resolution of the previous discussion, and many other functions including an activity log that captures every communication with a prospective student. It saves both

inbound and outbound email and call notes for each unique record for future reference and possible training opportunities.

The CRM system also supports our management practices, which include regular database auditing to ensure every inquiry receives equal and thorough attention and all written communication is appropriate and pertinent. We employ side-by-side call monitoring, secret shopping, and provide coaching and development to our Enrollment Advisors.

The Pearson CRM System offers a set of customizable tools that revolves around each individualized contact record. Each interaction with the prospect is tracked and recorded on the history tab. Enrollment Advisors and managers can easily refer to any written communications and call notes that have been made with each prospect.

The Pearson CRM system:

- Enables team members to interact effectively and efficiently with contacts.
- Provides equal attention to each inquiry (lead) that enters into the database.
- Enables institutional memory for each prospective student, regardless of the advisor.
- Allows users to schedule and track all activities associated with each prospective student “contact”.
- Stores a history of all inputs to the system and tracks pending/upcoming events.
- Provides an option for Pearson to perform audits of the database to make sure that each prospect is being reached and effectively managed.
- Uses Click-to-Call technology, for effective time management.
- Uses an automated courses tab to help advisors and coordinators keep track of student progress throughout the program.
- Provides structured and automated sequences of communication that have been pre-approved by UM.
- Feeds source codes and keyword data to the marketing campaign for optimizing the media plan.

The CRM system is only accessible within the Pearson network, behind a firewall, and is not public facing to maximize security. Access is granted to only those Pearson staff who require it to perform their job function. Access is controlled by Active Directory authentication and further restricted through granular application security roles that grant access to different modules

within the CRM system. As part of internal audits, user access is examined on a scheduled basis.

Pearson uses the admission policies put in place by UM as the standard to provide guidance for prospective students. The university sets the standards, and our Enrollment Advisors communicate application status to prospective students throughout the admission process, track pieces of the application packet until it is complete and notify the admissions review committee as applications are completed electronically. These admissions processes are completely unique and customized to the institutions we serve, as determined in the Institutional Readiness Assessment and the launch project. We assemble an application checklist that is reviewed by both the Enrollment Advisor and the Program Coordinator to ensure each is complete, before notifying the university for final processing and admittance decisions.

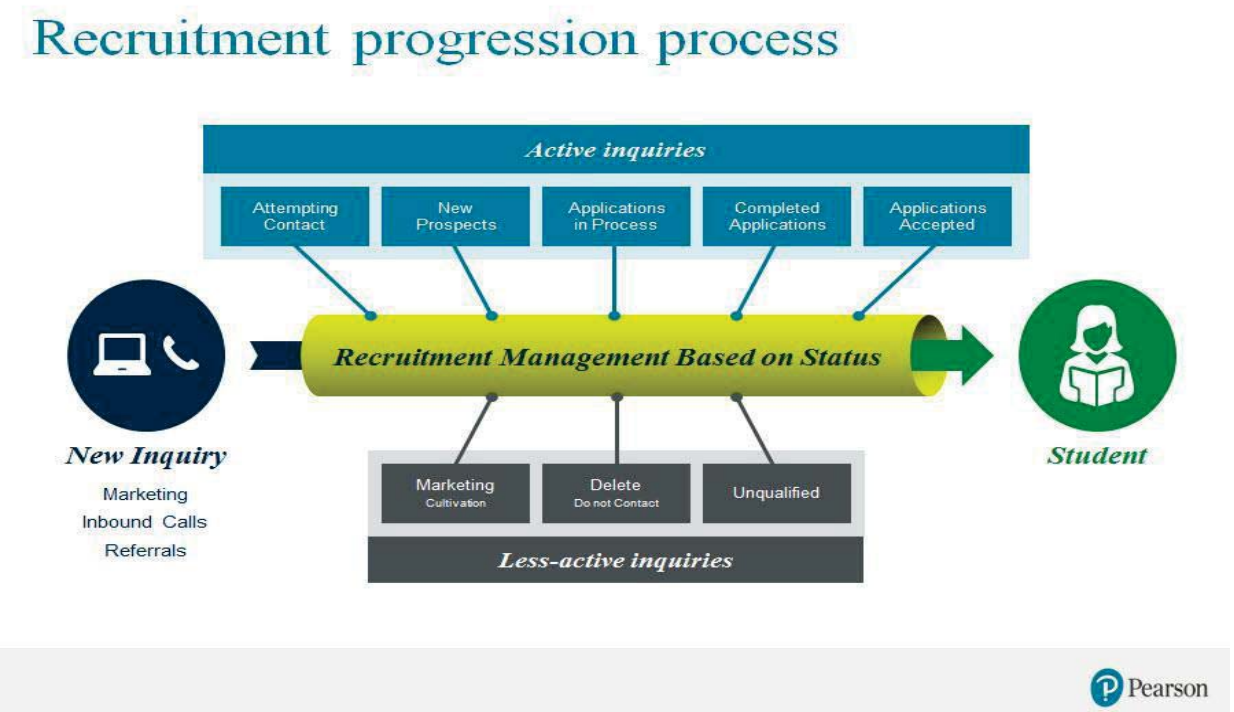
Pearson excels in student recruitment, while earning the trust and pride of our university partners by providing exemplary service that represents and upholds the university's reputation and brand professionally. We far exceed expectations in terms of responsiveness and quality of communication with student prospects.

Lead Management

In attempting to contact a prospective student for the first time, Pearson's Enrollment Advisors execute a prescribed communication plan (reviewed and approved by UM) integrating phone calls and voice messages with an automated email sequence until the prospective student engages them in a conversation about the online program.

Pearson develops recruitment communication plans that are unique to each online program and that speak to the motivations and concerns for that particular degree program's target audience. These plans are built upon the research that was completed during the original assessment phase, the Brand DNA process, and launch activities. The Lead Enrollment Advisor and Recruitment Services Manager participate in the launch visit and study other program materials in preparation to draft the email templates used in the automated sequence for attempting to contact new inquiries.

The following graphic illustrates how prospective students move through the recruitment process:



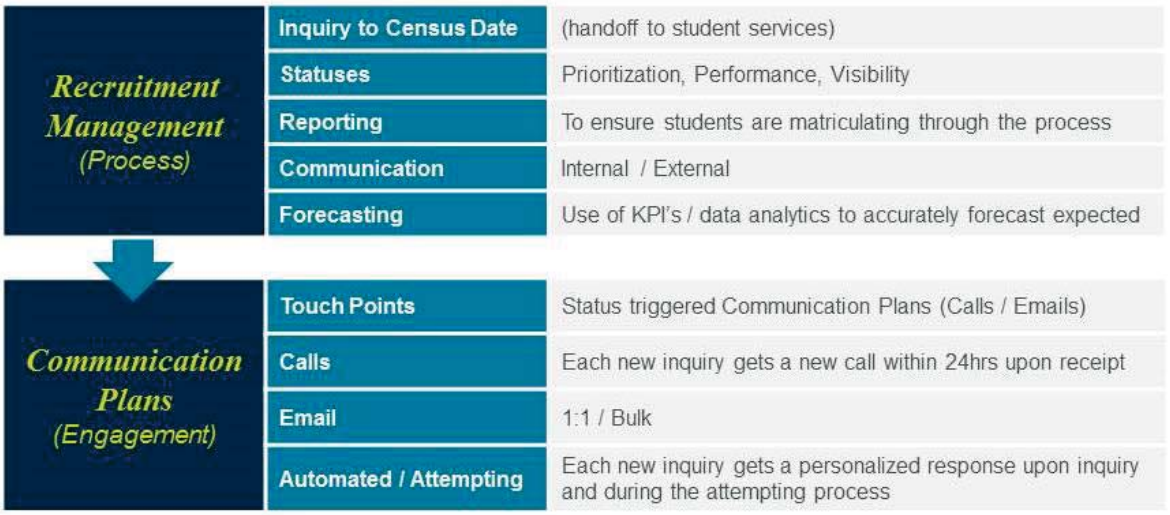
While the templates are a valuable tool for the automated email sequence employed in the attempting contact phase and for other specific purposes, much of the communication with our Enrollment Advisors is freeform and customized for each student's questions and concerns. There is no substitute for an Enrollment Advisor with deep knowledge about the program offering, market factors influencing students to seek further education, and the institution itself who can speak authentically as a representative of the university. We have learned that the key to quantitative success is to provide a very high-quality service experience for prospects.

After contact is made, the assigned Enrollment Advisor engages in meaningful personalized conversations regarding the prospective student's motivations, concerns and timelines for education. The advisor relays timely and accurate program information, qualifies prospective students based on program admission requirements, and provides advice and counseling regarding financial aid options and the application process.

Pearson assigns a status to every inquiry/lead in our database. For the "New" and "Attempting Contact" statuses, each lead receives the automated email sequence and integrated phone call communication plan established for the program. If we don't connect with the prospect via phone, we leave a voice message every time we call. After the prospective student engages an Enrollment Advisor in a meaningful discussion about his/her educational needs and the program

attributes, the prospect enters the “Recruitment Process” statuses. From that point forward, all communication is personal and customized with each student and his/her assigned Enrollment Advisor. Certain statuses reflect students in the application and registration phases, while others represent inquiries that wish to be contacted at some point in the future, or those we were never able to engage.

This graphic illustrates our Recruitment Operations methodology:



We do not cross-market or cross-sell inquiries from one of our partners to another, unless there is a specific agreement in place between participating partners.

9. Provide supporting statistics to illustrate your success, such as typical yield (i.e., percentage of offers of admission that result in matriculation) for institutions similar to the University of Montana.

Arizona State University

- Scaled from 4,200 to 41,000 online students in six years
- Expanded portfolio of fully online programs from 33 to 170
- Grew online freshman class from 100 to 2,200
- Ranked #4 nationally in online bachelor’s degree programs for two consecutive years

10. Describe your ability to maintain contact with prospective students through the recruitment and enrollment process.

Pearson applies a highly proactive approach to supporting and thereby retaining students. And we provide outstanding technical assistance for students and faculty alike on a 24/7/365 basis.

A period of high-risk exists for students between the time they register and their continued engagement through the beginning of the second semester, we place significant effort on supporting students through this specific time period.

Support during this time begins with a high focus in preparing each student to start.

After an application is completed, it is sent to UM for admissions review. Our recruitment team advises potential applicants regarding the admissions requirements but doesn't make admissions decisions. Accepted students receive follow-up communication from their EA regarding the course registration process. After new students are registered, their EA schedules them for the Welcome Call and learning preparedness interview with their newly assigned Program Coordinator (Retention Specialist) as the handoff point between functions. Both roles are members of the Cross-Functional team.

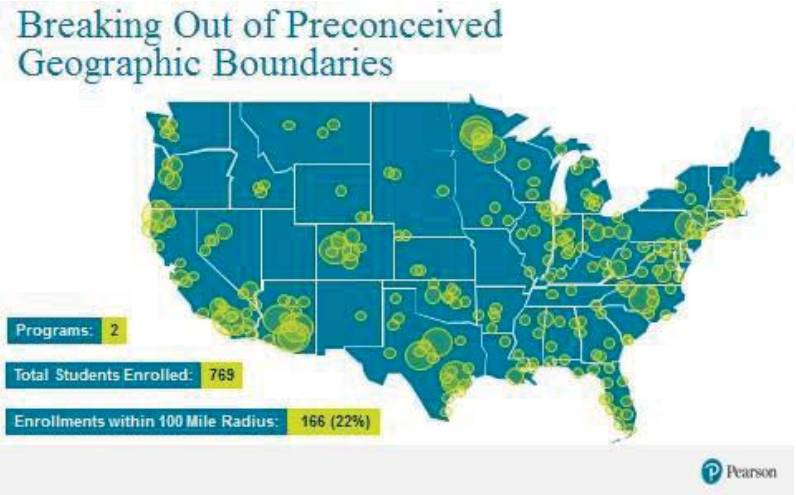
The learning preparedness interview prepares students for success in the experience that lies ahead. Not only are important transactional details like book orders and software versions covered, but equally important motivational and time management topics, like planning study time into the student’s weekly calendar are discussed.

The final step in this phase is the online course orientation. The Pearson Program Coordinator acts as the course facilitator and leads students through activities using the tools and skills students will need to be comfortable participating in the online course. These certainly include discussion boards and chat rooms, but also synchronous tools and social media tools like blogs and wikis. The orientation course is custom developed based on the tools and approaches used in the program courses themselves at UM.

11. Describe your company strategies for and evidence of success in marketing and recruiting regionally, nationally, and internationally. Provide supporting statistics to illustrate your success.

Pearson has developed the most robust marketing organization in the history of OPM. Across the portfolio and more than 300 programs, we recruit between 70% and 80% of our students from outside the 100-mile radius of the brick and mortar campus. What sets us apart is ability to effectively market nationally. It has proven to be important for growth and maintaining the quality of the program, the diversity of the student population and the strength of the student experience.

The following graphs show the geographic distribution of students for two of our university partners. The first is a school in Ohio, and the second is a partner in Arizona. In both cases, the data illustrates the geographic diversity in the student populations you should expect from working with us.



International Overview

Along with our traditional marketing channels, Pearson has begun to expand its reach internationally. We are proud to be an edX channel partner, driving new audiences to edX courses (certificates) through Pearson's global reach and extensive marketing channels. Our goal is to combine the student recruiting and support capabilities of the world's largest education company with the best courses from leading universities—delivered on edX—to create a greater impact together. This has proven to be beneficial for international students who are often seeking success in a course or certificate before committing to the expense of a degree.

How it Works

Pearson selects edX programs to offer based on international region market demand and partner interest, and leverages its marketing channels and network to recruit new learners to your courses. Learners can also discover these courses through Pearson's regional sites and are enrolled directly in the courses running on edx.org through an enrollment API. We are committed to adding value to university partners by investing in marketing services to promote your courses to new audiences. We are equally committed to adding value to learners by offering additional support services to improve engagement, retention, and outcomes.

Our Impact—A Case Study

In an initial pilot, Pearson doubled the number of paid learners from India who bought the full Supply Chain Management MicroMasters program from MIT.

- In India, Pearson recruited learners through a custom portal,
- Learning centers offered a blended option to complete the course with local community.
- Student support services provided regular check-ins to keep learners engaged.
- Local industry applications and career services increased relevance to learners in India.
- 87% of the Pearson learners are on track to complete the program.

12. Provide any available statistics on the graduation/completion rates of students in academic online programs for which your company provides marketing and recruitment services.

Term over Term Retention Rates:

- 95% 1st to 2nd term
- 95%+ 2nd term and beyond

Drop rates < 9%:

- 65%-90% on time graduation rates (across portfolio of bachelor, master, doctoral programs)

13. It is very important that marketing and recruitment efforts be appropriate for public higher education and support the academic reputation and vision of the University of Montana. Describe the checks and balances you have in place that safeguard against hard-sell or high-pressure tactics.

Pearson develops recruitment communication plans in partnership with the University that are unique to each online program and that speak to the information for that particular degree program's audience. These plans are built upon the research that was completed during the original assessment phase, the Brand DNA process, and launch activities. UM will have the ability to approve final communications plans.

Brand Strategy Development

Our Brand DNA process sets the foundation for all marketing materials associated with a partner and program. Pearson develops a collection of specialized marketing assets for each program, depending on the media channels selected and audience segments identified. Each of these assets is approved by UM's representative before it is launched.

The Brand DNA process results in important outcomes:

- More focused, service-oriented recruitment calls and correspondence between prospective students and Pearson Enrollment Advisors.
- More trusting and collaborative working relationships with our Academic Partners.
- Faster and smoother asset and content approvals between the university and Pearson.

Employee Selection, Training, and Management Practices

There is no substitute for an Enrollment Advisor with deep knowledge about the program offering, market factors influencing those programs, and the institution itself who can speak authentically as a representative of the university. We have learned that the key to quantitative success is to provide a very high-quality service experience for prospects.

One of Pearson's most important distinctions from its competitors is that Pearson does not run a traditional "call center." This term connotes a paradigm of transactional interactions and low-skilled employees applying scripts. This notion is completely foreign to us. Our recruitment staff is dedicated to UM and will specialize in certain programs or set of closely related programs,

rather than supporting a broad range of programs across academic disciplines and institutions. Enrollment Advisors become extremely knowledgeable regarding the programs they support. It is this deep knowledge, the cross-functional program team environment, and the quality of our staff that sets Recruitment Services apart from other traditional call center solutions. We invite you to visit one of our facilities and meet our frontline staff.

Pearson applies a rigorous selection process and a lengthy training regimen for this important student-facing position. Enrollment Advisors are well paid, highly respected professional positions in our organization who receive regular performance evaluations aimed at helping them improve; these include database audits, side-by-side shadowing, call recording reviews, and secret shopping evaluations. They are never compensated for enrollments.

Pearson uses the admission policies put in place by UM as the standard to provide guidance for prospective students. To ensure this quality and experience happens beyond training, every call is recorded. A dedicated Quality and Improvement team monitors calls and will score thousands of those calls to ensure consistency of the message catered to each student and a quality representation of the university brand and programs.

Pearson has invested into state-of-the-art call analytics to translate each sound (word) into text and analyze sentences into reports to understand and report on conversations and sentiment analysis. In this way we are best able to understand each conversation better than others in Higher Education. To conclude, we leverage Net Promoter Scores (NPS) to understand the student experience and share that with our employees and Academic Partners.

Misrepresentation Compliance

- *Training*—All Pearson employees who interact in any way with an Academic Partner's students or prospective students will be periodically trained and tested. Marketing Managers, Enrollment Advisors, Enrollment Coordinators, and Program Coordinators are trained and tested on key facts pertaining to the Academic Partner and online program.
- *Testing*—Pearson engages in random "secret shopping" of online programs to ensure that all student and applicant communications with Enrollment Advisors and Program Coordinators meet the requirements of the misrepresentation regulation and our best practices standards.

Incentive Compensation Compliance

- *Internal Position Evaluation*—Human Resources and Regulatory & Legal Affairs evaluate all positions and classify each employee as either “covered” or “non-covered” under the incentive compensation regulation.
- *Compensation Policy*—Human and Regulatory & Legal Affairs have drafted a covered employee compensation policy to meet the requirements of the incentive compensation regulation.
- *Outside Counsel Evaluation*—Pearson engaged the Cooley Law Firm, with the nation’s premier higher education practice group, to evaluate our tuition revenue share business model and compensation policy for drafting a memorandum as to our compliance with the regulations.
- *Annual Compliance Audit*—Pearson conducts an annual compliance audit to ensure that our compensation practices meet requirements applicable to Pearson under the incentive compensation regulation.

14. Describe your plan to avoid direct competition for leads among your institutional partners.

We do not share leads amongst our academic partners. Our philosophy is we share best practices, so we can optimize the learnings across the portfolio. Performance is contained in the business unit team that oversees the Academic Partner relationship.

15. Identify the process(es) by which the company, to the extent it partners with other similar entities (institutions of higher education), resolves any potential conflicts of interest.

Pearson prevents any conflict of interest regarding program choice by assigning an exclusive team to UM. All potential students (“leads”) who have expressed interest in UM and its program(s) remain exclusively an UM lead. Given the significant investment made by Pearson on behalf of our institutional partners, we would only launch programs that would have growth potential for both parties.

D. Enrollment Management and Student Retention

1. Describe your process for assisting the University in managing enrollment in online programs and how you would address the following areas:
   a. application process
   b. communication plan
   c. academic calendar
   d. payment processes and deadlines
   e. training
   f. overall streamlining of the enrollment process.

Recruitment, Admissions, and Enrollment Services

Our Enrollment Advisors take a consultative recruitment approach to working with prospective students asking questions to guide the prospective student in uncovering their needs and objectives and then helping them determine their fit for the program. This is not an aggressive "sales-type" approach, but rather a patient and persistent relationship process following a communication plan (reviewed and approved by UM) that ensures timely contact with each prospective student and deep relationship building throughout the student recruitment cycle.

CRM System, Process, Workflow, and Management Support

The Enrollment Management service area makes extensive use of Pearson's proprietary CRM system (based on Microsoft Dynamics) that has been customized over 25 years specifically for dealing efficiently with new prospects and students. It allows our Enrollment Advisors to track prospective students through a set of statuses in the recruitment pipeline and report progress and provide new student forecasts on a weekly basis back to UM. Our CRM also allows for recruitment workflow with a call calendar that plans future call/email activity based on a prospect's status in the database and the resolution of the previous discussion, and many other functions including an activity log that captures every communication with a prospective student. It saves both inbound and outbound email and call notes for each unique record for future reference and possible training opportunities.

The CRM system also supports our management practices, which include regular database auditing to ensure every inquiry receives equal and thorough attention and all written communication is appropriate and pertinent. We employ side-by-side call monitoring, secret shopping, and provide coaching and development to our Enrollment Advisors.

The Pearson CRM System offers a set of customizable tools that revolves around each individualized contact record. Each interaction with the prospect is tracked and recorded on the

history tab. Enrollment Advisors and managers can easily refer to any written communications and call notes that have been made with each prospect.

The Pearson CRM system:

- Enables team members to interact effectively and efficiently with contacts.
- Provides equal attention to each inquiry (lead) that enters into the database.
- Enables institutional memory for each prospective student, regardless of the advisor.
- Allows users to schedule and track activities associated with each prospective student "contact."
- Stores a history of all inputs to the system and tracks pending/upcoming events.
- Provides an option for Pearson to perform audits of the database to make sure that each prospect is being reached and effectively managed.
- Uses Click-to-Call technology, for effective time management.
- Uses an automated courses tab to help advisors and coordinators keep track of student progress throughout the program.
- Provides structured and automated sequences of communication that have been pre-approved by UM.
- Feeds source codes and keyword data to the marketing campaign for optimizing the media plan.

The CRM system is only accessible within the Pearson network, behind a firewall, and is not public facing to maximize security. Access is granted to only those Pearson staff who require it to perform their job function. Access is controlled by Active Directory authentication and further restricted through granular application security roles that grant access to different modules within the CRM system. As part of internal audits, user access is examined on a scheduled basis.

Transition from Recruitment to Retention

UM is notified when applications are complete and ready for admissions review. Our recruitment team advises potential applicants regarding the admissions and program requirements but doesn't make admissions decisions. After accepted, students receive follow-up communication from their Enrollment Advisor regarding the course registration process. Enrollment Advisors support each student through registration and are not credited with an enrolled student until the student is registered, paid, and made it past the drop/add deadline without dropping.

After admitted, students are assigned to a Program Coordinator who will be their main point of contact throughout the program for all non-academic questions and concerns. During the period between admission and the start of classes, both the Enrollment Advisor and the Program Coordinator are involved in a transition that involves the following:

- Enrollment Advisor will send students a welcome package containing all program and process details, a checklist of next steps as well as a video from their Program Coordinator welcoming them to the program and reviewing the program and school policies and procedures.
- Enrollment Advisor will then schedule an appointment for the student to connect with their Program Coordinator and this conversation will generally happen within five days of admission.
- The Program Coordinator will reach out to the student as scheduled to better understand the students' goals, motivations and concerns and to ensure that they have completed all critical next steps to be setup for success.
- The Program Coordinator will monitor to ensure the student has completed all the key steps to be ready for day one (completed the online program orientation, registered for class, ordered the right books, has appropriate software, setup UM email, has financial aid, etc.).
- Program Coordinator will follow up with student, at minimum, the week prior to the start of class as well during the first week of their course.
- The Program Coordinator will work in collaboration with Enrollment Advisors, during this stage, to help support any at-risk students.

2. Describe how your company ensures that once enrolled in an online class or degree program students are provided with essential support for individual classes and overall progress to degree completion.

Universities often spend a disproportionate amount of resources on marketing and recruiting new students and significantly less of its time and resources on student retention. Pearson places great importance on the retention of students, knowing that it is cornerstone of academic reputation for the institution and invaluable to those students learning at a distance. Pearson's returning retention rate across the portfolio of programs and institutions is more than 95%, often exceeding retention rates of like on-ground programs.

Student Success Services

Pearson applies a highly proactive approach to supporting and thereby retaining students. And we provide outstanding technical assistance for students and faculty alike on a 24/7/365 basis.

We know a period of high risk exists for students between the time they register and their continued engagement through the beginning of the second semester, we place a significant effort on supporting students through this specific time period.

Support during this time begins with a high focus in preparing each student to start.

After an application is completed, it is sent to UM for admissions review. Our recruitment team advises potential applicants regarding the admissions requirements but doesn't make admissions decisions. Accepted students receive follow-up communication from their Enrollment Advisor regarding the course registration process. After new students are registered, their Enrollment Advisor schedules them for the Welcome Call and learning preparedness interview with their newly assigned Program Coordinator (Retention Specialist) as the handoff point between functions. Both roles are members of the Cross-Functional team.

The learning preparedness interview prepares students for success in the experience that lies ahead. Not only are important transactional details like book orders and software versions covered, but equally important motivational and time management topics, like planning study time into the student's weekly calendar are discussed.

The final step in this phase is the online course orientation. The Pearson Program Coordinator acts as the course facilitator and leads students through activities using the tools and skills students will need to be comfortable participating in the online course. These certainly include discussion boards and chat rooms, but also synchronous tools and social media tools like blogs and wikis. The orientation course is custom developed based on the tools and approaches used in the program courses themselves at UM.

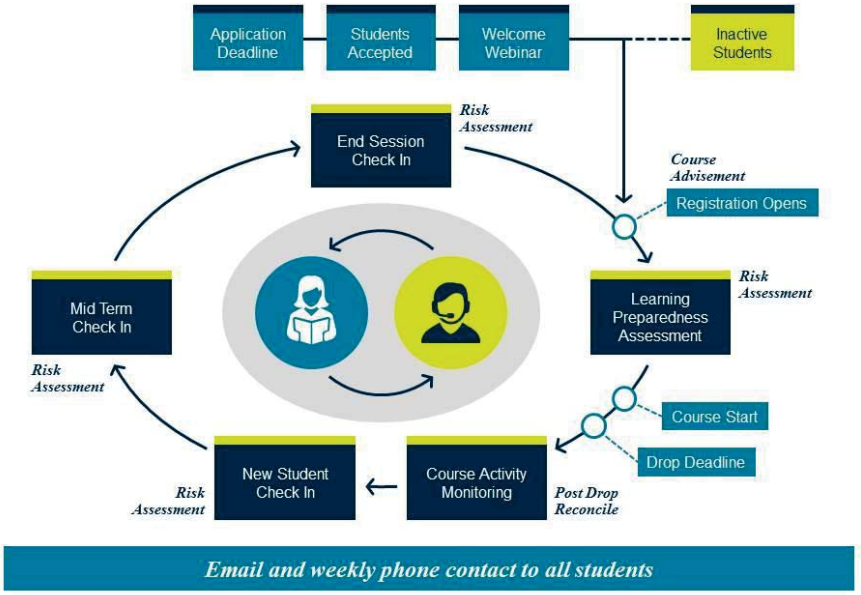
Retention Approach

Pearson strongly believes in employing proven retention practices that begin with the student's first semester and last through to graduation. Pearson assigns dedicated retention specialists, referred to as Program Coordinators, to each online program. Following a proactive, prevention-

based approach, Program Coordinators deliver personalized retention-focused support to each student for the entire educational experience. Pearson student support personnel work from a program-specific student support timeline that plans for timely and proactive communication via phone, chat, and email to all enrolled students at critical points during each term.

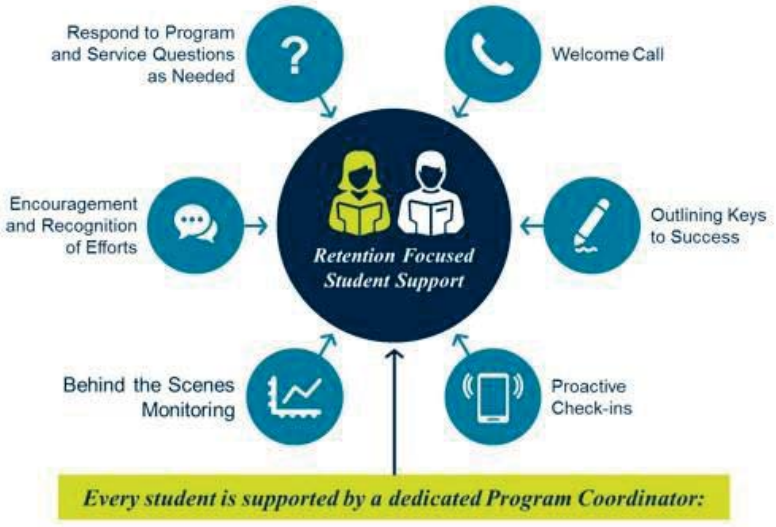
The dedicated Pearson Program Coordinator:

- Ensures online students are registered and have all necessary login information prior to commencing classes
- Builds personal relationships with each student
- Conducts the Welcome Call—learning preparedness interview
- Leads the online course orientation for new students
- Monitors course activity and other at-risk behavioral indicators
- Identifies and coaches at-risk students to maximize student success and to facilitate retention
- Contacts all students during the first week of class
- Engages inactive students to return to the program
- Contacts students to receive course/program evaluations and feedback



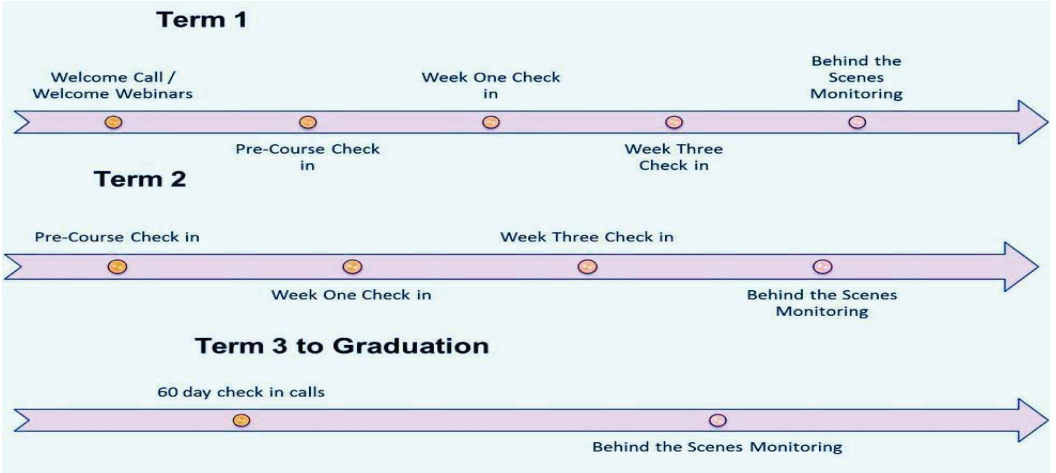
Pearson Program Coordinators act as an extension of faculty and staff, providing student counseling and facilitation and bridging the gap between online learners and the university. Program Coordinators will internalize policies and procedures, know how to connect students with university resources as needed, and guarantee a consistent experience to all current students. This occurs as part of the Institutional Readiness Assessment and launch activities, where university processes and contacts are documented in the Prospectus, and touchpoints established between our organization and the university, to facilitate student support.

While professors will come and go from one course to the next, the Program Coordinator provides a thread of familiarity and consistency throughout the entire educational experience for the online student.



Pearson Program Coordinators support the students, through proactive and reactive methods focusing heavily on new students and students who are demonstrating at-risk behaviors. Specifically, they reach out to students who may be absent from their course sites; who fail to respond to their scheduling, personal, and logistical needs; and to those students who have dropped, withdrawn, or failed to register to encourage them to re-enroll in the program. Pearson is committed to maintaining high retention and graduation rates. To that end, our retention specialists meticulously measure and track key retention indicators and build support strategies around each stage of the student lifecycle.

Proactive Coaching



Responsive Coaching

Tools and Practices

Student Services believes that we need to meet students where they are, and we need to use a variety of tools to connect with them. Our communication plan contains a mixture of outreach modes depending on the reason for the communication. Proactive phone outreach is an

essential part of our relationship building philosophy, while email can serve as a great way to provide information that the student may need to refer to at a later point. Much research has also been done on the power of “nudging” students, sending short bites of information to students such as registration or payment reminders. Texting and social media are great ways to achieve this level of personalized communication. We also believe that connecting by video with our students is an important tool to make them feel more linked to the online experience; we use a combination of pre-recorded videos and live video calls to achieve this.

All interactions with students are recorded in our internal CRM and stored indefinitely should we ever need to access a student’s file for future reference. Call recording is also an important part of our process as it allows us to focus on the continual improvement to the quality of our communication.

Every program will be assigned a Student Services team that will be responsible for personalized student coaching, program and faculty support and optimizing retention. Our team works in close collaboration with the UM program team to ensure students receive a seamless experience that allows them to focus on their academics.

The dedicated Pearson Student Advisor focuses on:

- **New student onboarding**—Establishing the coaching relationship is critical to the student’s journey. This includes ensuring key steps are completed to maximize opportunity for success, preparing the students for the reality of going back to school, and helping with long- and short-term goal setting.
- **One to one relationship building**—Creating a personalized coaching relationship minimizes unnecessary attrition. Students are assigned a Student Advisor who will be their dedicated support system from acceptance to graduation. Our belief is that this consistency in a student’s educational journey makes a student more likely to raise his/her hand when faced with challenges than to self-select out.
- **End-to-end support**—Although new students need an additional level of support and oversight, outreach and oversight remain constant from acceptance to graduation.
- **Customized approach to meet the unique needs of the online student at your institution**—Online students represent a very different demographic than the traditional student and require a more intrusive approach to advising.
- **Community building**—Peer interaction and engagement are critical elements to

maximize retention and student satisfaction.

- **Proactive coaching**—Waiting for students to show at-risk behavior or drop their courses is missing a key opportunity to identify potential issues and provide preventative support. Research also shows the importance of the "nudge" in moving students forward on their path to graduation.
- **One-stop shop for students**—Online students need one resource as their main point of contact who both understands their individual needs and is very well connected to the policies and resources at the institution. This allows students to obtain the guidance and support they need with minimal effort and distraction from their academics.
- **Institutional commitment**—Online students need to feel connected to their institution and our team consistently fosters that sense of connection by keeping students informed of campus events, activities or upcoming sporting events. Our advisors are also required to immerse themselves in the culture of the institution, understanding its unique mission and vision.
- **Coaching for at-risk students**—Our goal is to prevent students from reaching the at-risk stage through our monitoring, proactive outreach, and partnering with institutional resources and faculty. However, despite our best efforts, there will be students who will still move in and out of at-risk status. Those students are provided a much more intrusive advising model, which includes short-term goal setting.
- **Re-engagement**—When a student takes time off, we work with the student at the front end to create a return to school timeline and plan and we hold students accountable to that plan. Our Advisors remain in contact with students throughout their hiatus to ensure they are on the path to re-entry.

At-risk Students

"At-risk" indicators are developed on a program-by-program basis and may include a student that hasn't logged into his/her course for a certain number of days, someone who frequently calls technical support, a student with a serious personal crisis or life-change situation (self-illness, family illness, death, promotion, job loss, new job, or pregnancy), or someone who has performed poorly on a previous course. Even mild situations, such as textbooks that have not arrived, are considered potential barriers to student success. If students are flagged as "at-risk," they are moved to that category in our student communication plan, resulting in immediate attention from their Program Coordinator who will reach out and provide coaching, guidance, and follow-up to help them through whatever situation they may be encountering.

Students who are struggling academically, will receive coaching and will be directed to any remedial resources that the university, school, or instructor may have available (live office hours, tutoring centers, remedial content, etc.). The Program Coordinator will communicate with the instructor and key program stakeholders at the university to notify them in these situations. Student concerns are regular topics for weekly cross-functional team calls that include university academic representatives.

As an example of our tremendous effort to improve student success and retention for our Academic Partners, we offer the following success story.

Situation: Student Services recently took over retention management on a suite of online programs that was being supported by a third-party fee-for-service function specific vendor. Immediately we noted that these programs were all well below our minimum acceptable retention thresholds and began an analysis to understand what was driving the subpar retention. We analyzed the sequencing of the curriculum, the drop rates by course and course registration patterns. We also reached out to students to gather feedback on their experience in the program.

Pearson evaluation: What we saw through both the quantitative and qualitative feedback is that students were not being set on a path to graduation, students were not being on-boarded into the program in a proactive way that set them up for long-term success, and the course sequence structure was resulting in forced breaks in student's schedules.

Solution: We took the data and feedback and met with the school to recommend a path forward, identifying key elements that internally we believed we could do to better support their students, as well as process and course sequencing recommendations.

Results: The results of our efforts and close collaboration with the school led to an 11% to 22% increase in the number of students moving from their first semester to their second semester, a key indicator of overall retention and sets the pace for future graduation rates. Additionally, we continue to work closely with this partner to fine tune our processes and enhance the student experience and we continue to see positive momentum in both retention and student feedback.

With more than 300 online degree programs, there are many more stories like this to showcase the true meaning of partnership.

3. Describe how your company measures student achievement and success in programs and provides available information to the University.

UM will have 24/7 access to Pearson's proprietary dashboard system which is updated in real time. Our student achievement measurements include term over term retention rates, drop rates and on time graduation rates. We survey our students frequently to identify opportunities for improvement. Additionally, we will track the number of enrollments to budget and anticipated enrollments to budget. Survey results are provided to the institution upon completion and improvement opportunities are reviewed either monthly or quarterly with the relevant parties on campus. Measurements include:

- Term over Term Retention Rates
- Drop rates
- On time Graduation
- Student Satisfaction Surveys
- Helpdesk Satisfaction Surveys

On an annual basis Pearson conducts a "Graduate Outcomes Survey" from recent graduates of partnered online programs. This survey measures the progression of students in their profession in terms of promotions, salary increases, changes in career and other related dimensions. We also measure student satisfaction of the program and its attributes. The results of this survey are shared with the partner and they are used by Pearson marketing to continually

inform and refresh program benefits information used to market the program, and oftentimes the survey yields opportunities for program testimonials by recent graduates.

4. Identify your processes for insuring student retention including:
   a. helping students who are having academic difficulties find institutional support services
   b. helping students meet registration deadlines
   c. identifying and assisting students who appear to have dropped out of online classes or degree programs.

Student Success Services

Pearson applies a highly proactive approach to supporting and thereby retaining students. And we provide outstanding technical assistance for students and faculty alike on a 24/7/365 basis. We know a period of high risk exists for students between the time they register and their continued engagement through the beginning of the second semester, we place a significant effort on supporting students through this specific time period.

Support during this time begins with a high focus in preparing each student to start.

After an application is completed, it is sent to the university for admissions review. Our recruitment team advises potential applicants regarding the admissions requirements but doesn't make admissions decisions. Accepted students receive follow-up communication from their Enrollment Advisor regarding the course registration process. After new students are registered, their Enrollment Advisor schedules them for the Welcome Call and learning preparedness interview with their newly assigned Program Coordinator (Retention Specialist) as the handoff point between functions. Both roles are members of the Cross-Functional team.

The learning preparedness interview prepares students for success in the experience that lies ahead. Not only are important transactional details like book orders and software versions covered, but equally important motivational and time management topics, like planning study time into the student’s weekly calendar, are discussed.

The final step in this phase is the online course orientation. The Pearson Program Coordinator acts as the course facilitator and leads students through activities using the tools and skills students will need to be comfortable participating in the online course. These certainly include discussion boards and chat rooms, but also synchronous tools and social media tools like blogs

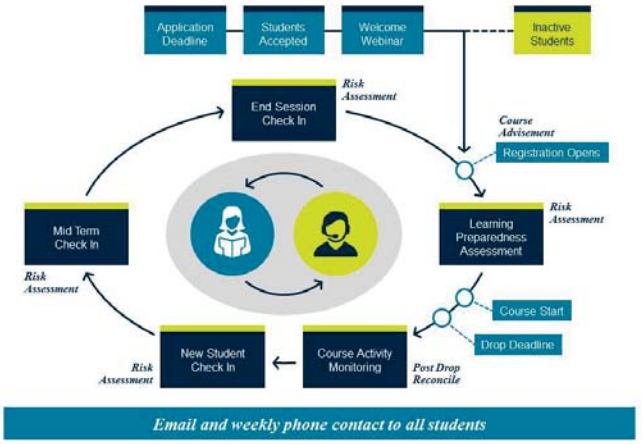
and wikis. The orientation course is custom developed based on the tools and approaches used in the program courses themselves at the university.

Retention Approach

Pearson strongly believes in employing proven retention practices that begin with the students' first semester and last through to graduation. Pearson assigns dedicated Retention Specialists, referred to as Program Coordinators, to each online program. Following a proactive, prevention-based approach, Program Coordinators deliver personalized retention-focused support to each student for the entire educational experience. Pearson student support personnel work from a program-specific student support timeline that plans for timely and proactive communication via phone, chat, and email to all enrolled students at critical points during each term.

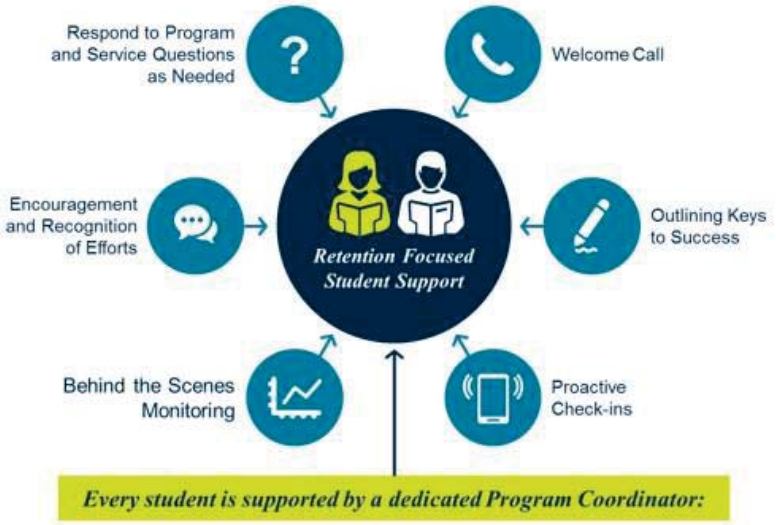
The dedicated Pearson Program Coordinator:

- Ensures online students are registered and have all necessary login information prior to commencing classes.
- Builds personal relationships with each student.
- Conducts the Welcome Call—learning preparedness interview.
- Leads the online course orientation for new students.
- Monitors course activity and other at-risk behavioral indicators.
- Identifies and coach's at-risk students to maximize student success and to facilitate retention.
- Contacts all students during the first week of class.
- Engages inactive students to return to the program.
- Contacts students to receive course/program evaluations and feedback.



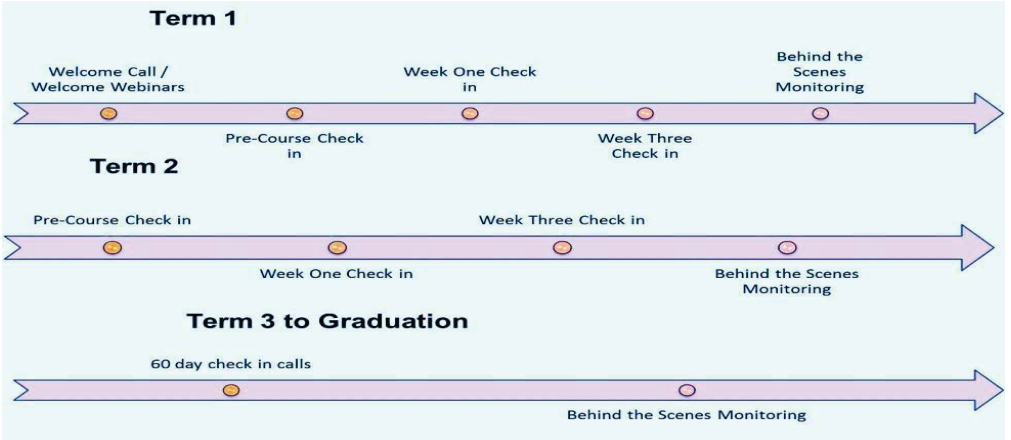
Pearson Program Coordinators act as an extension of staff, providing student counseling and facilitation and bridging the gap between online learners and UM. Program Coordinators will internalize policies and procedures, know how to connect students with university resources as needed, and guarantee a consistent experience to all current students. This occurs as part of the Institutional Readiness Assessment and launch activities, where university processes and contacts are documented in the Prospectus, and touchpoints established between our organization and UM, to facilitate student support.

While professors will come and go from one course to the next, the Program Coordinator provides a thread of familiarity and consistency throughout the entire educational experience for the online student.

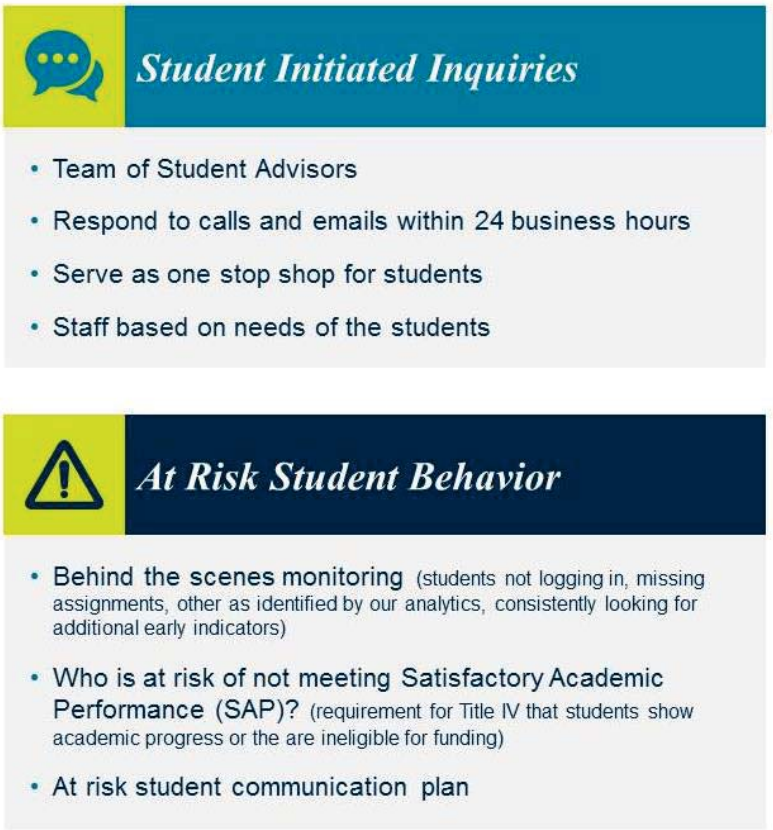


Pearson Program Coordinators support the students, through proactive and reactive methods focusing heavily on new students and students who are demonstrating at-risk behaviors. Specifically, they reach out to students who may be absent from their course sites to respond to their scheduling, personal, and logistical needs and to those students who have dropped, withdrawn, or failed to register to encourage them to re-enroll in the program. Pearson is committed to maintaining high retention and graduation rates. To that end, our Retention Specialists meticulously measure and track key retention indicators and build support strategies around each stage of the student lifecycle.

Proactive Coaching



Responsive Coaching



Tools and Practices

Student Services believes that we need to meet students where they are, and we need to use a variety of tools to connect with them. Our communication plan contains a mixture of outreach modes depending on the reason for the communication. Proactive phone outreach is an essential part of our relationship building philosophy, while email can serve as a great way to

provide information that the student may need to refer to at a later point. Much research has also been done on the power of “nudging” students, sending short bites of information to students such as registration or payment reminders, and texting and social media are great ways to achieve this level of personalized communication. We also believe that connecting by video with our students can be a very important tool to make them feel more linked to the online experience; we use a combination of pre-recorded videos and live video calls to achieve this.

All interactions with students are recorded in our internal CRM and stored indefinitely should we ever need to pull a student’s file for future reference. Call recording is also an important part of our process as it allows us to focus on the continual improvement of the quality of our communication.

Every program will be assigned a Student Services team that will be responsible for personalized student coaching, program and faculty support, and optimizing retention. Our team works in close collaboration with the university program team to ensure students receive a seamless experience that allows them to focus on their academics.

The dedicated Pearson Student Advisor focuses on:

- **New student onboarding**—Establishing the coaching relationship is critical to the students’ journey. This includes ensuring key steps are completed to maximize opportunity for success, preparing the students for the reality of going back to school, and helping with long- and short-term goal setting.
- **One-to-one relationship building**—Creating a personalized coaching relationship minimizes unnecessary attrition. Students are assigned a Student Advisor who will be their dedicated support system from acceptance to graduation. Our belief is that this consistency in a students’ educational journey makes a student more likely to raise his/her hand when faced with challenges than to self-select out.
- **End-to-end support**—Although new students need an additional level of support and oversight, outreach and oversight remain constant from acceptance to graduation.
- **Customized approach to meet the unique needs of the online student at your institution**—Online students represent a very different demographic than the traditional student and require a more intrusive approach to advising.
- **Community building**—Peer interaction and engagement are critical elements to maximize retention and student satisfaction.

- **Proactive coaching**—Waiting for students to show at-risk behavior or drop their courses is missing a key opportunity to identify potential issues and provide preventative support. Research also shows the importance of the “nudge” in moving students forward on their path to graduation.
- **One-stop shop for students**—Online students need one resource as their main point of contact who both understands their individual needs and is very well connected to the policies and resources at the institution. This allows students to obtain the guidance and support they need with minimal effort and distraction from their academics.
- **Institutional commitment**—Online students need to feel connected to their institution, and our team consistently fosters that sense of connection by keeping students informed of campus events, activities, or upcoming sporting events. Our Advisors are also required to immerse themselves in the culture of the institution, understanding its unique mission and vision.
- **Coaching for at-risk students**—Our goal is to prevent students from reaching the at-risk stage through our monitoring, proactive outreach, and partnering with institutional resources and faculty. However, despite our best efforts, some students will still move in and out of at-risk status. Those students are provided a much more intrusive advising model, which includes short-term goal setting.
- **Re-engagement**—When a student takes time off, we work with the student at the front end to create a return-to-school timeline and plan, and we hold students accountable to that plan. Our Advisors remain in contact with students throughout their hiatus to ensure they are on the path to re-entry.

	Critical Points	Risks	Support Strategies:
Accepted	Registration Tuition deadline	Course materials Finance Commitment	Welcome Call New Student Welcome Video Orientation Risk Management Activity
New Students	Add/drop period Week 1-3 Course Completion	Finance Technology Time Management	Week 1 Engagement Attendance Monitoring Faculty Communication Midterm outreach Risk Management Activity
New returning (1st to 2nd term)	Registration Add/drop Period Course Completion	Academic Progress Connection Time Management Personal obstacles Learning Style Anxiety	Week 1 Engagement Attendance Monitoring Faculty Communication Midterm outreach Risk Management Activity
Continuing Students (2nd term and beyond)	Registration Add/drop Period Clinical Preparation and Completion Graduation	Academic Progress Motivation/Self Discipline Time Management Personal obstacles	Reminder Calls and Emails Motivational/Coaching Messages Attendance Monitoring Risk Management Activity Faculty Communication Call plan 60 day Phone calls

At-risk Students

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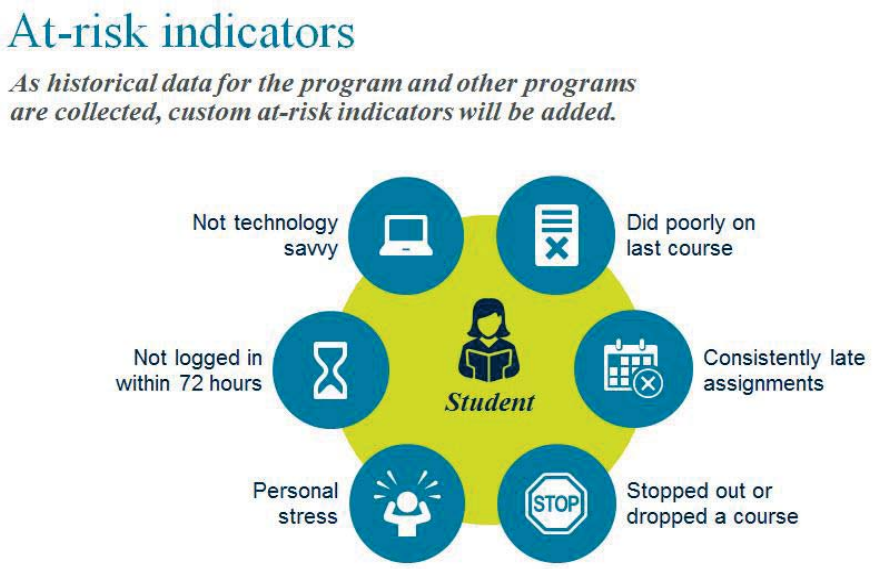

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Results: The results of our efforts and close collaboration with the school led to an 11% to 22% increase in the number of students moving from their first semester to their second semester, a key indicator of overall retention and sets the pace for future graduation rates. Additionally, we continue to work closely with this partner to fine tune our processes and enhance the student experience and continue to see positive momentum in both retention and student feedback.

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5. Describe how you would integrate data and streamline processes to effectively administer enrollment and retention services.

In 2015, (for partners that used our Student Support Services) our Student Services supported more than 34,000 unique students, helped more than 6,600 students reach graduation, made and received 295,000 calls, and completed 51,000 at-risk interventions.

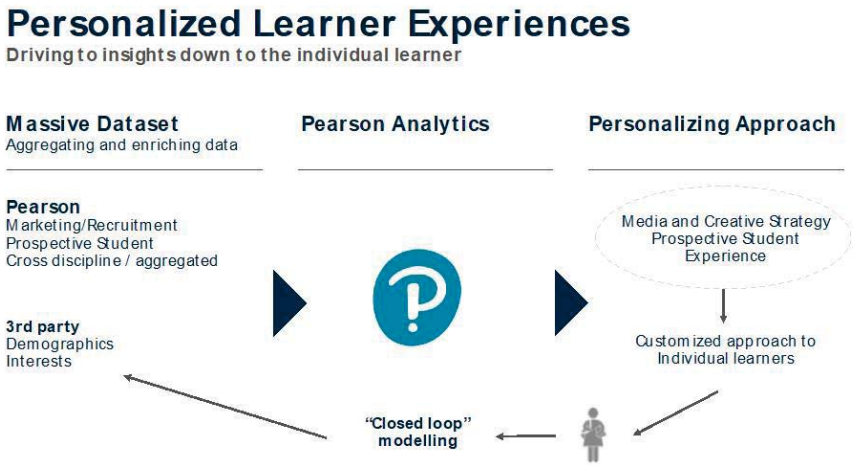
Pearson puts data at the center of our partnerships with institutions, both in how we use machine learning and other analytical techniques to optimize operations across the student

lifecycle, as well as in how we use data-driven insight to help institutions better understand their current and potential learners.

Pearson has more data on students - spanning the entire student lifecycle - than any other OPM provider given the breadth of our institutional relationships and time in the market. We believe this offers transformational possibilities to understand learner interests across disciplines, consumer segments, types of programs, among other “lenses” to understand the market.

One key pillar of this approach is using data to personalize our approach to individual learners, both in the recruitment phase to ensure we anticipate and help learners address their most pressing questions, as well as during their program to ensure a high-quality student experience.

The figure below depicts how we bring to bear our data assets to bear to drive personalization. We aggregate datasets across the student lifecycle (and extend into other sources of data as well, such as corporate and third-party data depending on partnership focus) and use machine learning to develop personas that allow us to create customized approaches to individual learners. As we gather more data as programs scale, this allows us to further refine our approaches (i.e. drilling in on what works, testing new approaches in collaboration with our partners, etc.), creating a closed loop analytical approach to iteratively improve our partnership performance.



CRM System, Process, Workflow, and Management Support

This service area makes extensive use of Pearson's proprietary CRM system (based on Microsoft Dynamics) that has been customized over 25 years specifically for dealing efficiently with new prospects and students. It allows our Enrollment Advisors to track prospective students through a set of statuses in the recruitment pipeline and report progress and provide new student forecasts on a weekly basis back to UM. Our CRM also allows for recruitment workflow with a call calendar that plans future call/email activity based on a prospect's status in the database and the resolution of the previous discussion, and many other functions including an activity log that captures every communication with a prospective student. It saves both inbound and outbound email and call notes for each unique record for future reference and possible training opportunities.

The CRM system also supports our management practices, which include regular database auditing to ensure every inquiry receives equal and thorough attention and all written communication is appropriate and pertinent. We employ side-by-side call monitoring and secret shopping and provide coaching and development to our Enrollment Advisors.

The Pearson CRM System offers a set of customizable tools that revolves around each individualized contact record. Each interaction with the prospect is tracked and recorded on the history tab. Enrollment Advisors and managers can easily refer to any written communications and call notes that have been made with each prospect.

6. What kinds of enrollment information will your company be able to pass to and/or from the University's Student Information System (Banner) and Learning Management System (OpenLMS/Blackboard)?

Data Integration

The student roster for each course is the only standard data exchange needed to support and manage the online student population. Pearson will work with the university to agree on a method of exchange, ranging from secure FTP transmission to web service architecture. Timelines would be developed based on the agreed upon approach.

IT Systems Integration

Pearson sees no benefit to collecting and managing student data in an IT system setup to mirror the university's systems. Instead, we advocate that all prospective students use the existing

application and student management systems of the university, where that data belongs, for many reasons including the following:

- University systems are already connected and provide valuable decision support through the data collection and reporting they provide to the university.
- University staff are familiar with these systems and processes.
- This approach eliminates the risks inherent in a third party collecting and managing student and university data.
- It prevents the need for costly and troublesome integration with third-party systems.
- Authentication and other information security practices would match those that exist for every other UM student.
- It provides a seamless brand experience for students.

We propose UM provide read-only access to university systems for named members of our Cross-Functional teams in direct support of UM to view a defined, limited set of information elements necessary for those staff to provide updates to applicants and students regarding their status. We employ this approach with all our partners. It entails UM building a secure web portal for assigned Pearson staff to see, but not edit, a specific defined set of data fields in your student information and/or application systems. It's easy and simple, leaving the data in the university systems where it belongs.

For records in a pre-applicant status, Pearson collects only the information needed to contact and interact with prospective UM students in our CRM system. This includes information such as email addresses, phone numbers, names, and physical addresses. From the moment a prospective student begins an application, that prospective student record is created within UM's existing systems. We do not store social security numbers, financial aid, or other application information in our CRM system. Many partners provide us with the university ID number for students we support that we keep on file as it often facilitates faster and more effective student service delivery. We also collect information about the course's students complete successfully from UM. This is important for many reasons: 1) It's used to reconcile rosters for billing between Pearson and our partner, 2) It's used to provide retention results reporting, and 3) It enables reports that support workflow in our retention activities such as providing lists of students who need a course that is being offered in an upcoming term for purposes of bringing them back into the program or assisting them with other education

pathways. We do not collect student grades. Pearson is compliant with FERPA requirements and regularly provides training to our staff on this topic.

Pearson Student Support personnel (and instructional designers if course development is being provided) will need to access UM's LMS. To accomplish this, we ask UM to grant the necessary access levels for ID's to build, edit, and maintain courses (should these services be engaged), and for Student Advisors to view student activity and post in administrative sections of the course. No integration with Pearson systems is required.

For student reconciliation purposes, we ask that UM provide rosters following the drop/add deadline, also called the Census Date.

7. What services does the company provide to help with its career services for online students?

Pearson's Career Success Program provides a suite of assessments, instructional modules, and tools to support students' career development and successful job search. The program includes some components that are more appropriate to beginning or undergraduate students who have not yet fixed on their targeted career. This Program was informed by extensive research with employers, higher education institutions and organizations, and instructors. Further, the skills instruction is based on a broad survey of best practices as indicated by academic research and articles in refereed journals. For advanced students, the program offers the following:

- Detailed instruction on developing effective résumés, LinkedIn profiles, and e-portfolios that provide prospective employers with vivid and compelling information about the job candidate.
- Instruction on Interviewing, Networking, Building Professional Skills.
- Digital Credentials/Badges in Personal and Social Capabilities, which are instructional modules that, once earned by a student, can be shared with prospective employers along with details of the specific work a candidate performed in earning the credential. The skills covered are: Communication, Critical Thinking, Collaboration/Teamwork, Social Responsibility, Leadership, and Self-Management.
- An easy-to-use digital platform that allows students to build compelling e-portfolios that allow them to share competencies and evidence of skills with prospective employers.

We understand UM has a partnership with Handshake. Pearson's Career Success Program is an excellent complement to Handshake. Our program helps students develop the skills and capabilities they will need for the workplace and a platform for them to archive and curate their best evidence of these competencies. Handshake then connects students and employers directly. Pearson can embed a direct link to Handshake within its Career Success Program, so students can access both resources easily.

8. What services does the company provide for online proctoring?

We partner with several different proctoring services. We can provide partners information on those, and work with the proctor service our partner chooses. This has been successfully integrated into assessments and used successfully by students and faculty. One of our goals is to understand the high stakes nature of the assessment so we can advise more specifically around assessment item creation, evaluation, and security practices.

9. What services does the company provide for online advising?

The dedicated Pearson Student Success Advisor focuses on:

- **New student onboarding**—Establishing the coaching relationship is critical to the students' journey. This includes ensuring key steps are completed to maximize opportunity for success, preparing the students for the reality of going back to school, and helping with long- and short-term goal setting.
- **One-to-one relationship building**—Creating a personalized coaching relationship minimizes unnecessary attrition. Students are assigned a Student Advisor who will be their dedicated support system from acceptance to graduation. Our belief is that this consistency in a students' educational journey makes a student more likely to raise

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10. Describe your process of working with existing student support and retention services. Provide examples.

During the launch phase of the engagement we will work directly with existing student support and retention services to understand the dynamic needs of the program or institution. During those discussions a process map and operating documentation is developed and exchanged. As standard practice, it is the university who manages academic advising.

In one example, we were asked by the university to manage general student support and retention services and allow the existing university team to work with a smaller subset of students in highly technical concentrations. The university felt their team was uniquely suited to support those students in technical areas. Additionally, they acknowledged not having the capacity to scale their resources as quickly as needed for the general population given the growth of the program.

E. Program Design, Development and Implementation

1. Faculty at the University of Montana are covered by two collective bargaining agreements that cover a wide range of employment related processes and procedures. For instance, the University of Montana will retain authority over faculty hiring decisions. Describe your experience working with institutions where faculty and/or instructors are covered by a collective bargaining agreement.

We have worked across many faculty collective bargaining constructs including those where the university makes all hiring decisions. In this particular hiring example, it does not require a change to the arrangement between the University and Pearson. Nor does it require a change to our operating model. It is always the case that the University retains the hiring decision.

We have on occasion been asked to source faculty. In those particular cases, we source qualified candidates and provide their CVs to the appropriate hiring personnel on campus for their decision. During launch phase our teams, in a collaborative, interview- and research-based process, identify any nuances to the collective bargaining agreement that may be impacted by the Pearson partnership. We will make operational adjustment as needed.

Finally, if the parties mutually agree that Pearson should fund faculty resources, those funds are made available to UM for their hiring purposes. Hiring remains the purview of the university.

2. Faculty at the University of Montana play a significant role in institutional governance. Specifically, faculty review, oversee, and approve all curriculum. Describe your experience working with institutions where faculty play a substantial role in the shared governance of the institution.

Given the breadth of engagements across large and small, public and private institutions, we are accustomed to working with universities and its faculty who remain the visionaries for the educational experience. Pearson, invisible to the student, provides the systems and technology integration, marketing and student recruiting, course development, and support services to bring that vision to life. It is the expectation that faculty would review, oversee, and approve all curriculum.

Our experienced team works together with faculty and staff to ensure that the end course accurately reflects the university's strengths and reputation for academic quality. This duo of faculty course leader and instructional designer are supported by a project manager, a media development team, and quality assurance specialists.

Faculty guides the outcome of their course formally through a weekly meeting rhythm with their instructional designer. This keeps the design and development work on track and avoids late stage surprises. At the tactical level, our quality assurance team will perform a detailed review including a check of both front- and back-end functionality. This occurs prior to releasing the course for the instructor to review approximately one month before its scheduled to open for the first time.

Although Pearson has an extensive library of content and textbooks, we are content agnostic. The faculty uses any product or content that it chooses.

3. Identify how you will cooperate with the relevant departments and units to ensure that they retain decisions over the hiring of faculty and instructors when program growth is substantial.

Although we have a recommendation as to how to scale programs and best support faculty, the hiring is retained by relevant departments and units at the University. We do provide relevant departments with long-term enrollment projections. Based on a pre-determined class size those academic units can plan for date-certain hiring.

4. Describe the faculty support provided in instructional design, course development, and research informed practices in online teaching and learning.

Instructional Design and Faculty Support

The Pearson Learning Design Solutions group is made up of more than 120 full-time, North America based Pearson employees, most with specialized advanced degrees in instructional design and educational technology. They are industry leaders accustomed to managing thousands of course designs and building strong, trusting client relationships. All critical functions of course development is handled by full-time, North America-based Pearson staff. We believe that sound course and program development practices enhance the overall student experience and ultimately improves retention.

Pearson provides custom course development services, meaning we don't use a "one-size-fits-all" instructional design approach. Our industry-leading online course design and development process has been honed through many program launches and thousands of developed courses.

We are a differentiated service offering with the following key characteristics:

- **Holistic & Adaptive**—We do end-to-end development from objectives through media and course builds. We are technology-neutral and work in all partner LMSs.
- **Efficacious**—We design efficacy into our process and the learning experience through our objective-based design, learning analytics, and review and revision cycles.
- **Consultative**—We support educators and academics with pedagogical decision-making using our online pedagogy and educational technology expertise.
- **Flexible for Scale**—We develop more than 2,600 courses per year.

The Learning Design team at Pearson advocates the following proven process for successful, quality course design:

- **Follow a just-in-time course development cycle.** Our design team works with the lead faculty member of a course at least one term ahead of delivery to design, develop, and review the online course before it is offered to students. The first meeting with the faculty member normally is a workshop to familiarize him/her with the development process and to begin mapping the course. Subsequent communication occurs weekly via phone, video chat, and email.
- **Create a standards-based course template.** Pearson designers work with faculty to create a standard course template for the program that uses a consistent content

strategy, visual design, and information architecture based on industry best practices. A standard template will save time during the development process of future courses and ensures a consistent student experience throughout the online program.

- **Incorporate a multi-dimensional learning experience.** We work one-on-one with faculty to create courses that incorporate a multi-dimensional learning experience focusing on the total online environment, the program community environment, the course environment, and the technology. This approach ensures a rich and highly interactive and motivating course, which appeals to adult learners with multiple learning styles.
- **Incorporate high-end technologies and multimedia.** Working closely with the lead faculty member, Pearson instructional designers and media developers will design and produce high-quality learning experiences using the latest technologies and multimedia. Our team uses flash elements, studio-quality video, podcasts, webcasts, e-portfolios, blogs, social media, wikis and accessible, responsive, and mobile-friendly custom media that will bring the course content to life and engage the working professional adult learner.

The Importance of Evidence-based Learning Design

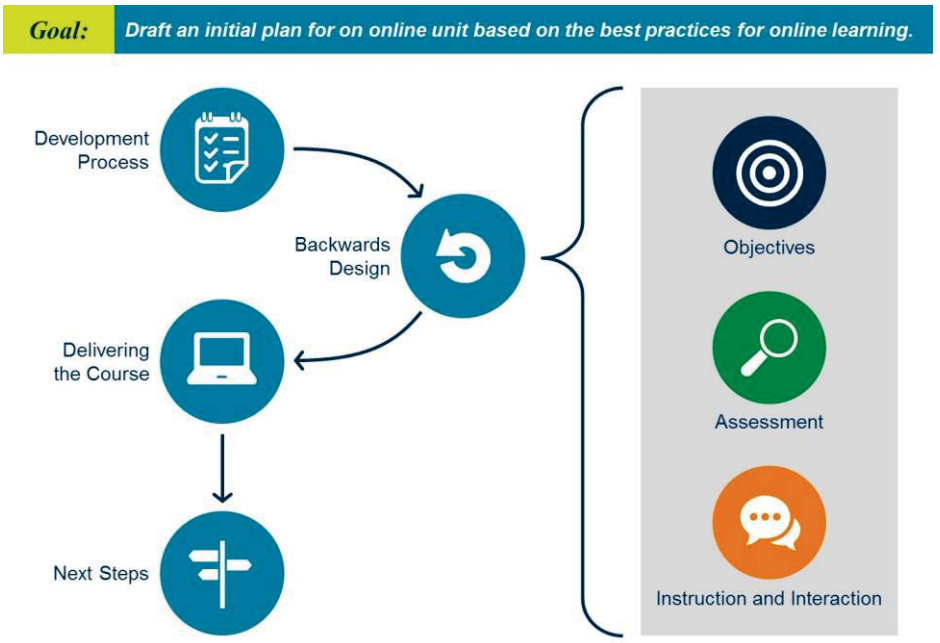
With comparatively less face-to-face interaction occurring between students and teachers in an online course, good learning design becomes even more important to ensure the experience is engaging, efficacious, and matches students' digital expectations. Pearson's learning design process uses evidence from multiple sources to design, evaluate, and iterate learner-centered

solutions. This process helps produce courses that are intuitive, engaging, and motivating, thereby improving student outcomes.

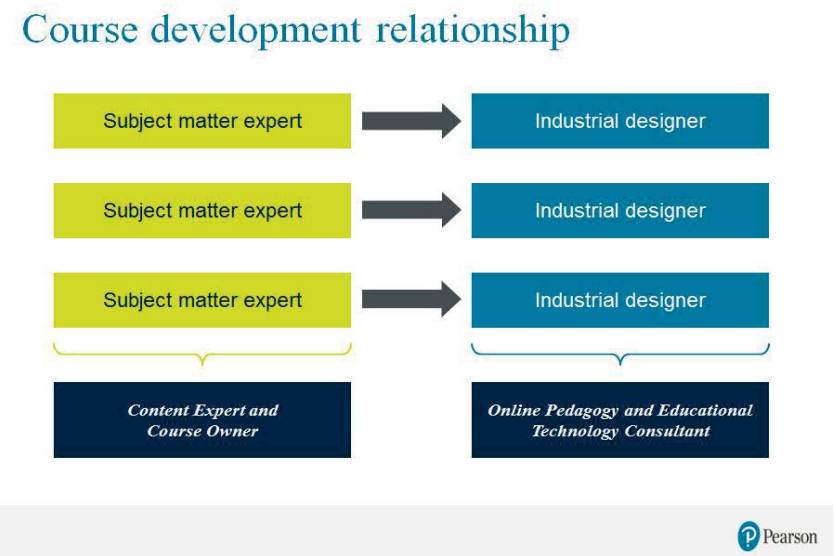
Our instructional designers work in **a one-to-one relationship** with each faculty member in a development cycle that lasts approximately 5 – 6 months immediately prior to the course being offered for the first time. Our experienced team works together with faculty and staff to ensure that the end course accurately reflects the university's strengths and reputation for academic quality.

Course Construction

Our collaborative approach to course design and development involves three stages:



Stage 1: Pre-design—Our engagement begins with a face-to-face workshop where Pearson collaborates with faculty and other leadership to customize the course design approach reflecting the unique educational philosophy of the program, and the university. We develop expectations for course instructional flow and design methodology, setup project management processes, develop a look and feel for a common user experience from course to course, and assist in accreditation applications when necessary. Pearson will provide faculty development in online instructional design processes and tools, the learning management system, educational technologies, and content authoring tools.

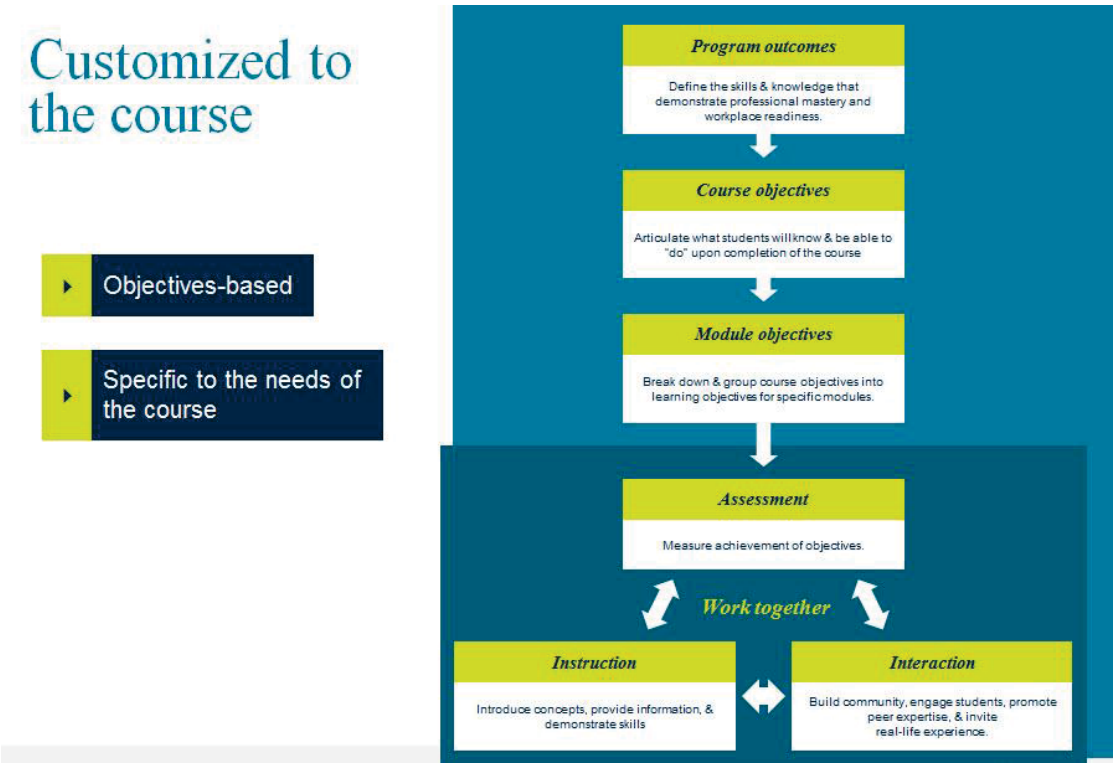


Stage 2: Design and Development—Faculty members are often asked to be the sole developers of online courses, with requirements that range from content and online pedagogy to graphics and multimedia, a daunting task. With Pearson as your partner, faculty have a dedicated instructional designer assigned to work with them on every facet of the online course, supported by media development, quality assurance and project management teams.

Contributions made by our instructional designers include:

- Guidance in developing and refining learning objectives
- Examples of instructional strategies using technology to meet teaching and learning goals
- Brainstorming and storyboarding of media
- Assistance with training and support needs for implementing technology

Through a dedicated instructional designer, faculty members have access to our professional team of flash/multimedia developers and graphic artists for custom media development and to an expansive database of royalty-free digital assets and images. Each course will include a variety of media, each piece targeted to best meet the educational objectives for the course. Lastly, our instructional designer creates a document mapping the learning objectives to learning activities, assessments and outcomes.



Stage 3: Course Evaluation—After an online course is launched, Pearson provides a 360-degree evaluation and assessment of the online learning environment. This "report card" is issued at the end of each course session, with action items identified for improvement of the online learning experience. This data has proven to be valuable for our current university partners during their accreditation visits and for use in their reports. Pearson constantly evaluates the efficacy and success of the courses that we help to develop. We continuously improve and refine our capabilities, to develop high-quality courses that will embody the academic quality of the university.

Project Management and Quality Assurance

Our industry-leading online course design and development process has been honed through many program launches and thousands of developed courses. Pearson inputs all course materials, media, and assignments into the learning management system and sets up the gradebook to the instructor's specifications. We complete a comprehensive front- and back-end quality assurance checklist before the completed course is released to the instructor.

In our approach, UM's online courses will:

- Comply with WCAG 2.0 – Level AA
- Meet Quality Matters standards
- Meet Online Learning Consortium (formerly Sloan C) Quality Scorecard for Course Development and Instructional Design
- Have instructional design documentation
- Include content options for mobile devices

A project manager is assigned to each course build and will set the timeline for development of the course for the instructional designer and faculty member to follow. The project manager observes progress against the timeline and communicates with the instructional designer and others as necessary should any issues arise.

The complete course development process is summarized below. Each course is created in a development cycle lasting 4–6 months that occurs the term before it will be taught for the first time.

Our course development plan uses the following processes and milestones:

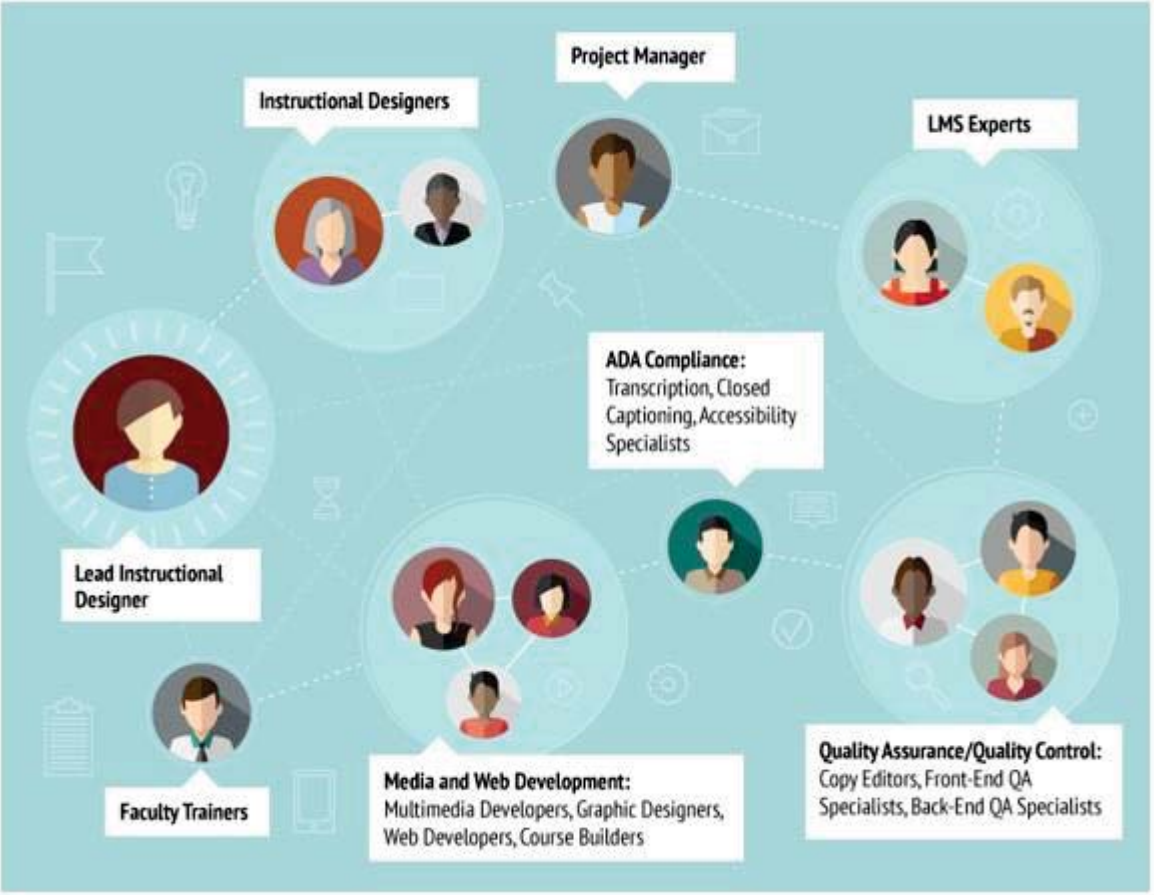
- **Kick-off Meeting**—In this face-to-face meeting with the faculty, we collaborate to identify the customized course development approach reflecting the program's educational philosophy.

- **Course Development Standards Guide**—This guide documents the specific educational approach, templates, and processes used for the development of the courses.
- **Course Look and Feel Consistency**—A look and feel for the courses is created as well as accompanying templates to create a common user experience from course to course.
- **Instructional Design Consultation**—Through a series of meetings with the course instructor, the instructional designer will provide the following support: guidance in developing and refining learning objectives, examples of instructional strategies using technology to meet teaching and learning goals, brainstorming and storyboarding of media, and assistance with selection, training, and support needs for implementing technology.
- **Instructional Design Documentation**—An instructional design document is created for each course. The document shows the relationship between the course objectives, instructional strategies, content, and assessment. The document template is customized by program, and additional items, such as program themes, accreditation requirements, or educational approach characteristics, can also be tracked.

Learning, Practice, and Assessment Activities	Media Strategy (Planned/Suggestion)	Tie to Weekly Obj.	Activity Type
Asynchronous Discussions:			Summative
Week 0 Discussion Question – Discuss the goals of the firm		K1.W1b	
Week 1 Discussion Question – Discuss agency conflict and costs and their relationship with financial reporting and the preparation of financial statements		P1.W1a P1.W1b	
Self-Check Practice Activity	A drag-and-drop activity in which learners are required to drag items and position them to their correct places on the balance sheet	P1.W1b	Individual Formative
Homework Problems (Practice):	Link to McGraw-Hill Interactive Problems site.		Individual
From **Chapter 1**: Ex. 1.2, 3, 4, 5, 9, 12, 13, 14, 16; Case 1.5		K1.W1a K1.W1b K2.W1a	

Overall Course Objectives		
	Knowledge	Performance
Identify the goal(s) of the firm.	K1	
Identify and define the basic elements of accounting.	K2	
Describe the formulation and content of the basic financial statements.		P1
Describe the accounting standard setting process and the influence of social, economic and political factors.	K3	
Explain the measurement issues relating to accounting for specific asset, liability, and owner equity accounts.		P2
Interpret and evaluate financial performance using financial statement data.		P3
Explain the use of accounting data in determining managerial compensation.	K4	

Our experienced team works together with faculty and staff to ensure that the end course accurately reflects the university's strengths and reputation for academic quality. This duo of faculty course leader and instructional designer are supported by a project manager, a media development team, and quality assurance specialists.



Faculty guides the outcome of their course formally through a weekly meeting rhythm with their instructional designer. This keeps the design and development work on track and avoids late stage surprises. At the tactical level, our quality assurance team will perform a detailed review including a check of both front- and back-end functionality. This occurs prior to releasing the course for the instructor to review approximately one month before its scheduled to open for the first time.

5. Provide details of staff experience, qualification, and times of availability for faculty support.

Faculty Support/Training

Pearson provides customized faculty training and development support as part of our standard services solution.

- **Course Design Workshop**—Conduct an online course design workshop for select university faculty to educate them about online learning best practices and principles. This face-to-face workshop educates faculty about best practices in online pedagogy, design, and technology and demonstrates examples of quality online learning.

- **One-on-One Support for Faculty**—Work one-on-one with faculty members during the course development process providing guidance and materials to assist with course design. Instructional designers provide on-demand training, advice, and support for faculty as they develop their own online courses.

- **Faculty Training Courses**—Design a university specific faculty training course for new online adjunct instructors. Faculty orientation courses incorporate the same look and feel as the online courses to provide new faculty with hands-on experience from the perspective of a student and practice as an instructor in an online course. Each program will have its own Online Faculty Enrichment Training (OFET) course incorporating the needs of the program it supports. The OFET course serves many purposes including use as a tool in faculty selection and on-boarding.

- **Ongoing Support for Faculty**—Provide ongoing training, guidance, and support for faculty. In their ongoing interactions with faculty, Pearson instructional designers will provide continuing education and training on new practices and technologies in online

learning. As part of the Pearson partner community, faculty will also benefit from best practices learned from their peers and colleagues at other Pearson academic partners.

- **24/7/365 Helpdesk Support**—Pearson Helpdesk and Support Services dedicated 24/7/365 live, in-house technical and helpdesk support team provides quality services that enhance the online learning experience for end-users. We provide customer-focused, technical support services through a single point of contact. Our flexible and accommodating approach allows all end-users to feel confident knowing that help is available whenever they need it. Our client service level agreements assure delivery of excellent service through contracted and guaranteed metrics that include: response times for phones, chats and web-forms, first call resolution, call abandonment rate, and average speed to answer. Pearson Helpdesk and Support Services are easily accessible through a unique and customized support portal that is personalized and branded to your institution. All helpdesk employees are full-time staff located in our Toronto office.

6. The University maintains the accessibility standards outlined in the University of Montana's Electronic and Information Technology Accessibility (EITA) Policy and Procedures and in the University of Montana's 2014 Resolution Agreement with the U.S. Department of Education Office for Civil Rights. Describe your company's ability to meet the accessibility requirements outlined in these documents. Provide details of staff experience and qualifications in the area of accessible online course and program design.

   We design courses to meet WCAG 2.0 standards. Third-party resources need to be made compliant by the Academic Partner and/or third-party resource due to confidentiality and in certain cases copyright infringement concerns. These services are typically provided through an office for disabilities resources.

7. Describe how your company's instructional design and development team will work with the existing instructional design and development team at the University of Montana.

   Our designers consult with faculty and your instructional design and development team over the entire development period. At the initiation of the engagement and then on a regularly scheduled basis, Pearson's Lead Instructional Designer and Manager meet with UM's team to discuss how best to support development process. The outcome of those meetings is a roles and responsibilities document meant to serve as a roadmap. If the university designers provide live support, that would also need to be coordinated with the Lead Instructional Designer

because we maintain Master course shells, from which we revise and build, so we would need to be notified of any changes to the course.

8. In line with Article 14 of the University of Montana and Missoula College's Collective Bargaining Agreements, the University and Faculty will retain intellectual property rights over content. Identify the processes by which the company protects intellectual property.

   As described in the response there is no transfer of intellectual property rights under Pearson's partnership approach. The intellectual property rights of content contributed by the university and/or the faculty will continue to be governed by the referenced CBAs. Pearson assists the university in maintaining a log of all content contributed by each party to the online courses.

9. Describe how faculty intellectual property rights are affected (if at all) in situations where content development is supported by OPM design staff such as: video, animations, interactive media, web-based apps, etc.

   Under Pearson's OPM partnership structure, there is no transfer of intellectual property rights. The content contributed and developed by each party continues to be owned by the contributing or developing party.

10. Describe how round-the-clock technical support for students and faculty delivering online content will be provided.

    As our successful relationship with more than 100 helpdesk partners in North America demonstrates, Pearson Helpdesk and Support Services has the capability to help institutions exceed their goals for helpdesk support. Pearson Helpdesk and Support Services has achieved a 90% satisfaction rating across all the end users we support over the past seven years. On our annual VIP survey where we survey Administrators, CIO'S, and VP'S at institutions who contracted for our services we have achieved an NPS score of more than 75 for Helpdesk Services.

    The dedicated 24/7/365 live, **in-house** technical and helpdesk support team provides quality services that enhance the online learning experience for end-users. We provide customer-focused, technical support services through a single point of contact. Our flexible and accommodating approach allows all end-users to feel confident knowing that help is available whenever they need it. Our client service level agreements assure delivery of excellent service

through contracted and guaranteed metrics that include: response times for phones, chats and web-forms, first call resolution, call abandonment rate, and average speed to answer.

Pearson Helpdesk and Support Services are easily accessible through a unique and customized support portal that is personalized and branded to your institution.

All helpdesk employees are full-time staff located in our Toronto office.

Our focus and value add is to deliver:

- High-quality of service
- World-class customer service
- Personalize each client's experience to meet their needs

Our support approach, cross-shared resources, and technology that we have adopted allows us to scale our services across multiple clients. Our knowledge of learning technologies has allowed us to grow our customer base while continuing to provide a very high-quality service. Our adoption of different systems has allowed us to drive a culture of performance while increasing the productivity of our agents, lower our cost per call while ensuring the retention and happiness of our partners.

Our Measure to Quality Service Delivery

Service Level Agreement	Targets	2017 Operation SLA's
Quality Satisfaction	80%+ of respondents will be "satisfied" or "very satisfied" with the support (4 out of 5)	**90% (4.5 out of 5)**
Phone Abandon Rate	<10% Overall abandon rate per month after threshold	**7.14%**
Phone SLA (80/60)	80%+ of support Phone requests will be answered within 60 seconds	**82.69%**
Chat SLA (80/120)	80%+ of support Chat requests will be answered within 120 seconds	**87.54%**
Chat Abandon Rate	<10% Overall abandon rate per month after threshold	**6.47%**
Response Time Web-form	Average speed to answer Web-form less than 60 minutes.	**0:42:46**
First Call Resolution	85%+ of delivered solutions will not be re-opened by the end-user	**88.66%**

Our services focus on:

Pearson Helpdesk and Technical Support offers 24/7/365 days a year access to live, full-time technical support professionals with specific expertise across a variety of learning systems. If users are having login issues, accessing a course or questions related to the technology being used for the course, one of our agents will be able to assist you. They will:

- Answer tech-related inquiries on various systems, both online and on campus systems. We offer 24/7 technical support and we also can cater our services to your needs, after hour support as well as weekend support.
- Help learners with non-technical questions.
- Connect learners to additional academic support, including tutors and other members of the institution.

24/7 Helpdesk Technical Support Services

- Deliberate focus supporting online learners, faculty, and staff
- Not a “typical” call center approach
- Commitment to quality at all times
- Focus on mitigating calls to helpdesk and first call resolution

Helpdesk Services Supported Products

- Commercial and Open-source LMS(s)
- Student Information and Authentication Systems
- Pearson Courseware
- Multimedia Plug-ins
- Collaboration Tools
- Third-Party Tools (i.e., Vital Source, VoiceThread Discussions, Internet Browsers)

The Pearson Helpdesk and Support Services approach to providing services will include:

- Comprehensive 24/7/365 Helpdesk Support.
- Dedicated Live Toll-Free Telephone Support.
- Real-Time Chat.
- Real-Time Web-form Support.
- Self-Help/Web-based Knowledge Base.
- Branded Support Portal.
- Monthly Reporting and Satisfaction Tracking.

- Standardized Service Level Agreement.

It is important to note that Pearson Helpdesk and Support Services supports several third-party applications that complement online learning environments and we also routinely train our helpdesk agents on any “new” applications requested/required by our higher education clients.

The Pearson Helpdesk and Support Services will be accessed in the following formats:

Telephone
Pearson Premium support services will provide 24/7 helpdesk support via IP-based telephone. Clients can call any helpdesk specialist using the dedicated toll-free number.

Internet-Based Chat
Online Chat will be provided where all users will be able to go online and invite any of the end-user helpdesk specialists to a support session.

Asynchronous Messaging
Customized Web-form will be made available to all users where tickets can be submitted online via the Web. Having your end-users email queries answered promptly, efficiently and accurately will certainly increase user satisfaction.

Knowledge Base Collection and Dissemination
Users can search the self-help area for answers to issues pertaining to the LMS as well as your institution’s specific FAQs.

Co-Browse Desktop Sharing Application
Our agents will be able to help users by looking into their desktop to better identify the issues they are experiencing.

Pearson Helpdesk and Support Services provides a dedicated toll-free support number unique to each client that is available 24/7/365. It is unlikely that users will need to be transferred as our end-user support specialists work to resolve their support issues, but callers are certainly never asked to hang up and call into a different support number.

Pearson Helpdesk and Support Services includes troubleshooting the user issue, using all available tools such as user manuals, knowledge base, problem report lists, and FAQs. These routine activities result in a complete description of what the issue is, system configuration information, and detail on reproducibility.

The helpdesk specialist identifies the problem and provides the user with the proper solution to the issue by gathering information from the end-user. The information gathered within each ticket aids the creation of additional knowledge base entries to be used in similar issues encountered by other users.

Leveraging our extensive experience supporting learning management systems users over many years, Pearson Helpdesk and Support Services maintains an extensive library of FAQs, tip sheets, tutorials, and other web-based resources that will be available to end-users through a customized and branded web portal 24/7/365.

Please see ***Appendix L: Helpdesk Process and Escalation; Helpdesk Implementation Schedule; Helpdesk Sample Monthly Report and Report Detail*.**

F. Technical Infrastructure

The University will retain management and control over its technical systems, but will consider integrations as needed:

1. Describe the technical infrastructure and provide a topology map that shows the services your company provides in: market research, marketing and recruitment, student enrollment management and retention, program design, development, delivery, implementation and evaluation.

   Microsoft Dynamics CRM is the core system used internally by Pearson staff who are supporting the OPM services. Additional systems and integrations are also used internally to support operational and student engagement needs.

   Pearson is LMS, SIS, and CMS agnostic, having worked with all major third-party systems and many internally developed software packages.

2. Identify the access needed to University systems associated with students and online learning:
   a. Student Information System - Banner
   b. Learning Management System – OpenLMS (Formerly Moodlerooms by Blackboard)
   c. Retention and Planning Services – Starfish

We propose UM provide read-only access to university systems for named members of our Cross-Functional teams in direct support of UM to view a defined, limited set of information elements necessary for those staff to provide updates to applicants and students regarding their status. We employ this approach with all our partners. It entails UM building a secure web portal for assigned Pearson staff to see, but not edit, a specific defined set of data fields in your student information and/or application systems. It's easy and simple, leaving the data in the university systems where it belongs.

For records in a pre-applicant status, Pearson collects only the information needed to contact and interact with prospective UM students in our CRM system. This includes information such as email addresses, phone numbers, names, and physical addresses. From the moment a prospective student begins an application, that prospective student record is created within UM's existing systems. We do not store social security numbers, financial aid, or other application information in our CRM system. Many partners provide us with the university ID number for students we support that we keep on file as it often facilitates faster and more effective student service delivery. We also collect information about the course's students complete successfully from UM. This is important for many reasons: 1) It's used to reconcile rosters for billing between Pearson and our partner, 2) It's used to provide retention results reporting, and 3) It enables reports that support workflow in our retention activities such as providing lists of students who need a course that is being offered in an upcoming term for purposes of bringing them back into the program or assisting them with other education pathways. We do not collect student grades. Pearson is compliant with FERPA requirements and regularly provides training to our staff on this topic.

Similarly, Starfish access would be beneficial as it relates to the student population that Pearson will manage.

Pearson is LMS, SIS, and CMS agnostic, having worked with all major third-party systems and many internally developed software packages.

3. Describe the data transfer requirements that will be needed in order to ensure effective services in the areas listed above, including the format of the data required from the university, the frequency and mechanism of the data transfer, the security you will use to safeguard the data transfer process, and the management of integration and data sharing between public sites and internal data sources.

   Student roster information is typically a standard data exchange to support and manage the online student population. Pearson will work with the university to agree on a method of exchange, ranging from secure FTP transmission to web service architecture. Timelines would be developed based on the agreed upon approach. Depending on projected student population, systems integration and automation may not be deemed necessary in the early stages of the partnership. In those situations, student roster information may be transferred to Pearson and the university through an agreed upon process.

   Student Advisors are required to go through FERPA training to ensure they have a thorough understanding of FERPA and their responsibilities in ensuring the privacy of student information. We also highly encourage our partner institutions to provide the Student Advisors with access to their employee FERPA training. This ensures our Student Advisors enforce FERPA in alignment with the interpretation of the institution.

4. Describe available APIs, toolkits for creating connectors, and available services, etc.

   We do not offer a standard API. Instead, we work with each university to define a custom solution and protocol that meets their needs.

5. Identify a project outline for the integration of technical services, including:
   a. a detailed project plan
   b. University resources needed
   c. implementation timeline.

   Scoping and needs will first need to be identified before such details are available.

University of Montana

Sample Summary Project Plan

*The proposed high-level timeline is subject to change based on each partner's specific implementation needs.

Steps	Tasks	Participants	Timeframe	Predecessors
	Research and Planning (Pre-Contract)			
1.	**Research & Discovery** • Review program and university discovery	**Pearson Owners:** Project	Varies based on contract	Discovery sessions on-campus

Steps	Tasks	Participants	Timeframe	Predecessors
	sessions completed in the pre-planning phase • Project team selection • Draft project schedule • Identify systems integration requirements • Centralized contact for institution I. Key decision makers identified at onset of contract negotiation(s) II. Confirmation of dedicated launch and operations teams	Management, Business Development, and Consulting team & Partnership team	development length	
2.	**Assessment to Launch Analysis** • Risk Assessment I. Identify information gaps and draft initial discovery question set II. Identify resource gaps and correlating mitigation mechanism (critical ask) III. Identify pro forma assumptions and impact to project plan • Identify proposed launch approach based on launch assessment and individual institution needs • Draft risk mitigation plan based on initial assessment of information for each individual institution needs	**Pearson Owners:** Project Management and Consulting team, Academic Strategy team, Operations team	2 weeks	Step 1
3.	**Conduct Project Assessment Meeting** Objective(s): • Discuss critical risks identified during discovery	**Pearson Participants:** Project Management and Consulting team, Business Development,	2 hours	Step 2

Steps	Tasks	Participants	Timeframe	Predecessors
	• Review pro forma assumptions and any needed revisions • Discuss university's infrastructure needs • Identify key university stakeholders • Confirmation of intent to purchase Pearson product(s) if applicable	Academic Strategy team, Operations team		
4.	**Draft Preliminary Project Scope** Document: • Program/university background (goals/purpose for partnership) • Launch approach • Key stakeholders • University (organizational) requirements • Affected business processes or systems including integration • Critical risk, etc.	**Pearson Owners:** Project Management and Consulting team & Operations team	4 weeks	Step 2
5.	**Update Staging Sheet & Key Milestone Dates** Include: • Anticipated date of signed contract • University introduction call • Launch visit • Lead generation start • Application deadline (final) • Course start date and course end date • Hire/assignment dates	**Pearson Owners:** Project Management and Consulting team & Operations team	4 weeks	Step 4
6.	**Draft Critical Risk Mitigation Plan** Include: • Medium and high risks identified during discovery • Potential mitigation strategies	**Pearson Owners:** Project Management and Consulting team & Operations team	varies	Step 4
7.	**Conduct Internal Launch Strategy Meeting [Contract Imminent]** Objective(s):	**Pearson Participants:** Project Management	1 hour	Step 5 & 6

Steps	Tasks	Participants	Timeframe	Predecessors
	• High-level overview of partnership • Review initial risks • Review milestone dates • Identify next steps	and Consulting team & Operations team		
Phase One: Pre-Lead Generation				
8.	**Conduct Launch Introduction Call (Transition from BD to Launch)** Objective(s): • Officially introduce key stakeholders to Project Manager and Partnership Director • Review launch process (high-level) • Discuss next steps I. Subdomains II. Launch kick-off/planning III. Launch visit date discussion IV. Discuss initial questions on transition process	**Pearson Participants:** Project Management, Business Development and Consulting team & Partnership team **University Participants**: Initial point of contact for each university within UM	1 hour	Signed term sheet
9.	**Submit Subdomain Request to UM and Finalize Setup** Objective(s): • Request will contain recommendation for subdomain names for online program(s) website and landing pages. • A subdomain off UM's main .edu domain will also allow Pearson to create .edu email accounts for Enrollment Advisors and the student support team; these individuals will provide long-term support to the programs as cross-functional team members.	**Pearson Participants:** Operations Marketing team **University Participants**: Initial point of contact for each university within UM	2 weeks (completion)	Step 8

Steps	Tasks	Participants	Timeframe	Predecessors
10.	**Institution Kick-Off/Planning Call** • Introductions: Review team member roles (Pearson & university) • Review launch process & high-level timeline • Review launch visit agenda and confirm date • Discuss information gaps/final questions prior to visit	**Pearson Participants:** Project Management and Consulting team & Operations team **University Participants**: Initial point of contact for each university and core team for project	1 hour	Step 8
11.	**Conduct Internal Launch Orientation (2 Sessions)** Objective(s): • Complete team immersion in discovery/research on UM • Review program term sheet • Review scope of work • Review project schedule • Review risk mitigation plan • Review transition questions	**Pearson Owners:** Project Management and Consulting team, Academic Strategy & Operations team	3 hours	Signed term sheet
12.	**Conduct Launch Visit** (Approximately 4 to 6 Weeks Post Contract) Objective(s): • Introduce Pearson team and facilitate overview presentation • Conduct admissions and registration process mapping session • Conduct services overview (Marketing, RS, SS, CD) • Confirm curriculum delivery model and academic policies • Discuss current lead database management and cultivation	**Pearson Participants:** Project Management and Consulting team & Operations team **University Participants**: Initial point of contact for each university, core team for project and representatives from departments on-campus that impact the	1 to 2 days	Steps 8, 10 & 11

Steps	Tasks	Participants	Timeframe	Predecessors
	• Discuss and confirm all necessary steps for systems integration • Discuss university departmental support (financial aid, registrar) • Discuss transition plans for services by university	student lifecycle		
13.	**Conduct Course Development Workshop (Approximately 6-7 Months Pre-Course Start)** Objective(s): • Conduct working session with faculty to demonstrate the instructional design team approach and workflow	**Pearson Participants:** Project Management and Consulting team & Instructional Design team **University Participants**: Initial point of contact for each university, core team for project and faculty involved in developing courses for supported programs	2 days	Step 12
14.	**Begin Weekly University Launch Update Calls** Objective(s): • Discuss progression of launch activities • Discuss updates to risk mitigation plan • Confirm transition (if needed) of current leads & students	**Pearson Participants:** Project Management and Consulting team & Operations team **University Participants**: Initial point of contact for each university and core team for project	30 mins	Step 12
15.	**Obtain Approval of 1st Draft of Process Map/Work-Flow** Objective(s): • Update Process Map/Work-Flow for the	**Owners:** Project Manager and Partnership Director	3 weeks post launch visit	Step 12

Steps	Tasks	Participants	Timeframe	Predecessors
	admissions through registration process based on the discovery during the launch visit	**University Participants**: Initial point of contact for each university and core team for project		
16.	**Obtain Read-Only Access to UM Application Systems** *(may also include other systems used during the recruitment/admission process)* • Allows Enrollment Advisor to verify started and completed applications and admission decisions	**Owners:** Project Manager and Partnership Director	2-3 weeks post launch visit	Signed term sheet
17.	**Conduct 1st Enrollment Advisor Program Training Session(s)** Objective(s): • Educate program team on curriculum, admission requirements, marketing strategy, value proposition, market research, institutional structure, etc. • Prepare EAs to take Level 1 Certification Test • Technology systems training (often conducted by university)	**Owners:** Project Manager and Recruitment Operations team **optional for key institution stakeholders to share program insights during this time*	1 - 2 weeks	Step 12 & 15
18.	**Obtain Approval on Assets for Lead Generation** • Landing pages (copy and imagery) • Brochures • Email communication	**Owners:** Project Manager, Partnership Director, and Marketing Operations team	6 weeks	Signed term sheet
19.	**Launch Program Landing Page(s)** Objective(s): • Start lead generation (PPC and SEO) • Begin student recruitment activity	**Owners:** Project Manager, Partnership Director, and Marketing Operations team	4 + weeks post launch visit	Step 8 & 17

Steps	Tasks	Participants	Timeframe	Predecessors
Phase Two: Lead Generation to First Course Start				
20.	**Transition from Weekly Launch Update Calls to Weekly Cross-Functional Team Meetings** Objective(s): • Update university on lead generation progress, recruitment pipeline, student support activities, and status of course development • Discuss progression of launch activities • Provide report of pipeline of students (CFT report)	**Pearson Participants:** Project Management and Consulting team & Operations team **University Participants**: Initial point of contact for each university and core team for project	30 - 45 minutes	Step 18
21.	**Administer Initial Launch Satisfaction Survey** Objective(s): • Assess Academic Partner's level of satisfaction with the following: I. Sales/Assessment to Launch Transition and Phase 1 of Launch Process	**Pearson Participants:** Project Management and Consulting team & Operations team **University Participants**: Initial point of contact for each university and core team for project	6 weeks post lead generation	Step 18
22.	**Review Initial Launch Satisfaction Survey Results** Objective(s): • Review university satisfaction mid-term survey and adjust processes accordingly • Discuss key areas of focus for next phase	**Pearson Participants:** Project Management and Consulting team & Operations team **University Participants**: Initial point of contact for each university and core team for project	2 months post lead generation start	Step 20
Marketing Project Team & Recruitment Project Team Begin Transition off Launch ~ 6 weeks post lead generation				

Steps	Tasks	Participants	Timeframe	Predecessors
23.	**(Optional) Obtain Approval on Transition Plan for Current Students** • Communication plan • Data share plan • Workflow I. Milestone dates	**Pearson Participants:** Project Management and Consulting team & Operations team **University Participants**: Initial point of contact for each university and core team for project	2 weeks	Student Support Representative Hired & Step 9
24.	**Conduct 1st Student Support Program Training Session(s)** Objective(s): • Educate PC's on Curriculum Delivery Model, Admission Requirements, Marketing Strategy, Value Proposition, Market Research, Institutional Structure, etc. • Prepare Student Support to take Level 1 Certification Test	**Pearson Participants:** Project Management & Consulting team and Student Support Operations team **University Participants**: Initial point of contact for each university and core team for project **optional for key university stakeholders to share program insights during this time*	2 weeks after prospectus confirmed	Student Support Representative Hired
25.	**Obtain Approval and Finalize Welcome Communication for New Students** Objective(s): • Registration, textbook, invoicing, financial aid, course access instructions • Important Deadline Dates • Tuition	**Pearson Participants:** Student Support Operations team	Sent to students 72 hours post acceptance	Step 23

Steps	Tasks	Participants	Timeframe	Predecessors
26.	**Conduct Welcome Webinar/Calls with New Students** Objective(s): • Registration, textbook, invoicing, financial aid, course access instructions • Important Deadline Dates • Tuition	**Pearson Participants:** Student Support Operations team	6 weeks pre-course start date	Step 24
27.	**Complete Systems Integration with UM** Objective(s): • Complete all systems integration requirements identified pre-launch and confirmed during the launch visit • Establish SOPs for maintaining systems, systems access, etc.	**Pearson Participants:** Project Management & Consulting team and IT **University Participants:** Identified IT team members and personnel overseeing implementation	6 weeks pre-course start date	Step 12
28.	**Send Draft of Prospectus** Objective(s): • Send document containing the information captured during the launch process to the partner for review and confirmation	**Pearson Participants:** Project Management and Consulting team & Operations team **University Participants**: Initial point of contact for each university and core team for project	3 weeks pre-course start	Step 24
Phase Three: Course Start to End of 1st Semester				
29.	**Administer New Student Enrollment Experience Survey** Objective(s): • Assess student's level of satisfaction with admission and registration process	**Primary:** Marketing Operations team	1 week post-course start	Course start
30.	**Administer University Post Launch Survey** Objective(s):	**Pearson Participants:** Project Management	2 weeks before the end of semester	Course start & 28

Steps	Tasks	Participants	Timeframe	Predecessors
	• Assess institution's overall level of satisfaction with launch	and Consulting team & Operations team **University Participants**: Initial point of contact for each university and core team for project		
31.	**Conduct 1st Term Admissions Review Meeting** Objective(s): • Review 1st iteration of the admissions process and make revisions • Review the accepted and denied applicants to ensure the Pearson team understands the admissions decision making • Make modifications to communication materials as needed	**Pearson Participants:** Project Management and Consulting team & Operations team **University Participants**: Initial point of contact for each university and core team for project	1 hour	Step 29
32.	**Conduct Project Closure Meeting with Institution** Objective(s): • Review list of outstanding launch action items (launch timeline) • Review university satisfaction mid-term survey • Review project plan (assign ownership of outstanding deliverables) • Discuss necessary revisions to risk mitigation plan	**Pearson Participants:** Project Management and Consulting team & Operations team **University Participants**: Initial point of contact for each university and core team for project	1 hour	Step 29
Remaining launch team members will transition off				

6. Indicate the process of working with the University's Information Technology department to plan, develop, implement, and evaluate the effectiveness of integrations.

Data Integration

The student roster for each course is the only standard data exchange needed to support and manage the online student population. Pearson will work with the university to agree on a method of exchange, ranging from secure FTP transmission to web service architecture. Timelines would be developed based on the agreed upon approach.

IT Systems Integration

Pearson sees no benefit to collecting and managing student data in an IT system setup to mirror the university's systems. Instead, we advocate that all prospective students use the existing application and student management systems of the university, where that data belongs, for many reasons including the following:

- University systems are already connected and provide valuable decision support through the data collection and reporting they provide to the university.
- University staff are familiar with these systems and processes.
- This approach eliminates the risks inherent in a third party collecting and managing student and university data.
- It prevents the need for costly and troublesome integration with third-party systems.
- Authentication and other information security practices would match those that exist for every other UM student.
- It provides a seamless brand experience for students.

We propose UM provide read-only access to university systems for named members of our Cross-Functional teams in direct support of UM to view a defined, limited set of information elements necessary for those staff to provide updates to applicants and students regarding their status. We employ this approach with all our partners. It entails UM building a secure web portal for assigned Pearson staff to see, but not edit, a specific defined set of data fields in your student information and/or application systems. It's easy and simple, leaving the data in the university systems where it belongs.

For records in a pre-applicant status, Pearson collects only the information needed to contact and interact with prospective UM students in our CRM system. This includes information such as email addresses, phone numbers, names, and physical addresses. From the moment a

prospective student begins an application, that prospective student record is created within UM's existing systems. We do not store social security numbers, financial aid, or other application information in our CRM system. Many partners provide us with the university ID number for students we support that we keep on file as it often facilitates faster and more effective student service delivery. We also collect information about the course's students complete successfully from UM. This is important for many reasons: 1) It's used to reconcile rosters for billing between Pearson and our partner, 2) It's used to provide retention results reporting, and 3) It enables reports that support workflow in our retention activities such as providing lists of students who need a course that is being offered in an upcoming term for purposes of bringing them back into the program or assisting them with other education pathways. We do not collect student grades. Pearson is compliant with FERPA requirements and regularly provides training to our staff on this topic.

Pearson Student Support personnel (and instructional designers if course development is being provided) will need to access UM's LMS. To accomplish this, we ask UM to grant the necessary access levels for ID's to build, edit, and maintain courses (should these services be engaged), and for Student Advisors to view student activity and post in administrative sections of the course. No integration with Pearson systems is required.

For student reconciliation purposes, we ask that UM provide rosters following the drop/add deadline, also called the Census Date.

7. Describe how product(s) addresses accessibility to ensure the application is accessible to people with disabilities. Describe testing for adherence to accessibility guidelines and standards (WCAG 2.0 Level AA). Provide documentation of the testing performed and results of that testing, including VPAT(s).

We design courses to meet WCAG 2.0 Level AA standards. Third-party resources need to be made compliant by the partner due to copyright infringement. Live course support also needs to be provided by the university, typically through an office for disabilities resources.

We do not have a service-specific VPAT. This is typically used for product development, or if we offer a software solution that aligns to a VPAT. The course development service aligns with the university's standards and policies, including accessibility. Pearson uses faculty content and builds it in the university-provided LMS. Should the university not have specific accessibility policies regarding web content development, Pearson will follow WCAG 2.0 AA standards.

8. When products are identified as not meeting accessibility standards, describe the commitment and process to remediate.

   If a product is identified as not meeting accessibility standards, Pearson deploys a Quick Response team that is made available to UM and contains all appropriate subject matter experts, including but not limited to technology, course development, marketing, legal and operations. Because of our commitment to efficacy and accuracy in the design and build process, the Quick Response team typically can remediate very quickly.

Host Applications

9. Describe your approach and policy regarding ownership of customer data that resides in your data center.

   Customer data, unless otherwise stipulated by a contract, belongs to the customer. Pearson (generally) is the custodian or service provider that is responsible for protecting it. We have Data Classification and Life Cycle policies, along with many others that dictate security requirements.

10. Describe customer rights and abilities regarding moving and copying.

    CISO doesn't dictate anything of this nature. We dictate through our policies that we must be compliant with regulatory frameworks, such as GDPR, PII, HIPAA, individual state privacy law, etc. that clearly prescribe customer rights concerning how their data is used, it's accuracy, and rights to be deleted and/or forgotten.

11. Describe vendor and partner practices related to moving and copying data.

    This will depend entirely on the contractual agreement between a vendor and Pearson. That being said, we do, by policy and process, require that all vendor contracts have legally binding security requirements stipulated and agreed to before any engagement is approved. Those requirements might vary depending on what is in scope, so again, there is no way to give a one-size-fits-all response to this question.

12. Describe where your services and data storage are located geographically.

    Services and data storage are managed out of our Pearson North America data centers as well as cloud hosting providers.

13. Describe any exit strategies you offer.

Pearson employs Symantec data protection services as well as Symantec backup solutions. We simplify the management of data backup and recovery, and provide consistent, reliable content protection. Our Internet data centers provide the physical environment necessary to keep servers up and running 24 hours a day, 7 days a week.

Security

14. Describe how and where any sensitive data (e.g., Credit card, financial, authentication credentials, cryptographic keys, SSN, FERPA, HIPAA or other legally regulated data) are stored on clients, servers, and participating external devices. Describe how the data are protected (e.g. cryptographic algorithms, key size and handling). How would you address the University's preference that credentials not be stored?

Network Security and Data Security

Pearson maintains a large secure data center located in Toronto and a second data center in Chicago.

Redundant Infrastructure & Engineering

- 30-inch raised flooring for under floor cooling and power distribution
- 12-foot ceilings, with closed plenum hot air return
- Hot and cold aisle cabinet design

Power Management

- 2n+1 underground dual-fed electrical utility system, double-ended electrical switch gear, dual Uninterruptible Power Systems (UPS's), battery backup with battery monitoring
- Power distribution units that provide power isolation, power distribution, commercial grade grounding, and power monitoring
- Branch Circuit Monitoring (BCM's) that monitors power at the branch circuit level
- Generators equipped with Selective Catalytic Reduction (SCR) systems that supply generator power for all critical systems

Environmental Controls

- State of the art Building Monitoring System (BMS)
- HVAC intelligent cooling systems
- N+1 Computer Room Air Conditioners [CRACs], including variable speed, impeller cooling system
- N+1 Chiller systems

- Fire Detections & Protection Systems
- State of the art, electrical, mechanical and fire system monitoring
- Very Early Smoke Detection (VESDA)
- Independent alarms for heat and smoke

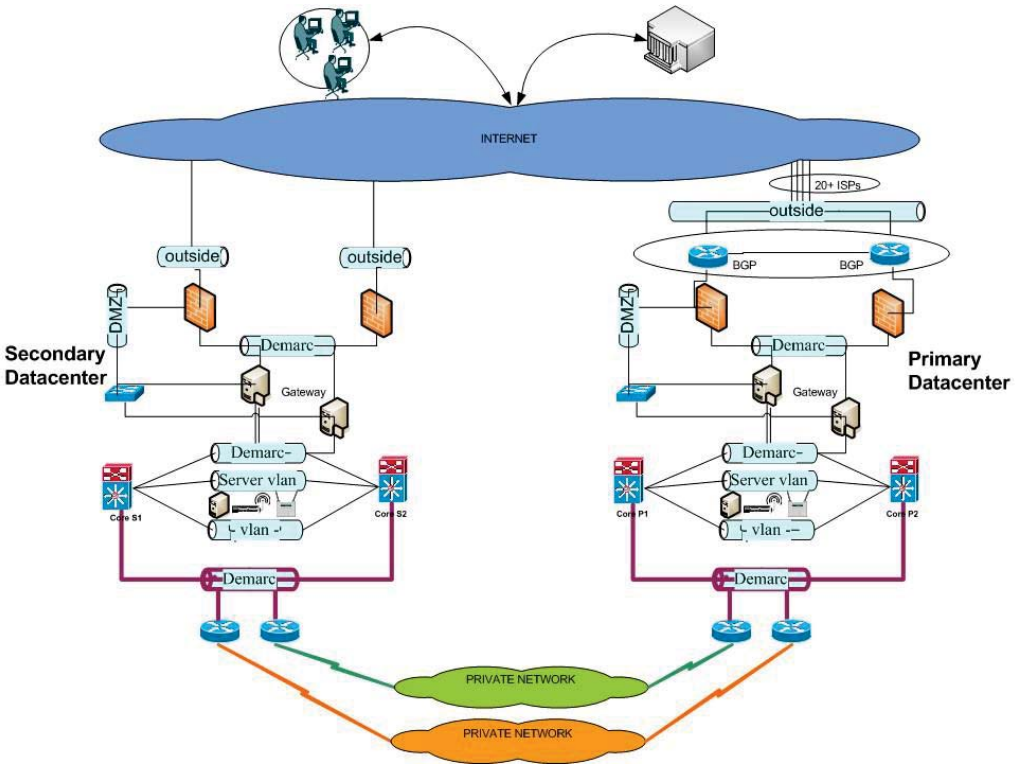
Physical Security

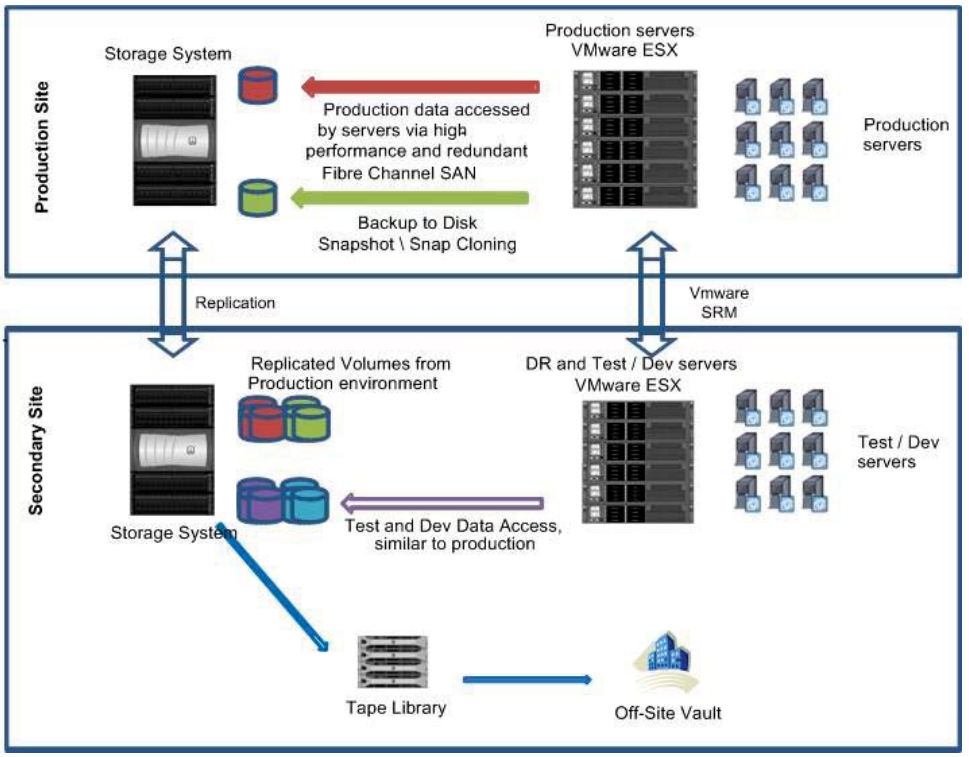
- ISO-certified procedures
- 24/7 security staff monitoring
- Closed-circuit video camera
- Multi-level keycard secured

Connectivity

- Multiple levels of network redundancy, with a fault-tolerant, global private network backbone
- Meshed, multi-vendor Internet transit connectivity
- Integrated monitoring and management systems for comprehensive fault identification and remediation

The following diagrams depict Pearson's business continuity infrastructure:





Pearson does not store information beyond what is absolutely needed to deliver our student advising services. Specifically, we do not store credit card, financial authentication credentials, cryptographic keys, SSN, etc. We also do not store credentials.

Specific to FERPA, Pearson Student Advisors are required to complete training to ensure they have a thorough understanding of FERPA and their responsibilities in ensuring the privacy of student information. We also highly encourage our partner institutions to provide the Student Advisors with access to their employee FERPA training. This ensures our Student Advisors enforce FERPA in alignment with the interpretation of the institution.

15. Describe all authentication and authorization processes and options both end-user and among component interfaces.
    a. Include interoperability with external authentication and authorization sources (e.g. directories, federations, SSO, SAML, two factor authentication).
    b. Include all pertinent documentation describing interfaces and configuration options.

The CRM system being described is an internal system used by Pearson staff. Authentication is managed through Pearson authentication systems and is single sign on.

Privacy

16. Provide your privacy statement and that of any partners involved in providing your proposed solution.

Pearson uses a combination of standards, policies, and frameworks to manage the evolving risks around Information Security. The Pearson Global Information Security and Technology Policy (GISTP), the International Organization for Standardization Security Standard 27002 (ISO 27002) and Industry leading practices are all used to reduce the risks associated with modern information sharing.

Pearson Global Information Security and Technology Policy (GISTP): This policy is global in nature and applies to all Pearson Operating companies and personnel worldwide. The GISTP addresses all areas of data security including, but not limited to, personnel security, physical security, computer and network management, and access control. To reduce the risk of compromise to Pearson hosting and other systems, the contents of its GISTP are not disclosed publicly. The GISTP is reviewed and updated semi-annually, with ratification by the Chief Information Officer, Chief Technology Officers, Security, and Privacy Officers.

International Organization for Standardization Security Standard 27002 (ISO 27002): Public international standard for initiating, implementing, maintaining, and improving information security management. ISO 27002 contains best practice control objectives and controls in all major areas of information security. Pearson Learning Technologies has implemented ISO 27002 as the current gold standard in Information Security and is currently pursuing certification under this standard.

Pearson Code of Conduct: Annually every Pearson employee is required to read and certify their acceptance of the Pearson Code of Conduct which establishes high levels of ethics for Pearson staff.

17. Describe any user and/or activity information collected automatically or directly through inquiry or consent forms sent directly to you or other parties outside of the application system, whether the information collected is personally identifiable, for what purpose(s) it is collected, and how long it is retained.

All of Pearson products, services, and partner platforms are hosted securely, integrations between systems are encrypted and secure, and all student and institutional data are kept

secure. In addition, we are annually audited for security and to ensure PII is protected appropriately.

18. Describe the specific means used to collect such information (e.g., cookies, web bugs, etc.).

Pearson accesses the web traffic tracking data available through the cookie placed by Google Analytics. We save ad channel attribution attributes in Session Storage that persists only if the website visitor keeps that browser session open.

19. Describe how information is stored and kept secure and confidential.

Pearson systems and services supporting student information are highly secure and restricted. Users are authenticated as authorized employees to gain general access to systems. Application level security is then used for more granular control to manage access to different system modules and records. Quarterly security audits are performed as an additional control. Remote access to the environment is accomplished via secure private network links or an IPSec VPN tunnel. These remote access methods are limited to only those who need access, are monitored, and are audited.

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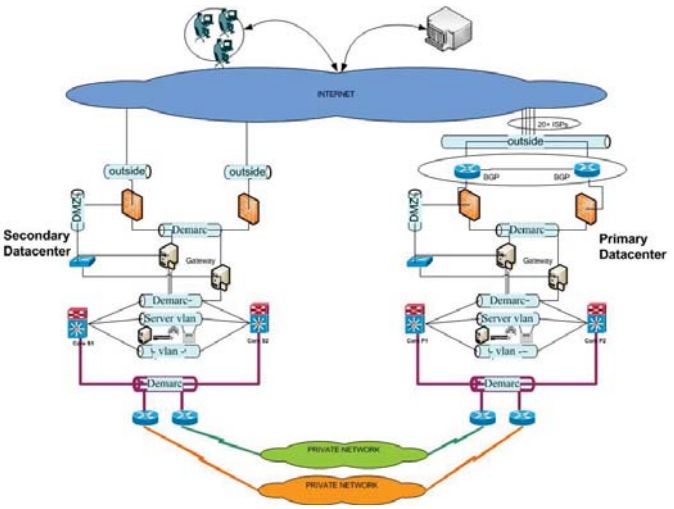

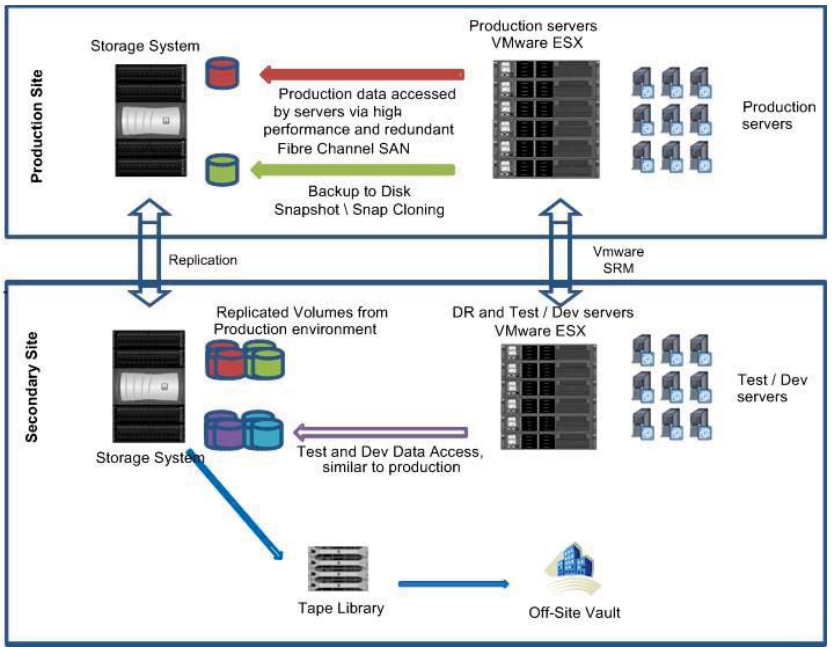

20. Data are not to be shared without explicit permission of the appropriate UM staff. Specify whether you share the user and/or activity information with other parties. If information is shared with other parties, identify specifically who these parties are and respond to items a. through c. for each.

    We do not share customer data with third parties.

    a. Identify any user and/or activity information collected automatically or directly through inquiry or consent forms sent directly to you or other parties outside of the application system, whether the information collected is personally identifiable, for what purpose(s) it is collected, and how long it is retained.

       We do not share customer data with third parties.

    b. Describe the specific means used to collect such information (e.g., cookies, web bugs, etc.).

       We do not share customer data with third parties.

    c. Describe how information is stored and kept secure.

       Pearson uses a combination of standards, policies, and frameworks to manage the evolving risks around Information Security. The Pearson Global Information Security and Technology Policy (GISTP), the International Organization for Standardization Security Standard 27002

(ISO 27002), and industry leading practices are all used to reduce the risks associated with modern information sharing:

- **Pearson Global Information Security and Technology Policy (GISTP)**—This policy is global in nature and applies to all Pearson Operating companies and personnel worldwide. The GISTP addresses all areas of data security including, but not limited to, personnel security, physical security, computer and network management, and access control. To reduce the risk of compromise to Pearson hosting and other systems, the contents of its GISTP are not disclosed publicly. The GISTP is reviewed and updated semi-annually, with ratification by the Chief Information Officer, Chief Technology Officers, and Security and Privacy Officers.
- **International Organization for Standardization Security Standard 27002 (ISO 27002)**—Public international standard for initiating, implementing, maintaining, and improving information security management. ISO 27002 contains best practice control objectives and controls in all major areas of information security. Pearson has implemented ISO 27002 as the current gold standard in Information Security and is currently pursuing certification under this standard.
- **Pearson Code of Conduct**—Annually every Pearson employee is required to read and certify their acceptance of the Pearson Code of Conduct, which establishes high levels of ethics for Pearson staff.

21. Specify whether your offering includes ingesting or connecting to personally identifiable transactions or other records from third parties. If so, please respond to a. through c. below:

    We do not share customer data with third parties.

    a. Identify any user and/or activity information collected automatically or directly through inquiry or consent forms sent directly to you or other parties outside of the application system, whether the information collected is personally identifiable, for what purpose(s) it is collected, and how long it is retained.

       We do not share customer data with third parties.

    b. Describe the specific means used to collect such information (e.g., cookies, web bugs, etc.).

       We do not share customer data with third parties.

c. Describe how information is stored and kept secure.

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illustration by Davide Bonnazi

Offeror Qualifications

4.2.1 **References.** Offeror shall provide a minimum of **three** (3) references that are using or have used services of the type proposed in this RFP at a minimum, the offeror shall provide the company name, location where the services were provided, contact person(s), contact telephone number, e-mail address, and a complete description of the services provided, and dates of service were provided. These references may be contacted to verify offeror's ability to perform the contract. The University reserves the right to use any information or additional references deemed necessary to establish the ability of the offeror to perform the contract. Negative references may be grounds for proposal disqualification.

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4.2.2 Company Profile and Experience.

- Include a brief history and most recent year ending financial statement of your firm as part of your proposal. Separate the financial statement and clearly mark so it can be removed during public meetings. Make sure it still can be identified as section 4.2.2. It is important to UM that your firm is a solid member of the business community and will be in business for the foreseeable future to ensure continuity of supply and support that your firm is proposing.

  As demonstrated by our 25-year history as founder of the Online Program Management (OPM) industry and the successful relationships currently supporting more than 300 online degrees programs and 62,000 unique students across 40 institutions, Pearson enables universities to expand beyond preconceived notions of geographic boundaries, technical capabilities and infrastructure constraints to deliver a clear and indisputable return on investment for students. Our partners include 10 of the 62 leading research institutions that are a part of the prestigious Association of American Universities (AAU) and 26 of the top 200 ranked universities in the country, according to the 2017 *U.S. News and World Report* Best Colleges Rankings.

  Please refer to ***Appendix O: Financial Statement***.

- List the legal name and full address of the entity that will enter into the agreement with UM.

  Pearson Online Learning Services
  2145 MetroCenter Blvd., Suite 400
  Orlando, FL 32835-7632

- List your firm's contact person, address, telephone number, fax number, and e-mail address.

  Joseph Morgan
  Vice President, University Partnership Development
  Pearson Online Learning Services
  2145 MetroCenter Blvd., Suite 400
  Orlando, FL 32835-7632
  Primary phone #: 786.449.0284
  Secondary phone #: 800.511.5636

- To assist us in complying with Federal Guidelines, please indicate if any of the following classifications are appropriate: Y/N

  _____Minority Business _____Small Business _____Women-owned Business

It is the policy of the University of Montana to contribute to the establishment, preservation, and strengthening of small businesses and businesses owned by minorities. The University encourages the participation of these providers in our procurement activities. Further, the University encourages Firms bidding for major contracts to provide for the participation of small businesses and businesses owned by minorities through partnerships, joint ventures, and other contractual opportunities. The University reserves the right to require periodic reports on the usage of small and minority owned firms in the performance of major contracts.

How will your firm help us accomplish this goal?

Although we would be happy to consider small businesses and businesses owned by minorities when provisioning products or services, please be aware that all Pearson OPM services are delivered by Pearson employees exclusively.

4.2.3 Resumes. A resume or summary of qualifications, work experience, education, and skills must be provided for all key personnel, including any subcontractors, who will be performing any aspects of the contract. Include years of experience providing services similar to those required; education; and certifications where applicable. Identify what role each person would fulfill in performing work identified in this RFP.

In addition to executive management, Pearson will build a dedicated cross-functional team to serve UM and is led by Afshin Mikaili as Partnership Director (see Afshin's résumé attached as ***Appendix A***).

Pearson uses a highly-scalable model whereby our key account managers are responsible for a limited number of institutions depending on the volume and growth rate of online programs within each institution. The Partnership Director's (PD) responsibilities include building the relationship and communication channels between Pearson and UM pertaining to the online programs. Additionally, the PD facilitates new forms of communication between campus entities that transform policies and procedures (be they common or custom), driving strong efficacy outcomes for students and for UM.

The PD is complemented by a team of managers, each with deep experience in a specific function, such as marketing, recruitment, and student support services. Other subject matter experts may become an extension of this core team as warranted, (e.g., course development

and Pearson products). Each function assigns staff to the cross-functional program team to form a group dedicated to UM and its programs. This team operates as a single business unit within Pearson and, under the leadership of the PD and Senior Vice President (SVP) of Academic Partnerships, represents the comprehensive set of skills necessary to service all scope obligations to UM.

1. Partnership Director; Location: Chicago, IL
2. Associate Directors of Marketing, Recruiting Services, Student Support Services, Retention Management; Location: Chicago, IL
3. Managers of Marketing, Retention; Location: Chicago, IL
4. Enrollment Advisors; Location: Chicago, IL
5. Student Success Coaches; Location: Chicago, IL
6. Lead Instructional Designer; Location: Chicago, IL or virtual
7. Instructional Designers: Chicago, IL, virtual, or other Pearson locations

During any program launch Pearson is on campus to establish working relationships with the relevant UM staff, faculty, and administration and to develop communication protocol. Post launch Pearson and the university establishes a mutually agreed upon, standing video/audio conference call, which takes place either weekly or bi-weekly but no less frequently than every 4 weeks. Every quarter, Pearson travels to campus for Steering Committee Meetings.

Please refer to ***Appendix B: Cross Functional Steering Committee***.

Upon achieving a predefined enrollment and/or program targets, often Pearson will have a Partnership Manager located on campus creating additional opportunities for efficient decision-making.

4.2.4 Equal Pay for Montana Women. Executive Order No. 12-2016 promoting equal pay for Montana women directs the Department of Administration to include incentives in the RFP process for contractors who engage in best practices to promote wage transparency. These best practices include the following:

(a) posting salary ranges in employment listings;
(b) certifying that the contractor will not ask about wage history in employee interviews; and
(c) certifying that the contractor will not retaliate or discriminate against employees who discuss or disclose their wages in the workplace.

☐ No, I do not agree.

Statement of Compliance with Equal Pay for Montana Women. Offeror indicating it will comply with Executive Order No. 12-2016 will receive 5% of the total points available. Offerors who do not comply will not receive the available points. Offerors are required to sign and upload a PDF copy of this certification with their proposal to certify compliance.

☒ Yes, I agree and will comply with the best practices to promote wage transparency outlined in Executive Order No. 12-2016.

Company Name (Clearly Printed): Pearson Education, Inc.

Authorized Signature: _____

Date: February 4, 2019

4.2.5 Method of Providing Services. Offeror shall provide examples of services that they will provide in relation to achieving the elements outlined in the Scope of Work: Section 3

Examples have been provided in our *Scope of Work* as well as the appendices.

4.2.6 Your Turn. This section gives offeror the opportunity to provide information "in its own words" regarding its assets, skills, and expertise and what makes it the best offeror for the job.

As you review Pearson's response, we believe it is important to draw distinctions between our partnership model and others in the OPM industry. Pearson's partnership model is differentiated in the following ways:

1. The Learner—Pearson's North Star

Pearson believes fundamentally that education is the key to success. For many people, learning is the route to a job to support their family or the skills to help them make progress in their careers. For others, it is simply a lifelong passion for discovery. For every learner, at every stage of their life, education is the path to opportunity and fulfillment.

As a trusted partner to many of the leading global universities, we apply outcomes-focused, evidenced-based design to our products and services, that are used to help more learners learn more. It is at the heart of who we are and our vision for the future of learning. This preoccupation and commitment to learner outcomes that matter, provides benefits to our university partners and Pearson. Our unique approach leads to better business outcomes, stronger financial returns for both parties. It also affords Pearson greater opportunities to continually invest and reinvent the OPM industry. Several proprietary product examples include:

- **Pearson's Career Success**—Provides a suite of assessments, instructional modules, and tools to support students' career development and successful job search. This product was informed by extensive research with employers, higher education institutions and organizations, and instructors.
- **Pearson Writer**—Is a revolutionary digital tool for writers at all levels. Available online and via a mobile app. it provides instant feedback on student writing to help them revise, edit, and improve their writing.
- **Smarthinking**—A proprietary service providing institutions and students with on-demand individual instruction and support from expert tutors across a wide variety of subjects—from beginner to advance, 24 hours per day. 90% of Smarthinking tutors have a PhD or Master's degree.
- **Data Analytics**—Pearson puts data at the center of our partnerships, both in how we use machine learning and other analytical techniques to optimize operations across the student lifecycle, as well as in how we use data-driven insight to help institutions better understand their current and potential learners.

  Pearson has more data on students—spanning the entire student lifecycle—than any other OPM provider given the breadth of our institutional relationships and time in the market. We believe this offers transformational possibilities to understand learner interests across disciplines, consumer segments, types of programs, among other "lenses" to understand the market.

2. Differentiated Processes

Pearson is unique among providers in many ways. Competing providers are numerous and growing, as many try to catch up. But the origins of operational and cultural approaches we've developed over past 25 years and hundreds of partnerships make a difference, and they are difficult to understand from a vantage point that only affords a view of the surface. Details are important. Nuance matters. There is considerable distance between us and our competitors.

1. **Research and Assessment Foundation**—Pearson's approach to inform program selection is unique and industry leading. It suggests groups of related programs across degree levels, as well as emerging fields, and enables niche programs to be supported among a portfolio of larger ones.
2. **Enterprise Level Expertise**—Pearson is the only company that supports enterprise-wide online initiatives with top-tier universities, including our partnerships with ASU Online, Maryville University, and Rutgers Online.
3. **Services Delivered by Pearson Staff**—There is no outsourcing of core services anywhere in the value chain. This strength ensures complete coordination of services optimizing the partnership experience for UM and the learning experience for students and faculty.
4. **Cross-Functional Teams**—The cross-functional team structure ensures personalized attention and deep knowledge of your online programs that is aligned with the university's culture and processes. Our staff operates authentically as an extension of yours.
5. **Course Development**—Hallmarks include relieving faculty of the need to become experts at instructional design, course construction, the LMS, or other associated technologies. We replace that with a personal one-to-one relationship with one of our Instructional Designers who manages the course development process, backed by our custom media development, quality assurance, and project management teams. The result are courses that are instructionally sound, media rich, inspire community development, and innovative in their approach.
6. **Program Planning**—Developed over 25 years and hundreds of program partnerships, our process for program planning (Program and Institutional Readiness Assessments) is tried and true. The planning process results in a financial pro forma that is detailed, informed by the richest data set, and carefully considers resource needs and expenses incurred by both parties.

7. **Academic Strategy**—Our Academic Strategy team works closely with our Academic Partners and our Market Research team to make data-informed decisions in program development, while also identifying trends in student needs, labor analytics, discipline-specific innovations, and university and career pathways that lead to employability and lifelong learning.
8. **Program Funding**—Pearson offers options to finance the development, launch, and operation of online programs at UM. Our proposal allows UM to consider fee for service, cost plus, or revenue sharing as options to expand quickly into online education beyond your current footprint.
9. **Marketing**—We are the largest Higher Education marketer in the world (spending more than $150 million annually) and use heuristic formulas derived through extensive research to drive testing and optimization of marketing assets. Our Brand DNA process for extracting and articulating a brand strategy for your online programs is unrivaled.
10. **Corporate and Organizational Partnerships**—Pearson has established relationships with more than 500 corporate and organization partners and leverages these relationships to create a high-converting lead channel for our university partners.
11. **University Retains Control**—Pearson provides expertise, enabling services and resources, and UM retains control over your academics and reputation. UM's administrators and faculty make all academic and course-related decisions, establish all admissions criteria, make all admissions decisions, and approves all marketing materials. We respect the values of higher education.
12. **Corporate Strength of Pearson**—The depth and strength of Pearson means unrivaled access to resources from content, products, services, and solutions to investment capital.
13. **Financial Strength and Stability**—Financial viability is an important consideration when selecting an OPM partner. At the time of this submission, Pearson's market cap was valued in excess of $9 billion. We are global organization and the world's largest education company, with more than 30,000 employees in more than 70 countries providing a range of educational products and services to institutions, governments, and direct-to-individual learners that help people everywhere aim higher and fulfill their true potential. Based upon Pearson's financial strength and stability, the company can identify and invest in academic institutions for the long-term. As a publicly traded company (NYSE symbol: PSO), all Pearson financial

reports are available at: https://www.pearson.com/corporate/investors/investor-information.html

14. **Technology Agnostic**—We prefer to use your existing application, student information management, and learning management systems and we have the expertise to integrate and support each. This has the added benefit of not obligating UM's organization to learn new systems.
15. **Information Systems Integration is Not Required**—We prefer to use your existing application, student information management, and learning management systems for several reasons:
    - University systems are already connected and provide valuable decision support through the data collection and reporting they provide to the university
    - University staff are familiar with these systems and processes
    - Eliminates the risks inherent in a third-party collecting and managing student and university data
    - Prevents the need for costly and troublesome integration with third-party systems
    - Authentication and other information security practices would match those that exist for every other student at UM
    - Provides a seamless brand experience for students

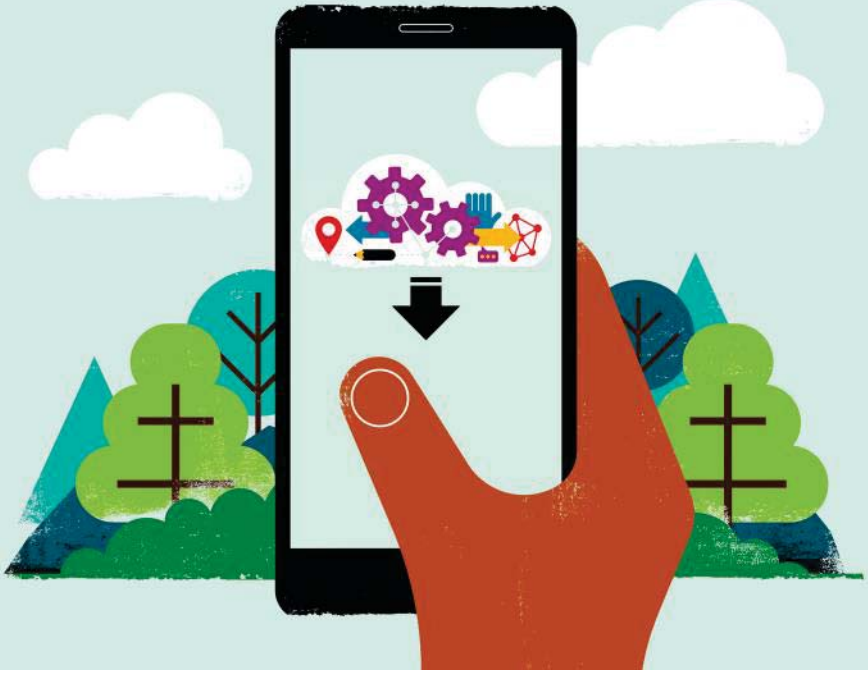

illustration by Lauren Rolwing

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Explain your company's fee structure, breaking out costs by activity and by the type of educational program being delivered. If there are varying levels of service leading to tiered or scaled pricing (*e.g.,* market research, course development and course delivery vs. marketing only), indicate such.

1. Total Cost paid by online learner $ 675.00 Enter total but for supplemental provide break down or proposal can be deemed non responsive.

   Pearson's model assumes that a student would pay $800.00 per credit hour for Graduate Programs and $500.00 per credit hour for Undergraduate Programs. For the sake of consistency, program and technology fees are not included in these figures. These fees vary significantly between institutions, both in number and in amount, and often are not clearly listed.

   In some cases, institutions offer different tuition rates for in-state and out-of-state students or offer multiple program tracks with different credit hour requirements. These variations impact the total tuition cost for the program, sometimes dramatically. We would seek additional information from the university before providing any projections.

2. Total Component Costs $ 675.00 Same as #1

   Please see assumptions in the financial section of the RFP. We would seek additional information from the university before providing any projections.

3. Total Educational program cost, cost per program $ 30,375.00 Same as #1

   Pearson's model assumes that a student would pay $800.00 per credit hour for Graduate Programs and $500.00 per credit hour for Undergraduate Programs. Please see assumptions in the financial section of the RFP. We would seek additional information from the university before providing any projections.

4. Total Service Costs $ 24,300.00 Same as #1

   Pearson assumed 80% in order to answer the question. We would seek additional information from the university before providing any projections.

General Exception

This proposal and the attachments hereto reflect the terms under which Pearson is willing to contract, but is not itself a formal offer to contract. Neither is this response intended to be an acceptance of the terms or conditions set forth in the RFP. The specific terms and conditions of an agreement covering the subject matter of the RFP will be subject to subsequent negotiation between the parties. Pearson customarily offers its services pursuant to a standard agreement, which allows Pearson to employ streamlined business processes for the provision of services to its institutional customers. Pearson will negotiate in good faith with the university regarding the possible inclusion of additional or modified provisions in any resulting agreement, whether such terms arise from the university's RFP or otherwise.

Attachments

illustration by Tang Yau Hoong

EXHIBIT A: STATEMENT OF COMPLIANCE

We hereby acknowledge receipt of specifications for the University of Montana RFP #3108, and have read and understand the specifications and agree to furnish the specified (requirements or products) and services requested herein, as detailed in our proposal.

Name of Contractor:

Pearson Education, Inc.

Address: 221 River Street

City/State/Zip: Hoboken, NJ 07030

Phone: (786) 449-0284

Joseph Morgan
Name of Authorized Officer

Signature of Authorized Officer

Date: February 6, 2019

Title: Vice President, University Partnerships

In the event that any notice is required to be sent by the University of Montana to the Contractor or if the University finds it otherwise necessary to contact the Contractor, that notice will be deemed to be received by the Contractor two calendar days after the notice is deposited in the United States mail by certified mail by the University of Montana, addressed to:

Contractor trade name:

Pearson Education, Inc.

Name of Contractor's Contact Person:

Joseph Morgan

Address:

221 River Street

Hoboken, NJ 07030

Telephone:

(786) 449-0284

Fax:

N/A

The University of Montana is absolved from the responsibility of ascertaining Contractor's future mailing address or contact person other than that referred to in this document unless notified of changes in writing to Business Services-Procurement.

Appendices

Due to the confidentiality of the appendices, most have been removed.

illustration by Tang Yau Hoong

Financial statements

In this section

Independent auditor's report to the members of Pearson plc

Report on the audit of the financial statements

Our opinion

In our opinion, Pearson Plc's Group financial statements and parent company financial statements (the "financial statements"):

- give a true and fair view of the state of the Group's and of the parent company's affairs as at 31 December 2017 and of the Group's profit and the Group's and the parent company's cash flows for the year then ended;
- have been properly prepared in accordance with IFRSs as adopted by the European Union and, as regards the parent company's financial statements, as applied in accordance with the provisions of the Companies Act 2006; and
- have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation.

We have audited the financial statements, included within the Annual Report and accounts (the "Annual Report"), which comprise: the Group and parent company balance sheets as at 31 December 2017; the Group's income statement and statement of comprehensive income, the Group and parent company statements of cash flows, and the Group and parent company statements of changes in equity for the year then ended; and the notes to the financial statements, which include a description of the significant accounting policies.

Our opinion is consistent with our reporting to the Audit Committee.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remained independent of the Group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, as applicable to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

To the best of our knowledge and belief, we declare that non-audit services prohibited by the FRC's Ethical Standard were not provided to the Group or the parent company.

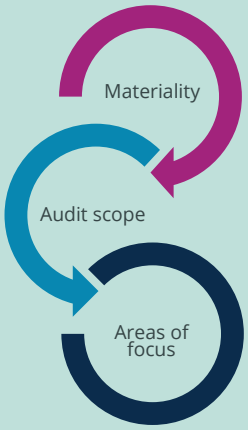
Other than those disclosed in note 4 to the financial statements, we have provided no non-audit services to the Group or the parent company in the period from 1 January 2017 to 31 December 2017.

The scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements. In particular, we looked at where the directors made subjective judgements, for example in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain.

We gained an understanding of the legal and regulatory framework applicable to the Group and the industry in which it operates, and considered the risk of acts by the Group which were contrary to applicable laws and regulations, including fraud. We designed audit procedures to respond to the risk, recognising that the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion. We designed audit procedures that focused on the risk of non-compliance related to the Companies Act 2006, the Listing Rules, and applicable tax legislation in the countries in which Pearson operates. Our tests included, but were not limited to, review of the financial statement

Our audit approach



Overview

- Overall Group materiality: £22m (2016: £23m), based on 4% of adjusted operating profit, adjusted for net finance costs.
- Overall parent company materiality: £20m (2016: £21m), 1% of net assets capped below Group materiality
- We conducted work in four key territories: US, UK, Brazil and China. In addition, we obtained an audit opinion on the financial information reported by the associate Penguin Random House.
- The territories where we conducted audit procedures, together with work performed at corporate functions and at the consolidated Group level, accounted for approximately: 67% of the Group's revenue; 62% of the Group's profit before tax; and 60% of the Group's adjusted profit before tax.
- Revenue recognition including risk of fraud (Group).
- Carrying values of goodwill and intangible assets (Group).
- Returns provisions (Group).
- Nature and presentation of non-trading items (Group).
- Provisions for uncertain tax liabilities (Group).
- Recoverability of pre-publication assets (Group).
- Major transactions (Group and parent).
- Retirement benefits and other post-retirement obligations (Group).

Independent auditor's report to the members of Pearson plc

disclosures to underlying supporting documentation, review of correspondence with legal advisors and tax authorities, enquiries of management, review of significant component auditors' work and review of internal audit reports in so far as they related to the financial statements. We did not identify any key audit matters relating to irregularities, including fraud. As in all of our audits we also addressed the risk of management override of internal controls, including testing journals and evaluating whether there was evidence of bias by the directors that represented a risk of material misstatement due to fraud.

Key audit matters

Key audit matters are those matters that, in the auditors' professional judgement, were of most significance in the audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by the auditors, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters, and any comments we make on the results of our procedures thereon, were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. This is not a complete list of all risks identified by our audit.

Key audit matter	How our audit addressed the key audit matter
Revenue recognition including risk of fraud	
There are two types of complex contracts that require significant judgements and estimates, which could be subject to either accidental errors or deliberate fraud: › Multiple element arrangements, such as the sale of physical textbooks accompanied by digital content or supplementary workbooks, where revenue is recognised for each element as if it were an individual contractual arrangement requiring the estimation of its relative fair value; › Certain long-term contracts that span year end, where revenue is recognised using estimated percentage of completion based on costs. These include contracts to design, develop and deliver testing and accreditation, and contracts to secure students and support the online delivery of their teaching. These complex contracts generate material deferred revenue and accrued income balances and are areas where misstatements in the underlying assumptions or estimation calculations could have a material effect on the financial statements. In addition, there are material shipments towards the period end from major distribution locations giving rise to the potential risk of a cut-off error.	Where books are sold together with workbooks delivered later or companion digital materials available online, we assessed the basis for allocation of the purchase price between each element based on individual contractual arrangements, and then tested the detailed calculations supporting the revenue deferral calculations. This included validating adjustments for the extent of user take up in relation to digital content to underlying support. We found the revenue deferrals to be based on reasonable estimates of the relative fair value of each element and to be properly and consistently calculated. For a selection of the larger, more judgemental and more recent long-term contracts, covering both testing activities and online delivery of teaching, we read the contracts and assessed the accounting methodologies being applied to calculate the proportion of revenue being recognised. We also tested costs incurred to date and management's estimates of forecast costs and revenues by reference to historical experience and current contract status. Additionally, we have performed manual journals testing focusing on unusual or unexpected entries to revenue as well as unexpected users. Our testing showed that revenue recognition practices are in accordance with Group policies and related accounting standards with appropriate methods for calculating the revenue recognised. Refer to the returns provision areas of focus for our work over the risk of cut-off.
Carrying values of goodwill and intangible assets	
The Group recorded goodwill of £2,030m and intangible assets of £934m at 31 December 2017, including software, acquired customer lists, contracts and relationships, acquired trademarks and brands and acquired publishing rights. The Group recorded an impairment charge of £2,548m at 31 December 2016 against the North America CGU. The carrying values of goodwill and intangible assets are dependent on future cash flows of the underlying CGUs and there is a risk that if management does not achieve these cash flows it could give rise to further impairment. This risk increases in periods when the Group's trading performance and projections do not meet prior expectations, such as in 2016. The impairment reviews performed by management contain a number of significant judgements and estimates. Changes in these assumptions can result in materially different impairment charges or available headroom.	We obtained management's fair value less costs of disposal impairment model and tested and evaluated the reasonableness of key assumptions, including CGU identification; operating cash flow forecasts and key inputs to these forecasts; the appropriateness of the inclusion of restructuring cost savings; perpetuity growth rates; and discount rates. We tested the mathematical integrity of the forecasts and carrying values in management's impairment model and confirmed that management's estimate of each CGU's recoverable amount is appropriately based on the higher of fair value less costs of disposal and value-in-use. Our procedures have been focused on the North America and Core CGUs. We agreed the forecast cash flows to board-approved budgets, assessed how these budgets are compiled and understood key judgements and estimates within them, including short-term growth rates, cost allocations and restructuring costs and related savings. We used valuations specialists to assess the perpetuity growth rate and discount rate for each CGU by comparison with third-party information, past performance and relevant risk factors. We also considered management's estimate of disposal costs for reasonableness. We performed our own sensitivity analyses to understand the impact of reasonable changes in the key assumptions. We agree with management's decision to provide additional disclosures and sensitivities in note 11 of the financial statements, in relation to the North America and Core CGUs.

Independent auditor's report to the members of Pearson plc

Key audit matter	How our audit addressed the key audit matter
Returns provisions	
The Group has provided £170m for sales returns at 31 December 2017. The most significant exposure to potential returns within Pearson arises in the US higher education courseware business. Trends in this business, such as the growth of textbook rentals and the availability of free on-line content continue to affect this market and have the potential to impact returns levels if shipping practices and arrangements with retailers are not managed by Pearson in response to these trends: for example, returns in the first half of 2016 were higher and more volatile than had been anticipated. Management provides for returns based on past experience by customer and channel, using a three year average method.	We assessed management's evaluation of the trends in the market and their responses (including changed incentive arrangements and shipping practices) and considered whether management's methodology and three year averaging remained appropriate. We were satisfied that this was the case. We tested the returns provision calculations at 31 December 2017 and agreed inputs such as historical sales and returns experience to underlying records We performed detailed testing over shipment and returns levels around the year end in particular at major shipping locations in the US and UK and evaluated whether these gave rise to an increased risk of future returns. We concluded that management had adopted methods and reached estimates for future returns that were supportable and appropriate.
Nature and presentation of non-trading items	
In May 2017, management announced a further three year restructuring plan to the one announced in 2016, to continue to simplify the business and focus further on their global education strategy. As a result, management recorded a restructuring charge of £79m during 2017. Given the significance of this programme, management has excluded these costs from their adjusted profit measure in addition to certain other items which have been excluded on a consistent basis with prior years. There is a risk that inappropriate costs might be excluded from the underlying operating cost base in such a restructuring programme, and that the disclosures around the items excluded from adjusted performance measures might not be clear and transparent.	We identified no material adjustments in relation to the recording of the restructuring costs. We noted that for the majority of these items there was clear evidence to support the fact that they have arisen as a direct consequence of the Group's restructuring plans. There are certain costs where the classification as restructuring is subjective due to the circumstances in which they have arisen. Based on the audit evidence obtained, we have been able to conclude that, although subjective, there are valid arguments for associating these costs with the restructuring activities undertaken and therefore the classification is reasonable. We also considered the extent and clarity of the Group's reconciliations between the statutory and adjusted measures and the related explanations. We were satisfied that these were appropriate and consistent with the nature of the underlying items.
Provisions for uncertain tax liabilities	
The Group is subject to several tax regimes due to the geographical diversity of its businesses. At 31 December 2017 the Group had provisions for uncertain tax positions of £280m (see note 7). Management is required to exercise significant judgement in determining the appropriate amount to provide in respect of potential tax exposures and uncertain tax provisions. The most significant of these relate to US tax. Changes in assumptions about the views that might be taken by tax authorities can materially impact the level of provisions recorded in the financial statements.	We engaged our tax experts in support of our audit of tax and obtained an understanding of the Group's tax strategy and risks. We recalculated the Group's tax provisions and determined whether the treatments adopted were in line with the Group's tax policies and had been applied consistently. We evaluated the key underlying assumptions, particularly in the US and UK. In doing this, we considered the status of tax authority audits and enquiries. We considered the basis and support, in particular for provisions not subject to tax audit, in comparison with our experience for similar situations. We also evaluated the consistency of management's approach to establishing or changing prior provision estimates and validated that changes in prior provisions reflected a change in facts and circumstances. We are satisfied that management's provision estimates for uncertain tax positions were prepared on a consistent basis with the prior year and were adequately supported. We also evaluated the disclosures in note 7 in relation to uncertain tax provisions, and were satisfied that the disclosures were consistent with the underlying positions and with the requirements of IAS 1.
Recoverability of pre-publication assets	
The Group has £988m of pre-publication assets at 31 December 2017 including £247m recorded in businesses classified as held for sale (see below). Pre-publication assets represent direct costs incurred in the development of education platforms, programmes and titles prior to their public release. Judgement is required to assess the recoverability of the carrying value of these assets; this is further complicated by the transition to digital as the Group invests in new, less proven, inter-linked digital content and platforms.	We assessed the appropriateness of capitalisation and amortisation policies and selected a sample of costs deferred to the balance sheet as pre-publication assets to test their magnitude and appropriateness for capitalisation and the appropriateness of amortisation profiles against sales forecasts, including considering the impact of the transition towards digital products. We challenged the carrying value of certain pre-publication assets where products are yet to be launched, are less proven, or where sales are lower than originally anticipated. We assessed forecast cash flows against historical experience and obtained supporting evidence for management's explanations. Where the pre-publication assets formed part of a held for sale business we also considered the evidence supporting the expected disposal proceeds exceeding the carrying value of those assets. We found the Group's policies to be appropriate and consistently applied. Whilst the carrying value of some assets depends on future sales growth, overall we considered the year end carrying values to be supported and in line with the Group's policy.

Independent auditor's report to the members of Pearson plc

Key audit matter	How our audit addressed the key audit matter
Major transactions	
The Group has disposed of both a 22% share in its investment in the Penguin Random House associate and Global Education during 2017. Pre-tax gains on disposal of £96m and £44m have been recorded respectively on these disposals. Pearson continues to hold a 25% share in Penguin Random House.	We obtained and reviewed the sale agreements and evidence of proceeds received for both disposals. We also reviewed the contractual agreements to assess the accounting treatment and classification of proceeds and the gains on disposal of both Penguin Random House and Global Education. We consider the accounting treatment to be appropriate and the gains to have been appropriately calculated and disclosed.
Additionally, at 31 December 2017 the K-12 and Wall Street English businesses have been classified as held for sale. Therefore assets of £760m and liabilities of £588m have been classified as held for sale on the face of the balance sheet. Management have recorded the held for sale assets at the lower of carrying value and fair value less costs to dispose. No impairments were recorded on classification of the businesses as held for sale.	We have obtained evidence to support the held for sale determination including (for WSE) a signed sale agreement and (for K-12) supporting Board approval and evidence in support of a well advanced sales process. From the evidence we have obtained we were satisfied that both K-12 and Wall Street English have been appropriately measured and classified as held for sale at 31 December 2017.
Retirement benefits and other post-retirement obligations	
The Group operates a number of defined benefit and defined contribution retirement plans throughout the world. The total fair value of plan assets is £3,492m and the total present value of defined benefit obligations is £2,973m. The largest plan is the Pearson Group Pension Plan in the UK (UK Group plan) which has a net surplus of £545m.	We assessed the appropriateness of key assumptions supporting the Group's valuation of retirement benefit obligations with the support of our own actuarial specialists and undertook work to validate the valuation of assets.
There have been a number of changes to the UK Group plan in the period including increased contributions; an update to certain actuarial assumptions; and the purchase of two insurance buy-in policies covering approximately £1.2bn of its total liabilities. Given the size of the UK Group plan, changes of this nature have a material impact on the net surplus.	We considered the consistency of management's methodology with prior periods. Where changes to the basis of assumptions were made we obtained evidence in support of the revised basis, and where relevant to the changes in circumstances. Our assessment included benchmarking assumptions against our independent expected range and with other FTSE 100 companies with plans of similar duration. We consider the changes to be supportable and appropriate.
	We have circularised fund managers and custodians to confirm existence of pension assets and have performed independent valuation procedures. We have not identified any significant adjustments in relation to this work.
	We have reviewed contractual information and advice received from external advisers in relation to the insurance buy-in policies. We have confirmed that the accounting for these transactions is consistent with agreements entered into.
	We also evaluated the disclosures in note 25 and were satisfied that they appropriately addressed key changes in the period.

How we tailored our audit scope

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the Group and the parent company, the accounting processes and controls, and the industry in which they operate.

Overall Group materiality: £22m, which represents 4% of adjusted operating profit, adjusted for net finance costs as disclosed in note 8 to the consolidated financial statements. Refer to p116 for further details.

We conducted work in four key territories: US, UK, Brazil and China. In addition, we obtained an audit opinion on the financial information reported by the associate Penguin Random House.

The territories where we conducted audit procedures, together with work performed at corporate functions and at the consolidated Group level, accounted for approximately: 67% of the Group's revenue; 62% of the Group's profit before tax; and 60%% of the Group's adjusted profit before tax.

Materiality

The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Independent auditor's report to the members of Pearson plc

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	Group financial statements	Parent company financial statements
Overall materiality	£22m (2016: £23m).	£20m (2016: £21m).
How we determined it	4% of adjusted operating profit, adjusted for net finance costs	1% of net assets capped below Group materiality
Rationale for benchmark applied	Note 8 of the financial statements explains that the Group's principal measure of performance is adjusted operating profit (£576m), which excludes the cost of major restructuring, other net gains and losses and acquired intangible asset amortisation, in order to present results from operating activities on a consistent basis. From adjusted operating profit we deducted net finance costs of £30m (see note 8) because these mainly reflect recurring finance charges. To the resulting number we then applied 4% (rather than the usual 5%) as our materiality calculation was based on an adjusted measure.	We consider net assets to be an appropriate benchmark for a Group holding company. However we have capped this below overall Group materiality.

For each component in the scope of our Group audit, we allocated a materiality that is less than our overall Group materiality. The range of materiality allocated across components was between £3m and £18m.

We agreed with the Audit Committee that we would report to them misstatements identified during our audit above £2m (Group audit) (2016: £2m) and £2m (Parent company audit) (2016: £2m) as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

Going concern

In accordance with ISAs (UK) we report as follows:

Reporting obligation	Outcome
We are required to report if we have anything material to add or draw attention to in respect of the directors' statement in the financial statements about whether the directors considered it appropriate to adopt the going concern basis of accounting in preparing the financial statements and the directors' identification of any material uncertainties to the Group's and the parent company's ability to continue as a going concern over a period of at least twelve months from the date of approval of the financial statements.	We have nothing material to add or to draw attention to. However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the Group's and parent company's ability to continue as a going concern.
We are required to report if the directors' statement relating to Going Concern in accordance with Listing Rule 9.8.6R (3) is materially inconsistent with our knowledge obtained in the audit.	We have nothing to report.

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The directors are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Strategic Report and Governance report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on the responsibilities described above and our work undertaken in the course of the audit, the Companies Act 2006, (CA06), ISAs (UK) and the Listing Rules of the Financial Conduct Authority (FCA) require us also to report certain opinions and matters as described below (required by ISAs (UK) unless otherwise stated).

Strategic Report and Governance report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic Report and Governance report for the year ended 31 December 2017 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements. (CA06)

In light of the knowledge and understanding of the Group and parent company and their environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic Report and Governance report. (CA06)

The directors' assessment of the prospects of the Group and of the principal risks that would threaten the solvency or liquidity of the Group

We have nothing material to add or draw attention to regarding:

- The directors' confirmation on pages 60 and 106 of the Annual Report that they have carried out a robust assessment of the principal risks facing the Group, including those that would threaten its business model, future performance, solvency or liquidity.
- The disclosures in the Annual Report that describe those risks and explain how they are being managed or mitigated.
- The directors' explanation on pages 60 and 106 of the Annual Report as to how they have assessed the prospects of the Group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the Group will be able to

Independent auditor's report to the members of Pearson plc

continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

We have nothing to report having performed a review of the directors' statement that they have carried out a robust assessment of the principal risks facing the group and statement in relation to the longer-term viability of the Group. Our review was substantially less in scope than an audit and only consisted of making inquiries and considering the directors' process supporting their statements; checking that the statements are in alignment with the relevant provisions of the UK Corporate Governance Code (the "Code"); and considering whether the statements are consistent with the knowledge and understanding of the group and parent company and their environment obtained in the course of the audit. (Listing Rules)

Other Code Provisions

We have nothing to report in respect of our responsibility to report when:

- The statement given by the directors, on page 110, that they consider the Annual Report taken as a whole to be fair, balanced and understandable, and provides the information necessary for the members to assess the Group's and parent company's position and performance, business model and strategy is materially inconsistent with our knowledge of the Group and parent company obtained in the course of performing our audit.
- The section of the Annual Report on page 76 describing the work of the Audit Committee does not appropriately address matters communicated by us to the Audit Committee.
- The directors' statement relating to the parent company's compliance with the Code does not properly disclose a departure from a relevant provision of the Code specified, under the Listing Rules, for review by the auditors.

Directors' Remuneration

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006. (CA06)

Responsibilities for the financial statements and the audit

Responsibilities of the directors for the financial statements

As explained more fully in the Statement of directors' responsibilities, the directors are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The directors are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the Group's and the parent company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or the parent company or to cease operations, or have no realistic alternative but to do so.

Auditors' responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditors' report.

Use of this report

This report, including the opinions, has been prepared for and only for the parent company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Other required reporting

Companies Act 2006 exception reporting

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- certain disclosures of directors' remuneration specified by law are not made; or
- the parent company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

Appointment

Following the recommendation of the Audit Committee, we were appointed by the members on 6 February 1996 to audit the financial statements for the year ended 31 December 1996 and subsequent financial periods. The period of total uninterrupted engagement is 22 years, covering the years ended 1 January 1996 to 31 December 2017.

Stuart Newman
(Senior Statutory Auditor)
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
London

14 March 2018

Consolidated income statement

Year ended 31 December 2017

All figures in £ millions	Notes	2017	2016
Continuing operations			
Sales	2	**4,513**	4,552
Cost of goods sold	4	**(2,066)**	(2,093)
Gross profit		**2,447**	2,459
Operating expenses	4	**(2,202)**	(2,480)
Other net gains and losses	4	**128**	(25)
Impairment of intangible assets	11	**–**	(2,548)
Share of results of joint ventures and associates	12	**78**	97
Operating profit/(loss)	2	**451**	(2,497)
Finance costs	6	**(110)**	(97)
Finance income	6	**80**	37
Profit/(loss) before tax		**421**	(2,557)
Income tax	7	**(13)**	222
Profit/(loss) for the year		**408**	(2,335)
Attributable to:			
Equity holders of the company		**406**	(2,337)
Non-controlling interest		**2**	2
Earnings per share/(loss) attributable to equity holders of the company during the year			
(expressed in pence per share)			
– basic	8	**49.9p**	(286.8)p
– diluted	8	**49.9p**	(286.8)p

Consolidated statement of comprehensive income

Year ended 31 December 2017

All figures in £ millions	Notes	2017	2016
Profit/(loss) for the year		**408**	(2,335)
Items that may be reclassified to the income statement			
Net exchange differences on translation of foreign operations – Group		**(158)**	910
Net exchange differences on translation of foreign operations – associates		**(104)**	3
Currency translation adjustment disposed		**(51)**	–
Attributable tax	7	**9**	(5)
Fair value gain on other financial assets		**13**	–
Attributable tax	7	**(4)**	–
Items that are not reclassified to the income statement			
Remeasurement of retirement benefit obligations – Group	25	**175**	(268)
Remeasurement of retirement benefit obligations – associates		**7**	(8)
Attributable tax	7	**(42)**	58
Other comprehensive (expense)/income for the year	29	**(155)**	690
Total comprehensive income/(expense) for the year		**253**	(1,645)
Attributable to:			
Equity holders of the company		**251**	(1,648)
Non-controlling interest		**2**	3

Consolidated balance sheet

As at 31 December 2017

All figures in £ millions	Notes	2017	2016
Assets			
Non-current assets			
Property, plant and equipment	10	**281**	343
Intangible assets	11	**2,964**	3,442
Investments in joint ventures and associates	12	**398**	1,247
Deferred income tax assets	13	**95**	451
Financial assets – derivative financial instruments	16	**140**	171
Retirement benefit assets	25	**545**	158
Other financial assets	15	**77**	65
Trade and other receivables	22	**103**	104
		4,603	5,981
Current assets			
Intangible assets – pre-publication	20	**741**	1,024
Inventories	21	**148**	235
Trade and other receivables	22	**1,110**	1,357
Financial assets – marketable securities	14	**8**	10
Cash and cash equivalents (excluding overdrafts)	17	**518**	1,459
		2,525	4,085
Assets classified as held for sale	32	**760**	–
Total assets		**7,888**	10,066
Liabilities			
Non-current liabilities			
Financial liabilities – borrowings	18	**(1,066)**	(2,424)
Financial liabilities – derivative financial instruments	16	**(140)**	(264)
Deferred income tax liabilities	13	**(164)**	(466)
Retirement benefit obligations	25	**(104)**	(139)
Provisions for other liabilities and charges	23	**(55)**	(79)
Other liabilities	24	**(133)**	(422)
		(1,662)	(3,794)

Consolidated balance sheet continued

As at 31 December 2017

All figures in £ millions	Notes	2017	2016
Current liabilities			
Trade and other liabilities	24	**(1,342)**	(1,629)
Financial liabilities – borrowings	18	**(19)**	(44)
Current income tax liabilities		**(231)**	(224)
Provisions for other liabilities and charges	23	**(25)**	(27)
		(1,617)	(1,924)
Liabilities classified as held for sale	32	**(588)**	–
Total liabilities		**(3,867)**	(5,718)
Net assets		**4,021**	4,348
Equity			
Share capital	27	**200**	205
Share premium	27	**2,602**	2,597
Treasury shares	28	**(61)**	(79)
Capital redemption reserve		**5**	–
Fair value reserve		**13**	–
Translation reserve		**592**	905
Retained earnings		**662**	716
Total equity attributable to equity holders of the company		**4,013**	4,344
Non-controlling interest		**8**	4
Total equity		**4,021**	4,348

These financial statements have been approved for issue by the Board of Directors on 14 March 2018 and signed on its behalf by

Coram Williams
Chief Financial Officer

Consolidated statement of changes in equity

Year ended 31 December 2017

	Equity attributable to equity holders of the company									
All figures in £ millions	Share capital	Share premium	Treasury shares	Capital redemption reserve	Fair value reserve	Translation reserve	Retained earnings	Total	Non-controlling interest	Total equity
At 1 January 2017	205	2,597	(79)	–	–	905	716	4,344	4	4,348
Profit for the year	–	–	–	–	–	–	406	406	2	408
Other comprehensive income/(expense)	–	–	–	–	13	(313)	145	(155)	–	(155)
Total comprehensive income/(expense)	–	–	–	–	13	(313)	551	251	2	253
Equity-settled transactions	–	–	–	–	–	–	33	33	–	33
Issue of ordinary shares under share option schemes	–	5	–	–	–	–	–	5	–	5
Buyback of equity	(5)	–	–	5	–	–	(300)	(300)	–	(300)
Purchase of treasury shares	–	–	–	–	–	–	–	–	–	–
Release of treasury shares	–	–	18	–	–	–	(18)	–	–	–
Changes in non-controlling interest	–	–	–	–	–	–	(2)	(2)	2	–
Dividends	–	–	–	–	–	–	(318)	(318)	–	(318)
At 31 December 2017	200	2,602	(61)	5	13	592	662	4,013	8	4,021

	Equity attributable to equity holders of the company									
All figures in £ millions	Share capital	Share premium	Treasury shares	Capital redemption reserve	Fair value reserve	Translation reserve	Retained earnings	Total	Non-controlling interest	Total equity
At 1 January 2016	205	2,590	(72)	–	–	(7)	3,698	6,414	4	6,418
Loss for the year	–	–	–	–	–	–	(2,337)	(2,337)	2	(2,335)
Other comprehensive income/(expense)	–	–	–	–	–	912	(223)	689	1	690
Total comprehensive income/(expense)	–	–	–	–	–	912	(2,560)	(1,648)	3	(1,645)
Equity-settled transactions	–	–	–	–	–	–	22	22	–	22
Issue of ordinary shares under share option schemes	–	7	–	–	–	–	–	7	–	7
Buyback of equity	–	–	–	–	–	–	–	–	–	–
Purchase of treasury shares	–	–	(27)	–	–	–	–	(27)	–	(27)
Release of treasury shares	–	–	20	–	–	–	(20)	–	–	–
Changes in non-controlling interest	–	–	–	–	–	–	–	–	(3)	(3)
Dividends	–	–	–	–	–	–	(424)	(424)	–	(424)
At 31 December 2016	205	2,597	(79)	–	–	905	716	4,344	4	4,348

The capital redemption reserve reflects the nominal value of shares cancelled in the Group's share buyback programme. The fair value reserve arises on revaluation of other financial assets. The translation reserve includes exchange differences arising from the translation of the net investment in foreign operations and of borrowings and other currency instruments designated as hedges of such investments.

Consolidated cash flow statement

Year ended 31 December 2017

All figures in £ millions	Notes	2017	2016
Cash flows from operating activities			
Net cash generated from operations	33	**462**	522
Interest paid		**(89)**	(67)
Tax paid		**(75)**	(45)
Net cash generated from operating activities		**298**	410
Cash flows from investing activities			
Acquisition of subsidiaries, net of cash acquired	30	**(11)**	(15)
Purchase of investments		**(3)**	(6)
Purchase of property, plant and equipment		**(82)**	(88)
Purchase of intangible assets		**(150)**	(157)
Disposal of subsidiaries, net of cash disposed	31	**19**	(54)
Proceeds from sale of associates	31	**411**	4
Proceeds from sale of investments		**–**	92
Proceeds from sale of property, plant and equipment	33	**–**	4
Proceeds from sale of liquid resources		**20**	42
Loans (advanced)/repaid by related parties		**(13)**	14
Investment in liquid resources		**(18)**	(24)
Interest received		**20**	16
Dividends received from joint ventures and associates		**458**	131
Net cash generated from/(used in) investing activities		**651**	(41)
Cash flows from financing activities			
Proceeds from issue of ordinary shares	27	**5**	7
Buyback of equity	27	**(149)**	–
Purchase of treasury shares	28	**–**	(27)
Proceeds from borrowings		**2**	4
Repayment of borrowings		**(1,294)**	(249)
Finance lease principal payments		**(5)**	(6)
Transactions with non-controlling interest		**–**	(2)
Dividends paid to company's shareholders	9	**(318)**	(424)
Net cash used in financing activities		**(1,759)**	(697)
Effects of exchange rate changes on cash and cash equivalents		**16**	81
Net decrease in cash and cash equivalents		**(794)**	(247)
Cash and cash equivalents at beginning of year		**1,424**	1,671
Cash and cash equivalents at end of year	17	**630**	1,424

Notes to the consolidated financial statements

General information

Pearson plc (the company), its subsidiaries and associates (together the Group) are international businesses covering educational courseware, assessments and services, and consumer publishing through its associate interest in Penguin Random House.

The company is a public limited company incorporated and domiciled in England. The address of its registered office is 80 Strand, London WC2R 0RL.

The company has its primary listing on the London Stock Exchange and is also listed on the New York Stock Exchange.

These consolidated financial statements were approved for issue by the Board of Directors on 14 March 2018.

1. Accounting policies

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below.

a. Basis of preparation

These consolidated financial statements have been prepared on the going concern basis and in accordance with International Financial Reporting Standards (IFRS) and IFRS Interpretations Committee (IFRS IC) interpretations as adopted by the European Union (EU) and with those parts of the Companies Act 2006 applicable to companies reporting under IFRS. In respect of the accounting standards applicable to the Group; there is no difference between EU-adopted and IASB-adopted IFRS.

These consolidated financial statements have been prepared under the historical cost convention as modified by the revaluation of financial assets and liabilities (including derivative financial instruments) at fair value through profit or loss.

1. Interpretations and amendments to published standards effective 2017 The following amendments and interpretations were adopted in 2017:

- Amendments to IFRS 12 Disclosure of Interests in Other Entities – Annual Improvements 2014-2016 cycle
- Amendments to IAS 7 Statement of Cash Flows – Disclosure Initiative
- Amendments to IAS 12 Income Taxes – Recognition of Deferred Tax Assets for Unrealised Losses

The adoption of these new pronouncements from 1 January 2017 does not have a material impact on the consolidated financial statements. Additional disclosure has been given where relevant.

2. Standards, interpretations and amendments to published standards that are not yet effective New accounting standards and interpretations have been published that are not mandatory for the year ended 31 December 2017. The Group has elected not to early-adopt these new standards and interpretations. The Group's assessment of the impact of these new standards is set out below.

IFRS 9 'Financial Instruments', effective for annual reporting periods beginning on or after 1 January 2018. The standard, which replaces IAS 39 'Financial Instruments: Recognition and Measurement', addresses the classification, measurement and derecognition of financial assets and financial liabilities, introduces new hedge accounting rules and a new impairment model for financial assets. The Group will adopt IFRS 9 as at 1 January 2018 and apply the new rules retrospectively, with the practical expedients permitted in the standard. Comparatives for 2017 will not be restated. The Group has assessed the impact of adopting IFRS 9 and is expecting the following impact:

Classification and measurement The Group has reviewed its financial assets and liabilities and does not expect any changes in classification or measurement as a result of adopting IFRS 9. Trade receivables will continue to be measured at amortised cost as they are held to collect contractual cash flows which represent solely payments of principal and interest, in accordance with the business model. There will be no impact on classification and measurement of financial liabilities as the new requirements only affect the accounting for financial liabilities which are designated at fair value through the profit and loss account, and the Group does not have any such liabilities. Derivative assets and liabilities will continue to be recognised at fair value with movements recognised in finance income or costs, unless the hedging strategy determines otherwise. The Group's equity financial investments will continue to be recognised at fair value and the Group has elected the option to recognise all movements in fair value in other comprehensive income (FVOCI). Gains or losses realised on the subsequent sale of these financial assets will no longer be recycled through the profit and loss account, but instead reclassified from the FVOCI reserve to retained earnings. During 2017, £nil of such gains/losses were recycled to the profit and loss account in relation to the disposal of available-for-sale assets.

Impairment IFRS 9 introduces a new impairment model which requires the recognition of impairment provisions based on expected credit losses rather than only incurred credit losses, as is the case under IAS 39. The Group expects this new impairment model will lead to a small increase in its provision for losses against trade debtors, representing anticipated losses (evidenced by both historical recovery rates and forward-looking indicators) where there has been no triggering event to suggest any impairment incurred to date. The Group expects its provision for losses against trade debtors as at 1 January 2018 to increase by an amount approximating 1% of gross trade debtors as a result of adopting the expected credit loss model for impairments. The Group does not anticipate the expected credit loss model having a material impact on profit before tax for 2018 unless market conditions or other factors change the outlook for credit losses.

Hedge accounting IFRS 9 introduces a new, simpler hedge accounting model with a principles-based approach designed to align the accounting result with the economic hedging strategy. The group currently uses fair value hedge relationships to hedge interest rate risk and currency risk on its bond borrowings and also uses net investment hedging relationships to hedge currency re-translation risk on its overseas assets. The Group has confirmed that its current hedge relationships will continue to qualify as hedges upon the adoption of IFRS 9. The Group does not currently undertake any cash flow hedging, but is reviewing its strategy with regard to currency risk. Should the Group decide to expand its hedging strategy in this area, changes in fair value relating to forward points or currency basis may, subject to hedge designation, be deferred in a cost of hedging reserve and recognised against the related hedge transaction when it occurs.

Notes to the consolidated financial statements

1. Accounting policies continued

a. Basis of preparation continued

IFRS 9 also requires additional disclosure which will be incorporated in the 2018 annual report.

IFRS 15 'Revenue from Contracts with Customers', effective for annual reporting periods beginning on or after 1 January 2018. The standard, which replaces IAS 18 covering contracts for goods and services, and IAS 11 covering construction contracts, addresses the recognition of revenue. The new standard is based on the principle that revenue is recognised to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services. The Group will adopt the new standard as at 1 January 2018 and apply the modified retrospective approach. Comparatives for 2017 will not be restated and the cumulative impact of adoption will be recognised in retained earnings as at 1 January 2018.

The Group has reviewed the impact of adopting IFRS 15 across its various geographies and lines of business, with reference to underlying contractual terms and business practices, and has identified four areas of impact, as follows:

Unexercised customer rights (or breakage) The Group sells rights to future performance to customers which may go unexercised. While the customer has paid for future performance, usage is at the customer's discretion and those rights may expire prior to usage, or never be used. The Group maintains historical customer data to understand usage patterns over time (i.e. redemption rates). Where the Group expects to have no future obligation (based on these redemption rates), revenue has historically been recognised immediately for this portion of the sale. Under IFRS 15, where the Group currently recognises this breakage element on subscriptions, revenue instead will be recognised evenly over the period of use. Where breakage relates to sales of tests or vouchers, revenue will be recognised when the underlying tests are delivered. This revised treatment in respect of breakage primarily affects the school and higher education businesses in North America and will result in higher deferred revenue upon adoption on 1 January 2018.

Online Program Management (OPM) marketing Historically the OPM (Embanet) business recognised revenue for the pre-semester costs of marketing and recruitment as a separate performance obligation from course delivery during the semester (i.e. revenue was recognised in line with the marketing costs incurred). Under IFRS 15, revenue will be recognised on a straight-line basis over the semester with no revenue recognised up front for pre-semester recruitment and marketing costs based on management's judgement under the new standard's requirements assessing the start of the Group's contract and determining the Group's performance obligations. This revised treatment of pre-semester costs only affects the OPM business in North America and will result in a lower trade receivable balance upon adoption on 1 January 2018.

Administration fees This relates to non-refundable upfront administration fees charged to customers which do not relate to the transfer of a promised good or service to the customer. Rather these fees are charged to cover internal costs, such as registration fees for testing candidate exams. Historically administration fees have been recognised in revenue up front when charged. Under IFRS 15, such fees must be deferred and recognised over the period over which services are provided as they do not relate to a specific performance obligation. This revised treatment primarily affects the UK Assessments business and will result in higher deferred revenue upon adoption on 1 January 2018.

Commissions This relates to incremental costs of obtaining customer contracts, such as sales incentive plans or sales commissions specifically linked to obtaining new contracts. Historically such commissions have been charged to the profit and loss account as incurred. Under IFRS 15, sales commissions in respect of customer transactions with an accounting period of greater than one year will be capitalised and amortised over that accounting period, using practical expedients permissible under the new standard. This revised treatment affects the US Assessments business and will result in a higher contract asset upon adoption on 1 January 2018.

IFRS 15 also requires increased disclosure, in particular analysis of disaggregated revenues, contract balances and transaction price allocated to remaining performance obligations. This disclosure will be incorporated in the 2018 annual report.

Had the Group been applying IFRS 15 during 2017, both sales and profit before tax would have been around £2m higher, with the balance sheet impact at the beginning and end of the year being similar. The impact on sales and profit before tax for 2018 is not expected to be materially different to 2017, assuming a like-for-like business portfolio. The cumulative pre-tax impact of adopting IFRS 15 on 1 January 2018 is expected to reduce retained earnings by around £143m, with deferred revenue increasing by £106m, trade receivables reducing by £38m and contract assets increasing by £1m.

IFRS 16 'Leases', effective for annual reporting periods beginning on or after 1 January 2019. Early adoption is permitted. The new standard replaces IAS 17 'Leases' and related interpretations and details the requirements for the classification, measurement and recognition of lease arrangements. Adoption of the new standard is likely to have a material impact on the Group. Management continues to assess this impact but cannot reasonably estimate this impact due to judgements which are required to be made for each lease and the adoption methods available. The actual impact of applying IFRS 16 will depend on the composition of the Group's lease portfolio at the adoption date and the extent to which the Group chooses to use practical expedients and recognition exemptions. The Group plans to apply IFRS 16 on 1 January 2019, and anticipates using the modified retrospective approach. Under this approach, the cumulative effect of adopting IFRS 16 will be recognised as an adjustment to the opening balance of retained earnings on 1 January 2019, with no restatement of comparative information.

Notes to the consolidated financial statements

1. Accounting policies continued

a. Basis of preparation continued

Although the Group has not completed its detailed assessment, the following changes to lessee accounting are likely to have a material impact:

- Currently no lease assets are included on the Group's consolidated balance sheet for operating leases. Under IFRS 16 right-of-use assets will be recorded on the balance sheet for assets that are leased by the Group
- Currently no lease liabilities are included on the Group's consolidated balance sheet for future operating lease payments; these are disclosed as commitments. Under IFRS 16 liabilities will be recorded for future lease payments. As at 31 December 2017, the Group's future aggregate minimum lease payments under non-cancellable operating leases amounted to £1,201m, on an undiscounted basis (see note 35)
- Currently operating lease rentals, net of any incentives received, are expensed to the income statement on a straight-line basis over the period of the lease. Under IFRS 16 the lease expense will represent the depreciation of the right-of-use asset together with interest charged on lease liabilities
- Currently operating lease cash flows are included within operating cash flows in the Group's consolidated cash flow statement. Under IFRS 16 these cash flows will be recorded as cash flows from financing activities being the repayment of lease liabilities and related interest

Lessor accounting under IFRS 16 is similar to IAS 17 accounting and is not expected to have a material impact on the Group.

In June 2015, the IASB issued an exposure draft ED/2015/5 'Remeasurement on a Plan Amendment, Curtailment or Settlement/ Availability of a Refund from a Defined benefit Plan (Proposed Amendments to IAS 19 and IFRIC 14)'. The proposed amendments to IFRIC 14, which may have restricted the Group's ability to recognise a pension asset in respect of pension surpluses in its UK defined benefit plan, have now been withdrawn.

A number of other new standards and amendments to standards and interpretations are effective for annual periods beginning after 1 January 2017, and have not been applied in preparing these financial statements. None of these is expected to have a material impact on the consolidated financial statements.

3. Critical accounting assumptions and judgements The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting assumptions. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas requiring a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements, are discussed in the relevant accounting policies under the following headings and in the notes to the accounts where appropriate:

Consolidation: Business combinations – classification of investments (see note 1b(1))
Intangible assets: Goodwill (see note 1e(1))
Intangible assets: Pre-publication assets (see note 1e(5))
Taxation (see note 1m)
Revenue recognition including provisions for returns (see note 1p)
Employee benefits: Pensions (see note 1n(1))
Consolidation: Business combinations – determination of fair values (where relevant) (see note 1b(1))

b. Consolidation

1. Business combinations The acquisition method of accounting is used to account for business combinations.

The consideration transferred for the acquisition of a subsidiary is the fair value of the assets transferred, the liabilities incurred and the equity interest issued by the Group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred in the operating expenses line of the income statement. Identifiable assets acquired and identifiable liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. The determination of fair values often requires significant judgements and the use of estimates, and, for material acquisitions, the fair value of the acquired intangible assets is determined by an independent valuer. The excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets acquired is recorded as goodwill (see note 30).

See note 1e(1) for the accounting policy on goodwill. If this is less than the fair value of the net assets of the subsidiary acquired, in the case of a bargain purchase, the difference is recognised directly in the income statement.

On an acquisition-by-acquisition basis, the Group recognises any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets.

IFRS 3 'Business Combinations' has not been applied retrospectively to business combinations before the date of transition to IFRS.

Management exercises judgement in determining the classification of its investments in its businesses, in line with the following:

2. Subsidiaries Subsidiaries are entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

3. Transactions with non-controlling interests Transactions with non-controlling interests that do not result in loss of control are accounted for as equity transactions, that is, as transactions with the owners in their capacity as owners. Any surplus or deficit arising from disposals to a non-controlling interest is recorded in equity. For purchases from a non-controlling interest, the difference between consideration paid and the relevant share acquired of the carrying value of the subsidiary is recorded in equity.

Notes to the consolidated financial statements

1. Accounting policies continued

b. Consolidation continued

4. Joint ventures and associates Joint ventures are entities in which the Group holds an interest on a long-term basis and has rights to the net assets through contractually agreed sharing of control. Associates are entities over which the Group has significant influence but not the power to control the financial and operating policies, generally accompanying a shareholding of between 20% and 50% of the voting rights. Ownership percentage is likely to be the key indicator of investment classification; however, other factors, such as Board representation, may also affect the accounting classification. Judgement is required to assess all of the qualitative and quantitative factors which may indicate that the Group does, or does not, have significant influence over an investment. Penguin Random House is the Group's only material associate – see note 12 for further details on the judgements involved in its accounting classification. Investments in joint ventures and associates are accounted for by the equity method and are initially recognised at the fair value of consideration transferred.

The Group's share of its joint ventures' and associates' post-acquisition profits or losses is recognised in the income statement and its share of post-acquisition movements in reserves is recognised in reserves.

The Group's share of its joint ventures' and associates' results is recognised as a component of operating profit as these operations form part of the core publishing business of the Group and are an integral part of existing wholly-owned businesses. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. When the Group's share of losses in a joint venture or associate equals or exceeds its interest in the joint venture or associate, the Group does not recognise further losses unless the Group has incurred obligations or made payments on behalf of the joint venture or associate.

5. Contribution of a subsidiary to an associate or joint venture The gain or loss resulting from the contribution or sale of a subsidiary to an associate or a joint venture is recognised in full. Where such transactions do not involve cash consideration, significant judgements and estimates are used in determining the fair values of the consideration received.

c. Foreign currency translation

1. Functional and presentation currency Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates (the functional currency). The consolidated financial statements are presented in sterling, which is the company's functional and presentation currency.

2. Transactions and balances Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the income statement, except when deferred in equity as qualifying net investment hedges.

3. Group companies The results and financial position of all Group companies that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

i) Assets and liabilities are translated at the closing rate at the date of the balance sheet

ii) Income and expenses are translated at average exchange rates

iii) All resulting exchange differences are recognised as a separate component of equity.

On consolidation, exchange differences arising from the translation of the net investment in foreign entities, and of borrowings and other currency instruments designated as hedges of such investments, are taken to shareholders' equity. The Group treats specific inter-company loan balances, which are not intended to be repaid in the foreseeable future, as part of its net investment. When a foreign operation is sold, such exchange differences are recognised in the income statement as part of the gain or loss on sale.

The principal overseas currency for the Group is the US dollar. The average rate for the year against sterling was $1.30 (2016: $1.33) and the year-end rate was $1.35 (2016: $1.23).

d. Property, plant and equipment

Property, plant and equipment are stated at historical cost less depreciation. Cost includes the original purchase price of the asset and the costs attributable to bringing the asset to its working condition for intended use. Land is not depreciated. Depreciation on other assets is calculated using the straight-line method to allocate their cost less their residual values over their estimated useful lives as follows:

Buildings (freehold):	20–50 years
Buildings (leasehold):	over the period of the lease
Plant and equipment:	3–10 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance sheet date.

The carrying value of an asset is written down to its recoverable amount if the carrying value of the asset is greater than its estimated recoverable amount.

e. Intangible assets

1. Goodwill For the acquisition of subsidiaries made on or after 1 January 2010, goodwill represents the excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets acquired. For the acquisition of subsidiaries made from the date of transition to IFRS to 31 December 2009, goodwill represents the excess of the cost of an acquisition over the fair value of the Group's share of the net identifiable assets acquired. Goodwill on acquisitions of subsidiaries is included in intangible assets. Goodwill on acquisition of associates and joint ventures represents the excess of the cost of an acquisition over the fair value of the Group's share of the net identifiable assets acquired. Goodwill on acquisitions of associates and joint ventures is included in investments in associates and joint ventures.

Notes to the consolidated financial statements

1. Accounting policies continued

e. Intangible assets continued

Goodwill is tested at least annually for impairment and carried at cost less accumulated impairment losses. An impairment loss is recognised to the extent that the carrying value of goodwill exceeds the recoverable amount. The recoverable amount is the higher of fair value less costs of disposal and value in use. These calculations require the use of estimates in respect of forecast cash flows and discount rates and significant management judgement in respect of CGU and cost allocation. A description of the key assumptions and sensitivities is included in note 11. Goodwill is allocated to aggregated cash-generating units for the purpose of impairment testing. The allocation is made to those aggregated cash-generating units that are expected to benefit from the business combination in which the goodwill arose.

Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

2. Acquired software Software separately acquired for internal use is capitalised at cost. Software acquired in material business combinations is capitalised at its fair value as determined by an independent valuer. Acquired software is amortised on a straight-line basis over its estimated useful life of between three and eight years.

3. Internally developed software Internal and external costs incurred during the preliminary stage of developing computer software for internal use are expensed as incurred. Internal and external costs incurred to develop computer software for internal use during the application development stage are capitalised if the Group expects economic benefits from the development. Capitalisation in the application development stage begins once the Group can reliably measure the expenditure attributable to the software development and has demonstrated its intention to complete and use the software. Internally developed software is amortised on a straight-line basis over its estimated useful life of between three and eight years.

4. Acquired intangible assets Acquired intangible assets include customer lists, contracts and relationships, trademarks and brands, publishing rights, content, technology and software rights. These assets are capitalised on acquisition at cost and included in intangible assets. Intangible assets acquired in material business combinations are capitalised at their fair value as determined by an independent valuer. Intangible assets are amortised over their estimated useful lives of between two and 20 years, using an amortisation method that reflects the pattern of their consumption.

5. Pre-publication assets Pre-publication assets represent direct costs incurred in the development of educational programmes and titles prior to their publication. These costs are recognised as current intangible assets where the title will generate probable future economic benefits and costs can be measured reliably. Pre-publication assets are amortised upon publication of the title over estimated economic lives of five years or less, being an estimate of the expected operating lifecycle of the title, with a higher proportion of the amortisation taken in the earlier years.

The investment in pre-publication assets has been disclosed as part of cash generated from operations in the cash flow statement (see note 33).

The assessment of the recoverability of pre-publication assets involve a significant degree of judgement based on historical trends and management estimation of future potential sales. An incorrect amortisation profile could result in excess amounts being carried forward as intangible assets that would otherwise have been written off to the income statement in an earlier period.

Reviews are performed regularly to estimate recoverability of pre-publication assets. The carrying amount of pre-publication assets is set out in note 20.

f. Other financial assets

Other financial assets, designated as available for sale investments, are non-derivative financial assets measured at estimated fair value. Changes in the fair value are recorded in equity in the fair value reserve. On the subsequent disposal of the asset, the net fair value gains or losses are taken to the income statement.

g. Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined using the first in first out (FIFO) method. The cost of finished goods and work in progress comprises raw materials, direct labour, other direct costs and related production overheads. Net realisable value is the estimated selling price in the ordinary course of business, less estimated costs necessary to make the sale. Provisions are made for slow-moving and obsolete stock.

h. Royalty advances

Advances of royalties to authors are included within trade and other receivables when the advance is paid less any provision required to adjust the advance to its net realisable value. The realisable value of royalty advances relies on a degree of management judgement in determining the profitability of individual author contracts. If the estimated realisable value of author contracts is overstated, this will have an adverse effect on operating profits as these excess amounts will be written off.

The recoverability of royalty advances is based upon an annual detailed management review of the age of the advance, the future sales projections for new authors and prior sales history of repeat authors.

The royalty advance is expensed at the contracted or effective royalty rate as the related revenues are earned. Royalty advances which will be consumed within one year are held in current assets. Royalty advances which will be consumed after one year are held in non-current assets.

Notes to the consolidated financial statements

1. Accounting policies continued

i. Cash and cash equivalents

Cash and cash equivalents in the cash flow statement include cash in hand, deposits held on call with banks, other short-term highly liquid investments with original maturities of three months or less, and bank overdrafts. Bank overdrafts are included in borrowings in current liabilities in the balance sheet.

Short-term deposits and marketable securities with maturities of greater than three months do not qualify as cash and cash equivalents and are reported as financial assets. Movements on these financial assets are classified as cash flows from financing activities in the cash flow statement where these amounts are used to offset the borrowings of the Group or as cash flows from investing activities where these amounts are held to generate an investment return.

j. Share capital

Ordinary shares are classified as equity.

Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

Where any Group company purchases the company's equity share capital (treasury shares), the consideration paid, including any directly attributable incremental costs, net of income taxes, is deducted from equity attributable to the company's equity holders until the shares are cancelled, reissued or disposed of. Where such shares are subsequently sold or reissued, any consideration received, net of any directly attributable transaction costs and the related income tax effects, is included in equity attributable to the company's equity holders.

Ordinary shares purchased under a buyback programme are cancelled and the nominal value of the shares is transferred to a capital redemption reserve.

k. Borrowings

Borrowings are recognised initially at fair value, which is proceeds received net of transaction costs incurred. Borrowings are subsequently stated at amortised cost with any difference between the proceeds (net of transaction costs) and the redemption value being recognised in the income statement over the period of the borrowings using the effective interest method. Accrued interest is included as part of borrowings. Where a debt instrument is in a fair value hedging relationship, an adjustment is made to its carrying value in the income statement to reflect the hedged risk.

l. Derivative financial instruments

Derivatives are recognised at fair value and remeasured at each balance sheet date. The fair value of derivatives is determined by using market data and the use of established estimation techniques such as discounted cash flow and option valuation models.

Changes in the fair value of derivatives are recognised immediately in finance income or costs. However, derivatives relating to borrowings and certain foreign exchange contracts are designated as part of a hedging transaction. The accounting treatment is summarised as follows:

Typical reason for designation	Reporting of gains and losses on effective portion of the hedge	Reporting of gains and losses on disposal
Net investment hedge		
The derivative creates a foreign currency liability which is used to hedge changes in the value of a subsidiary which transacts in that currency.	Recognised in other comprehensive income.	On disposal, the accumulated value of gains and losses reported in other comprehensive income is transferred to the income statement.
Fair value hedges		
The derivative transforms the interest profile on debt from fixed rate to floating rate. Changes in the value of the debt as a result of changes in interest rates are offset by equal and opposite changes in the value of the derivative. When the Group's debt is swapped to floating rates, the contracts used are designated as fair value hedges.	Gains and losses on the derivative are reported in finance income or finance costs. However, an equal and opposite change is made to the carrying value of the debt (a 'fair value adjustment') with the benefit/cost reported in finance income or finance costs. The net result should be a zero charge on a perfectly effective hedge.	If the debt and derivative are disposed of, the value of the derivative and the debt (including the fair value adjustment) are reset to zero. Any resultant gain or loss is recognised in finance income or finance costs.
Non-hedge accounted contracts		
These are not designated as hedging instruments. Typically these are short-term contracts to convert debt back to fixed rates or foreign exchange contracts where a natural offset exists.	No hedge accounting applies.	

m. Taxation

Current tax is recognised at the amounts expected to be paid or recovered under the tax rates and laws that have been enacted or substantively enacted at the balance sheet date.

Deferred income tax is provided, using the balance sheet liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts. Deferred income tax is determined using tax rates and laws that have been enacted or substantively enacted by the balance sheet date and are expected to apply when the related deferred tax asset is realised or the deferred income tax liability is settled.

Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred income tax is provided in respect of the undistributed earnings of subsidiaries, associates and joint ventures other than where it is intended that those undistributed earnings will not be remitted in the foreseeable future.

Notes to the consolidated financial statements

1. Accounting policies continued

m. Taxation continued

Current and deferred tax are recognised in the income statement, except when the tax relates to items charged or credited directly to equity or other comprehensive income, in which case the tax is also recognised in equity or other comprehensive income.

The Group is subject to income taxes in numerous jurisdictions. Significant judgement is required in determining the estimates in relation to the worldwide provision for income taxes. There are many transactions and calculations for which the ultimate tax determination is uncertain during the ordinary course of business. The Group recognises tax provisions when it is considered probable that there will be a future outflow of funds to a tax authority. The provisions are based on management's best judgement of the application of tax legislation and best estimates of future settlement amounts (see note 7). Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the income tax and deferred tax provisions in the period in which such determination is made.

Deferred tax assets and liabilities require management judgement in determining the amounts to be recognised. In particular, significant judgement is used when assessing the extent to which deferred tax assets should be recognised with consideration given to the timing and level of future taxable income together with any future tax planning strategies (see note 13).

n. Employee benefits

1. Pensions The retirement benefit asset and obligation recognised in the balance sheet represents the net of the present value of the defined benefit obligation and the fair value of plan assets at the balance sheet date. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting estimated future cash flows using yields on high-quality corporate bonds which have terms to maturity approximating the terms of the related liability.

When the calculation results in a potential asset, the recognition of that asset is limited to the asset ceiling – that is the present value of any economic benefits available in the form of refunds from the plan or a reduction in future contributions. Management uses judgement to determine the level of refunds available from the plan in recognising an asset.

The determination of the pension cost and defined benefit obligation of the Group's defined benefit pension schemes depends on the selection of certain assumptions, which include the discount rate, inflation rate, salary growth and longevity (see note 25).

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise.

The service cost, representing benefits accruing over the year, is included in the income statement as an operating cost. Net interest is calculated by applying the discount rate to the net defined benefit obligation and is presented as finance costs or finance income.

Obligations for contributions to defined contribution pension plans are recognised as an operating expense in the income statement as incurred.

2. Other post-retirement obligations The expected costs of post-retirement medical and life assurance benefits are accrued over the period of employment, using a similar accounting methodology as for defined benefit pension obligations. The liabilities and costs relating to significant other post-retirement obligations are assessed annually by independent qualified actuaries.

3. Share-based payments The fair value of options or shares granted under the Group's share and option plans is recognised as an employee expense after taking into account the Group's best estimate of the number of awards expected to vest. Fair value is measured at the date of grant and is spread over the vesting period of the option or share. The fair value of the options granted is measured using an option model that is most appropriate to the award. The fair value of shares awarded is measured using the share price at the date of grant unless another method is more appropriate. Any proceeds received are credited to share capital and share premium when the options are exercised.

o. Provisions Provisions are recognised if the Group has a present legal or constructive obligation as a result of past events, it is more likely than not that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated. Provisions are discounted to present value where the effect is material.

The Group recognises a provision for deferred consideration. Where this is contingent on future performance or a future event, judgement is exercised in establishing the fair value.

The Group recognises a provision for onerous lease contracts when the expected benefits to be derived from a contract are less than the unavoidable costs of meeting the obligations under the contract.

The provision is based on the present value of future payments for surplus leased properties under non-cancellable operating leases, net of estimated sub-leasing income.

p. Revenue recognition

The Group's revenue streams are courseware, assessments and services. Courseware includes curriculum materials provided in book form and/or via access to digital content. Assessments includes test development, processing and scoring services provided to governments, educational institutions, corporations and professional bodies. Services includes the operation of schools, colleges and universities, including sistemas in Brazil and English language teaching centres around the world as well as the provision of online learning services in partnership with universities and other academic institutions.

Revenue comprises the fair value of the consideration received or receivable for the sale of goods and services net of sales taxes, rebates and discounts, and after eliminating sales within the Group.

Notes to the consolidated financial statements

1. Accounting policies continued

p. Revenue recognition continued

Revenue from the sale of books is recognised when title passes. A provision for anticipated returns is made based primarily on historical return rates, customer buying patterns and retailer behaviours including stock levels (see note 22). If these estimates do not reflect actual returns in future periods then revenues could be understated or overstated for a particular period.

Revenue from the sale of off-the-shelf software is recognised on delivery or on installation of the software where that is a condition of the contract. In certain circumstances, where installation is complex, revenue is recognised when the customer has completed their acceptance procedures. Where software is provided under a term licence, revenue is recognised on a straight-line basis over the period of the licence.

Revenue from the provision of services to academic institutions, such as programme development, student acquisition, education technology and student support services, is recognised as performance occurs. Revenue from multi-year contractual arrangements, such as contracts to process qualifying tests for individual professions and government departments, is recognised as performance occurs. The assumptions, risks and uncertainties inherent to long-term contract accounting can affect the amounts and timing of revenue and related expenses reported. Certain of these arrangements, either as a result of a single service spanning more than one reporting period or where the contract requires the provision of a number of services that together constitute a single project, are treated as long-term contracts with revenue recognised on a percentage of completion basis. Percentage of completion is calculated on a cost basis using the proportion of the total estimated costs incurred to date. Losses on contracts are recognised in the period in which the loss first becomes foreseeable. Contract losses are determined to be the amount by which estimated total costs of the contract exceed the estimated total revenues that will be generated.

Where a contractual arrangement consists of two or more separate elements that can be provided to customers either on a stand-alone basis or as an optional extra, such as the provision of supplementary materials or online access with textbooks and multiple deliverables within testing or service contracts, revenue is recognised for each element as if it were an individual contractual arrangement. This requires judgement regarding the identification of the individual elements as well as the estimation of its relative fair value.

On certain contracts, where the Group acts as agent, only commissions and fees receivable for services rendered are recognised as revenue. Any third-party costs incurred on behalf of the principal that are rechargeable under the contractual arrangement are not included in revenue.

Income from recharges of freight and other activities which are incidental to the normal revenue-generating activities is included in other income.

q. Leases

Leases of property, plant and equipment where the Group has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalised at the commencement of the lease at the lower of the fair value of the leased property and the present value of the minimum lease payments. Each lease payment is allocated between the liability and finance charges to achieve a constant rate on the finance balance outstanding. The corresponding rental obligations, net of finance charges, are included in financial liabilities – borrowings. The interest element of the finance cost is charged to the income statement over the lease period to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The property, plant and equipment acquired under finance leases are depreciated over the shorter of the useful life of the asset or the lease term.

Leases where a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases by the lessee. Payments made under operating leases (net of any incentives received from the lessor) are charged to the income statement on a straight-line basis over the period of the lease.

r. Dividends

Final dividends are recorded in the Group's financial statements in the period in which they are approved by the company's shareholders. Interim dividends are recorded when paid.

s. Discontinued operations

A discontinued operation is a component of the Group's business that represents a separate major line of business or geographical area of operations that has been disposed of or meets the criteria to be classified as held for sale.

Discontinued operations are presented in the income statement as a separate line and are shown net of tax.

t. Assets and liabilities held for sale

Assets and liabilities are classified as held for sale and stated at the lower of carrying amount and fair value less costs to sell if it is highly probable that the carrying amount will be recovered principally through a sale transaction rather than through continuing use. No depreciation is charged in respect of non-current assets classified as held for sale. Amounts relating to non-current assets and liabilities held for sale are classified as discontinued operations in the income statement where appropriate.

u. Trade receivables

Trade receivables are stated at fair value after provision for bad and doubtful debts and anticipated future sales returns (see also note 1p).

Notes to the consolidated financial statements

2. Segment information

The primary segments for management and reporting are geographies as outlined below. In addition, the Group separately discloses the results from the Penguin Random House associate.

The chief operating decision-maker is the Pearson executive.

North America Courseware, Assessments and Services businesses in the US and Canada.

Core Courseware, Assessments and Services businesses in more mature markets including UK, Australia and Italy.

Growth Courseware, Assessments and Services businesses in emerging markets including Brazil, China, India and South Africa.

For more detail on the services and products included in each business segment refer to the strategic report.

							2017
All figures in £ millions	Notes	North America	Core	Growth	Penguin Random House	Corporate	Group
Sales		2,929	815	769	–	–	4,513
Adjusted operating profit		394	50	38	94	–	576
Cost of major restructuring		(60)	(11)	(8)	–	–	(79)
Intangible charges		(89)	(12)	(37)	(28)	–	(166)
Other net gains and losses		(3)	–	35	96	–	128
Impact of US tax reform		–	–	–	(8)	–	(8)
Operating profit		242	27	28	154	–	451
Finance costs	6						(110)
Finance income	6						80
Profit before tax							421
Income tax	7						(13)
Profit for the year							408
Segment assets		4,116	1,914	667	–	793	7,490
Joint ventures	12	–	–	3	–	–	3
Associates	12	4	3	–	388	–	395
Total assets		4,120	1,917	670	388	793	7,888
Other segment items							
Share of results of joint ventures and associates	12	5	1	1	71	–	78
Capital expenditure	10, 11	162	35	43	–	–	240
Pre-publication investment	20	218	84	59	–	–	361
Depreciation	10	56	13	21	–	–	90
Amortisation	11, 20	348	103	110	–	–	561
Impairment	11	–	–	–	–	–	–

Notes to the consolidated financial statements

2. Segment information continued

All figures in £ millions	Notes	North America	Core	Growth	Penguin Random House	Corporate	Group
							2016
Sales		2,981	803	768	–	–	4,552
Adjusted operating profit		420	57	29	129	–	635
Cost of major restructuring		(172)	(62)	(95)	(9)	–	(338)
Intangible charges		(2,684)	(16)	(33)	(36)	–	(2,769)
Other net gains and losses		(12)	(12)	(1)	–	–	(25)
Operating (loss)/profit		(2,448)	(33)	(100)	84	–	(2,497)
Finance costs	6						(97)
Finance income	6						37
Loss before tax							(2,557)
Income tax	7						222
Loss for the year							(2,335)
Segment assets		4,859	1,461	859	–	1,640	8,819
Joint ventures	12	–	–	2	–	–	2
Associates	12	1	4	–	1,240	–	1,245
Total assets		4,860	1,465	861	1,240	1,640	10,066
Other segment items							
Share of results of joint ventures and associates	12	(1)	1	(1)	98	–	97
Capital expenditure	10, 11	153	42	51	–	–	246
Pre-publication investment	20	235	92	68	–	–	395
Depreciation	10	56	12	27	–	–	95
Amortisation	11, 20	394	109	116	–	–	619
Impairment	11	2,548	–	–	–	–	2,548

There were no material inter-segment sales in either 2017 or 2016.

For additional detailed information on the calculation of adjusted operating profit as shown in the above tables, see p192-195 (Financial key performance indicators).

Adjusted operating profit is shown in the above tables as it is the key financial measure used by management to evaluate the performance of the Group and allocate resources to business segments. The measure also enables investors to more easily, and consistently, track the underlying operational performance of the Group and its business segments by separating out those items of income and expenditure relating to acquisition and disposal transactions and major restructuring programmes.

Cost of major restructuring In January 2016, the Group announced that it was embarking on a restructuring programme to simplify the business, reduce costs and position the Group for growth in its major markets. The costs of this programme of £338m in 2016 were significant enough to exclude from the adjusted operating profit measure so as to better highlight the underlying performance. These costs included costs associated with headcount reductions, property rationalisation and closure or exit from certain systems, platforms, products and supplier and customer relationships. A new programme of restructuring, announced in May 2017, to run between 2017 and 2019, began in the second half of 2017 and is expected to drive further significant cost savings. Costs incurred to date relating to this new programme were £79m at the end of 2017 and related to cost efficiencies in higher education and enabling functions together with further rationalisation of the property portfolio. The costs of this new programme have also been excluded from adjusted operating profit (see note 3).

Intangible charges These represent charges in respect of goodwill, including impairment, and intangible assets acquired through business combinations and the direct costs of acquiring those businesses. These charges are excluded as they reflect past acquisition activity and do not necessarily reflect the current year performance of the Group. In 2016, intangible charges included an impairment of goodwill in the Group's North America business of £2,548m (see note 11). There was no impairment in 2017.

Other net gains and losses These represent profits and losses on the sale of subsidiaries, joint ventures, associates and other financial assets and are excluded from adjusted operating profit as they distort the performance of the Group as reported on a statutory basis. Other net gains of £128m in 2017 largely relate to the sale of the test preparation business in China which resulted in a profit on sale of £44m and the part sale of the Group's share in Penguin Random House which resulted in a profit of £96m (see note 31). In 2016, the net losses in the Core segment mainly relate to the closure of the Group's English language schools in Germany and in the North America segment relate to the sale of the Pearson English Business Solutions business.

Notes to the consolidated financial statements

2. Segment information continued

Impact of US tax reform In 2017, as a result of US tax reform, the Group's share of profit from associates was adversely impacted by £8m. This amount has been excluded from adjusted operating profit as it is considered to be a transition adjustment that is not expected to recur in the near future.

Corporate costs are allocated to business segments on an appropriate basis depending on the nature of the cost and therefore the total segment result is equal to the Group operating profit.

Segment assets, excluding corporate assets, consist of property, plant and equipment, intangible assets, inventories, receivables, deferred taxation and other financial assets and exclude cash and cash equivalents and derivative assets. Corporate assets comprise cash and cash equivalents, marketable securities and derivative financial instruments. Capital expenditure comprises additions to property, plant and equipment and software (see notes 10 and 11).

Property, plant and equipment and intangible assets acquired through business combination were £nil (2016: £10m) (see note 30).

The following tables analyse the Group's revenue streams. Courseware includes curriculum materials provided in book form and/or via access to digital content. Assessments includes test development, processing and scoring services provided to governments, educational institutions, corporations and professional bodies. Services includes the operation of schools, colleges and universities, including sistemas in Brazil and English language teaching centres around the world as well as the provision of online learning services in partnership with universities and other academic institutions.

				2017
All figures in £ millions	North America	Core	Growth	Group
Sales:				
Courseware				
School Courseware	394	171	139	704
Higher Education Courseware	1,146	93	63	1,302
English Courseware	20	60	102	182
	1,560	324	304	2,188
Assessments				
School and Higher Education Assessments	355	256	23	634
Clinical Assessments	146	46	–	192
Professional and English Certification	341	138	60	539
	842	440	83	1,365
Services				
School Services	274	5	54	333
Higher Education Services	253	34	32	319
English Services	–	12	296	308
	527	51	382	960
Total	2,929	815	769	4,513

Notes to the consolidated financial statements

2. Segment information continued

All figures in £ millions	North America	Core	Growth	2016 Group
Sales:				
Courseware				
School Courseware	418	173	127	718
Higher Education Courseware	1,147	92	60	1,299
English Courseware	21	65	97	183
	1,586	330	284	2,200
Assessments				
School and Higher Education Assessments	378	268	21	667
Clinical Assessments	143	40	–	183
Professional and English Certification	333	112	49	494
	854	420	70	1,344
Services				
School Services	259	6	54	319
Higher Education Services	269	29	46	344
English Services	13	18	314	345
	541	53	414	1,008
Total	2,981	803	768	4,552

The Group operates in the following main geographic areas:

All figures in £ millions	Sales 2017	Sales 2016	Non-current assets 2017	Non-current assets 2016
UK	**384**	393	**796**	946
Other European countries	**262**	255	**128**	134
US	**2,770**	2,829	**2,247**	3,351
Canada	**126**	118	**240**	268
Asia Pacific	**643**	632	**151**	205
Other countries	**328**	325	**184**	232
Total	**4,513**	4,552	**3,746**	5,136

Sales are allocated based on the country in which the customer is located. This does not differ materially from the location where the order is received. The geographical split of non-current assets is based on the subsidiary's country of domicile. This is not materially different to the location of the assets. Non-current assets comprise property, plant and equipment, intangible assets, investments in joint ventures and associates and trade and other receivables.

Notes to the consolidated financial statements

3. Restructuring costs

An analysis of restructuring costs is as follows:

All figures in £ millions	2017	2016
By nature:		
Product costs	**15**	32
Employee costs	**11**	139
Depreciation and amortisation	**13**	29
Property and facilities	**24**	43
Technology and communications	**2**	7
Professional and outsourced services	**12**	31
General and administrative costs	**2**	48
Total restructuring – operating expenses	**79**	329
Share of associate restructuring	**–**	9
Total	**79**	338

In January 2016, the Group announced that it was embarking on a restructuring programme to simplify the business, reduce costs and position the Group for growth in its major markets. The costs of this programme in 2016 were significant enough to exclude from the adjusted operating profit measure so as to better highlight the underlying performance (see note 8). A new programme of restructuring, the 2017-2019 restructuring programme announced in May 2017, began in the second half of 2017 and is expected to drive further significant cost savings. The costs of this new programme have also been excluded from adjusted operating profit.

4. Operating expenses

All figures in £ millions	Notes	2017	2016
By function:			
Cost of goods sold		**2,066**	2,093
Operating expenses			
Distribution costs		**84**	88
Selling, marketing and product development costs		**896**	908
Administrative and other expenses		**1,207**	1,240
Restructuring costs	3	**79**	329
Other income		**(64)**	(85)
Total net operating expenses		**2,202**	2,480
Other net gains and losses		**(128)**	25
Impairment of intangible assets	11	**–**	2,548
Total		**4,140**	7,146

Included in other income is service fee income from Penguin Random House of £3m (2016: £4m). Included in administrative and other expenses are research and efficacy costs of £14m (2016: £23m). In addition to the restructuring costs shown above, there were restructuring costs in Penguin Random House of £nil (2016: £9m).

Notes to the consolidated financial statements

4. Operating expenses continued

All figures in £ millions	Notes	2017	2016
By nature:			
Royalties expensed		**246**	264
Other product costs		**564**	616
Employee benefit expense	5	**1,805**	1,888
Contract labour		**152**	206
Employee-related expense		**127**	122
Promotional costs		**229**	217
Depreciation of property, plant and equipment	10	**90**	95
Amortisation of intangible assets – pre-publication	20	**338**	350
Amortisation of intangible assets – software	11	**85**	84
Amortisation of intangible assets – other	11	**138**	185
Impairment of intangible assets	11	**–**	2,548
Property and facilities		**202**	243
Technology and communications		**218**	188
Professional and outsourced services		**322**	378
Other general and administrative costs		**140**	140
Costs capitalised to intangible assets		**(324)**	(318)
Other net gains and losses		**(128)**	25
Other income		**(64)**	(85)
Total		**4,140**	7,146

During the year the Group obtained the following services from the Group's auditors:

All figures in £ millions	2017	2016
The audit of parent company and consolidated financial statements	**4**	5
The audit of the company's subsidiaries	**2**	2
Total audit fees	**6**	7
Other assurance services	**1**	1
Other non-audit services	**1**	1
Total other services	**2**	2
Total non-audit services	**2**	2
Total	**8**	9

Reconciliation between audit and non-audit service fees is shown below:

All figures in £ millions	2017	2016
Group audit fees including fees for attestation under section 404 of the Sarbanes-Oxley Act	**6**	7
Non-audit fees	**2**	2
Total	**8**	9

Fees for attestation under section 404 of the Sarbanes-Oxley Act are allocated between fees payable for the audits of consolidated and subsidiary accounts.

Included in non-audit fees are amounts related to carve-out audits for disposals of £1m (2016: £1m).

Notes to the consolidated financial statements

5. Employee information

All figures in £ millions	Notes	2017	2016
Employee benefit expense			
Wages and salaries (including termination costs)		**1,567**	1,661
Social security costs		**130**	124
Share-based payment costs	26	**33**	22
Retirement benefits – defined contribution plans	25	**57**	67
Retirement benefits – defined benefit plans	25	**19**	16
Other post-retirement medical benefits	25	**(1)**	(2)
Total		**1,805**	1,888

The details of the emoluments of the Directors of Pearson plc are shown in the report on Directors' remuneration.

Average number employed	2017	2016
Employee numbers		
North America	**16,295**	16,841
Core	**5,291**	5,664
Growth	**8,268**	9,868
Other	**485**	346
Total	**30,339**	32,719

6. Net finance costs

All figures in £ millions	Notes	2017	2016
Interest payable		**(99)**	(74)
Net foreign exchange losses		**–**	(21)
Finance costs associated with transactions		**(6)**	–
Derivatives not in a hedge relationship		**(5)**	(2)
Finance costs		**(110)**	(97)
Interest receivable		**20**	15
Net finance income in respect of retirement benefits	25	**3**	11
Net foreign exchange gains		**44**	1
Derivatives not in a hedge relationship		**12**	10
Derivatives in a hedge relationship		**1**	–
Finance income		**80**	37
Net finance costs		**(30)**	(60)
Analysed as:			
Net interest payable reflected in adjusted earnings		**(79)**	(59)
Other net finance income/(costs)		**49**	(1)
Total net finance costs		**(30)**	(60)

Included in interest receivable is £1m (2016: £1m) of interest receivable from related parties. There was a net movement of £1m on fair value hedges in 2017 (2016: £nil), comprising a gain of £37m (2016: loss of £4m) on the underlying bonds, offset by a loss of £36m (2016: gain of £4m) on the related derivative financial instruments.

For further information on adjusted measures above, see note 8.

Notes to the consolidated financial statements

7. Income tax

All figures in £ millions	Notes	2017	2016
Current tax			
Charge in respect of current year		**(121)**	(66)
Adjustments in respect of prior years		**(2)**	27
Total current tax charge		**(123)**	(39)
Deferred tax			
In respect of temporary differences		**96**	277
Other adjustments in respect of prior years		**14**	(16)
Total deferred tax credit	13	**110**	261
Total tax (charge)/credit		**(13)**	222

The adjustments in respect of prior years in both 2017 and 2016 primarily arise from revising the previous year's reported tax provision to reflect the tax returns subsequently filed. This results in a change between deferred and current tax as well as an absolute benefit to the total tax charge.

The tax on the Group's profit/(loss) before tax differs from the theoretical amount that would arise using the UK tax rate as follows. Information for 2016 has been re-presented to give additional disclosure.

All figures in £ millions	2017	2016
Profit/(loss) before tax	**421**	(2,557)
Tax calculated at UK rate (2017: 19.25%, 2016: 20%)	**(81)**	511
Effect of overseas tax rates	**15**	424
Joint venture and associate income reported net of tax	**15**	19
Intangible impairment not subject to tax	**–**	(722)
Intra-group financing benefit	**26**	34
Movement in provisions for tax uncertainties	**49**	(37)
Impact of US tax reform	**(1)**	–
Net expense not subject to tax	**(39)**	(8)
Gains and losses on sale of businesses not subject to tax	**8**	15
Utilisation of previously unrecognised tax losses and credits	**(1)**	–
Unrecognised tax losses	**(16)**	(25)
Adjustments in respect of prior years	**12**	11
Total tax (charge)/credit	**(13)**	222
UK	**(36)**	46
Overseas	**23**	176
Total tax (charge)/credit	**(13)**	222
Tax rate reflected in earnings	**3.1%**	8.7%

The impact of US tax reform includes a benefit from revaluation of deferred tax balances to the reduced federal rate of £5m and a repatriation tax charge of £6m. The Group continues to analyse the detail of new legislation and this may result in revisions to these impacts.

Factors which may affect future tax charges include changes in tax legislation, transfer pricing regulations, the level and mix of profitability in different countries, and settlements with tax authorities.

The movement in provisions for tax uncertainties primarily reflects releases due to the expiry of relevant statutes of limitation. The current tax liability of £231m (2016: £224m) includes £280m (2016: £322m) of provisions for tax uncertainties principally in respect of a number of issues in the US, the UK and China. The issues provided for include the allocation between territories of proceeds of historic business disposals, and the potential disallowance of intra-group recharges and interest expense. The Group is currently under audit in a number of countries, and the timing of any resolution of these audits is uncertain. Of the balance of £280m, £38m relates to 2013 and earlier and is mostly under audit. In most countries tax years up to and including 2013 are now statute barred from examination by tax authorities. Of the remaining balance, £70m relates to 2014, £86m to 2015, £57m to 2016 and £29m to 2017. If relevant enquiry windows pass with no audit, management believes it is reasonably possible that provision levels will reduce by an estimated £60m within the next 12 months.

Notes to the consolidated financial statements

7. Income tax continued

In 2016 the Group impaired US goodwill (see note 11). The majority of this impairment charge is not deductible for tax purposes.

The tax rate reflected in adjusted earnings is calculated as follows:

All figures in £ millions	2017	2016
Profit/(loss) before tax	**421**	(2,557)
Adjustments:		
Cost of major restructuring	**79**	338
Other net gains and losses	**(128)**	25
Intangible charges	**166**	2,769
Other net finance (income)/costs	**(49)**	1
Impact of US tax reform	**8**	–
Adjusted profit before tax	**497**	576
Total tax (charge)/credit	**(13)**	222
Adjustments:		
Tax benefit on cost of major restructuring	**(26)**	(84)
Tax charge/(benefit) on other net gains and losses	**20**	(14)
Tax benefit on intangible charges	**(85)**	(255)
Tax charge on other net finance (income)/costs	**9**	–
Impact of US tax reform	**1**	–
Tax amortisation benefit on goodwill and intangibles	**39**	36
Adjusted income tax charge	**(55)**	(95)
Tax rate reflected in adjusted earnings	**11.1%**	16.5%

For further information on adjusted measures above, see note 8.

The tax (charge)/benefit recognised in other comprehensive income is as follows:

All figures in £ millions	2017	2016
Net exchange differences on translation of foreign operations	**9**	(5)
Fair value gain on other financial assets	**(4)**	–
Remeasurement of retirement benefit obligations	**(42)**	58
	(37)	53

Notes to the consolidated financial statements

8. Earnings per share

Basic

Basic earnings per share is calculated by dividing the profit attributable to equity shareholders of the company by the weighted average number of ordinary shares in issue during the year, excluding ordinary shares purchased by the company and held as treasury shares.

Diluted

Diluted earnings per share is calculated by adjusting the weighted average number of ordinary shares to take account of all dilutive potential ordinary shares and adjusting the profit attributable, if applicable, to account for any tax consequences that might arise from conversion of those shares.

All figures in £ millions	2017	2016
Earnings/(loss) for the year	**408**	(2,335)
Non-controlling interest	**(2)**	(2)
Earnings/(loss) attributable to equity holders of the company	**406**	(2,337)
Weighted average number of shares (millions)	**813.4**	814.8
Effect of dilutive share options (millions)	**0.3**	–
Weighted average number of shares (millions) for diluted earnings	**813.7**	814.8
Earnings/(loss) per share		
Basic	**49.9p**	(286.8)p
Diluted	**49.9p**	(286.8)p

Adjusted

For additional detailed information on the calculation of adjusted measures, see p192-195 (Financial key performance indicators). See note 2 for details of specific items excluded from or included in adjusted operating profit in 2017 and 2016.

In order to show results from operating activities on a consistent basis, an adjusted earnings per share is presented. The Group's definition of adjusted earnings per share may not be comparable with other similarly titled measures reported by other companies.

Adjusted earnings is a non-GAAP (non-statutory) financial measure and is included as it is a key financial measure used by management to evaluate the performance of the Group and allocate resources to business segments. The measure also enables investors to more easily, and consistently, track the underlying operational performance of the Group and its business segments by separating out those items of income and expenditure relating to acquisition and disposal transactions, and major restructuring programmes.

Adjusted earnings per share is calculated as adjusted earnings divided by the weighted average number of shares in issue on an undiluted basis. The following items are excluded from or included in adjusted earnings:

Cost of major restructuring In January 2016, the Group announced that it was embarking on a restructuring programme to simplify the business, reduce costs and position the Group for growth in its major markets. The costs of this programme in 2016 were significant enough to exclude from the adjusted operating profit measure so as to better highlight the underlying performance. A new programme of restructuring, announced in May 2017, began in the second half of 2017 and is expected to drive further significant cost savings. The costs of this new programme have also been excluded from adjusted operating profit. See note 3 for an analysis of these costs.

Other net gains and losses These represent profits and losses on the sale of subsidiaries, joint ventures, associates and other financial assets and are excluded from adjusted earnings as they distort the performance of the Group as reported on a statutory basis.

Intangible charges These represent charges in respect of goodwill, including impairment, and intangible assets acquired through business combinations and the direct costs of acquiring those businesses. These charges are excluded as they reflect past acquisition activity and do not necessarily reflect the current year performance of the Group.

Other net finance income/costs These include finance costs in respect of retirement benefits, finance costs of deferred consideration and foreign exchange and other gains and losses. Finance income relating to retirement benefits is excluded as management does not believe that the consolidated income statement presentation under IAS 19 reflects the economic substance of the underlying assets and liabilities. Finance costs associated with transactions are excluded as these relate to future earn-outs or acquisition expenses and are not part of the underlying financing. Foreign exchange and other gains and losses are excluded as they represent short-term fluctuations in market value and are subject to significant volatility. Other gains and losses may not be realised in due course as it is normally the intention to hold the related instruments to maturity. In 2017 and 2016, the foreign exchange gains and losses largely relate to foreign exchange differences on unhedged US dollar and euro loans, cash and cash equivalents.

Notes to the consolidated financial statements

8. Earnings per share continued

Adjusted continued

Impact of US tax reform In 2017, as a result of US tax reform, the Group's share of profit from associates was adversely impacted by £8m. This amount has been excluded from adjusted earnings as it is considered to be a transition adjustment that is not expected to recur in the near future.

Tax Tax on the above items is excluded from adjusted earnings. Where relevant the Group also excludes the benefit from recognising previously unrecognised pre-acquisition and capital losses. As a result of US tax reform in 2017, the reported tax charge on a statutory basis includes a benefit from the revaluation of deferred tax balances to the reduced federal rate of £5m and a repatriation tax charge of £6m. This amount has been excluded from adjusted earnings as it is considered to be a transition adjustment that is not expected to recur in the near future. The tax benefit from tax deductible goodwill and intangibles is added to the adjusted income tax charge as this benefit more accurately aligns the adjusted tax charge with the expected rate of cash tax payments.

Non-controlling interest Non-controlling interest for the above items is excluded from adjusted earnings.

The following tables reconcile the statutory income statement to the adjusted income statement.

								2017
All figures in £ millions	Statutory income statement	Cost of major restructuring	Other net gains and losses	Intangible charges	Other net finance income/ costs	Impact of US tax reform	Tax amortisation benefit	Adjusted income statement
Operating profit/(loss)	451	79	(128)	166	–	8	–	576
Net finance costs	(30)	–	–	–	(49)	–	–	(79)
Profit/(loss) before tax	421	79	(128)	166	(49)	8	–	497
Income tax	(13)	(26)	20	(85)	9	1	39	(55)
Profit/(loss) for the year	408	53	(108)	81	(40)	9	39	442
Non-controlling interest	(2)	–	–	–	–	–	–	(2)
Earnings/(loss)	406	53	(108)	81	(40)	9	39	440
Weighted average number of shares (millions)	813.4							813.4
Weighted average number of shares (millions) for diluted earnings	813.7							813.7
Earnings per share (basic)	49.9p							54.1p
Earnings per share (diluted)	49.9p							54.1p

								2016
All figures in £ millions	Statutory income statement	Cost of major restructuring	Other net gains and losses	Intangible charges	Other net finance income/ costs	Impact of US tax reform	Tax amortisation benefit	Adjusted income statement
Operating (loss)/profit	(2,497)	338	25	2,769	–	–	–	635
Net finance costs	(60)	–	–	–	1	–	–	(59)
(Loss)/profit before tax	(2,557)	338	25	2,769	1	–	–	576
Income tax	222	(84)	(14)	(255)	–	–	36	(95)
(Loss)/profit for the year	(2,335)	254	11	2,514	1	–	36	481
Non-controlling interest	(2)	–	–	–	–	–	–	(2)
(Loss)/earnings	(2,337)	254	11	2,514	1	–	36	479
Weighted average number of shares (millions)	814.8							814.8
Weighted average number of shares (millions) for diluted earnings	814.8							814.8
(Loss)/earnings per share (basic)	(286.8)p							58.8p
(Loss)/earnings per share (diluted)	(286.8)p							58.8p

Notes to the consolidated financial statements

9. Dividends

All figures in £ millions	2017	2016
Final paid in respect of prior year 34.0p (2016: 34.0p)	**277**	277
Interim paid in respect of current year 5.0p (2016: 18.0p)	**41**	147
	318	424

The Directors are proposing a final dividend in respect of the financial year ended 31 December 2017 of 12.0p per share which will absorb an estimated £93m of shareholders' funds. It will be paid on 11 May 2018 to shareholders who are on the register of members on 6 April 2018. These financial statements do not reflect this dividend.

10. Property, plant and equipment

All figures in £ millions	Land and buildings	Plant and equipment	Assets in course of construction	Total
Cost				
At 1 January 2016	359	508	22	889
Exchange differences	44	83	2	129
Additions	26	59	4	89
Disposals	(26)	(100)	–	(126)
Disposal through business disposal	(1)	(2)	–	(3)
Reclassifications	(4)	12	(8)	–
At 31 December 2016	398	560	20	978
Exchange differences	**(20)**	**(29)**	**(2)**	**(51)**
Additions	**26**	**40**	**24**	**90**
Disposals	**(13)**	**(34)**	**–**	**(47)**
Disposal through business disposal	**(11)**	**(5)**	**–**	**(16)**
Reclassifications	**5**	**8**	**(13)**	**–**
Transfer to intangible assets	**–**	**(11)**	**–**	**(11)**
Transfer to assets classified as held for sale	**(55)**	**(2)**	**–**	**(57)**
At 31 December 2017	**330**	**527**	**29**	**886**

All figures in £ millions	Land and buildings	Plant and equipment	Assets in course of construction	Total
Depreciation				
At 1 January 2016	(192)	(377)	–	(569)
Exchange differences	(26)	(62)	–	(88)
Charge for the year	(34)	(61)	–	(95)
Disposals	22	95	–	117
Reclassifications	1	(1)	–	–
At 31 December 2016	(229)	(406)	–	(635)
Exchange differences	**12**	**23**	**–**	**35**
Charge for the year	**(35)**	**(55)**	**–**	**(90)**
Disposals	**9**	**26**	**–**	**35**
Disposal through business disposal	**6**	**3**	**–**	**9**
Transfer to assets classified as held for sale	**40**	**1**	**–**	**41**
At 31 December 2017	**(197)**	**(408)**	**–**	**(605)**
Carrying amounts				
At 1 January 2016	167	131	22	320
At 31 December 2016	169	154	20	343
At 31 December 2017	**133**	**119**	**29**	**281**

Notes to the consolidated financial statements

10. Property, plant and equipment continued

Depreciation expense of £23m (2016: £21m) has been included in the income statement in cost of goods sold and £67m (2016: £74m) in operating expenses.

The Group leases certain equipment under a number of finance lease agreements. The net carrying amount of leased plant and equipment included within property, plant and equipment was £9m (2016: £10m).

11. Intangible assets

All figures in £ millions	Goodwill	Software	Acquired customer lists, contracts and relationships	Acquired trademarks and brands	Acquired publishing rights	Other intangibles acquired	Total
Cost							
At 1 January 2016	4,134	619	860	281	180	509	6,583
Exchange differences	752	85	157	65	31	135	1,225
Impairment	(2,548)	–	–	–	–	–	(2,548)
Additions – internal development	–	132	–	–	–	–	132
Additions – purchased	–	25	–	–	–	–	25
Disposals	–	(49)	(37)	–	–	–	(86)
Acquisition through business combination	3	–	–	7	–	3	13
Disposal through business disposal	–	–	(6)	–	–	(47)	(53)
Transfer to intangible assets – pre-publication	–	(14)	–	–	–	–	(14)
At 31 December 2016	2,341	798	974	353	211	600	5,277
Exchange differences	**(148)**	**(46)**	**(74)**	**(26)**	**(6)**	**(50)**	**(350)**
Impairment	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Additions – internal development	**–**	**133**	**–**	**–**	**–**	**–**	**133**
Additions – purchased	**–**	**17**	**–**	**–**	**–**	**–**	**17**
Disposals	**–**	**(23)**	**–**	**–**	**–**	**–**	**(23)**
Disposal through business disposal	**–**	**(4)**	**(9)**	**(19)**	**–**	**(27)**	**(59)**
Transfer from property, plant and equipment	**–**	**11**	**–**	**–**	**–**	**–**	**11**
Transfer to assets classified as held for sale	**(163)**	**(4)**	**(2)**	**(27)**	**(21)**	**(34)**	**(251)**
At 31 December 2017	**2,030**	**882**	**889**	**281**	**184**	**489**	**4,755**

Notes to the consolidated financial statements

11. Intangible assets continued

All figures in £ millions	Goodwill	Software	Acquired customer lists, contracts and relationships	Acquired trademarks and brands	Acquired publishing rights	Other intangibles acquired	Total
Amortisation							
At 1 January 2016	–	(357)	(430)	(155)	(163)	(314)	(1,419)
Exchange differences	–	(60)	(83)	(32)	(27)	(75)	(277)
Charge for the year	–	(84)	(85)	(22)	(8)	(70)	(269)
Disposals	–	38	37	–	–	–	75
Disposal through business disposal	–	–	6	–	–	47	53
Transfer to intangible assets – pre-publication	–	2	–	–	–	–	2
At 31 December 2016	–	(461)	(555)	(209)	(198)	(412)	(1,835)
Exchange differences	**–**	**30**	**43**	**13**	**4**	**36**	**126**
Charge for the year	**–**	**(85)**	**(77)**	**(18)**	**(3)**	**(40)**	**(223)**
Disposals	**–**	**21**	**–**	**–**	**–**	**–**	**21**
Disposal through business disposal	**–**	**2**	**8**	**18**	**–**	**22**	**50**
Transfer to assets classified as held for sale	**–**	**–**	**1**	**16**	**19**	**34**	**70**
At 31 December 2017	**–**	**(493)**	**(580)**	**(180)**	**(178)**	**(360)**	**(1,791)**
Carrying amounts							
At 1 January 2016	4,134	262	430	126	17	195	5,164
At 31 December 2016	2,341	337	419	144	13	188	3,442
At 31 December 2017	**2,030**	**389**	**309**	**101**	**6**	**129**	**2,964**

Goodwill

The goodwill carrying value of £2,030m relates to acquisitions completed after 1 January 1998. Prior to 1 January 1998 all goodwill was written off to reserves on the date of acquisition. For acquisitions completed between 1 January 1998 and 31 December 2002, no value was ascribed to intangibles other than goodwill which was amortised over a period of up to 20 years. On adoption of IFRS on 1 January 2003, the Group chose not to restate the goodwill balance and at that date the balance was frozen (i.e. amortisation ceased). If goodwill had been restated, then a significant value would have been ascribed to other intangible assets, which would be subject to amortisation, and the carrying value of goodwill would be significantly lower. For acquisitions completed after 1 January 2003, value has been ascribed to other intangible assets which are amortised.

Other intangible assets

Other intangibles acquired include content, technology and software rights.

Intangible assets are valued separately for each acquisition and the primary method of valuation used is the discounted cash flow method. The majority of acquired intangibles are amortised using an amortisation profile based on the projected cash flows underlying the acquisition date valuation of the intangible asset, which generally results in a larger proportion of amortisation being recognised in the early years of the asset's life. The Group keeps the expected pattern of consumption under review.

Amortisation of £17m (2016: £17m) is included in the income statement in cost of goods sold and £206m (2016: £252m) in operating expenses.

Notes to the consolidated financial statements

11. Intangible assets continued

Other intangible assets continued

The range of useful economic lives for each major class of intangible asset (excluding goodwill and software) is shown below:

Class of intangible asset	2017 Useful economic life
Acquired customer lists, contracts and relationships	3-20 years
Acquired trademarks and brands	2-20 years
Acquired publishing rights	5-20 years
Other intangibles acquired	2-20 years

The expected amortisation profile of acquired intangible assets is shown below:

All figures in £ millions	One to five years	Six to ten years	More than ten years	2017 Total
Class of intangible asset				
Acquired customer lists, contracts and relationships	215	75	19	309
Acquired trademarks and brands	56	31	14	101
Acquired publishing rights	5	1	–	6
Other intangibles acquired	97	32	–	129

Impairment tests for cash-generating units (CGUs) containing goodwill

Impairment tests have been carried out where appropriate as described below. Goodwill was allocated to CGUs, or an aggregation of CGUs, where goodwill could not be reasonably allocated to individual business units. Impairment reviews were conducted on these CGUs. The recoverable amount for each unit exceeds its carrying value therefore there is no impairment in 2017. The carrying value of the goodwill in each of the CGUs is summarised below:

All figures in £ millions	2017	2016
North America	1,013	1,295
Core	641	633
Growth (includes Brazil, China, India and South Africa)	–	–
Pearson VUE	376	413
Total	2,030	2,341

The recoverable amount of each aggregated CGU is based on fair value less costs of disposal. Goodwill is tested at least annually for impairment. Other than goodwill there are no intangible assets with indefinite lives. The goodwill is generally denominated in the currency of the relevant cash flows and therefore the impairment review is not materially sensitive to exchange rate fluctuations.

Notes to the consolidated financial statements

11. Intangible assets continued

Key assumptions

For the purpose of estimating the fair value less costs of disposal of the CGUs, management has used an income approach based on present value techniques. The calculations use cash flow projections based on financial budgets approved by management covering a five-year period, management's best estimate about future developments and market assumptions. The fair value less costs of disposal measurement is categorised as Level 3 on the fair value hierarchy. The key assumptions used by management in the fair value less costs of disposal calculations were:

Discount rates The discount rate is based on the risk-free rate for government bonds, adjusted for a risk premium to reflect the increased risk in investing in equities. The risk premium adjustment is assessed for each specific CGU. The average post-tax discount rates range from 8.4% to 14.3%. Discount rates are lower for those businesses which operate in more mature markets with low inflation and higher for those operating in emerging markets with higher inflation.

Perpetuity growth rates A perpetuity growth rate of 2.0% was used for cash flows subsequent to the approved budget period for CGUs operating in mature markets. This perpetuity growth rate is a conservative rate and is considered to be lower than the long-term historical growth rates of the underlying territories in which the CGU operates and the long-term growth rate prospects of the sectors in which the CGU operates. CGU growth rates between 3.0% and 6.9% were used for cash flows subsequent to the approved budget period for CGUs operating in emerging markets with high inflation. These growth rates are also below the long-term historical growth rates in these markets.

The key assumptions used by management in setting the financial budgets for the initial five-year period were as follows:

Forecast sales growth rates Forecast sales growth rates are based on past experience adjusted for the strategic direction and near-term investment priorities within each CGU. Key assumptions include growth in Online Program Management, Online Blended Learning and Professional Certification, stabilisation in UK Qualifications and US Assessments, and ongoing pressures in the US higher education courseware market. The five-year sales forecasts use average nominal growth rates between 3% and 6% for mature markets and between 5% and 14% for emerging markets with high inflation.

Operating profits Operating profits are forecast based on historical experience of operating margins, adjusted for the impact of changes to product costs and cost-saving initiatives, including the impact of the implementation of our cost efficiency programme.

Cash conversion Cash conversion is the ratio of operating cash flow to operating profit. Management forecasts cash conversion rates based on historical experience.

Sensitivities

The Group's impairment review is sensitive to a change in assumptions used, most notably the discount rates and the perpetuity growth rates.

The carrying value of goodwill in the Growth market CGUs was written down to £nil in 2015.

A 0.1% increase in discount rates would cause the fair value less costs of disposal of the North America CGU to reduce by £50m, the Core GGU by £17m and the VUE CGU by £21m.

A 0.1% reduction in perpetuity growth rates would cause the fair value less costs of disposal of the North America CGU to reduce by £39m, the Core CGU by £14m and the VUE CGU by £17m.

The Core CGU is highly sensitive to any reductions in short-term cash flows, whether driven by lower sales growth, lower operating profits or lower cash conversion. A 5% reduction in total annual operating profits, spread evenly across all CGUs, would give rise to an impairment of £66m in the Core CGU. An increase in discount rates or a reduction in perpetuity growth rates would also give rise to an impairment in the Core CGU. The North America CGU is no longer considered to be highly sensitive to changes in impairment assumptions, with increased headroom when compared to 2016.

2016 impairment tests

At the end of 2016, following trading in the final quarter of the year, it became clear that the underlying issues in the US higher education courseware business market were more severe than anticipated. These issues related to declining student enrolments, changes in buying patterns of students and correction of inventory levels by distributors and bookshops. As a result, in January 2017, strategic plans and estimates for future cash flows were revised and we determined during the goodwill impairment review that the fair value less costs of disposal of the North America CGU no longer supported the carrying value of this goodwill and as a consequence impaired goodwill by £2,548m.

Notes to the consolidated financial statements

12. Investments in joint ventures and associates

The amounts recognised in the balance sheet are as follows:

All figures in £ millions	2017	2016
Associates	**395**	1,245
Joint ventures	**3**	2
Total	**398**	1,247

The amounts recognised in the income statement are as follows:

All figures in £ millions	2017	2016
Associates	**77**	98
Joint ventures	**1**	(1)
Total	**78**	97

Investment in associates

The Group has the following material associates:

	Principal place of business	Ownership interest	Nature of relationship	Measurement method
Penguin Random House Ltd	UK/Global	25%	See below	Equity
Penguin Random House LLC	US	25%	See below	Equity

On 1 July 2013, Penguin Random House was formed, upon the completion of an agreement between Pearson and Bertelsmann to merge their respective trade publishing companies, Penguin and Random House, with the parent companies owning 47% and 53% of the combined business respectively. On 5 October 2017, Pearson sold a 22% stake in Penguin Random House to Bertelsmann, retaining a 25% share (see note 31 for more information on disposal of associates). Pearson owns its 25% interest in Penguin Random House via 25% interests in each of the two entities listed in the table above. Despite the separate legal structures of the two Penguin Random House entities, Pearson regards Penguin Random House as one combined global business. Consequently, Pearson discloses Penguin Random House as one single operating segment and presents disclosures related to its interests in Penguin Random House on a combined basis.

The shareholder agreement includes protective rights for Pearson as the minority shareholder, including rights to dividends. Management considers ownership percentage, Board composition and the additional protective rights, and exercises judgement to determine that Pearson has significant influence over Penguin Random House and Bertelsmann has the power to direct the relevant activities and therefore control. Following the transaction in 2017 the assessment of significant influence has not changed. Penguin Random House does not have a quoted market price.

Notes to the consolidated financial statements

12. Investments in joint ventures and associates continued

Investment in associates continued

The summarised financial information of the material associate is detailed below:

All figures in £ millions	2017 Penguin Random House	2016 Penguin Random House
Assets		
Non-current assets	**1,048**	1,267
Current assets	**1,758**	1,587
Liabilities		
Non-current liabilities	**(859)**	(394)
Current liabilities	**(1,579)**	(1,074)
Net assets	**368**	1,386
Sales	**2,693**	2,620
Profit for the year	**171**	209
Other comprehensive expense	**(60)**	(14)
Total comprehensive income	**111**	195
Dividends received from associate in relation to profits	**146**	131
Re-capitalisation dividends received from associate	**312**	–

The information above reflects the amounts presented in the financial statements of the associate, adjusted for fair value and similar adjustments. The tax on Penguin Random House LLC is settled by the partners. For the purposes of clear and consistent presentation, the tax has been shown in the associate line items in the consolidated income statement and consolidated balance sheet, recording the Group's share of profit after tax consistently for the Penguin Random House associates.

A reconciliation of the summarised financial information to the carrying value of the material associate is shown below:

All figures in £ millions	2017 Penguin Random House	2016 Penguin Random House
Opening net assets	**1,386**	1,206
Exchange differences	**(18)**	179
Profit for the year	**171**	209
Other comprehensive expense	**(60)**	(14)
Dividends, net of tax paid	**(1,167)**	(194)
Tax adjustments in relation to disposals	**56**	–
Closing net assets	**368**	1,386
Share of net assets	**92**	651
Goodwill	**296**	589
Carrying value of associate	**388**	1,240

Notes to the consolidated financial statements

12. Investments in joint ventures and associates continued

Investment in associates continued

Information on other individually immaterial associates is detailed below:

All figures in £ millions	2017	2016
Profit for the year	7	–
Total comprehensive income	**7**	**–**

Transactions with material associates

The Group has loans to Penguin Random House which are unsecured and interest is calculated based on market rates. The amount outstanding at 31 December 2017 was £46m (2016: £33m). The loans are provided under a working capital facility and fluctuate during the year. The loan outstanding at 31 December 2017 was repaid in its entirety in January 2018.

The Group also has a current asset receivable of £19m (2016: £21m) from Penguin Random House and a current liability payable of £3m (2016: £nil) arising from the provision of services. Included in other income (note 4) is £3m (2016: £4m) of service fees. In addition, the Group will receive a further re-capitalisation dividend of £49m in April 2018, which was triggered by the Group's decision to sell a 22% stake in Penguin Random House in 2017.

Investment in joint ventures

Information on joint ventures, all of which are individually immaterial, is detailed below:

All figures in £ millions	2017	2016
Profit/(loss) for the year	1	(1)
Total comprehensive income/(expense)	**1**	(1)

13. Deferred income tax

All figures in £ millions	2017	2016
Deferred income tax assets	95	451
Deferred income tax liabilities	(164)	(466)
Net deferred income tax	**(69)**	(15)

Substantially all of the deferred income tax assets are expected to be recovered after more than one year.

Deferred income tax assets and liabilities shall be offset when there is a legally enforceable right to offset current income tax assets with current income tax liabilities and where the deferred income taxes relate to the same fiscal authority. At 31 December 2017, the Group has unrecognised deferred income tax assets of £32m (2016: £32m) in respect of UK losses, £18m (2016: £18m) in respect of US losses and approximately £86m (2016: £95m) in respect of losses in other territories. The UK losses are capital losses. The US losses relate to state taxes and therefore have expiry periods of between five and 20 years. Other deferred tax assets of £12m (2016: £9m) have not been recognised.

Deferred tax assets of £75m (2016: £95m) have been recognised in countries that reported a loss in either the current or preceding year. The majority arises in Brazil in respect of tax deductible goodwill. It is considered more likely than not that there will be sufficient future taxable profits to realise these assets.

The recognition of the deferred income tax assets is supported by management's forecasts of the future profitability of the relevant countries.

Notes to the consolidated financial statements

13. Deferred income tax continued

The movement in deferred income tax assets and liabilities during the year is as follows:

All figures in £ millions	Trading losses	Returns provisions	Retirement benefit obligations	Deferred revenue	Goodwill and intangibles	Other	Total
Deferred income tax assets/(liabilities)							
At 1 January 2016	19	43	(9)	55	(348)	(44)	(284)
Exchange differences	3	7	10	15	(84)	27	(22)
Income statement (charge)/benefit	–	(15)	(4)	50	144	86	261
Disposal through business disposal	–	–	–	(3)	(7)	–	(10)
Tax benefit in other comprehensive income	–	–	40	–	–	–	40
At 31 December 2016	22	35	37	117	(295)	69	(15)
Exchange differences	**(2)**	**(3)**	**(4)**	**(8)**	**19**	**(8)**	**(6)**
Income statement (charge)/benefit	**(11)**	**6**	**7**	**(9)**	**118**	**(1)**	**110**
Disposal through business disposal	**–**	**–**	**–**	**–**	**–**	**(3)**	**(3)**
Tax charge in other comprehensive income	**–**	**–**	**(84)**	**–**	**–**	**(5)**	**(89)**
Transfer to assets/(liabilities) classified as held for sale	**–**	**(4)**	**–**	**(73)**	**3**	**8**	**(66)**
At 31 December 2017	**9**	**34**	**(44)**	**27**	**(155)**	**60**	**(69)**

Other deferred income tax items include temporary differences in respect of share-based payments, provisions, depreciation and royalty advances.

14. Classification of financial instruments

The accounting classification of each class of the Group's financial assets and their carrying values, is as follows:

		2017					2016				
				Fair value	Amortised cost				Fair value	Amortised cost	
All figures in £ millions	Notes	Available for sale	Derivatives held for trading	Derivatives in hedge relationship	Loans and receivables	Total carrying value	Available for sale	Derivatives held for trading	Derivatives in hedge relationship	Loans and receivables	Total carrying value
Investments in unlisted securities	15	**77**	**–**	**–**	**–**	**77**	65	–	–	–	65
Cash and cash equivalents	17	**–**	**–**	**–**	**518**	**518**	–	–	–	1,459	1,459
Cash and cash equivalents – within assets classified as held for sale	32	**–**	**–**	**–**	**127**	**127**	–	–	–	–	–
Marketable securities		**8**	**–**	**–**	**–**	**8**	10	–	–	–	10
Derivative financial instruments	16	**–**	**3**	**137**	**–**	**140**	–	3	168	–	171
Trade receivables	22	**–**	**–**	**–**	**760**	**760**	–	–	–	982	982
Trade receivables – within assets classified as held for sale		**–**	**–**	**–**	**22**	**22**	–	–	–	–	–
Total financial assets		**85**	**3**	**137**	**1,427**	**1,652**	75	3	168	2,441	2,687

The carrying value of the Group's financial assets is equal to, or approximately equal to, the market value.

Notes to the consolidated financial statements

14. Classification of financial instruments continued

The accounting classification of each class of the Group's financial liabilities, together with their carrying values and market values, is as follows:

		2017					2016				
		Fair value		Amortised cost			Fair value		Amortised cost		
All figures in £ millions	Notes	Derivatives held for trading	Derivatives in hedge relationship	Other liabilities	Total carrying value	Total market value	Derivatives held for trading	Derivatives in hedge relationship	Other liabilities	Total carrying value	Total market value
Derivative financial liabilities	16	–	(140)	–	(140)	(140)	(7)	(257)	–	(264)	(264)
Trade payables	24	–	–	(265)	(265)	(265)	–	–	(333)	(333)	(333)
Trade payables – within liabilities classified as held for sale		–	–	(20)	(20)	(20)	–	–	–	–	–
Liability to purchase own shares	24	–	–	(151)	(151)	(151)	–	–	–	–	–
Bank loans and overdrafts	18	–	–	(15)	(15)	(15)	–	–	(39)	(39)	(39)
Other borrowings due within one year	18	–	–	(4)	(4)	(4)	–	–	(5)	(5)	(5)
Borrowings due after more than one year	18	–	–	(1,066)	(1,066)	(1,070)	–	–	(2,424)	(2,424)	(2,385)
Total financial liabilities		–	(140)	(1,521)	(1,661)	(1,665)	(7)	(257)	(2,801)	(3,065)	(3,026)

Fair value measurement

As shown above, the Group's derivative assets and liabilities, unlisted securities and marketable securities are held at fair value. Financial instruments that are measured subsequently to initial recognition at fair value are grouped into levels 1 to 3, based on the degree to which the fair value is observable, as follows:

Level 1 fair value measurements are those derived from unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2 fair value measurements are those derived from inputs, other than quoted prices included within level 1, that are observable for the asset or liability, either directly (as prices) or indirectly (derived from prices).

Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The Group's derivative assets valued at £140m (2016: £171m) and derivative liabilities valued at £140m (2016: £264m) are classified as level 2. The Group's marketable securities valued at £8m (2016: £10m) are classified as level 2. The Group's investments in unlisted securities are valued at £77m (2016: £65m) and are classified as level 3.

The following table analyses the movements in level 3 fair value remeasurements:

	2017	2016
All figures in £ millions	Investments in unlisted securities	Investments in unlisted securities
At beginning of year	65	143
Exchange differences	(4)	8
Acquisition of investments	3	6
Fair value movements	13	–
Disposal of investments	–	(92)
At end of year	77	65

The fair value of the investments in unlisted securities is determined by reference to the financial performance of the underlying asset, recent funding rounds and amounts realised on the sale of similar assets.

Notes to the consolidated financial statements

15. Other financial assets

All figures in £ millions	2017	2016
At beginning of year	**65**	143
Exchange differences	**(4)**	8
Acquisition of investments	**3**	6
Fair value movements	**13**	–
Disposal of investments	**–**	(92)
At end of year	**77**	65

Other financial assets comprise unlisted securities of £77m (2016: £65m).

16. Derivative financial instruments

The Group's approach to the management of financial risks is set out in note 19. The Group's outstanding derivative financial instruments are as follows:

	2017			2016		
All figures in £ millions	Gross notional amounts	Assets	Liabilities	Gross notional amounts	Assets	Liabilities
Interest rate derivatives – in a fair value hedge relationship	**799**	**23**	**–**	2,157	68	(4)
Interest rate derivatives – not in a hedge relationship	**429**	**3**	**–**	1,187	3	(7)
Cross-currency rate derivatives – in a hedge relationship	**1,522**	**114**	**(140)**	1,622	100	(253)
Total	**2,750**	**140**	**(140)**	4,966	171	(264)
Analysed as expiring:						
In less than one year	**–**	**–**	**–**	162	–	–
Later than one year and not later than five years	**1,638**	**65**	**(95)**	2,776	86	(157)
Later than five years	**1,112**	**75**	**(45)**	2,028	85	(107)
Total	**2,750**	**140**	**(140)**	4,966	171	(264)

The Group has issued both euro and US dollar fixed rate debt. The fixed rate euro debt is converted to either a fixed or floating rate US dollar exposure using interest rate and cross-currency swaps. The Group's remaining fixed rate US dollar debt is held as fixed rate instruments.

The Group receives interest under its euro debt related swap contracts to match the interest on the bonds (ranging from a receipt of 1.375% on its euro 2025 notes to 1.875% on its euro 2021 notes) and, in turn, pays US dollar interest at rates ranging between US Libor + 0.84% to US Libor + 1.35%.

Interest rate swaps are then used to fix an element of the interest charge, in line with the Group's interest rate hedging policy, which requires a proportion of the Group's gross debt to be fixed in line with the Group's hedging policy. During 2017 Pearson executed a number of floating interest rate swaps to match the maturity of the 2021 and 2025 euro bonds mitigating the exposure to interest rate increases. The all-in rates (including the Libor spread) that the Group pays are between 2.78% and 3.58%. At 31 December 2017, the Group had contracts to fix $579m of debt over the next 12 months and $331m of outstanding fixed rate bonds bringing the total fixed rate debt to $910m.

At the end of 2017, the currency split of the mark-to-market values of rate derivatives, including the exchange of principal on cross currency rate derivatives, was US dollar £(869)m, sterling £12m and euro £857m (2016: US dollar £(1,051)m, sterling £19m and euro £939m).

The Group's portfolio of rate derivatives is diversified by maturity, counterparty and type. Natural offsets between transactions within the portfolio and the designation of certain derivatives as hedges significantly reduce the risk of income statement volatility. The sensitivity of the portfolio to changes in market rates is set out in note 19.

Notes to the consolidated financial statements

16. Derivative financial instruments continued

Derivative financial assets and liabilities subject to offsetting arrangements are as follows:

	2017			2016		
All figures in £ millions	Gross derivative assets	Gross derivative liabilities	Net derivative assets/ liabilities	Gross derivative assets	Gross derivative liabilities	Net derivative assets/ liabilities
Counterparties in an asset position	**103**	**(78)**	**25**	30	(11)	19
Counterparties in a liability position	**37**	**(62)**	**(25)**	141	(253)	(112)
Total as presented in the balance sheet	**140**	**(140)**	**–**	171	(264)	(93)

All of the Group's derivative financial instruments are subject to enforceable netting arrangements with individual counterparties, allowing net settlement in the event of default of either party. Offset arrangements in respect of cash balances are described in note 17.

Counterparty exposure from all derivatives is managed, together with that from deposits and bank account balances, within credit limits that reflect published credit ratings and by reference to other market measures (e.g. market prices for credit default swaps) to ensure that there is no significant risk to any one counterparty.

In accordance with IAS 39 'Financial Instruments: Recognition and Measurement', the Group has reviewed all of its material contracts for embedded derivatives that are required to be separately accounted for if they do not meet certain requirements, and has concluded that there are no material embedded derivatives.

17. Cash and cash equivalents (excluding overdrafts)

All figures in £ millions	2017	2016
Cash at bank and in hand	**361**	570
Short-term bank deposits	**157**	889
	518	1,459
Cash at bank and in hand – within assets classified as held for sale	**127**	–
	645	1,459

Short-term bank deposits are invested with banks and earn interest at the prevailing short-term deposit rates.

At the end of 2017, the currency split of cash and cash equivalents was US dollar 36% (2016: 34%), sterling 8% (2016: 40%), euro 7% (2016: 3%), renminbi 20% (2016: 10%) and other 29% (2016: 13%). At the end of 2017, a significant proportion of the renminbi cash relates to assets held for sale.

Cash and cash equivalents have fair values that approximate to their carrying value due to their short-term nature. Cash and cash equivalents include the following for the purpose of the cash flow statement:

All figures in £ millions	2017	2016
Cash and cash equivalents	**518**	1,459
Cash and cash equivalents – within assets classified as held for sale	**127**	–
Bank overdrafts	**(15)**	(35)
	630	1,424

The Group has certain cash pooling arrangements in US dollars, sterling, euro and Canadian dollars where both the company and the bank have a legal right of offset. At 31 December 2017, the offsetting amounts are presented gross in the balance sheet. Offset arrangements in respect of derivatives are shown in note 16.

Notes to the consolidated financial statements

18. Financial liabilities – borrowings

The Group's current and non-current borrowings are as follows:

All figures in £ millions	2017	2016
Non-current		
6.25% Global dollar bonds 2018 (nominal amount $550m)	–	469
4.625% US dollar notes 2018 (nominal amount $300m)	–	254
1.875% euro notes 2021 (nominal amount €500m)	463	453
3.75% US dollar notes 2022 (nominal amount $117m; 2016: nominal amount $500m)	85	407
3.25% US dollar notes 2023 (nominal amount $94m; 2016: nominal amount $500m)	69	402
1.375% euro notes 2025 (nominal amount €500m)	445	435
Finance lease liabilities	4	4
	1,066	2,424
Current		
Due within one year or on-demand:		
Bank loans and overdrafts	15	39
Finance lease liabilities	4	5
	19	44
Total borrowings	1,085	2,468

Included in the non-current borrowings above is £10m of accrued interest (2016: £18m). Included in the current borrowings above is £nil of accrued interest (2016: £nil).

The maturity of the Group's non-current borrowing is as follows:

All figures in £ millions	2017	2016
Between one and two years	3	726
Between two and five years	549	454
Over five years	514	1,244
	1,066	2,424

The carrying amounts and market values of borrowings are as follows:

	2017			2016		
All figures in £ millions	Effective interest rate	Carrying value	Market value	Effective interest rate	Carrying value	Market value
Bank loans and overdrafts	n/a	15	15	n/a	39	39
6.25% Global dollar bonds 2018	n/a	–	–	6.46%	469	468
4.625% US dollar notes 2018	n/a	–	–	4.69%	254	250
1.875% euro notes 2021	2.04%	463	467	2.04%	453	454
3.75% US dollar notes 2022	3.94%	85	87	3.94%	407	396
3.25% US dollar notes 2023	3.36%	69	67	3.36%	402	381
1.375% euro notes 2025	1.44%	445	445	1.44%	435	432
Finance lease liabilities	n/a	8	8	n/a	9	9
		1,085	1,089		2,468	2,429

The market values stated above are based on clean market prices at the year end or, where these are not available, on the quoted market prices of comparable debt issued by other companies. The effective interest rates above relate to the underlying debt instruments.

Notes to the consolidated financial statements

18. Financial liabilities – borrowings continued

The carrying amounts of the Group's borrowings before the effect of derivatives (see notes 16 and 19 for further information on the impact of derivatives) are denominated in the following currencies:

All figures in £ millions	2017	2016
US dollar	**172**	1,559
Sterling	**1**	13
Euro	**911**	892
Other	**1**	4
	1,085	2,468

The Group has $1.75bn (£1.3bn) of undrawn capacity on its committed borrowing facilities as at 31 December 2017 (2016: $1.75bn (£1.4bn) undrawn). In addition, there are a number of short-term facilities that are utilised in the normal course of business.

All of the Group's borrowings are unsecured. In respect of finance lease obligations, the rights to the leased asset revert to the lessor in the event of default.

The maturity of the Group's finance lease obligations is as follows:

All figures in £ millions	2017	2016
Finance lease liabilities – minimum lease payments		
Not later than one year	**4**	5
Later than one year and not later than two years	**3**	3
Later than two years and not later than three years	**1**	1
Later than three years and not later than four years	**–**	–
Later than four years and not later than five years	**–**	–
Later than five years	**–**	–
Future finance charges on finance leases	**–**	–
Present value of finance lease liabilities	**8**	9

The present value of the Group's finance lease obligations is as follows:

All figures in £ millions	2017	2016
Not later than one year	**4**	5
Later than one year and not later than five years	**4**	4
Later than five years	**–**	–
	8	9

The carrying amounts of the Group's lease obligations approximate their fair value.

19. Financial risk management

The Group's approach to the management of financial risks together with sensitivity analyses of its financial instruments is set out below.

Treasury policy

Pearson's treasury function has primary responsibility for managing certain financial risks to which the Group is exposed. The Group's treasury policies are approved by the Board of Directors annually and the Audit Committee receives regular reports on the Group's treasury activities, policies and procedures. The Group's treasury function is not run as a profit centre and does not enter into any transactions for speculative purposes.

The treasury function is permitted to use derivatives for risk management purposes which may include interest rate swaps, rate caps and collars, currency rate swaps and forward foreign exchange contracts, of which interest rate swaps and forward foreign exchange swaps are the most commonly used.

Notes to the consolidated financial statements

19. Financial risk management continued

Capital risk

The Group's primary objective when managing capital is to safeguard its ability to continue as a going concern and retain financial flexibility by maintaining a strong balance sheet. The Group aims to maintain net debt at a level less than 1.5 times EBITDA, which is consistent with a solid investment grade rating (assuming no material deterioration in trading performance) and provides comfortable headroom against covenants. This should permit the business to invest in organic growth. Shareholder returns are made through a sustainable and progressive dividend policy. Any surplus cash is returned to shareholders via share buybacks or special dividends.

The Group is currently rated BBB (negative outlook) with Standard and Poor's and Baa2 (negative outlook) with Moody's.

Net debt

The Group's net debt position is set out below:

All figures in £ millions	2017	2016
Cash and cash equivalents	**645**	1,459
Marketable securities	**8**	10
Derivative financial instruments	**–**	(93)
Bank loans and overdrafts	**(15)**	(39)
Bonds	**(1,062)**	(2,420)
Finance lease liabilities	**(8)**	(9)
Net debt	**(432)**	(1,092)

Interest and foreign exchange rate management

The Group's principal currency exposure is to the US dollar which represents more than 60% of the Group's sales.

The Group's long-term debt is primarily held in US dollars to provide a natural hedge of this exposure, which is achieved through issued US dollar debt or by converting euro debt to US dollars using cross-currency swaps.

As at 31 December 2017, £674m of the Group's debt is held at fixed rates (2016: £650m), with £411m held at floating rates (2016: £1,818m), partially offset by US dollar cash balances which attract floating rate interest. As at 31 December 2017, a 1% movement in US dollar interest rates for one year would result in a £2m movement in the interest charge (2016: £13m).

Overseas profits are converted to sterling to satisfy sterling cash outflows such as dividends at the prevailing spot rate at the time of the transaction. To the extent the Group has sufficient sterling, US dollars may be held as dollar cash to provide a natural offset to the Group's debt or to satisfy future US dollar cash outflows.

The Group does not have significant cross border foreign exchange transactional exposures.

As at 31 December 2017, the sensitivity of the carrying value of the Group's financial instruments to fluctuations in interest rates and exchange rates is as follows:

All figures in £ millions	Carrying value	Impact of 1% increase in interest rates	Impact of 1% decrease in interest rates	Impact of 10% strengthening in sterling	Impact of 10% weakening in sterling
Investments in unlisted securities	**77**	**–**	**–**	**(6)**	**7**
Cash and cash equivalents	**645**	**–**	**–**	**(54)**	**66**
Marketable securities	**8**	**–**	**–**	**–**	**–**
Derivative financial instruments	**–**	**(26)**	**26**	**1**	**(1)**
Bonds	**(1,062)**	**45**	**(48)**	**97**	**(118)**
Other borrowings	**(23)**	**–**	**–**	**2**	**(2)**
Liability to purchase own shares	**(151)**	–	–	–	–
Other net financial assets	**497**	**–**	**–**	**(41)**	**50**
Total financial instruments	**(9)**	**19**	**(22)**	**(1)**	**2**

The table shows the sensitivities of the fair values of each class of financial instruments to an isolated change in either interest rates or foreign exchange rates. Other net financial assets comprises trade receivables less trade payables. A significant proportion of the movements shown above would impact equity rather than the income statement due to the location and functional currency of the entities in which they arise and the availability of net investment hedging.

Notes to the consolidated financial statements

19. Financial risk management continued

Interest and foreign exchange rate management continued

The Group's income statement is reported at average rates for the year while the balance sheet is translated at the year-end closing rate. Differences between these rates can distort ratio calculations such as debt to EBITDA and interest cover. Adjusted operating profit translated at year-end closing rates would be £22m lower than the reported figure of £576m at £554m (2016: £55m higher if translated at the year-end 2016 rate instead of the 2016 average rate at £690m compared with a reported figure of £635m). EBITDA translated at year-end closing rates would be £25m lower than the reported figure of £738m at £713m (2016: £63m higher if translated at the year-end 2016 rate instead of the 2016 average rate, at £848m, compared with a reported figure of £785m).

Liquidity and re-financing risk management

The Group regularly reviews the level of cash and debt facilities required to fund its activities. This involves preparing a prudent cash flow forecast for the next three to five years, determining the level of debt facilities required to fund the business, planning for shareholder returns and repayments of maturing debt, and identifying an appropriate amount of headroom to provide a reserve against unexpected outflows.

At 31 December 2017, the Group had cash of £0.6bn and an undrawn US dollar denominated revolving credit facility due 2021 of $1.75bn (£1.3bn). At 31 December 2016, the Group had cash of £1.5bn and an undrawn US dollar denominated revolving credit facility due 2021 of $1.75bn (£1.4bn).

The $1.75bn facility contains interest cover and leverage covenants which the Group has complied with for the year ended 31 December 2017.

At the end of 2017, the currency split of the Group's trade payables was US dollar £137m, sterling £58m and other currencies £90m (2016: US dollar £164m, sterling £67m and other currencies £102m) . Trade payables are all due within one year (2016: all due within one year).

The following table analyses the Group's bonds and derivative assets and liabilities into relevant maturity groupings based on the remaining period at the balance sheet date to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows (including interest) and as such may differ from the amounts disclosed on the balance sheet.

	Analysed by maturity				Analysed by currency			
All figures in £ millions	Less than one year	Later than one year but less than five years	Five years or more	Total	USD	GBP	Other	Total
At 31 December 2017								
Bonds	**20**	**601**	**533**	**1,154**	**184**	**–**	**970**	**1,154**
Rate derivatives – inflows	**(38)**	**(975)**	**(684)**	**(1,697)**	**(53)**	**(751)**	**(893)**	**(1,697)**
Rate derivatives – outflows	**48**	**1,060**	**667**	**1,775**	**1,003**	**751**	**21**	**1,775**
Total	**30**	**686**	**516**	**1,232**	**1,134**	**–**	**98**	**1,232**
At 31 December 2016								
Bonds	82	1,308	1,292	2,682	1,732	–	950	2,682
Rate derivatives – inflows	(103)	(1,086)	(867)	(2,056)	(239)	(838)	(979)	(2,056)
Rate derivatives – outflows	82	1,202	891	2,175	1,308	838	29	2,175
Total	**61**	**1,424**	**1,316**	**2,801**	**2,801**	**–**	**–**	**2,801**

Financial counterparty risk management

Counterparty credit limits, which take published credit rating and other factors into account, are set to cover the Group's total aggregate exposure to a single financial institution. The limits applicable to published credit rating bands are approved by the Chief Financial Officer within guidelines approved by the board. Exposures and limits applicable to each financial institution are reviewed on a regular basis.

Cash deposits and derivative transactions are made with approved counterparties up to pre-agreed limits. To manage counterparty risk associated with cash and cash equivalents, the Group uses a mixture of money market funds as well as bank deposits. As at 31 December 2017, 58% of cash and cash equivalents was held with investment grade bank counterparties, 38% with AAA money market funds and 4% held with non-investment grade bank counterparties. As at 31 December 2017, the Group had a net exposure of £24m with investment grade counterparties for derivative transactions.

Notes to the consolidated financial statements

20. Intangible assets – pre-publication

All figures in £ millions	2017	2016
Cost		
At beginning of year	**2,417**	2,201
Exchange differences	**(168)**	380
Additions	**362**	395
Disposal through business disposal	**(1)**	(8)
Disposals	**(248)**	(565)
Transfer from intangible assets	**–**	14
Transfer to assets classified as held for sale	**(508)**	–
At end of year	**1,854**	2,417
Amortisation		
At beginning of year	**(1,393)**	(1,360)
Exchange differences	**109**	(250)
Charge for the year	**(338)**	(350)
Disposal through business disposal	**–**	4
Disposals	**248**	565
Transfer from intangible assets	**–**	(2)
Transfer to assets classified as held for sale	**261**	–
At end of year	**(1,113)**	(1,393)
Carrying amounts		
At end of year	**741**	1,024

Included in the above are pre-publication assets amounting to £504m (2016: £694m) which will be realised in more than one year.

Amortisation is included in the income statement in cost of goods sold.

21. Inventories

All figures in £ millions	2017	2016
Raw materials	**4**	5
Work in progress	**2**	6
Finished goods	**142**	224
	148	235

The cost of inventories recognised as an expense and included in the income statement in cost of goods sold amounted to £324m (2016: £340m). In 2017, £38m (2016: £48m) of inventory provisions was charged in the income statement. None of the inventory is pledged as security.

Notes to the consolidated financial statements

22. Trade and other receivables

All figures in £ millions	2017	2016
Current		
Trade receivables	**739**	961
Royalty advances	**8**	22
Prepayments	**82**	124
Accrued income	**1**	15
Other receivables	**280**	235
	1,110	1,357
Non-current		
Trade receivables	**21**	21
Royalty advances	**20**	10
Prepayments	**15**	13
Accrued income	**10**	31
Other receivables	**37**	29
	103	104

The carrying value of the Group's trade and other receivables approximates its fair value. Trade receivables are stated net of provisions for bad and doubtful debts and anticipated future sales returns. The movements in the provision for bad and doubtful debts are as follows:

All figures in £ millions	2017	2016
At beginning of year	**(112)**	(64)
Exchange differences	**7**	(17)
Income statement movements	**(38)**	(53)
Utilised	**21**	22
Disposal through business disposal	**1**	–
Transfer to assets classified as held for sale	**5**	–
At end of year	**(116)**	(112)

Concentrations of credit risk with respect to trade receivables are limited due to the Group's large number of customers, who are internationally dispersed.

The ageing of the Group's trade receivables is as follows:

All figures in £ millions	2017	2016
Within due date	**661**	812
Up to three months past due date	**187**	232
Three to six months past due date	**48**	55
Six to nine months past due date	**18**	21
Nine to 12 months past due date	**13**	14
More than 12 months past due date	**3**	7
Total trade receivables	**930**	1,141
Less: provision for sales returns	**(170)**	(159)
Net trade receivables	**760**	982

The Group reviews its bad debt provision at least twice a year following a detailed review of receivable balances and historical payment profiles. Management believes all the remaining receivable balances are fully recoverable.

Notes to the consolidated financial statements

23. Provisions for other liabilities and charges

All figures in £ millions	Deferred consideration	Property	Disposals and closures	Legal and other	Total
At 1 January 2017	56	4	10	36	106
Exchange differences	(5)	–	–	(2)	(7)
Charged to income statement	–	–	–	4	4
Released to income statement	–	–	–	(7)	(7)
Utilised	(6)	–	(2)	(8)	(16)
Disposal through business disposal	–	(1)	3	(2)	–
At 31 December 2017	**45**	**3**	**11**	**21**	**80**

Analysis of provisions:

All figures in £ millions	Deferred consideration	Property	Disposals and closures	Legal and other	Total
					2017
Current	**5**	**1**	**11**	**8**	**25**
Non-current	**40**	**2**	**–**	**13**	**55**
	45	**3**	**11**	**21**	**80**
					2016
Current	6	1	8	12	27
Non-current	50	3	2	24	79
	56	4	10	36	106

Deferred consideration primarily relates to the formation of a venture in a North America business in 2011. The provision will be utilised over a number of years as payments are based on a royalty rate. Disposals and closures include liabilities related to the disposal of Penguin with the provisions utilised as the disposals and closures are completed. Legal and other includes legal claims, contract disputes and potential contract losses with the provisions utilised as the cases are settled. Restructuring provisions were not material in either 2017 or 2016.

24. Trade and other liabilities

All figures in £ millions	2017	2016
Trade payables	**265**	333
Social security and other taxes	**21**	25
Accruals	**447**	507
Deferred income	**322**	883
Interest payable	**45**	31
Liability to purchase own shares	**151**	–
Other liabilities	**224**	272
	1,475	2,051
Less: non-current portion		
Accruals	**26**	17
Deferred income	**35**	319
Other liabilities	**72**	86
	133	422
Current portion	**1,342**	1,629

The carrying value of the Group's trade and other liabilities approximates its fair value.

The deferred income balance comprises advance payments in assessment, testing and training businesses; subscription income in school and college businesses; and obligations to deliver digital content in future periods.

The liability to purchase own shares relates to a liability arising under a buyback agreement for the purchase of the company's own shares (see note 27).

Notes to the consolidated financial statements

25. Retirement benefit and other post-retirement obligations

Background

The Group operates a number of defined benefit and defined contribution retirement plans throughout the world.

The largest plan is the Pearson Group Pension Plan (UK Group plan) in the UK, which is sectionalised to provide both defined benefit and defined contribution pension benefits. The defined benefit section was closed to new members from 1 November 2006. The defined contribution section, opened in 2003, is open to new and existing employees. Finally, there is a separate section within the UK Group plan set up for auto-enrolment. The defined benefit section of the UK Group plan is a final salary pension plan which provides benefits to members in the form of a guaranteed level of pension payable for life. The level of benefits depends on the length of service and final pensionable pay. The UK Group plan is funded with benefit payments from trustee-administered funds. The UK Group plan is administered in accordance with the Trust Deed and Rules in the interests of its beneficiaries by Pearson Group Pension Trustee Limited.

At 31 December 2017, the UK Group plan had approximately 24,000 members, analysed in the following table:

All figures in %	Active	Deferred	Pensioners	Total
Defined benefit	1	26	35	62
Defined contribution	8	30	–	38
Total	9	56	35	100

The other major defined benefit plans are based in the US. These are also final salary pension plans which provide benefits to members in the form of a guaranteed pension payable for life, with the level of benefits dependent on length of service and final pensionable pay. The majority of the US plans are funded.

The Group also has several post-retirement medical benefit plans (PRMBs), principally in the US. PRMBs are unfunded but are accounted for and valued similarly to defined benefit pension plans.

The defined benefit schemes expose the Group to actuarial risks, such as life expectancy, inflation risks, and investment risk including asset volatility and changes in bond yields. The Group is not exposed to any unusual, entity-specific or plan-specific risks.

The defined contribution section of the UK Group plan operates a Reference Scheme Test (RST) pension underpin for its members. Where a member's fund value is insufficient to purchase the RST pension upon retirement, the UK Group plan is liable for the shortfall to cover the member's RST pension. During the year, the UK Group plan revised its approach to securing the RST underpin by converting a member's fund value into a pension in the UK Group plan rather than purchasing an annuity with an insurer. A liability of £32m (2016: £181m) in respect of the underpin is included in the UK Group plan's defined benefit obligation, calculated as the present value of projected payments less the fund value. The UK Group plan's conversion factors are lower than the respective insurer annuity values and this has driven a reduction in the underpin liability, resulting in an actuarial gain through other comprehensive income and an increase in the surplus at 31 December 2017. From 1 January 2018, members who have sufficient funds to purchase an RST pension will be able to convert their fund value into a pension in the UK Group plan as an alternative to purchasing an annuity with an insurer. The Group does not recognise the assets and liabilities for members of the defined contribution section of the UK Group plan whose fund values are expected to be sufficient to purchase an RST pension without assistance from the UK Group plan. The defined contribution section of the UK Group plan had gross assets of £442m at 31 December 2017.

Notes to the consolidated financial statements

25. Retirement benefit and other post-retirement obligations continued

Assumptions

The principal assumptions used for the UK Group plan and the US PRMB are shown below. Weighted average assumptions have been shown for the other plans, which primarily relate to US pension plans.

	2017			2016		
All figures in %	UK Group plan	Other plans	PRMB	UK Group plan	Other plans	PRMB
Inflation	**3.2**	**1.6**	**1.5**	3.3	1.6	1.5
Rate used to discount plan liabilities	**2.5**	**3.0**	**3.0**	2.5	3.8	3.9
Expected rate of increase in salaries	**3.7**	**3.0**	**3.0**	3.8	3.0	3.0
Expected rate of increase for pensions in payment and deferred pensions	**2.1 to 5.1**	**–**	**–**	2.2 to 5.1	–	–
Initial rate of increase in healthcare rate	**–**	**–**	**6.5**	–	–	6.8
Ultimate rate of increase in healthcare rate	**–**	**–**	**5.0**	–	–	5.0

The UK discount rate is based on corporate bond yields adjusted to reflect the duration of liabilities. In 2017, the Group revised the portfolio of corporate bonds used to exclude bonds with an implicit government guarantee. Under the previous methodology, the 2017 UK discount rate would have been lower by around 0.1%.

The US discount rate is set by reference to a US bond portfolio matching model.

The inflation rate for the UK Group plan of 3.2% reflects the RPI rate. In line with changes to legislation in 2010, certain benefits have been calculated with reference to CPI as the inflationary measure and in these instances a rate of 2.2% has been used.

The expected rate of increase in salaries has been set at 3.7% for 2017 with a short-term assumption of 2.0% for three years.

For the UK plan, the mortality base table assumptions have been updated and are derived from the SAPS S2 for males and females, adjusted to reflect the observed experience of the plan, with CMI model improvement factors. A 1.5% long-term rate improvement on the CMI model is applied for both males and females.

For the US plans, the mortality table (RP – 2017) and 2017 improvement scale (MP – 2017) with generational projection for male and female annuitants has been adopted.

Using the above tables, the remaining average life expectancy in years of a pensioner retiring at age 65 on the balance sheet date for the UK Group plan and US plans is as follows:

	UK		US	
All figures in years	2017	2016	2017	2016
Male	**23.6**	23.5	**20.8**	21.2
Female	**25.7**	25.6	**22.8**	23.2

The remaining average life expectancy in years of a pensioner retiring at age 65, 20 years after the balance sheet date, for the UK and US Group plans is as follows:

	UK		US	
All figures in years	2017	2016	2017	2016
Male	**25.7**	25.5	**22.5**	22.9
Female	**27.9**	27.8	**24.4**	24.9

Although the Group anticipates that plan surpluses will be utilised during the life of the plan to address member benefits, the Group recognises its pension surplus in full in respect of the UK Group plan on the basis that it is management's judgement that there are no substantive restrictions on the return of residual plan assets in the event of a winding up of the plan after all member obligations have been met.

Notes to the consolidated financial statements

25. Retirement benefit and other post-retirement obligations continued

Financial statement information

The amounts recognised in the income statement are as follows:

All figures in £ millions	UK Group plan	Defined benefit other	Sub-total	Defined contribution	PRMB	Total
						2017
Current service cost	8	1	9	57	(1)	65
Administration expenses	9	1	10	–	–	10
Total operating expense	17	2	19	57	(1)	75
Interest on plan assets	(84)	(5)	(89)	–	–	(89)
Interest on plan liabilities	77	7	84	–	2	86
Net finance (income)/expense	(7)	2	(5)	–	2	(3)
Net income statement charge	10	4	14	57	1	72

All figures in £ millions	UK Group plan	Defined benefit other	Sub-total	Defined contribution	PRMB	Total
						2016
Current service cost	8	2	10	67	–	77
Curtailments	–	–	–	–	(2)	(2)
Administration expenses	6	–	6	–	–	6
Total operating expense	14	2	16	67	(2)	81
Interest on plan assets	(104)	(6)	(110)	–	–	(110)
Interest on plan liabilities	89	7	96	–	3	99
Net finance (income)/expense	(15)	1	(14)	–	3	(11)
Net income statement charge	(1)	3	2	67	1	70

The amounts recognised in the balance sheet are as follows:

All figures in £ millions	UK Group plan	Other funded plans	Other unfunded plans	Total	UK Group plan	Other funded plans	Other unfunded plans	Total
				2017				2016
Fair value of plan assets	3,337	155	–	3,492	3,339	158	–	3,497
Present value of defined benefit obligation	(2,792)	(161)	(20)	(2,973)	(3,181)	(183)	(22)	(3,386)
Net pension asset/(liability)	545	(6)	(20)	519	158	(25)	(22)	111
Other post-retirement medical benefit obligation				(67)				(77)
Other pension accruals				(11)				(15)
Net retirement benefit asset				441				19
Analysed as:								
Retirement benefit assets				545				158
Retirement benefit obligations				(104)				(139)

Notes to the consolidated financial statements

25. Retirement benefit and other post-retirement obligations continued

Financial statement information continued

The following gains/(losses) have been recognised in other comprehensive income:

All figures in £ millions	2017	2016
Amounts recognised for defined benefit plans	175	(277)
Amounts recognised for post-retirement medical benefit plans	–	9
Total recognised in year	175	(268)

The fair value of plan assets comprises the following:

	2017			2016		
All figures in %	UK Group plan	Other funded plans	Total	UK Group plan	Other funded plans	Total
Insurance	29	–	29	–	–	–
Equities	1	1	2	2	1	3
Bonds	–	3	3	9	1	10
Property	8	–	8	8	–	8
Pooled asset investment funds	44	–	44	67	–	67
Other	14	–	14	12	–	12

The plan assets do not include any of the Group's own financial instruments, or any property occupied by the Group. The table below further disaggregates the UK Group plan assets into additional categories and those assets which have a quoted market price in an active market and those that do not:

	2017		2016	
All figures in %	Quoted market price	No quoted market price	Quoted market price	No quoted market price
Insurance	29	–	–	–
Non-UK equities	–	2	–	3
Fixed-interest securities	3	–	10	–
Property	–	8	–	8
Pooled asset investment funds	44	–	67	–
Other	–	14	–	12
Total	76	24	77	23

The liquidity profile of the UK Group plan assets is as follows:

All figures in %	2017	2016
Liquid – call <1 month	50	75
Less liquid – call 1–3 months	–	–
Illiquid – call >3 months	50	25

Notes to the consolidated financial statements

25. Retirement benefit and other post-retirement obligations continued

Financial statement information continued

Changes in the values of plan assets and liabilities of the retirement benefit plans are as follows:

	2017			2016		
All figures in £ millions	UK Group plan	Other plans	Total	UK Group plan	Other plans	Total
Fair value of plan assets						
Opening fair value of plan assets	**3,339**	**158**	**3,497**	2,803	135	2,938
Exchange differences	**–**	**(8)**	**(8)**	–	24	24
Interest on plan assets	**84**	**5**	**89**	104	6	110
Return on plan assets excluding interest	**(140)**	**10**	**(130)**	445	8	453
Contributions by employer	**234**	**8**	**242**	99	2	101
Benefits paid	**(188)**	**(18)**	**(206)**	(112)	(17)	(129)
Other	**8**	**–**	**8**	–	–	–
Closing fair value of plan assets	**3,337**	**155**	**3,492**	3,339	158	3,497
Present value of defined benefit obligation						
Opening defined benefit obligation	**(3,181)**	**(205)**	**(3,386)**	(2,466)	(175)	(2,641)
Exchange differences	**–**	**13**	**13**	–	(32)	(32)
Current service cost	**(8)**	**(1)**	**(9)**	(8)	(2)	(10)
Administration expenses	**(9)**	**(1)**	**(10)**	(6)	–	(6)
Interest on plan liabilities	**(77)**	**(7)**	**(84)**	(89)	(7)	(96)
Actuarial gains/(losses) – experience	**126**	**6**	**132**	12	–	12
Actuarial gains/(losses) – demographic	**133**	**1**	**134**	(47)	2	(45)
Actuarial gains/(losses) – financial	**44**	**(5)**	**39**	(689)	(8)	(697)
Contributions by employee	**–**	**–**	**–**	–	–	–
Other	**(8)**	**–**	**(8)**	–	–	–
Benefits paid	**188**	**18**	**206**	112	17	129
Closing defined benefit obligation	**(2,792)**	**(181)**	**(2,973)**	(3,181)	(205)	(3,386)

The weighted average duration of the defined benefit obligation is 16.9 years for the UK and 8.1 years for the US.

Notes to the consolidated financial statements

25. Retirement benefit and other post-retirement obligations continued

Financial statement information continued

Changes in the value of the US PRMB are as follows:

All figures in £ millions	2017	2016
Opening defined benefit obligation	**(77)**	(76)
Exchange differences	**5**	(14)
Current service cost	**1**	–
Curtailments	**–**	2
Interest on plan liabilities	**(2)**	(3)
Actuarial gains/(losses) – experience	**1**	8
Actuarial gains/(losses) – demographic	**1**	2
Actuarial gains/(losses) – financial	**(2)**	(1)
Benefits paid	**6**	5
Closing defined benefit obligation	**(67)**	(77)

Funding

The UK Group plan is self-administered with the plan's assets being held independently of the Group in trust. The trustee of the plan is required to act in the best interest of the plan's beneficiaries. The most recent triennial actuarial valuation for funding purposes was completed as at 1 January 2015 and this valuation revealed a technical provisions funding shortfall of £27m which was eliminated by contributions paid during 2015.

As a consequence of the disposal of the FT Group, an agreement has been made between Pearson and the plan trustee to accelerate the funding of the plan. As a result, the plan is expected to be fully funded on a 'self-sufficiency' basis by 2019, inclusive of £202m paid in 2017 in relation to the Penguin Random House merger in 2013. This is a much higher level of funding than technical provisions. As a result, the plan expects to be able to provide benefits (in accordance with the plan rules) with a very low level of reliance on future funding from Pearson. A commitment has also been made to maintain that level of funding in future years.

Assets of the plan are divided into two elements: matching assets, which are assets that produce cash flows that can be expected to match the cash flows for a proportion of the membership, and include a liability-driven investment mandate (UK bonds, interest rate/inflation swaps and other derivative instruments), inflation-linked property and infrastructure; and return seeking assets, which are assets invested with a longer-term horizon to generate the returns needed to provide the remaining expected cash flows for the beneficiaries, and include diversified growth funds, property and alternative asset classes. The plan's long-term investment strategy allocates 85% to matching assets and 15% to return seeking assets.

In October 2017, the UK Group plan purchased pensioner buy-in policies with both Aviva and Legal & General totalling £1.2bn. The buy-ins cover around a third of its total liabilities and are split equally between the two insurers. The buy-ins transfer significant longevity risk to Aviva and Legal & General, reducing the pension risks being underwritten by the Group and providing additional security for members.

Regular contributions to the plan in respect of the defined benefit sections are estimated to be £6m for 2018.

Sensitivities

The effect of a one percentage point increase and decrease in the discount rate on the defined benefit obligation and the total pension expense is as follows:

		2017
All figures in £ millions	1% increase	1% decrease
Effect:		
(Decrease)/increase in defined benefit obligation – UK Group plan	**(423)**	**575**
(Decrease)/increase in defined benefit obligation – US plan	**(14)**	**16**

Notes to the consolidated financial statements

25. Retirement benefit and other post-retirement obligations continued

Sensitivities continued

The effect of members living one year more or one year less on the defined benefit obligation is as follows:

All figures in £ millions	2017 One year increase	2017 One year decrease
Effect:		
Increase/(decrease) in defined benefit obligation – UK Group plan	145	(152)
Increase/(decrease) in defined benefit obligation – US plan	8	(9)

The effect of a half percentage point increase and decrease in the inflation rate is as follows:

All figures in £ millions	2017 0.5% increase	2017 0.5% decrease
Effect:		
Increase/(decrease) in defined benefit obligation – UK Group plan	144	(132)
Increase/(decrease) in defined benefit obligation – US plan	–	–

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant, although in practice this is unlikely to occur and changes in some assumptions may be correlated. When calculating these sensitivities, the same method has been applied to calculate the defined benefit obligation as has been applied when calculating the liability recognised in the balance sheet. This methodology is the same as prior periods.

26. Share-based payments

The Group recognised the following charges in the income statement in respect of its equity-settled share-based payment plans:

All figures in £ millions	2017	2016
Pearson plans	33	22

The Group operates the following equity-settled employee option and share plans:

Worldwide Save for Shares Plan Since 1994, the Group has operated a Save-As-You-Earn plan for UK employees. In 1998, the Group introduced a Worldwide Save for Shares Plan. Under these plans, employees can save a portion of their monthly salary over periods of three or five years. At the end of this period, the employee has the option to purchase ordinary shares with the accumulated funds at a purchase price equal to 80% of the market price prevailing at the time of the commencement of the employee's participation in the plan. Options that are not exercised within six months of the end of the savings period lapse unconditionally.

Employee Stock Purchase Plan In 2000, the Group established an Employee Stock Purchase Plan which allows all employees in the US to save a portion of their monthly salary over six-month periods. At the end of the period, the employee has the option to purchase American Depository Receipts (ADRs) with their accumulated funds at a purchase price equal to 85% of the lower of the market prices prevailing at the beginning or end of the period.

Long-Term Incentive Plan The plan was first introduced in 2001 and consists of restricted shares. The vesting of restricted shares is normally dependent on continuing service over a three to five-year period, and in the case of Executive Directors and senior management upon the satisfaction of corporate performance targets over a three-year period. These targets may be based on market and/or non-market performance criteria. Restricted shares awarded to Executive Directors in September 2017, and to Executive Directors and senior management in May 2016, vest dependent on relative total shareholder return, return on invested capital and earnings per share growth. Restricted shares awarded to senior management in March 2016 and March 2017 vest dependent on earnings per share growth. Other restricted shares awarded in 2016 and 2017 vest depending on continuing service over a three-year period.

Management Incentive Plan The plan was introduced in 2017 combining the Group's Annual Incentive Plan and Long-Term Incentive Plan for senior management. The number of shares to be granted to participants is dependent on Group performance in the calendar year preceding the date of grant (on the same basis as the Annual Incentive Plan). Subsequently, the shares vest dependent on continuing service over a three-year period, and additionally in the case of Pearson Executive Management upon satisfaction of non market-based performance criteria as determined by the Remuneration Committee. Restricted shares awarded as part of the 2017 Management Incentive Plan will be granted in April 2018.

Notes to the consolidated financial statements

26. Share-based payments continued

The number and weighted average exercise prices of share options granted under the Group's plans are as follows:

	2017		2016	
	Number of share options 000s	Weighted average exercise price £	Number of share options 000s	Weighted average exercise price £
Outstanding at beginning of year	**2,978**	**8.14**	3,250	9.24
Granted during the year	**1,619**	**5.50**	1,544	6.94
Exercised during the year	**(9)**	**7.00**	(49)	7.07
Forfeited during the year	**(1,451)**	**8.04**	(1,695)	9.14
Expired during the year	**(156)**	**9.09**	(72)	8.95
Outstanding at end of year	**2,981**	**6.84**	2,978	8.14
Options exercisable at end of year	**350**	**8.18**	247	9.06

Options were exercised regularly throughout the year. The weighted average share price during the year was £6.71 (2016: £8.23). Early exercises arising from redundancy, retirement or death are treated as an acceleration of vesting and the Group therefore recognises in the income statement the amount that otherwise would have been recognised for services received over the remainder of the original vesting period.

The options outstanding at the end of the year have weighted average remaining contractual lives and exercise prices as follows:

	2017		2016	
Range of exercise prices £	Number of share options 000s	Weighted average contractual life Years	Number of share options 000s	Weighted average contractual life Years
0–5	**–**	**–**	–	–
5–10	**2,697**	**2.52**	2,548	2.31
>10	**284**	**1.24**	430	2.25
	2,981	**2.40**	2,978	2.31

In 2017 and 2016, options were granted under the Worldwide Save for Shares Plan. The weighted average estimated fair value for the options granted was calculated using a Black–Scholes option pricing model.

The weighted average estimated fair values and the inputs into the Black–Scholes model are as follows:

	2017 Weighted average	2016 Weighted average
Fair value	**£1.24**	£1.01
Weighted average share price	**£6.83**	£7.85
Weighted average exercise price	**£5.50**	£6.94
Expected volatility	**34.75%**	27.38%
Expected life	**3.7 years**	3.7 years
Risk-free rate	**0.20%**	0.58%
Expected dividend yield	**7.61%**	7.49%
Forfeiture rate	**3.2%**	3.2%

The expected volatility is based on the historical volatility of the company's share price over the previous three to seven years depending on the vesting term of the options.

The following shares were granted under restricted share arrangements:

	2017		2016	
	Number of shares 000s	Weighted average fair value £	Number of shares 000s	Weighted average fair value £
Long-Term Incentive Plan	**6,453**	**6.61**	6,833	8.24

Notes to the consolidated financial statements

26. Share-based payments continued

The fair value of shares granted under the Long-Term Incentive Plan that vest unconditionally is determined using the share price at the date of grant. The number of shares expected to vest is adjusted, based on historical experience, to account for potential forfeitures. Participants under the plan are entitled to dividends during the vesting period and therefore the share price is not discounted.

Restricted shares with a market performance condition were valued by an independent actuary using a Monte Carlo model. Restricted shares with a non-market performance condition were fair valued based on the share price at the date of grant. Non-market performance conditions are taken into consideration by adjusting the number of shares expected to vest based on the most likely outcome of the relevant performance criteria.

27. Share capital and share premium

	Number of shares 000s	Share capital £m	Share premium £m
At 1 January 2016	821,068	205	2,590
Issue of ordinary shares – share option schemes	1,059	–	7
At 31 December 2016	822,127	205	2,597
Issue of ordinary shares – share option schemes	**923**	**–**	**5**
Purchase of own shares	**(20,996)**	**(5)**	**–**
At 31 December 2017	**802,054**	**200**	**2,602**

The ordinary shares have a par value of 25p per share (2016: 25p per share). All issued shares are fully paid. All shares have the same rights.

The £300m share buyback programme announced in October 2017 was completed on 16 February 2018. In 2017, the Group's brokers purchased 21m shares at a value of £153m of which £149m had been cancelled at 31 December 2017. Cash payments of £149m had been made in respect of the purchases with the outstanding £4m settlement made at the beginning of January 2018. This £4m together with the remaining value of the buyback programme of £147m was recorded as a liability at 31 December 2017 (see note 24). A further 22m shares were purchased under the programme in 2018 (see note 37). The shares bought back are being cancelled and the nominal value of these shares is transferred to a capital redemption reserve. The nominal value of shares cancelled at 31 December 2017 was £5m.

The Group manages its capital to ensure that entities in the Group will be able to continue as a going concern while maximising the return to shareholders through the optimisation of the debt and equity balance.

The capital structure of the Group consists of debt (see note 18), cash and cash equivalents (see note 17) and equity attributable to equity holders of the parent, comprising issued capital, reserves and retained earnings.

The Group reviews its capital structure on a regular basis and will balance its overall capital structure through payments of dividends, new share issues as well as the issue of new debt or the redemption of existing debt in line with the financial risk policies outlined in note 19.

28. Treasury shares

	Pearson plc	
	Number of shares 000s	£m
At 1 January 2016	6,705	72
Purchase of treasury shares	3,000	27
Release of treasury shares	(1,986)	(20)
At 31 December 2016	7,719	79
Purchase of treasury shares	**–**	**–**
Release of treasury shares	**(1,725)**	**(18)**
At 31 December 2017	**5,994**	**61**

The Group holds Pearson plc shares in trust to satisfy its obligations under its restricted share plans (see note 26). These shares, representing 0.8% (2016: 0.9%) of called-up share capital, are treated as treasury shares for accounting purposes and have a par value of 25p per share.

The nominal value of Pearson plc treasury shares amounts to £1.5m (2016: £1.9m). Dividends on treasury shares are waived.

At 31 December 2017, the market value of Pearson plc treasury shares was £44m (2016: £63m).

Notes to the consolidated financial statements

29. Other comprehensive income

						2017
	Attributable to equity holders of the company					
All figures in £ millions	Fair value reserve	Translation reserve	Retained earnings	Total	Non-controlling interest	Total
Items that may be reclassified to the income statement						
Net exchange differences on translation of foreign operations – Group	–	(158)	–	(158)	–	(158)
Net exchange differences on translation of foreign operations – associates	–	(104)	–	(104)	–	(104)
Currency translation adjustment disposed	–	(51)	–	(51)	–	(51)
Attributable tax	–	–	9	9	–	9
Fair value gain on other financial assets	13	–	–	13	–	13
Attributable tax	–	–	(4)	(4)	–	(4)
Items that are not reclassified to the income statement						
Remeasurement of retirement benefit obligations – Group	–	–	175	175	–	175
Remeasurement of retirement benefit obligations – associates	–	–	7	7	–	7
Attributable tax	–	–	(42)	(42)	–	(42)
Other comprehensive income/(expense) for the year	13	(313)	145	(155)	–	(155)

						2016
	Attributable to equity holders of the company					
All figures in £ millions	Fair value reserve	Translation reserve	Retained earnings	Total	Non-controlling interest	Total
Items that may be reclassified to the income statement						
Net exchange differences on translation of foreign operations – Group	–	909	–	909	1	910
Net exchange differences on translation of foreign operations – associates	–	3	–	3	–	3
Currency translation adjustment disposed	–	–	–	–	–	–
Attributable tax	–	–	(5)	(5)	–	(5)
Items that are not reclassified to the income statement						
Remeasurement of retirement benefit obligations – Group	–	–	(268)	(268)	–	(268)
Remeasurement of retirement benefit obligations – associates	–	–	(8)	(8)	–	(8)
Attributable tax	–	–	58	58	–	58
Other comprehensive income/(expense) for the year	–	912	(223)	689	1	690

Notes to the consolidated financial statements

30. Business combinations

There were no significant acquisitions in 2017 or 2016.

Fair values for the assets and liabilities arising from acquisitions completed in the year are as follows:

All figures in £ millions	Notes	2017 Total fair value	2016 Total fair value
Intangible assets	11	–	10
Net assets acquired at fair value		–	10
Goodwill	11	–	3
Total		–	13
Satisfied by:			
Cash		–	(7)
Other liabilities		–	(6)
Total consideration		–	(13)

Goodwill of £3m arising on 2016 acquisitions is expected to be deductible for tax purposes.

Intangible assets acquired in 2016 have the following useful economic lives: trademarks and brands 15 years, and other acquired intangibles six years.

All figures in £ millions	2017	2016
Cash flow on acquisitions		
Cash – current year acquisitions	–	(7)
Deferred payments for prior year acquisitions and other items	(11)	(7)
Acquisition costs and other acquisition liabilities paid	–	(1)
Net cash outflow	(11)	(15)

31. Disposals including business closures

In August 2017, the Group completed the sale of the test preparation business in China (GEDU) and in October 2017 the sale of a 22% share in Penguin Random House, retaining a 25% share (see note 12).

All figures in £ millions	Notes	2017 GEDU	Penguin Random House	Other	Total	2016 Total
Disposal of subsidiaries and associates						
Property, plant and equipment	10	(7)	–	–	(7)	(3)
Intangible assets	11	(2)	–	(7)	(9)	–
Investments in joint ventures and associates		–	(352)	–	(352)	–
Net deferred income tax assets	13	(1)	(2)	–	(3)	(10)
Intangible assets – pre-publication	20	–	–	(1)	(1)	(4)
Inventories		(1)	–	(1)	(2)	–
Trade and other receivables		(16)	–	–	(16)	(6)
Current income tax receivable		–	(5)	–	(5)	–
Cash and cash equivalents (excluding overdrafts)		(13)	–	–	(13)	(9)
Trade and other liabilities		33	–	1	34	21
Cumulative currency translation adjustment	29	3	48	–	51	–
Net assets disposed		(4)	(311)	(8)	(323)	(11)
Cash received		54	413	1	468	7
Costs		(6)	(6)	(5)	(17)	(16)
Gain/(loss) on disposal		44	96	(12)	128	(20)

Notes to the consolidated financial statements

31. Disposals including business closures continued

All figures in £ millions	2017	2016
Cash flow from disposals		
Cash – current year disposals	468	11
Cash and cash equivalents disposed	(13)	(9)
Costs and other disposal liabilities paid	(25)	(52)
Net cash inflow/(outflow)	430	(50)
Analysed as:		
Cash inflow/(outflow) from sale of subsidiaries	19	(54)
Cash inflow from sale of associates	411	4

32. Held for sale

The assets and liabilities related to Wall Street English language teaching businesses (WSE), part of the Core and Growth segments, and the K-12 school courseware business (K-12), part of the North America segment, have been presented as held for sale following the approval by the Group's management to sell both businesses.

				2017	2016
	Notes	WSE	K-12	Total	Total
Non-current assets					
Property, plant and equipment	10	16	–	16	–
Intangible assets	11	15	166	181	–
Deferred income tax assets		–	68	68	–
Trade and other receivables		4	23	27	–
		35	257	292	–
Current assets					
Intangible assets – pre-publication	20	8	239	247	–
Inventories		–	46	46	–
Trade and other receivables		12	36	48	–
Cash and cash equivalents (excluding overdrafts)	17	127	–	127	–
		147	321	468	–
Assets classified as held for sale		182	578	760	–
Non-current liabilities					
Deferred income tax liabilities		(2)	–	(2)	–
Other liabilities		(10)	(274)	(284)	–
		(12)	(274)	(286)	–
Current liabilities					
Trade and other liabilities		(152)	(150)	(302)	–
		(152)	(150)	(302)	–
Liabilities classified as held for sale		(164)	(424)	(588)	–
Net assets classified as held for sale		18	154	172	–

Notes to the consolidated financial statements

33. Cash generated from operations

All figures in £ millions	Notes	2017	2016
Profit/(loss)		**408**	(2,335)
Adjustments for:			
Income tax		**13**	(222)
Depreciation	10	**90**	95
Amortisation and impairment of acquired intangibles and goodwill	11	**138**	2,733
Amortisation of software	11	**85**	84
Net finance costs	6	**30**	60
Share of results of joint ventures and associates	12	**(78)**	(97)
Profit on disposal of subsidiaries, associates, investments and fixed assets		**(116)**	40
Net foreign exchange adjustment from transactions		**(26)**	43
Share-based payment costs	26	**33**	22
Pre-publication		**(35)**	(19)
Inventories		**24**	17
Trade and other receivables		**133**	156
Trade and other liabilities		**6**	61
Retirement benefit obligations		**(232)**	(106)
Provisions for other liabilities and charges		**(11)**	(10)
Net cash generated from operations		**462**	522
Dividends from joint ventures and associates		**458**	131
Re-capitalisation dividends from Penguin Random House		**(312)**	–
Purchase of property, plant and equipment		**(82)**	(88)
Purchase of intangible software assets		**(150)**	(157)
Proceeds from sale of property, plant and equipment and intangible software assets		**–**	4
Finance lease principal payments		**(5)**	(6)
Special pension contribution		**227**	90
Cost of major restructuring paid		**71**	167
Operating cash flow		**669**	663
Operating tax paid		**(75)**	(63)
Net operating finance costs paid		**(69)**	(51)
Operating free cash flow		**525**	549
Special pension contribution		**(227)**	(90)
Cost of major restructuring paid		**(71)**	(167)
Non-operating tax received		**–**	18
Free cash flow		**227**	310
Dividends paid (including to non-controlling interests)		**(318)**	(424)
Net movement of funds from operations		**(91)**	(114)
Acquisitions and disposals		**416**	19
Re-capitalisation dividends from Penguin Random House		**312**	–
Loans (advanced)/repaid (including to related parties)		**(13)**	14
Purchase of treasury shares	28	**–**	(27)
New equity		**5**	7
Buyback of equity	27	**(149)**	–
Other movements on financial instruments		**14**	4
Net movement of funds		**494**	(97)
Exchange movements on net debt		**166**	(341)
Total movement in net debt		**660**	(438)

Notes to the consolidated financial statements

33. Cash generated from operations continued

Net cash generated from operations is translated at an exchange rate approximating the rate at the date of cash flow. The difference between this rate and the average rate used to translate profit gives rise to a currency adjustment in the reconciliation between net profit and net cash generated from operations. This adjustment reflects the timing difference between recognition of profit and the related cash receipts or payments.

Operating cash flow, operating free cash flow and total free cash flow are non-GAAP (non-statutory) measures and have been disclosed and reconciled in the above table as they are commonly used by investors to measure the cash performance of the Group.

In the cash flow statement, proceeds from sale of property, plant and equipment comprise:

All figures in £ millions	2017	2016
Net book amount	**12**	9
Loss on sale of property, plant and equipment	**(12)**	(5)
Proceeds from sale of property, plant and equipment	**–**	4

The movements in the Group's current and non-current borrowings are as follows:

	2016	Financing cash flows	Foreign exchange movements	Fair value and other movements	2017
Financial liabilities					
Non-current borrowings	2,517	(1,292)	(149)	(10)	**1,066**
Current borrowings	9	(7)	(1)	3	**4**
Total	2,526	(1,299)	(150)	(7)	**1,070**

Non-current borrowings include bonds, derivative financial instruments and finance leases. Current borrowings include loans repayable within one year and finance leases, but exclude overdrafts classified within cash and cash equivalents.

34. Contingencies

There are contingent Group liabilities that arise in the normal course of business in respect of indemnities, warranties and guarantees in relation to former subsidiaries and in respect of guarantees in relation to subsidiaries, joint ventures and associates. In addition, there are contingent liabilities of the Group in respect of legal claims, contract disputes, royalties, copyright fees, permissions and other rights. None of these claims are expected to result in a material gain or loss to the Group.

On 24 November 2017, the European Commission published an opening decision that the United Kingdom controlled foreign company group financing partial exemption (FCPE) constitutes State Aid. No final decision has yet been published, and it may be challenged by the UK tax authorities. The Group has benefited from FCPE in 2017 and prior periods in total by approximately £90m. At present the Group believes no provision is required in respect of this issue.

Notes to the consolidated financial statements

35. Commitments

At the balance sheet date there were no commitments for capital expenditure contracted for but not yet incurred.

The Group leases various offices and warehouses under non-cancellable operating lease agreements. The leases have varying terms and renewal rights. The Group also leases various plant and equipment under operating lease agreements, also with varying terms. Lease expenditure charged to the income statement was £178m (2016: £186m).

The future aggregate minimum lease payments in respect of operating leases are as follows:

All figures in £ millions	2017	2016
Not later than one year	**156**	174
Later than one year and not later than two years	**139**	147
Later than two years and not later than three years	**121**	129
Later than three years and not later than four years	**100**	115
Later than four years and not later than five years	**86**	96
Later than five years	**599**	661
	1,201	1,322

In the event that the Group has excess capacity in its leased offices and warehouses it will enter into sub-lease contracts in order to offset costs. The future aggregate minimum sub-lease payments expected to be received under non-cancellable sub-leases are as follows:

All figures in £ millions	2017	2016
Not later than one year	**45**	44
Later than one year and not later than two years	**45**	46
Later than two years and not later than three years	**40**	44
Later than three years and not later than four years	**35**	39
Later than four years and not later than five years	**33**	34
Later than five years	**138**	155
	336	362

36. Related party transactions

Joint ventures and associates

Amounts advanced to joint ventures and associates during the year and at the balance sheet date are set out in note 12.

Key management personnel

Key management personnel are deemed to be the members of the Pearson executive (see p11). It is this Committee which had responsibility for planning, directing and controlling the activities of the Group in 2017. Key management personnel compensation is disclosed below:

All figures in £millions	2017	2016
Short-term employee benefits	**12**	6
Retirement benefits	**1**	1
Share-based payment costs	**2**	1
Total	**15**	8

There were no other material related party transactions. No guarantees have been provided to related parties.

Notes to the consolidated financial statements

37. Events after the balance sheet date

During January 2018, the Group successfully executed market tenders to repurchase €250m of its €500m euro 1.875% notes due May 2021 and €200m of its €500m euro 1.375% notes due May 2025.

On 16 February, the Group completed its £300m share buyback programme. In aggregate between 18 October 2017 and 16 February 2018, the Group repurchased 42,835,577 shares, including 21,839,676 repurchased since 31 December 2017 at a cost of £151m.

38. Accounts and audit exemptions

The Pearson plc subsidiary companies listed below are exempt from the requirements of the Companies Act 2006 relating to the audit of individual accounts by virtue of section 479A.

	Company number
Aldwych Finance Limited	04720439
Edexcel Limited	04496750
Education Development International plc	03914767
Longman Group (Overseas Holdings) Limited	00690236
Major123 Limited	05333023
Pearson Affordable Learning Fund Limited	08038068
Pearson Australia Finance Unlimited	05578463
Pearson Books Limited	02512075
Pearson Brazil Finance Limited	08848874
Pearson Canada Finance Unlimited	05578491
Pearson Dollar Finance plc	05111013
Pearson Dollar Finance Two plc	06507766
Pearson Education Holdings Limited	00210859
Pearson Education Investments Limited	08444933
Pearson Education Limited	00872828
Pearson Funding Four plc	07970304

	Company number
Pearson International Finance Limited	02496206
Pearson Loan Finance No. 3 Limited	05052661
Pearson Loan Finance No. 4 Limited	02635107
Pearson Loan Finance Unlimited	05144467
Pearson Management Services Limited	00096263
Pearson Overseas Holdings Limited	00145205
Pearson Pension Nominees Limited	10809680
Pearson Pension Trustee Services Limited	10803853
Pearson PRH Holdings Limited	08561316
Pearson Real Estate Holdings Limited	09768242
Pearson Services Limited	01341060
Pearson Shared Services Limited	04623186
TQ Catalis Limited	07307943
TQ Clapham Limited	07307925
TQ Global Limited	07802458

Company balance sheet

As at 31 December 2017

All figures in £ millions	Notes	2017	2016
Assets			
Non-current assets			
Investments in subsidiaries	2	**6,691**	7,441
Amounts due from subsidiaries		**3,118**	133
Financial assets – derivative financial instruments	6	**140**	171
		9,949	7,745
Current assets			
Amounts due from subsidiaries		**209**	4,190
Amounts due from related parties		**46**	33
Cash and cash equivalents (excluding overdrafts)	4	**119**	867
		374	5,090
Total assets		**10,323**	12,835
Liabilities			
Non-current liabilities			
Amounts due to subsidiaries		**(3,530)**	(3,253)
Financial liabilities – borrowings	5	**–**	(254)
Financial liabilities – derivative financial instruments	6	**(140)**	(264)
		(3,670)	(3,771)
Current liabilities			
Amounts due to subsidiaries		**(1,739)**	(3,470)
Financial liabilities – borrowings	5	**(3)**	(13)
Current income tax liabilities		**(4)**	(52)
Other liabilities		**(158)**	(4)
		(1,904)	(3,539)
Total liabilities		**(5,574)**	(7,310)
Net assets		**4,749**	5,525
Equity			
Share capital	7	**200**	205
Share premium	7	**2,602**	2,597
Treasury shares	8	**(16)**	(34)
Capital redemption reserve		**5**	–
Special reserve		**447**	447
Retained earnings – including loss for the year of £163m (2016: loss of £1,288m)		**1,511**	2,310
Total equity attributable to equity holders of the company		**4,749**	5,525

These financial statements have been approved for issue by the Board of Directors on 14 March 2018 and signed on its behalf by

Coram Williams
Chief Financial Officer

Company statement of changes in equity

Year ended 31 December 2017

	Equity attributable to equity holders of the company						
All figures in £ millions	**Share capital**	**Share premium**	**Treasury shares**	**Capital redemption reserve**	**Special reserve**	**Retained earnings**	**Total**
At 1 January 2017	**205**	**2,597**	**(34)**	**–**	**447**	**2,310**	**5,525**
Loss for the year	**–**	**–**	**–**	**–**	**–**	**(163)**	**(163)**
Issue of ordinary shares under share option schemes*	**–**	**5**	**–**	**–**	**–**	**–**	**5**
Buyback of equity	**(5)**	**–**	**–**	**5**	**–**	**(300)**	**(300)**
Purchase of treasury shares	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Release of treasury shares	**–**	**–**	**18**	**–**	**–**	**(18)**	**–**
Dividends	**–**	**–**	**–**	**–**	**–**	**(318)**	**(318)**
At 31 December 2017	**200**	**2,602**	**(16)**	**5**	**447**	**1,511**	**4,749**

	Equity attributable to equity holders of the company						
All figures in £ millions	**Share capital**	**Share premium**	**Treasury shares**	**Capital redemption reserve**	**Special reserve**	**Retained earnings**	**Total**
At 1 January 2016	205	2,590	(27)	–	447	4,042	7,257
Loss for the year	–	–	–	–	–	(1,288)	(1,288)
Issue of ordinary shares under share option schemes*	–	7	–	–	–	–	7
Purchase of treasury shares	–	–	(27)	–	–	–	(27)
Release of treasury shares	–	–	20	–	–	(20)	–
Dividends	–	–	–	–	–	(424)	(424)
At 31 December 2016	205	2,597	(34)	–	447	2,310	5,525

The capital redemption reserve reflects the nominal value of shares cancelled in the Group's share buyback programme. The special reserve represents the cumulative effect of cancellation of the company's share premium account.

Included within retained earnings is an amount of £162m (2016: £162m) relating to profit on intra-Group disposals that is not distributable.

* Full details of the share-based payment plans are disclosed in note 26 to the consolidated financial statements.

Company cash flow statement

As at 31 December 2017

All figures in £ millions	Notes	2017	2016
Cash flows from operating activities			
Net loss		**(163)**	(1,288)
Adjustments for:			
Income tax		**70**	(80)
Net finance costs		**26**	7
Disposals, liquidations and impairment charges		**790**	1,337
Amounts due (to)/from subsidiaries		**(748)**	748
Net cash (used in)/generated from operations		**(25)**	724
Interest paid		**(21)**	(15)
Tax received		**9**	24
Net cash (used in)/generated from operating activities		**(37)**	733
Cash flows from investing activities			
Loans (advanced to)/repaid by related parties		**(13)**	14
Interest received		**7**	11
Net cash (used in)/received from investing activities		**(6)**	25
Cash flows from financing activities			
Proceeds from issue of ordinary shares	7	**5**	7
Buyback of equity		**(149)**	–
Net purchase of treasury shares		**–**	(27)
Repayment of borrowings		**(243)**	(30)
Dividends paid to company's shareholders		**(318)**	(424)
Net cash used in financing activities		**(705)**	(474)
Effects of exchange rate changes on cash and cash equivalents		**10**	(18)
Net (decrease)/increase in cash and cash equivalents		**(738)**	266
Cash and cash equivalents at beginning of year		**854**	588
Cash and cash equivalents at end of year	4	**116**	854

Notes to the company financial statements

1. Accounting policies

The financial statements on p178-189 comprise the separate financial statements of Pearson plc.

As permitted by section 408 of the Companies Act 2006, only the consolidated income statement and statement of comprehensive income have been presented.

The company has no employees.

The accounting policies applied in the preparation of these company financial statements are the same as those set out in note 1 to the consolidated financial statements with the addition of the following:

Investments

Investments in subsidiaries are stated at cost less provision for impairment, with the exception of certain hedged investments that are held in a foreign currency and revalued at each balance sheet date.

2. Investments in subsidiaries

All figures in £ millions	2017	2016
At beginning of year	**7,441**	7,744
Subscription for share capital in subsidiaries	**164**	800
Disposals/liquidations	**(430)**	–
Impairments	**(360)**	(1,337)
Currency revaluations	**(124)**	234
At end of year	**6,691**	7,441

In 2017, impairments, disposals and liquidations relate to restructuring of intermediate holding companies. Impairments are largely offset by dividends received. In 2016, impairments relate to the carrying value of intermediate holding company investments following impairment reviews and the subsequent impairment of assets in the Pearson plc Group (see note 11 in the Group consolidated financial statements for further details).

3. Financial risk management

The company's financial instruments comprise amounts due to/from subsidiary undertakings, cash and cash equivalents, derivative financial instruments, a liability to purchase own shares (included within other liabilities) and current and non-current borrowings. Derivative financial instruments are held at fair value, with all other financial instruments held at amortised cost, which approximates fair value. The company's approach to the management of financial risks is consistent with the Group's treasury policy, as discussed in note 19 to the consolidated financial statements. The company believes the value of its financial assets to be fully recoverable.

The company designates certain qualifying derivative financial instruments as hedges of the fair value of its bonds (fair value hedges). Changes in the fair value of these derivative financial instruments are recorded in the income statement, together with any change in the fair value of the hedged liability attributable to the hedged risk.

The carrying value of the company's financial instruments is exposed to movements in interest rates and foreign currency exchange rates (primarily US dollars). The company estimates that a 1% increase in interest rates would result in an £26m decrease in the carrying value of its financial instruments, with a 1% decrease in interest rates resulting in a £26m increase in their carrying value. The company also estimates that a 10% strengthening in sterling would decrease the carrying value of its financial instruments by £140m, while a 10% weakening in the value of sterling would increase the carrying value by £183m. These increases and decreases in carrying value would be recorded through the income statement. Sensitivities are calculated using estimation techniques such as discounted cash flow and option valuation models. Where modelling an interest rate decrease of 1% led to negative interest rates, these points on the yield curve were adjusted to 0%.

Notes to the company financial statements

3. Financial risk management continued

The following table analyses the company's bonds and derivative assets and liabilities into relevant maturity groupings based on the remaining period at the balance sheet date to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows (including interest) and as such may differ from the amounts disclosed on the balance sheet.

	Analysed by maturity				Analysed by currency			
All figures in £ millions	Less than one year	Later than one year but less than five years	Five years or more	Total	USD	GBP	Other	Total
At 31 December 2017								
Bonds	–	–	–	–	–	–	–	–
Rate derivatives – inflows	(38)	(975)	(684)	(1,697)	(53)	(751)	(893)	(1,697)
Rate derivatives – outflows	48	1,060	667	1,775	1,003	751	21	1,775
Total	10	85	(17)	78	950	–	(872)	78
At 31 December 2016								
Bonds	12	249	–	261	261	–	–	261
Rate derivatives – inflows	(103)	(1,086)	(867)	(2,056)	(239)	(838)	(979)	(2,056)
Rate derivatives – outflows	82	1,202	891	2,175	1,308	838	29	2,175
Total	(9)	365	24	380	1,330	–	(950)	380

All cash flow projections shown above are on an undiscounted basis. Any cash flows based on a floating rate are calculated using interest rates as set at the date of the last rate reset. Where this is not possible, floating rates are based on interest rates prevailing at 31 December in the relevant year. All derivative amounts are shown gross, although the company net settles these amounts wherever possible.

Any amounts drawn under revolving credit facilities and commercial paper are assumed to mature at the maturity date of the relevant facility, with interest calculated as payable in each calendar year up to and including the date of maturity of the facility.

4. Cash and cash equivalents (excluding overdrafts)

All figures in £ millions	2017	2016
Cash at bank and in hand	2	4
Short-term bank deposits	117	863
	119	867

Short-term bank deposits are invested with banks and earn interest at the prevailing short-term deposit rates.

At the end of 2017, the currency split of cash and cash equivalents was US dollar 82% (2016: 38%), sterling 17% (2016: 62%) and other 1% (2016: 0%).

Cash and cash equivalents have fair values that approximate their carrying amounts due to their short-term nature.

Cash and cash equivalents include the following for the purpose of the cash flow statement:

All figures in £ millions	2017	2016
Cash and cash equivalents	119	867
Bank overdrafts	(3)	(13)
	116	854

Notes to the company financial statements

5. Financial liabilities – borrowings

All figures in £ millions	2017	2016
Non-current		
4.625% US dollar notes 2018 (nominal amount $300m)	–	254
	–	254
Current		
Due within one year or on demand:		
Bank loans and overdrafts	3	13
	3	13
Total borrowings	3	267

Movements in non-current borrowings during the year (including derivative financial instruments) comprise financing cash outflows of £243m, exchange gains of £124m and fair value and other movements of £(20)m. Current borrowings in both years are classified within cash and cash equivalents and do not give rise to financing cash flows.

The maturity of the company's non-current borrowings is as follows:

All figures in £ millions	2017	2016
Between one and two years	–	254
Between two and five years	–	–
Over five years	–	–
	–	254

The carrying amounts and market values of borrowings are as follows:

	2017			2016		
All figures in £ millions	Effective interest rate	Carrying amount	Market value	Effective interest rate	Carrying amount	Market value
Bank loans and overdrafts	n/a	3	3	n/a	13	13
4.625% US dollar notes 2018	n/a	–	–	4.69%	254	250
		3	3		267	263

The market values are based on clean market prices at the year end or, where these are not available, on the quoted market prices of comparable debt issued by other companies. The effective interest rates above relate to the underlying debt instruments.

The carrying amounts of the company's borrowings are denominated in the following currencies:

All figures in £ millions	2017	2016
US dollar	–	254
Sterling	3	8
Euro	–	5
	3	267

Notes to the company financial statements

6. Derivative financial instruments

The company's outstanding derivative financial instruments are as follows:

	2017			2016		
All figures in £ millions	Gross notional amounts	Assets	Liabilities	Gross notional amounts	Assets	Liabilities
Interest rate derivatives – in a fair value hedge relationship	–	–	–	244	10	–
Interest rate derivatives – not in a hedge relationship	1,228	26	–	3,100	61	(11)
Cross-currency derivatives	1,389	114	(140)	1,622	100	(253)
Total	2,617	140	(140)	4,966	171	(264)
Analysed as expiring:						
In less than one year	–	–	–	162	–	–
Later than one year and not later than five years	1,545	64	(97)	2,776	86	(157)
Later than five years	1,072	76	(43)	2,028	85	(107)
Total	2,617	140	(140)	4,966	171	(264)

The carrying value of the above derivative financial instruments equals their fair value. Fair values are determined by using market data and the use of established estimation techniques such as discounted cash flow and option valuation models.

7. Share capital and share premium

	Number of shares 000s	Share capital £m	Share premium £m
At 1 January 2016	821,068	205	2,590
Issue of ordinary shares – share option schemes	1,059	–	7
At 31 December 2016	822,127	205	2,597
Issue of ordinary shares – share option schemes	923	–	5
Purchase of own shares	(20,996)	(5)	–
At 31 December 2017	802,054	200	2,602

The ordinary shares have a par value of 25p per share (2016: 25p per share). All issued shares are fully paid. All shares have the same rights.

The £300m share buyback programme announced in October 2017 was completed on 16 February 2018. In 2017, the Group's brokers purchased 21m shares at a value of £153m of which £149m had been cancelled at 31 December 2017. Cash payments of £149m had been made in respect of the purchases with the outstanding £4m settlement made at the beginning of January 2018. This £4m together with the remaining value of the buyback programme of £147m was recorded as a liability at 31 December 2017. A further 22m shares were purchased under the programme in 2018. The shares bought back are being cancelled and the nominal value of these shares is transferred to a capital redemption reserve. The nominal value of shares cancelled at 31 December 2017 was £5m.

Notes to the company financial statements

8. Treasury shares

	Number of shares 000s	£m
At 1 January 2016	6,705	27
Purchase of treasury shares	3,000	27
Release of treasury shares	(1,986)	(20)
At 31 December 2016	7,719	34
Purchase of treasury shares	–	–
Release of treasury shares	**(1,725)**	**(18)**
At 31 December 2017	**5,994**	**16**

The company holds its own shares in trust to satisfy its obligations under its restricted share plans. These shares are treated as treasury shares for accounting purposes and have a par value of 25p per share. The nominal value of the company's treasury shares amounts to £1.5m (2016: £1.9m). At 31 December 2017, the market value of the company's treasury shares was £44m (2016: £63m). The gross book value of the shares at 31 December 2017 amounts to £61m. This value has been netted off with contributions received from operating companies of £45m, resulting in a net debit value of £16m.

9. Contingencies

There are contingent liabilities that arise in the normal course of business in respect of indemnities, warranties and guarantees in relation to former subsidiaries and in respect of guarantees in relation to subsidiaries. In addition, there are contingent liabilities in respect of legal claims. None of these claims are expected to result in a material gain or loss to the company.

10. Audit fees

Statutory audit fees relating to the company were £35,000 (2016: £35,000).

11. Related party transactions

Subsidiaries

The company transacts and has outstanding balances with its subsidiaries. Amounts due from subsidiaries and amounts due to subsidiaries are disclosed on the face of the company balance sheet.

These loans are generally unsecured and interest is calculated based on market rates. The company has interest payable to subsidiaries for the year of £122m (2016: £138m) and interest receivable from subsidiaries for the year of £111m (2016: £109m). Management fees payable to subsidiaries in respect of centrally provided services amounted to £42m (2016: £118m). Management fees receivable from subsidiaries in respect of centrally provided services amounted to £69m (2016: £76m). Dividends received from subsidiaries were £701m (2016: £87m).

Associates

Amounts due from related parties, disclosed on the face of the company balance sheet, relate to loans to Penguin Random House, an associate of the Group. These loans are unsecured and interest is calculated based on market rates. The amount outstanding at 31 December 2017 was £46m (2016: £33m). The loans are provided under a working capital facility and fluctuate during the year.

Key management personnel

Key management personnel are deemed to be the members of the Pearson executive.

It is this committee which had responsibility for planning, directing and controlling the activities of the company in 2017. Key management personnel compensation is disclosed in note 36 to the consolidated financial statements.

There were no other material related party transactions. No guarantees have been provided to related parties.

Notes to the company financial statements

12. Group companies

In accordance with section 409 of the Companies Act 2006 a full list of subsidiaries, partnerships, associates, joint ventures and joint arrangements, the country of incorporation, the registered address and the effective percentage of equity owned, as at 31 December 2017 is disclosed below. Unless otherwise stated, the shares are all indirectly held by Pearson plc. Unless otherwise stated, all wholly-owned and partly-owned subsidiaries are included in the consolidation and all associated undertakings are included in the Group's financial statements using the equity method of accounting. Principal Group companies are identified in **bold**.

Wholly-owned subsidiaries

Registered company name	Country of Incorp.	Reg office
A Plus Education Solutions Private Limited*	IN	2
Addison Wesley Longman, Inc.	US	3
Addison-Wesley Educational Publishers Inc.	US	4
AEL (S) PTE Limited	SG	5
Aldwych Finance Limited	UK	1
America's Choice, Inc.	US	4
ATI Professional Development LLC	US	4
Atkey Finance Limited	IE	7
Axis Finance Inc.	US	4
Beijing Wall Street English Training Centre Company Limited	CN	9
Blue Wharf Limited*	UK	6
Camsaw, Inc.	US	4
CAMSAWUSA, Inc.	US	11
Casapsi Livraria e Editora Ltda	BR	12
Centro Cultural Americano Franquias e Comércio Ltda.	BR	13
Century Consultants Ltd.	US	14
Certiport China Holding, LLC	US	4
Certiport, Inc.	US	4
Cogmed Systems AB	SE	15
Connections Academy of Alaska, LLC	US	16
Connections Academy of Arizona, LLC	US	17
Connections Academy of Arkansas, LLC	US	18
Connections Academy of DC, LLC	US	21
Connections Academy of Florida, LLC	US	22
Connections Academy of Georgia, LLC	US	23
Connections Academy of Indiana, LLC	US	25
Connections Academy of Iowa, LLC	US	26
Connections Academy of Kansas, LLC	US	27
Connections Academy of Kentucky, LLC	US	28
Connections Academy of Louisiana, LLC	US	29
Connections Academy of Maine, LLC	US	30
Connections Academy of Maryland, LLC	US	31
Connections Academy of Massachusetts LLC	US	3
Connections Academy of Minnesota, LLC	US	32
Connections Academy of Missouri, LLC	US	33
Connections Academy of Nevada, LLC	US	34
Connections Academy of New Jersey, LLC	US	14
Connections Academy of New Mexico, LLC	US	35
Connections Academy of New York, LLC	US	36
Connections Academy of North Carolina, LLC	US	37
Connections Academy of Oregon, LLC	US	40
Connections Academy of Pennsylvania LLC	US	41
Connections Academy of South Carolina, LLC	US	42
Connections Academy of Tennessee, LLC	US	43
Connections Academy of Texas, LLC	US	44
Connections Academy of Virginia, LLC	US	46
Connections Education LLC	US	4
Connections Education of Florida, LLC	US	22
Connections Education, Inc.	US	4
CTI Education Group (Pty) Limited	ZA	50
Dominie Press, Inc.	US	19
Dorian Finance Limited	IE	7
Dorling Kindersley Australasia Pty Limited	AU	51
EBNT Canada Holdings ULC	CA	127
EBNT Holdings Limited	CA	128
EBNT USA Holdings Inc.	US	4
eCollege.com	US	4
Edexcel Limited†	UK	52
Edexcel South Africa Pty Ltd*	ZA	50
Éditions Du Renouveau Pédagogique Inc.	CA	53
Education Development International Plc†	UK	1
Education Resources (Cyprus) Limited	CY	54
Educational Management Group, Inc.	US	55
Educational Resources (HK) Limited*	CN	56
Embanet ULC	CA	47
Embanet-Compass Knowledge Group Inc.	US	22
Embankment Finance Limited*	UK	6
English Language Learning and Instruction System, Inc.	US	57
Escape Studios Limited*	UK	6
Falstaff Holdco Inc.	US	4
Falstaff Inc.	US	58
FBH, Inc.	US	4
Franchise Support & Services, SL	ES	60
Gamma Master China, Limited	CN	61
Global Elite Education & Technology (Shanghai) Co. Limited	CN	63
Global George I Limited	KY	8
Global George II limited	CN	56
Global English India Private Limited	IN	2
Globe Fearon Inc.	US	19
Green Wharf Limited*	UK	6
Guangzhou Crescent Software Co., Ltd	CN	64
Heinemann Education Botswana (Publishers) (Proprietary) Limited	BW	65
Icodeon Limited*	UK	6
IndiaCan Education Private Limited	IN	2
Integral 7, Inc.	US	4
INTELLIPRO, INC.	US	14
J M Soluções Exportação e Importação Ltda	BR	67
Kagiso Education Pty Ltd*	ZA	50
Knowledge Analysis Technologies, LLC	US	20
LCCI International Qualifications (Malaysia) Sdn. Bhd.*	MY	68
LCCIEB Training Consultancy., Ltd	CN	69
LessonLab, Inc.	US	19
Lignum Oil Company	US	4
Linx Brasil Distribuidora Ltda.	BR	13
Longman (Malawi) Limited	MW	70
Longman Australasia Pty Ltd	AU	71
Longman Group(Overseas Holdings) Limited	UK	1
Longman Indochina Acquisition, L.L.C.	US	4
Longman Kenya Limited	KE	72
Longman Mocambique Ltda	MZ	45
Longman Swaziland (Pty) Limited	SZ	73
Longman Tanzania Limited*	TZ	74
Longman Zambia Educational Publishers Pty Ltd	ZM	75
Longman Zambia Limited	ZM	75
Longman Zimbabwe (Private) Ltd	ZW	76
Longmaned Ecuador S.A.	EC	77
Major123 Limited	UK	78
MeasureUp, LLC	US	4
Modern Curriculum Inc.	US	19
Multi Treinamento e Editora Ltda	BR	79
National Computer Systems Japan Co. Ltd	JP	80
NCS Information Services Technology (Beijing) Co Ltd	CN	81
NCS Pearson Pty Ltd	AU	51
NCS Pearson Puerto Rico, Inc.	PR	82
NCS Pearson, Inc.	US	32
Ordinate Corporation	US	19
Pearson (Beijing) Management Consulting Co., Ltd.	CN	83
Pearson (Guizhou) Education Technology Co., Ltd.	CN	84
Pearson Affordable Learning Fund Limited	UK	1
Pearson America LLC	US	4
Pearson Amsterdam B.V.	NL	85
Pearson Australia Finance Unlimited	UK	1
Pearson Australia Group Pty Ltd	AU	51
Pearson Australia Holdings Pty Ltd	AU	51
Pearson Australia Pty Ltd	AU	51
Pearson Benelux B.V.	NL	85
Pearson Books Limited†	UK	1
Pearson Brazil Finance Limited	UK	1
Pearson Business (Asia Pacific) Pte. Ltd.	SG	5
Pearson Business Services Inc.	US	4
Pearson Canada Assessment Inc	CA	86
Pearson Canada Finance Unlimited	UK	1
Pearson Canada Holdings Inc	CA	86
Pearson Canada Inc.	CA	86
Pearson Central Europe Spółka z ograniczoną odpowiedzialnością	PL	126
Pearson Charitable Foundation	US	57
Pearson College Limited	UK	1
Pearson DBC Holdings Inc.	US	4
Pearson Desarrollo y Capacitación Profesional Chile Limitada	CL	87
Pearson Deutschland GmbH	DE	88
Pearson Digital Learning Puerto Rico, Inc.	PR	82
Pearson Dollar Finance plc†	UK	1
Pearson Dollar Finance Two Limited	UK	1
Pearson Educacion de Chile Limitada	CL	89
Pearson Educacion de Colombia S A S	CO	90
Pearson Educacion de Mexico, S.A. de C.V.	MX	91
Pearson Educacion de Panama SA	PA	92
Pearson Educacion de Peru S.A.	PE	93
Pearson Educacion SA	ES	94
Pearson Education (Singapore) Pte Ltd	SG	5
Pearson Education Africa (Pty) Ltd	ZA	50
Pearson Education and Assessment, Inc.	US	4
Pearson Education Asia Limited	CN	56
Pearson Education Botswana (Proprietary) Limited	BW	65

Notes to the company financial statements

Registered company name	Country of Incorp.	Reg office
Pearson Education do Brasil S.A	BR	129
Pearson Education Hellas SA	GR	122
Pearson Education Holdings Inc.	US	4
Pearson Education Holdings Limited†	UK	1
Pearson Education Indochina Limited	TH	95
Pearson Education Investments Limited	UK	1
Pearson Education Korea Limited	KR	96
Pearson Education Limited	UK	1
Pearson Education Namibia (Pty) Limited	NA	97
Pearson Education Publishing Limited	NG	98
Pearson Education S.A.	UY	99
Pearson Education SA	AR	100
Pearson Education South Africa (Pty) Ltd	ZA	50
Pearson Education South Asia Pte. Ltd.	SG	5
Pearson Education Taiwan Ltd	TW	101
Pearson Education, Inc.	US	4
Pearson Educational Measurement Canada, Inc.	CA	39
Pearson Educational Publishers, LLC	US	4
Pearson Egitim Cozumleri Tikaret Limited Sirketi	TR	102
Pearson Falstaff (Holdings) Inc.	US	4
Pearson Falstaff Holdco LLC	US	4
Pearson France	FR	103
Pearson Funding Five plc†	UK	1
Pearson Funding Four plc†	UK	1
Pearson Funding Two Limited*†	UK	6
Pearson Holdings Inc.	US	4
Pearson Holdings Southern Africa (Pty) Limited	ZA	50
Pearson in Practice Holdings Limited*	UK	6
Pearson in Practice Skills Based Learning Limited*	UK	6
Pearson in Practice Technology Limited*	UK	6
Pearson Inc.	US	4
Pearson India Education Services Private Limited	IN	2
Pearson Institute of Higher Education	ZA	50
Pearson International Finance Limited†	UK	1
Pearson Investment Holdings, Inc.	US	4
Pearson IOKI Spółka z ograniczoną odpowiedzialnością	PL	104
Pearson Italia S.p.A	IT	105
Pearson Japan KK	JP	106
Pearson Lanka (Private) Limited	LK	107
Pearson Learning China (HK) Limited	CN	56
Pearson Lesotho (Pty) Ltd	LS	66
Pearson Loan Finance No. 3 Limited	UK	1
Pearson Loan Finance No. 4 Limited	UK	1
Pearson Loan Finance No.2 Unlimited*	UK	6
Pearson Loan Finance Unlimited	UK	1
Pearson Longman LLC	US	4
Pearson Longman Uganda Limited	UG	108
Pearson Malaysia Sdn. Bhd.	MY	62
Pearson Management Services Limited†	UK	1
Pearson Management Services Philippines Inc.	PH	109
Pearson Netherlands B.V.	NL	85
Pearson Netherlands Holdings B.V.	NL	85
Pearson Nominees Limited†	UK	1
Pearson Online Tutoring LLC	US	4
Pearson Overseas Holdings Limited†	UK	1
Pearson PEM P.R., Inc.	PR	82
Pearson Pension Nominees Limited	UK	1
Pearson Pension Property Fund Limited	UK	1

Registered company name	Country of Incorp.	Reg office
Pearson Pension Trustee Limited	UK	1
Pearson Pension Trustee Services Limited†	UK	1
Pearson PRH Holdings Limited	UK	1
Pearson Professional Assessments Limited	UK	1
Pearson Real Estate Holdings Inc.	US	4
Pearson Real Estate Holdings Limited†	UK	1
Pearson Schweiz AG	CH	110
Pearson Services Limited†	UK	1
Pearson Shared Services Limited†	UK	1
Pearson Strand Finance Limited†	UK	1
Pearson Sweden AB	SE	15
Pearson VUE Philippines, Inc.	PH	111
Peisheng Yucai (Beijing) Technology Development Limited*	CN	112
Penguin Capital, LLC	US	4
Phumelela Publishers (Pty) Ltd*	ZA	50
PN Holdings Inc.	US	4
Prentice-Hall Hispanoamericana SA de CV	MX	91
ProctorCam, Inc.	US	113
PT Efficient English Services	ID	114
Reading Property Holdings LLC	US	115
Rebus Planning Associates, Inc.	US	10
Reston Publishing Company, Inc.	US	4
Rycade Capital Corporation	US	4
Shanghai AWL Education Software Ltd	CN	116
Silver Burdett Ginn Inc.	US	4
Skylight Training and Publishing Inc.	US	55
Smarthinking, Inc.	US	4
Sound Holdings Inc.	US	4
Spear Insurance Company Limited†	BM	48
Stark Verlag GmbH	DE	88
Sunnykey International Holdings Limited (BVI)	VG	117
Tecquipment Services Limited*	UK	6
Testchange Limited*†	UK	6
The Financial Times (I) Pvt Ltd	IN	24
The Learning Edge International pty Ltd	AU	71
The SIOP Institute LLC	US	118
The Waite Group Inc	US	19
TQ Catalis Limited	UK	78
TQ Clapham Limited	UK	78
TQ Education and Training Limited	UK	78
TQ Education and Training Limited	SA	59
TQ Global Limited	UK	1
TQ Group Limited	UK	78
TQ Holdings Limited	UK	1
USLS Holdings LLC	US	4
Vue Testing Services Israel Ltd	IL	49
Vue Testing Services Korea Limited	KR	38
Wall Street English Training Centre (Shanghai) Company Limited	CN	119
Wall Street Institute Kft.	HU	120
Wall Street Institute Master Italia Srl	IT	121
WSE Hong Kong Limited	CN	61
WSE Training Centre (Guangdong) Co., Ltd.	CN	123
WSI Education GmbH	DE	124
WSI International, Inc.	US	125

* In liquidation

† Directly owned by Pearson plc

Subsidiary addresses

The following list includes all Pearson registered offices worldwide. Please see wholly-owned subsidiaries list opposite for each subsidiary's registered office code.

	Registered office address
1	80 Strand, London, WC2R 0RL, England
2	4th Floor Software Block, Elnet Software City, TS 140 Block 2 & 9, Rajiv Gandhi Salai, Taramani, Chennai, TN, 600113, India
3	C T Corporation System, 155 Federal St., Suite 700, Boston, MA, 02110, United States
4	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle, DE, 19801, United States
5	9, #13-05/06, North Buona Vista Drive, The Metropolis Tower One, 138588, Singapore
6	Acre House, 11-15 William Road, London, NW1 3ER, England
7	1st Floor Riverview House, 21/23 City Quay, Dublin, D02FP21, Ireland
8	Maples Corporate Services Limited P.O. Box 309, Ugland House, South Church Street, George Town, Grand Cayman, KY!-1104, Cayman Islands
9	3F, Building R2 China Merchants Tower, No.118 Jianguo Road, Chaoyang District, Beijing, China
10	The Corporation Company, 40600 Ann Arbor Rd E Suite 201, Plymouth, MI, 48170, United States
11	The Prentice-Hall Corporation System, MA, 7 St. Paul Street, Suite 1660, Baltimore, MD, 21202, United States
12	No 15000, Francisco Matarazzo Avenue, Cj. 51 – Bloco 1 – Edificio New York, City of São Paulo, São Paulo, 05001-100, Brazil
13	Comendador Aladino Selmi Avenue, 4630, Galpao 1, Sala 1, Parque Cidade Campinas, City of Campinas, São Paulo 13069-036, Brazil
14	820, Bear Tavern Road, West Trenton, Mercer, NJ, 08628, United States
15	Gustavslundsvägen 137, 167 51 Bromma, Stockholm, Sweden
16	C T Corporation System, 9360 Glacier Hwy Suite 202, Juneau, AK, 99801, United States
17	C T Corporation System, 3800 N Central Ave Suite 460, Phoenix, AZ, 85012, United States
18	The Corporation Company, 124 West Capitol Avenue, Suite 1900, Little Rock, AR, 72201, United States
19	C T Corporation System, 818 West Seventh Street, Suite 930, Los Angeles, CA, 90017, United States
20	The Corporation Company, 7700 E Arapahoe Rd Suite 220, Centennial, CO, 80112-1268, United States
21	C T Corporation System, 1015 15th Street 10th Floor, Washington, DC, 20005, United States
22	1200, South Pine Island Road, Plantation, FL, 33324, United States
23	1201, Peachtree Street, NE, Atlanta, GA, 30361, United States
24	Plot No. 3, Bharti Colony Vikas Marg, New Dehli, DL 110092, India
25	CT Corporation System, 150 West Market Street, Suite 800, Indianapolis, IN, 46204, United States
26	C T Corporation System, 400 E Court Ave, Des Moines, IA, 50309, United States
27	The Corporation Company, Inc., 112 SW 7th Street, Suite 3C, Topeka, KS, 66603, United States
28	CT Corporation System, 306 W. Main Street, Suite 512, Frankfort, KY, 40601, United States
29	3867, Plaza Tower, 1st Floor, Baton Rouge, LA, 70816, United States
30	C T Corporation System, 128 State St #3, Augusta, ME, 04330, United States
31	7 St. Paul Street, Suite 1660, Baltimore, MD, 21202

Notes to the company financial statements

	Registered office address
32	C T Corporation System Inc., 1010 Dale St N, St Paul, MN, 55117-5603, United States
33	120, 400, South Central Avenue, Clayton, MO, 63105, United States
34	The Corporation Trust Company of Nevada, 701 S Carson St, Suite 200, Carson City, NV, 89701, United States
35	C T Corporation System, 206 S Coronado Ave, Espanola, NM, 87532-2792, United States
36	CT Corporation, 111 Eighth Avenue, New York, NY 10011, United States
37	CT Corporation System, 160 Mine Lake Ct Suite 200, Raleigh, NC, 27615, United States
38	21, Mugyo-ro Jung-gu, Seoul, Republic of Korea
39	199 Bay Street, Commerce Court West, Suite 2800, Toronto, ON, M5L1A9, Canada
40	C T Corporation System, 388 State St Suite 420, Salem, OR, 97301, United States
41	C T Corporation System, 116 Pine Street, Suite 320, Harrisburg, Dauphin, PA, 17101, United States
42	C T Corporation System, 2 Office Park Court, Suite 103, Columbia, SC, 29223, United States
43	C T Corporation System, 800 S Gay St, Suite 2021, Knoxville, TN, 37929-9710, United States
44	CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, TX, 75201, United States
45	Numero 776, Avenida 24 de Julho, Maputo, Mozambique
46	C T Corporation System, 4701 Cox Road, Suite 285, Glen Allen, Henrico, VA, 23060-0000, United States
47	3500, 855 – 2nd Street, S.W., Calgary, AB, T2P 4K7, Canada
48	Thistle House, 4 Burnaby Street, Hamilton, HM11, Bermuda
49	Derech Ben Gurion 2, BSR Building 9th Floor, Ramat Gan, 52573, Israel
50	Auto Atlantic, 4th Floor, Corner Hertzog Boulevard and Heerengracht, Cape Town, 8001, South Africa
51	707 Collins Street, Docklands, Melbourne, VIC, 3008, Australia
52	190, High Holborn, London, WC1V 7BH, England
53	1611, Boul. Cremazie Est, 10th Floor, Montréal, PQ, H2M 2P2, Canada
54	195, Archbishop Makarios III Avenue, Neocleous House, Limassol, 3030, Cyprus
55	Illinois Corporation Service Company, 700 S 2nd Street, Springfield, IL, 62703, United States
56	28/F, 1063 King's Road, Quarry Bay, Hong Kong
57	C/o Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware, 19808, United States
58	111, 13th Floor, Eighth Avenue, New York, NY, 10011, United States
59	King Fahad Road, Olaya, Riyadh, 58774, 11515, Saudi Arabia
60	Tuset 20-24, No. 5, Barcelona, 08006, Spain
61	Level 54, Hopewell Centre, 183 Queen's Road East, Hong Kong
62	Unit 30-01, Level 30, Tower A, Vertical Business Suite, Avenue 3, Bangsar South, No 8, Jalan Kerinchi, 59200 Kuala Lumpur, Malaysia
63	Room 2001-2, Ambassador Road 18, Yangpu District, Shanghai City, China
64	Suite 1503, 1504, 1505, No. 376 Xingang Middle Road, Haizhu District, Guangzhou, China
65	Plot 50371, Fairground Office Park, Gaborone, Botswana
66	C/o Du Preez, LIebetrau & Co, 252 Kingsway, Next to USA Embassy, Maseru, Lesotho
67	João Scarparo Netto Avenue, 84, Bloco B, Ground Floor, Sala 44, Ed Unique Village Offices, Loteamento Center Santa Genebra, City of Campinas, São Paulo, 13080-655, Brazil

	Registered office address
68	Unit 621, 6th Floor, Block A, Kelana Centre Point. No 3, Jalan SS7/9, Kelana Jaya 47301 Petaling Jaya, Selangor Darul Ehsan, Malaysia
69	Room 305, Building 2, 65555 Shangchuan Road, Pudong District, Shanghai, China
70	Parkway House, Hannover Avenue, Blantyre, Malawi
71	707 Collins Street, Docklands, Melbourne, VIC, 3008, Australia
72	Queensway House, Kaunda Street, Nairobi, Kenya
73	Robinson Bertram, 3rd Floor, Sokhzmlilio Bldg, Mbabane, Swaziland
74	P O Box 45, IPS Building, Maktaba Street, Dar es Salaam, Tanzania
75	Mlungushi Conference Centre, Centre Annex, Great East Road, Lusaka, Zambia
76	Stand 1515, Cnr Tourle Road/Harare Drive, Ardbennie, Harare, Zimbabwe
77	Andalucía y cordero E12-35. Edificio CYEDE piso 1, Oficina 11, Sector "La Floresta", Quito, Pichincha, Ecuador
78	The Pearson Academy of Vocational Training, Bangrave Road, Corby, Northamptonshire, NN17 1NN, England
79	Rodovia Anhanguera, km317, 4, Bloco B, modulo 27, Jardim Salgado Filho, Ribeirao Preto, São Paulo, 14.079-000, Brazil
80	Teikoku Hotel Tower 18F, 1-1-1 Uchi Saiwai-Cho, Chiyoda-ku, Tokyo, Japan
81	Suite 1201, Tower 2, No. 36 North Third Rign East Road, Dongcheng District, Beijing, China
82	268 Munoz Rivera Avenue, Suite 1400, San Juan, 00918, Puerto Rico
83	Suite 1212, 12/F, Tower 2, No. 36 North Third Rign East Road, Dongcheng District, Beijing, China
84	Zone B, 1/F, Digital Content Industrial Park, High Technical & Industrial Development District, Guiyang City, Guizhou Province, China
85	Gatwickstraat 1, Amsterdam, 1043 GK, Netherlands
86	26 Prince Andrew Place, Don Mills, Toronto, ON, M3C 2T8, Canada
87	Vitacura 5950, Comuna de Vitacura, Santiago, Chile
88	2, Lilienthalstrasse, Hallbergmoos, 85399, Germany
89	Jose Ananias #505, Macul, Santiago, Chile
90	Carrera 7 Nro 156 – 68, Piso 26, Bogota, Colombia
91	Calle Antonio Dovalijaime #70, Torre B, Piso 6, Col. Zedec ed Plaza Santa Fe, del. Álvaro Obregon, Ciudad de Mexico, CP 01210, Mexico
92	Punta Pacifica, Torres de las Americas, Torre A Piso 15 Ofic. 1517, Panama, 0832-0588, Panama
93	Calle Río de la Plata N° 152. Piso 5. San Isidro. Lima – Perú
94	28, Ribera del Loira, Madrid, 28042, Spain
95	87/1 Capital Tower Building, All Seasons Place unit 1604 – 6 16th floor, Wireless Road, Lumpini, Pathumwan, Bangkok, Thailand
96	6F Kwanjeong Building, 35, Cheonggyecheon-Ro, Jongno-gu, Seoul, 03188, Republic of Korea
97	Unit 7 Kingland Park, 98 Nickel Street, Prosperita, Windhoek, Namibia
98	8, Secretariat Road, Obafemi Awolowo Way, Alausa, Ikeja, Lagos State, Nigeria
99	Juan Benito Blanco 780 – Plaza Business Center Montevideo, Uruguay
100	Humboldt 1509 piso 6 (C1414CTM), Ciudad Autonoma de Buenos Aires, Argentina
101	No 219, Room D, 11F, Sec 3, Beixin Road, New Taipei City, Xindian District, 23143, Taiwan
102	Barbaros Bulvarı. No:149, Dr. Orhan Birman İş Merkezi Kat:3, Gayrettepe Beşiktaş, Istanbul, 34349, Turkey
103	3-15, Immeuble Terra Nova II, Rue Henri Rol Tanguy, Montreuil, 93100, France
104	Ulica Jana Henryka Dąbrowskiego 77A 60-529, Poznań, Poland
105	16, Corso Trapani, Turin, 10100, Italy

	Registered office address
106	1-5-15, Kanda-Sarugakucho, Chiyoda-ku, Tokyo, Japan
107	Orion City, Irgel Building #752, Colombo, 09, Sri Lanka
108	Plot 8, Berkley Road, Old Kampala, Uganda
109	7/F North Tower, Rockwell Business Center COR. Sheridan & United Street, Brgy. Highway Hills, Mandaluyong, Philippines
110	Chollerstrasse 37, 6300 Zug, Switzerland
111	27/F Trident Tower, 312 Sen. Gil Puyat Avenue, Makati City, Metro Manila, Philippines
112	Suite 15A11,Tian Xing Jian Commercial Plaza, No. 47 Fuxing Road, Haidian District, Beijing, China
113	National Registered Agents, inc., 160 Greentree Dr Ste 101, Dover, Kent, DE, 19904, United States
114	30th Floor, Ratu Plaza Office Tower, Jl. Jend. Sudirman Kav 9, Jakarta, 10270, Indonesia
115	C/O Pearson Education, 501 Bolyston St, Boston, MA, 02116, United States
116	Suite 3H, No. 6, Block 2, 365 Nong Xin Hua Road, Changning District, Shanghai City, China
117	Commerce House, Wickhams Cay 1, P.O. Box 3140, Road Town, Tortola, British Virgin Islands
118	P O BOX 905, Carnelian Bay, CA, 96140, United States
119	Zone 1 3F, Jin Mao Tower, No.88 Century Avenue, Pilot Free Trade Zone, Shanghai City, China
120	Hermina út 17. 8th floor, Budapest, 1146, Hungary
121	79, Corso Buenos Aires, Milan, 20124, Italy
122	21, Amfitheas Avenue, Paleo Faliro Athens, 17564, Greece
123	2F, No.118 East Ti Yu Road, Tianhe District, Guangzhou, China
124	2, Lilienthalstrasse, Hallbergmoos, 85399, Germany
125	The Corporation Trust Incorporated, 351 West Camden Street, Baltimore, MD, 21201, United States
126	Ulica Szamocka 8 01-748, Warszawa, Poland
127	Suite 2600, Three Bentall Centre, P.O. Box 49314, 595 Burrard Street, Vancouver, BC, V7X 1L3, Canada
128	44 Chipman Hill, Suite 1000, Saint Jon, NB, E2L 4S6, Canada
129	Comendador Aladino Selmi Avenue, 4630, Galpão 1, Sala 3, Parque Cidade Campinas, City of Campinas,São Paulo, 13069-036, Brazil
130	Comendador Aladino Selmi Avenue, 4630, Galpão 1, Mezanino, Sala 5, Parque Cidade Campinas, City of Campinas,São Paulo, 13069-036, Brazil

Notes to the company financial statements

Partly-owned subsidiaries

Registered company Name	Country of Incorp.	% Owned	Reg office
Certiport China Co Ltd	CN	50.69	1
CG Manipal Schools Private Limited*	NP	51	2
Chongqing WSE Training Centre Co Ltd	CN	95	3
Educational Publishers LLP	UK	85	4
GED Domains LLC	US	70	5
GED Testing Service LLC	US	70	6
Heilongjiang WSE Training Centre Co Ltd	CN	95	7
Heinemann Publishers (Pty) Ltd	SA	75	8
Maskew Miller Longman (Pty) Limited	SA	75	8
Pearson Education Achievement Solutions (RF) (Pty) Limited	SA	97.3	8
Pearson South Africa (Pty) Ltd	SA	75	8

* In liquidation

Associated undertakings

Registered company Name	Country of Incorp.	% Owned	Reg office
ACT Aspire LLC	US	50	9
Affordable Private Education Center Inc‡	PH	29.36	10
Avanti Learning Centres Private Limited‡	IN	22.54	11
eAdvance Proprietary Limited‡	ZA	38.01	12
HE Distributions, LLC	US	35.3	13
Institute for Private Education & Training KSCC*	KU	49.02	14
Karadi Path learning Company Private Limited‡	IN	27.64	16
Learn Capital Special Opportunities Fund I, L.P.‡	US	99.59	22
Learn Capital Venture Partners II, L.P.‡	US	72.93	22
Learn Capital Venture Partners IIIA, L.P.‡	KY	99.00	15
Learn Capital Venture Partners, L.P.‡	US	99.15	22
Omega Schools Franchise Limited	GH	49.05	17
Peking University Pearson (Beijing) Cultural Development Co., Ltd	CN	45	18
Penguin Random House Limited	UK	25	4
Penguin Random House LLC	US	25	9
Scala Higher Education , S.C.	ME	45	19
Scala Latin America S.A.P.I. de C.V.	ME	45	19
Scala Student, S.A. de C.V.	ME	45	19
The Egyptian International Publishing Company-Longman	EG	49	20
Zaya Learning Labs Private Limited‡	IN	20	21

* In liquidation
‡ Accounted for as an 'Other financial asset' within non-current assets

Partly-owned subsidiaries & associated undertakings company addresses

	Registered office address
1	Suite 1804, No.99 Huichuan Road, Changning District, Shanghai City, China
2	Lalitpur, Sub-Metropolitan City, - 2, Bagmati, Nepal
3	9-4#, Unit 4, 24 Jintang Street, Yuzhong District, Chongqing, China
4	80 Strand, London, WC2R 0RL, England
5	C T Corporation System, 4701 Cox Road, Suite 285, Glen Allen, Henrico, VA, 23060-0000, United States
6	The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle, DE, 19801, United States
7	Room 503, 5F, Xin'an Building, No.238 Xinyang Road, Dao Li District, Harbin, China
8	Auto Atlantic, 4th Floor, Corner Hertzog Boulevard and Heerengracht, Cape Town, 8001, South Africa
9	C/o Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware, 19808, United States
10	33rd Floor, Tower One & Exchange Plaza, Ayala Triangle, Ayala Avenue, Makati City, Philippines
11	16 Paschimi Marg, Vasant Vihar, New Delhi, DL, India
12	Office 201, Parktown Quarter, Corner 3rd & 7th Avenue, Parktown North, Johannesburg 2193. South Africa
13	United Corporate Services, Inc., 874 Walker Road Suite C, Dover, Kent, DE, 19904, United States
14	P.O. Box No. 6320, 32038 Hawalli, Kuwait City, Kuwait
15	Campbells Corporate Services Limited, Floor 4, Willow House, Cricket Square, Grand Cayman, KY1-9010, Cayman Islands
16	3A Dev Regency II, First Main Road, Gandhinagar, Adyar, Chennai, TN, India
17	2nd Floor OTS Building, off Accra-Winneba Road, Kasoa second, Kasoa P.O. Box WJ973, Weija, Accra. Ghana
18	Suite 216, No. 127-1 Zhongguancun North Street, Haidian District, Beijing, China
19	Calz. de la Naranja # 159, Col. Fracc. Industrial Alce Blanco, Naucalpan de Juarez, Edo. De Mex., 53370, Mexico
20	10a Hussein Wassef St, Midan Missaha, Dokki Giza, 12311, Egypt
21	Unit No. 404, New Udyog Mandir 2, Mogul Lane, Mahim(West), Mumbai, MH, 400016, India
22	Incorporating Services, Ltd. 3500 S Dupont Way, Dover, Kent DE, 19901 United States

Five-year summary

All figures in £ millions	2013	2014	2015	2016	2017
Sales: By geography					
North America	3,008	2,906	2,940	2,981	**2,929**
Core	1,008	910	815	803	**815**
Growth	712	724	713	768	**769**
Continuing	4,728	4,540	4,468	4,552	**4,513**
Discontinued	962	343	312	–	**–**
Total sales	5,690	4,883	4,780	4,552	**4,513**
Adjusted operating profit: By geography					
North America	464	444	480	420	**394**
Core	103	122	105	57	**50**
Growth	35	32	(3)	29	**38**
Penguin Random House	50	69	90	129	**94**
Continuing	652	667	672	635	**576**
Discontinued	84	55	51	–	**–**
Total adjusted operating profit	736	722	723	635	**576**

All figures in £ millions	2013	2014	2015	2016	2017
Operating margin – continuing	13.8%	14.7%	15.0%	13.9%	**12.8%**
Adjusted earnings					
Total adjusted operating profit	736	722	723	635	**576**
Net finance costs	(72)	(64)	(46)	(59)	**(79)**
Income tax	(97)	(118)	(105)	(95)	**(55)**
Non-controlling interest	(1)	1	–	(2)	**(2)**
Adjusted earnings	566	541	572	479	**440**
Weighted average number of shares (millions)	807.8	810.9	813.3	814.8	**813.4**
Adjusted earnings per share	70.1p	66.7p	70.3p	58.8p	**54.1p**

Five-year summary

All figures in £ millions	2013	2014	2015	2016	2017
Cash flow					
Operating cash flow	588	649	435	663	**669**
Operating cash conversion	80%	90%	60%	104%	**116%**
Operating free cash flow	324	413	255	549	**525**
Operating free cash flow per share	40.1p	50.9p	31.4p	67.4p	**64.5p**
Free cash flow	269	413	152	310	**227**
Free cash flow per share	33.3p	50.9p	18.7p	38.0p	**27.9p**
Net assets	5,706	5,985	6,418	4,348	**4,021**
Net debt	1,379	1,639	654	1,092	**432**
Return on invested capital					
Total adjusted operating profit	736	722	723	635	**576**
Operating tax paid	(191)	(163)	(129)	(63)	**(75)**
Return	545	559	594	572	**501**
Gross basis:					
Average invested capital	10,130	9,900	10,317	11,464	**11,568**
Return on invested capital	5.4%	5.6%	5.8%	5.0%	**4.3%**
Net basis:					
Average invested capital	10,130	9,835	9,422	7,906	**8,126**
Return on invested capital	5.4%	5.7%	6.3%	7.2%	**6.2%**
Dividend per share	48.0p	51.0p	52.0p	52.0p	**17.0p**

Financial key performance indicators

The following tables and narrative provide further analysis of the financial key performance indicators which are described in the financial review of the annual report on p34-40 , are shown within the key performance indicators on p2 of the annual report and shown in notes 2 and 8 of the notes to the consolidated financial statements.

Adjusted performance measures

The annual report and accounts reports results and performance on a headline basis which compares the reported results both on a statutory and on a non-GAAP (non-statutory) basis. The Group's adjusted performance measures are non-GAAP (non-statutory) financial measures and are also included in the annual report as they are key financial measures used by management to evaluate performance and allocate resources to business segments. The measures also enable investors to more easily, and consistently, track the underlying operational performance of the Group and its business segments by separating out those items of income and expenditure relating to acquisition and disposal transactions, and major restructuring programmes.

The Group's definition of adjusted performance measures may not be comparable to other similarly titled measures reported by other companies. A reconciliation of the adjusted measures to their corresponding statutory measures is shown below.

Sales

Underlying sales movements exclude the impact of portfolio changes arising from acquisitions and disposals and are stated at constant exchange rates. Portfolio changes are calculated by taking account of the additional contribution (at constant exchange rates) from acquisitions made in both the current year and the prior year. For acquisitions made in the prior year the additional contribution is calculated as the sales made in the period of the current year that corresponds to the pre-acquisition period in the prior year. Sales made by businesses disposed in either the current year or the prior year are also excluded. Constant exchange rates are calculated by assuming the average exchange rates in the prior year prevailed throughout the current year. These non-GAAP measures enable management and investors to track more easily, and consistently, the underlying sales performance of the Group.

All figures in £ millions	2017
Statutory sales 2017	**4,513**
Statutory sales 2016	**4,552**
Statutory sales decrease	**(39)**
Comprising:	
Underlying decrease	**(111)**
Portfolio changes	**(54)**
Exchange differences	**126**
Statutory sales decrease	**(39)**
Statutory decrease	**(1)%**
Underlying decrease	**(2)%**
Constant exchange rate decrease	**(4)%**

Financial key performance indicators

Adjusted operating profit

Adjusted operating profit excludes the cost of major restructuring; other net gains and losses on the sale of subsidiaries, joint ventures, associates and other financial assets; intangible charges, including impairment, relating only to goodwill and intangible assets acquired through business combinations and the direct costs of acquiring those businesses; and the impact of US tax reform in 2017. Further details are given below under 'Adjusted earnings per share'. Underlying adjusted operating profit movements exclude the impact of portfolio changes arising from acquisitions and disposals and are stated at constant exchange rates. Portfolio changes are calculated by taking account of the additional contribution (at constant exchange rates) from acquisitions made in both the current year and the prior year. For acquisitions made in the prior year the additional contribution is calculated as the operating profit made in the period of the current year that corresponds to the pre-acquisition period in the prior year. Operating profit made by businesses disposed in either the current year or the prior year is also excluded. Constant exchange rates are calculated by assuming the average exchange rates in the prior year prevailed throughout the current year. This non-GAAP measure enables management and investors to track more easily, and consistently, the underlying operating profit performance of the Group.

All figures in £ millions	2017	2016
Operating profit/(loss)	**451**	(2,497)
Cost of major restructuring	**79**	338
Other net gains and losses	**(128)**	25
Intangible charges	**166**	2,769
Impact of US tax reform	**8**	–
Adjusted operating profit	**576**	635

All figures in £ millions	2017
Adjusted operating profit decrease	**(59)**
Comprising:	
Underlying decrease	**(58)**
Portfolio changes	**(24)**
Exchange differences	**23**
Adjusted operating profit decrease	**(59)**
Underlying decrease	**(9)%**
Constant exchange rate decrease	**(13)%**

Adjusted earnings per share

Adjusted earnings includes adjusted operating profit and adjusted finance and tax charges. Adjusted earnings is included as a non-GAAP measure as it is used by management to evaluate performance and allocate resources to business segments and by investors to more easily, and consistently, track the underlying operational performance of the Group. Adjusted earnings per share is calculated as adjusted earnings divided by the weighted average number of shares in issue on an undiluted basis.

The following items are excluded from adjusted earnings:

Cost of major restructuring In January 2016 the Group announced that it was embarking on a restructuring programme to simplify the business, reduce costs and position the Group for growth in its major markets. The costs of this programme in 2016 were significant enough to exclude from the adjusted earnings measure so as to better highlight the underlying performance. A new programme of restructuring, announced in May 2017, began in the second half of 2017 and is expected to drive further significant cost savings. The costs of this new programme have also been excluded from adjusted earnings.

Other net gains and losses These represent profits and losses on the sale of subsidiaries, joint ventures, associates and other financial assets and are excluded from adjusted earnings as they distort the performance of the Group as reported on a statutory basis.

Intangible charges These represent charges in respect of goodwill, including impairment, and intangible assets acquired through business combinations and the direct costs of acquiring those businesses. These charges are excluded as they reflect past acquisition activity and do not necessarily reflect the current year performance of the Group.

Financial key performance indicators

Other net finance income/costs These include finance costs in respect of retirement benefits, finance costs of deferred consideration and foreign exchange and other gains and losses. Finance income relating to retirement benefits are excluded as management does not believe that the consolidated income statement presentation under IAS 19 reflects the economic substance of the underlying assets and liabilities. Finance costs relating to acquisition transactions are excluded as these relate to future earn outs or acquisition expenses and are not part of the underlying financing. Foreign exchange and other gains and losses are excluded as they represent short-term fluctuations in market value and are subject to significant volatility. Other gains and losses may not be realised in due course as it is normally the intention to hold the related instruments to maturity.

Impact of US tax reform In 2017, as a result of US tax reform, the Group's share of profit from associates was adversely impacted by £8m. This amount has been excluded from adjusted earnings as it is considered to be a transition adjustment that is not expected to recur in the near future.

Tax Tax on the above items is excluded from adjusted earnings. Where relevant the Group also excludes the benefit from recognising previously unrecognised pre-acquisition and capital losses. The tax benefit from tax deductible goodwill and intangibles is added to the adjusted income tax charge as this benefit more accurately aligns the adjusted tax charge with the expected rate of cash tax payments.

All figures in £ millions	2017	2016
Profit/(loss) for the year	**408**	(2,335)
Non-controlling interest	**(2)**	(2)
Cost of major restructuring	**79**	338
Other net gains and losses	**(128)**	25
Intangible charges	**166**	2,769
Other net finance income/costs	**(49)**	1
Impact of US tax reform	**8**	–
Tax	**(42)**	(317)
Adjusted earnings	**440**	479
Weighted average number of shares (millions)	**813.4**	814.8
Adjusted earnings per share	**54.1p**	58.8p

Return on invested capital

Return on invested capital (ROIC) is included as a non-GAAP measure as it is used by management and investors to track investment returns and by management to help inform capital allocation decisions within the business. ROIC is calculated as adjusted operating profit less operating cash tax paid expressed as a percentage of average invested capital. Invested capital includes the original unamortised goodwill and intangibles. Average values for total invested capital are calculated as the average monthly balance for the year. ROIC is also presented on a net basis after removing impaired goodwill from the invested capital balance. The net approach assumes that goodwill which has been impaired is treated consistently to goodwill disposed as it is no longer being used to generate returns.

All figures in £ millions	2017 Gross	2016 Gross	2017 Net	2016 Net
Adjusted operating profit	**576**	635	**576**	635
Operating tax paid	**(75)**	(63)	**(75)**	(63)
Return	**501**	572	**501**	572
Average goodwill	**7,236**	6,987	**3,794**	3,429
Average other non-current intangibles	**2,606**	2,481	**2,606**	2,481
Average intangible assets – pre-publication	**995**	926	**995**	926
Average tangible fixed assets and working capital	**731**	1,070	**731**	1,070
Average invested capital	**11,568**	11,464	**8,126**	7,906
Return on invested capital	**4.3%**	5.0%	**6.2%**	7.2%

Financial key performance indicators

Operating cash flow

Operating cash flow is calculated as net cash generated from operations before the impact of items excluded from the adjusted income statement plus dividends from joint ventures and associates (less the re-capitalisation dividends from Penguin Random House); less capital expenditure on property, plant and equipment and intangible software assets; plus proceeds from the sale of property, plant and equipment and intangible software assets; less finance lease principal payments; plus special pension contributions paid; and plus cost of major restructuring paid. Operating cash flow is included as a non-GAAP measure in order to align the cash flows with the corresponding adjusted operating profit measures.

All figures in £ millions	2017	2016
Net cash generated from operations	**462**	522
Dividends from joint ventures and associates	**458**	131
Re-capitalisation dividends from Penguin Random House	**(312)**	–
Purchase of property, plant and equipment	**(82)**	(88)
Purchase of intangible software assets	**(150)**	(157)
Proceeds from sale of property, plant and equipment and intangible software assets	**–**	4
Finance lease principal payments	**(5)**	(6)
Special pension contribution	**227**	90
Cost of major restructuring paid	**71**	167
Operating cash flow	**669**	663

For information, cash conversion, calculated as operating cash flow as a percentage of adjusted operating profit, is also shown as a non-GAAP measure as this is used by management and investors to measure underlying cash generation by the Group.

All figures in £ millions	2017	2016
Adjusted operating profit	**576**	635
Operating cash flow	**669**	663
Cash conversion	**116%**	104%

For information, operating cash flow, operating free cash flow and total free cash flow, which are non-GAAP measures, are disclosed and reconciled in note 33 of the notes to the consolidated financial statements as they are commonly used by investors to measure the cash performance of the Group.

Net debt and earnings before interest, tax, depreciation and amortisation (EBITDA)

For information, the net debt/EBITDA ratio is shown as a non-GAAP measure as it is commonly used by investors to measure balance sheet strength. EBITDA is calculated as adjusted operating profit less depreciation on property, plant and equipment and less amortisation on intangible software assets.

All figures in £ millions	2017	2016
Adjusted operating profit	**576**	635
Depreciation (excluding items included in 'cost of major restructuring')	**80**	80
Amortisation on intangible software assets (excluding items included in 'cost of major restructuring')	**82**	70
EBITDA	**738**	785
Cash and cash equivalents	**518**	1,459
Marketable securities	**8**	10
Derivative financial instruments	**–**	(93)
Bank loans and overdrafts	**(15)**	(39)
Bonds	**(1,062)**	(2,420)
Finance lease liabilities	**(8)**	(9)
Total	**(559)**	(1,092)
Cash and cash equivalents classified as held for sale	**127**	–
Net debt	**(432)**	(1,092)
Net debt/EBITDA ratio	**0.6x**	1.4x

Shareholder information

Pearson ordinary shares are listed on the London Stock Exchange and on the New York Stock Exchange in the form of American Depositary Receipts.

Corporate website

The investors' section of our corporate website www.pearson.com/investors.html provides a wealth of information for shareholders. It is also possible to sign up to receive e-mail alerts for reports and press releases relating to Pearson at https://www.pearson.com/news/media/email-alert-signup.html

Shareholder information online

Shareholder information can be found on our website https://www.pearson.com/investors/investor-information.html

Our registrar, Equiniti, also provides a range of shareholder information online. You can check your holding and find practical help on transferring shares or updating your details at www.shareview.co.uk. For more information, please contact our registrar, Equiniti, Aspect House, Spencer Road, Lancing, West Sussex, BN99 6DA. Telephone 0371 384 2233* or, for those shareholders with hearing difficulties, textphone number 0371 384 2255*.

Information about the Pearson share price

The company's share price can be found on our website at www.pearson.com. It also appears in the financial columns of the national press.

2017 dividends

	Payment date	Amount per share
Interim	15 September 2017	5 pence
Final	11 May 2018	12 pence

Payment of dividends to mandated accounts

Should you elect to have your dividends paid through BACS, this can be done directly into a bank or building society account, with the tax voucher sent to the shareholder's registered address. Equiniti can be contacted for information on 0371 384 2043*.

Dividend reinvestment plan (DRIP)

The DRIP gives shareholders the right to buy the company's shares on the London stock market with their cash dividend. For further information, please contact Equiniti on 0371 384 2268*.

Individual Savings Accounts (ISAs)

Equiniti offers ISAs in Pearson shares. For more information, please go to www.shareview.co.uk/dealing or call customer services on 0345 300 0430*.

Share dealing facilities

Equiniti offers telephone and internet services for dealing in Pearson shares. For further information, please contact their telephone dealing helpline on 03456 037 037* or, for online dealing, log on to www.shareview.co.uk/dealing. You will need your shareholder reference number as shown on your share certificate.

A postal dealing service is also available through Equiniti. Please telephone 0371 384 2248* for details or log on to www.shareview.co.uk to download a form.

* Lines open 8.30 am to 5.30 pm Monday to Friday (excluding UK public holidays).

ShareGift

Shareholders with small holdings of shares, whose value makes them uneconomic to sell, may wish to donate them to ShareGift, the share donation charity (registered charity number 1052686). Further information about ShareGift and the charities it has supported may be obtained from their website, www.ShareGift.org, or by contacting them at ShareGift, PO Box 72253, London, SW1P 9LQ.

American Depositary Receipts (ADRs)

Pearson's ADRs are listed on the New York Stock Exchange and traded under the symbol PSO. Each ADR represents one ordinary share. For enquiries regarding registered ADR holder accounts and dividends, please contact Bank of New York Mellon, Shareholder Correspondence (ADR), PO Box 505000, Louisville, KY 40233-5000, telephone 1 (866) 259 2289 (toll free within the US) or 001 201 680 6825 (outside the US). Alternatively, you may e-mail shrrelations@cpushareownerservices.com

Voting rights for registered ADR holders can be exercised through Bank of New York Mellon, and for beneficial ADR holders (and/or nominee accounts) through your US brokerage institution. Pearson will file with the Securities and Exchange Commission a Form 20-F.

Share register fraud: protecting your investment

Pearson does not contact its shareholders directly to provide recommendation advice and neither does it appoint third parties to do so. As required by law, our shareholder register is available for public inspection but we cannot control the use of information obtained by persons inspecting the register. Please treat any approaches purporting to originate from Pearson with caution.

For more information, please log on to our website at https://www.pearson.com/investors/managing-your-shares/share-register-fraud.html

Tips on protecting your shares

- Keep any documentation that contains your shareholder reference number in a safe place and shred any unwanted documentation
- Inform our registrar, Equiniti, promptly when you change address
- Be aware of dividend payment dates and contact the registrar if you do not receive your dividend cheque or, better still, make arrangements to have the dividend paid directly into your bank account
- Consider holding your shares electronically in a CREST account via a nominee.

2018 financial calendar

Ex-dividend date	**5 April**
Record date	**6 April**
Last date for dividend reinvestment election	**19 April**
Annual General Meeting	**4 May**
Payment date for dividend and share purchase date for dividend reinvestment	**11 May**