2015-2016

The Impact of Electronic Content Management (ECM) system Ownership on Student Records Management Practice

Contents

Foreword

The American Association of Collegiate Registrars and Admissions Officers (AACRAO) periodically undertakes research projects to keep ourselves, and the higher education community in general, informed about current and emerging practices. The aims of this survey were to measure the prevalence of Electronic (also sometimes called "Enterprise") Content Management (ECM) use among our member institutions and to benchmark student records management practice and policy. Throughout this report we use the acronym ECM to refer to the electronic content management process and to the applications used to conduct the process, depending on context.

The survey and report were made possible by underwriting from Lexmark[1], a leading provider of document management, capture and workflow solutions for higher education. Underwriting included providing resources to review the draft survey for clarity, expertise on ECM functionality and use, feedback on the draft report, and design expertise for the presentation of the results at our 2015 annual conference and related webinar.

We would also like to acknowledge the 700 AACRAO members who responded to the survey. Without their willingness to share their time and expertise, this report and the insights garnered from it would not have been possible.

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[1]http://www.lexmark.com/highered

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Why these Topics at this Time?

There are several reasons why we approached this line of inquiry at this time. First and foremost, there is ongoing interest from our members in the topics of student records management and the application of technology used to support student records management. AACRAO's publication *Student Records Management: Retention, Disposal and Archive of Student Records*[2] continues to be one of the best-selling publications for AACRAO. In addition, sessions and workshops on the topics are well attended, and the consulting arm of AACRAO is regularly contracted to provide records management reviews and audits. Finally, the practice of records management in general has rapidly changed as the era of big data has evolved, tangentially also increasing data security concerns. As one information management vendor succinctly stated, records management has evolved from simple creation and disposition of a record to the "need to incorporate the entire lifecycle of the record."[3] The term lifecycle is important in the context of records management because it implies both *a beginning and an end to a record* (Figure 1). For these reasons and others mentioned in this report we assert that, while some key student records should be archived, most should not be kept indefinitely.

> *...we assert that, while some key student records should be archived, most should not be kept indefinitely*

Figure 1: Records Management Lifecycle
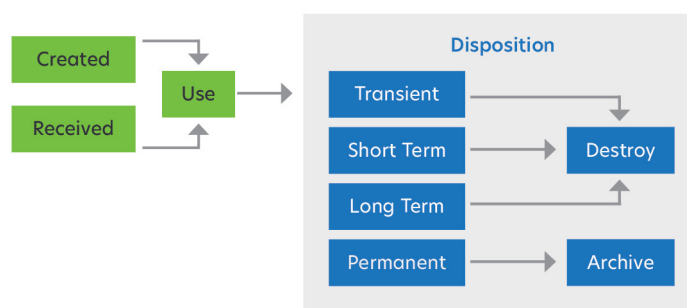
Adapted from: The Ohio State University Archives[4]

Higher education is not exempt from the intensifying demands for effective records management. In fact, institutions that do not effectively manage their student records, regardless of format, face increased risks. The July 2014 edition of *Records Quarterly: A Newsletter of the University of Cincinnati Records Management Program* makes note of an increased threat to the security of sensitive information and in court sanctions for not following policies.[5]

We sought to gain an understanding of how, and to what degree, the use of an ECM application impacts student records management practice efficiency. We did not ask which particular ECM respondents used because this survey must, in accordance with AACRAO policy, be ECM provider neutral. This report highlights the results of the survey and provides insight from our members on their successes and challenges with both their ECM technology and their overall student records management practice. It also includes references and resources for best practices on these topics.

[2] http://www4.aacrao.org/publications/catalog.php?item=0138#.VowLlRUrLcs
[3] http://www.slideshare.net/RSDig/slide-share-chartingtheway-23472057
[4] https://library.osu.edu/projects-initiatives/osu-records-management/records-management-overview/records-lifecyle/
[5] http://www.libraries.uc.edu/content/dam/libraries/arb/docs/records-management/RQSummer2014.pdf

Key Findings

71% Most **(71%)** of institutions in this sample use at least one ECM; funding is the biggest deterrent for those who do not have one

Fewer than one-in-five believe their ECM technology is being used to its full capacity, with the greatest roadblock to doing so being not having the time to learn and implement

In the student services arena, **registration and records departments are the leading users** of an ECM (90%)

Most **(73%)** institutions have a records management policy and believe it to be up-to-date, easy to understand, and clear on which records should be retained permanently

The **majority view their processes as more efficient** with the application of an ECM, and records management is easier

Since most institutions do not use all of the advanced functionality offered in most ECMs, **much of the available process efficiency improvement is untapped**

Two-thirds feel "moderately successful" (as compared with "very successful" or "not successful") in their ECM use overall, regardless of how long the ECM had been in use

Among those institutions that have a clearly identified official source for the student record (e.g., paper, student information system (SIS), ECM), **less than half identify the institution's SIS as the source of the official record**

Some institutions appear either not to understand the importance of managing the entire student records lifecycle from creation to final disposition or to accept the cost and security implications associated with keeping all records permanently

What is ECM?

Electronic (aka Enterprise) Content Management describes both an application (or set of applications) and a practice. The October 2015 Gartner's "Magic Quadrant for Enterprise Content Management" defined the term in this manner: "ECM describes both a strategic framework and a technical architecture that supports all types of content (and format) throughout the content lifecycle."[6] Comprehensive ECMs include explicit functionalities, such as document management, web content management, records management, image processing applications, social content and content workflow. Both ECM as a practice and as a tool (or set of tools) can help institutions take better control of their student records content, and contribute to improvement in transactional processes, collaboration, policy compliance, as well as records management. From a technical standpoint, ECM functionality can be delivered as a suite of products integrated at the content or interface level or as a number of separate products that share a common architecture.

> *ECM describes both a strategic framework and a technical architecture that supports all types of content (and format) throughout the content lifecycle.*
>
> *October 2015 Gartner's Magic Quadrant for Enterprise Content Management*

Context of Student Records Management in Higher Education

The International Standards Organization (ISO) defines ECM practice as "the field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records including the process for capturing and maintaining evidence of and information about business activities and transactions in the form of records."[7] This definition of ECM, by default, includes the management of electronic student records.

Some current student records management professionals may remember when the management of student records involved predominantly paper files held in large file rooms and/or in basements. A number of such repositories still exist today, primarily for archival purposes. However, the scope of student records management has broadened significantly since the days of predominantly paper records and it continues to do so due to the application of multiple forms of technology that can create and/or store increasingly complex student record data sets. A 2010 EDUCAUSE Center for Applied Research (ECAR) report on the high stakes of electronic records management remarks that "In the past, records management may have been seen as a low-priority administrative task that could be postponed until the storage room was full or the server needed to be replaced."[8] Those authors further state that any institution with data breach experience or experience with an "expensive electronic discovery subpoena" understands the costs of passive records management. A 2015 study by the Ponemon Institute[9], a data security research center,

> *…student records management is an important, large-scale, multi-format, active and ongoing endeavor*

estimates that education has the second highest per capita data breach cost at $300, lower only than healthcare. In other words, student records management is an important, large-scale, multi-format, active and ongoing endeavor, the ineffective-management of which imparts an eDiscovery risk and possible significant financial risk, as the some institutions have been unfortunate to discover first hand[10].

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[6]http://www.gartner.com/technology/reprints.do?id=1-2Q7HKUE&ct=151021&st=sb
[7]http://www.aiim.org/What-is-ERM-Electronic-Records-Management
[8]Ghering, Cynthia, Judith Borreson Caruso, and David Gift. "Electronic Records Management: Today's High Stakes" (Research Bulletin 8, 2010). Boulder, CO: EDUCAUSE Center for Applied Research, 2010 available from https://net.educause.edu/ir/library/pdf/ERB1008.pdf
[9]http://www.ponemon.org/library/2015-cost-of-cyber-crime-united-states
[10]http://www.azcentral.com/story/news/local/phoenix/2014/12/17/costs-repair-massive-mcccd-computer-hack-top-million/20539491/ and https://iapp.org/news/a/umaryland-president-breach-would-have-bankrupted-many-institutions/

To put it succinctly, in student records management there are some things we in higher education do solely because of governmental regulation and others we do pursuant to best management practice, or to both. Institutions have to develop policies and procedures that address both. Harvard University Archives overview for managing student records[11] denotes that good records management practices help institutions:

> *...in student records management there are some things we in higher education do solely because of governmental regulation and others we do pursuant to best management practice, or to both*

» "Control costs associated with records and information management,

» Improve efficiency and access to information,

» Meet compliance obligations,

» Minimize the legal risks posed by inadequate records management practices, and

» Ensure that permanent and historical records are captured and maintained."

Survey Methodology

Due to the composition of our membership, we chose to focus on the application of ECM (technology and practice) within the student services domain. The survey and email invitation (Appendix A) were sent electronically using the FluidSurveys[12] platform to all AACRAO members designated as the primary contact for their institution. This selection criterion generated 2,663 valid email addresses. The overall response rate was 26% (n=700). We were fortunate to capture a representative sample[13] of all U.S degree granting institutions as well as participation from institutions in other countries (Appendix B).

The survey platform supported dynamic flexibility in the questions asked of respondents, and we did not require respondents to answer all proffered questions; respondents were free to skip questions. Given these two degrees of freedom, the number of responses for any given question varies. For those who completed the survey, a completion incentive was provided in the form of a random drawing for one of ten $50 Amazon gift cards.

The survey content consisted of a two-branch question set differentiated on whether or not an institution owns and uses at least one ECM. If respondents reported owning and using at least one ECM, the remaining survey content included the following:

» ECM and data integration

» ECM use by student service function

» Perceived measure of institutional success in using the ECM

» Roadblocks to maximizing the use of the ECM

» ECM practice and staffing implications

» Student records management policy and practice

Otherwise, respondents were asked to indicate if an ECM was being considered and about their student records management practices.

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[11]http://library.harvard.edu/university-archives/managing-university-records/homepage
[12]www.fluidsurveys.com
[13]Confidence level 95%, Margin of Error 5%

Results

ECM Ownership

The majority of respondents (71%) own and use an ECM for at least one student service function. Larger institutions are more likely to have an ECM (Figure 2), and use by institutional type varies considerably (Figure

MOST
71% institutions use at least one ECM

3). Among those who do not own an ECM, two-thirds are *not in the market for one,* and the most common reason they are not is cost. Among those considering an ECM (n=70), admissions, registration and financial aid are the functional areas (units) most likely to be considering one followed closely by advising (Table 1).

Figure 2: ECM ownership by institution size

	Under 1,000 (n=196)	1,000-2,499 (n=184)	2,500-4,999 (n=112)	5,000-9,999 (n=100)	10,000-19,999 (n=64)	20,000+ (n=44)
No	49%	35%	25%	11%	5%	7%
Yes	51%	65%	75%	89%	95%	93%
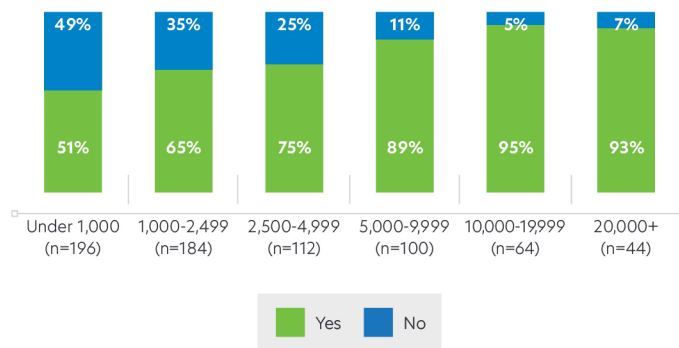
Figure 3: ECM ownership by institution type

	lower division only (n=113)	undergraduate (n=116)	undergraduate, graduate and/or professional (n=428)	graduate and/or professional (n=42)	other (n=1)
No	25%	39%	25%	57%	
Yes	75%	61%	75%	43%	100%
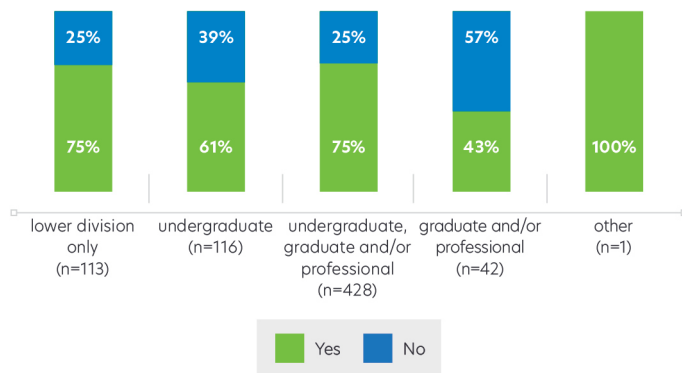
	Yes	No	Don't know/uncertain	Count
Admissions	84%	0%	16%	64
Financial Aid	78%	0%	22%	59
Registration/Student Records	94%	1%	4%	69
Student Support Services (tutoring, TRIO, etc.)	43%	6%	51%	49
Student Life	32%	6%	62%	47
Housing	24%	20%	57%	46
Career Services	30%	11%	59%	46
Advising	68%	2%	30%	56

ECM Usage Details

Not surprisingly, those using an ECM to support student services (n=495) use it mostly in registration/student records, followed closely by admissions and financial aid (Figure 4). Human resources, finance, bursar and other administrative units are also users of the ECM. Product usage is fairly mature in student services, with most reporting using an ECM for two or more years, many reported more than five years (Figure 5).

Figure 4: ECM use by unit

| | Yes | No | Don't know/uncertain |

9
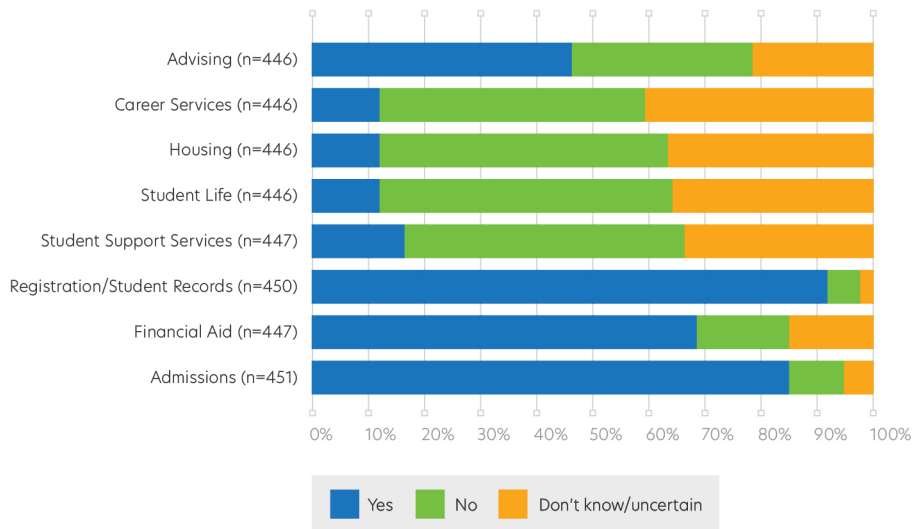
Figure 5: ECM use by time and unit
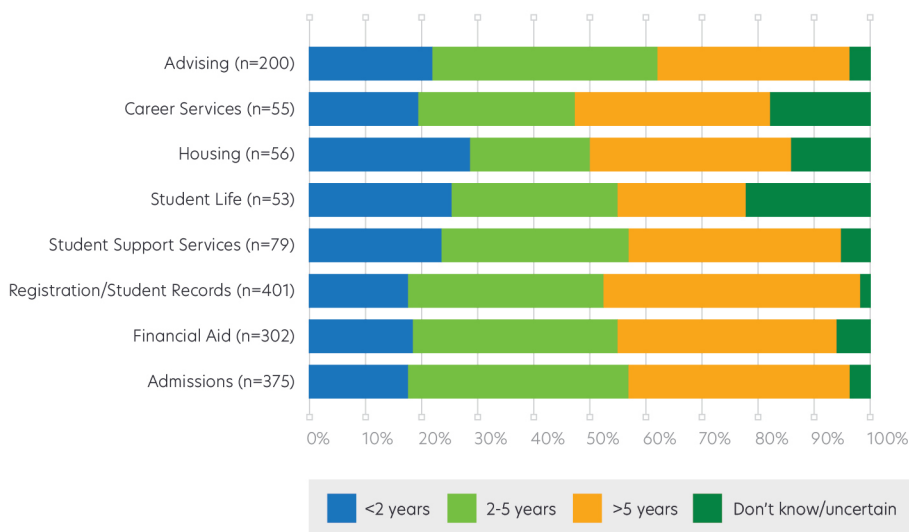
Similar to the results we have seen in other AACRAO research about the use of technology[14], few indicated that they are using the full functionality available in the ECM (Table 2). Most use it for the basic functionality of scanning and retrieving a document. With very few exceptions, less than half report using the additional functionality listed below.

» Work Flows - Electronically manage the daily flow of work, or the sequence of steps in a business process.

» Forms Capture - Electronic displays of information that may accompany a document, or become a document within an ECM, which could then be acted upon within work flow.

» Advanced Capture/Optical Character Recognition (OCR) - the mechanical or electronic conversion of images of typed, handwritten or printed text into machine-encoded text.

» Records Management – Control the creation, receipt, maintenance use and disposition of records.

» Mobile - Use of mobile devices (tablets, phones) to access electronic content.

» Advanced Search - The practice of identifying and enabling specific content across the ECM to be indexed and displayed only to authorized users.

Table 2: ECM feature use by unit (all that apply)

	Scan Retrieve	Work Flows	Forms Capture	Advanced Capture (OCR)	Records Management	Mobile	Advanced Search	Don't know/ uncertain	Count
Admissions	89%	50%	41%	10%	60%	10%	35%	8%	356
Financial Aid	80%	41%	34%	9%	55%	6%	29%	16%	293
Registration/Student Records	93%	44%	35%	11%	68%	9%	39%	1%	380
Student Support Services (tutoring, TRIO,	59%	28%	16%	0%	35%	9%	18%	24%	70
etc.)	51%	26%	6%	0%	37%	6%	20%	41%	51
Student Life	44%	21%	12%	3%	37%	6%	14%	44%	52
Housing	39%	25%	20%	2%	27%	8%	18%	43%	49
Career Services	72%	24%	20%	3%	42%	6%	20%	17%	193

Participants were asked to indicate which types of media and other electronic content they process with the ECM. Paper is the most likely format to be processed by the ECM, followed by email and electronic files in Adobe's portable document format and Microsoft Office documents (Table 3). Almost no one reported using audio and/or video files.

Table 3: Media and electronic content used by ECM by unit

	Paper	E-mail	PDF	Video	Audio	MS Office	Don't know/ uncertain	Count
Admissions	86%	60%	73%	2%	2%	34%	13%	351
Financial Aid	78%	55%	68%	0%	0%	33%	21%	289
Registration/Student Records	93%	66%	79%	1%	1%	39%	2%	374
Student Support Services	65%	57%	57%	1%	3%	28%	29%	69
Student Life	48%	38%	34%	0%	0%	18%	50%	50
Housing	51%	35%	35%	0%	0%	14%	45%	51
Career Services	46%	35%	46%	2%	4%	15%	48%	48
Advising	77%	57%	65%	2%	1%	29%	17%	191

Data Sharing

The majority of the 496 who described how their ECM data is shared with their SIS indicated that the data is either fully or partially integrated (Figure 6). The timing of data sharing is equally likely to be real-time and scheduled only (Figure 6).

Figure 6: Data integration with SIS

Left chart:
- 9% — Yes fully. Completion of a web form or document imaging triggers other processes
- 52% — Yes partially. Some actions automatically trigger other processes while some require manual intervention
- 32% — No
- 6% — Don't know/uncertain

Right chart:
- 38% — Real time data feed
- 37% — Scheduled data load (e.g., every hour, once a day, etc.)
- 26% — Don't know/uncertain
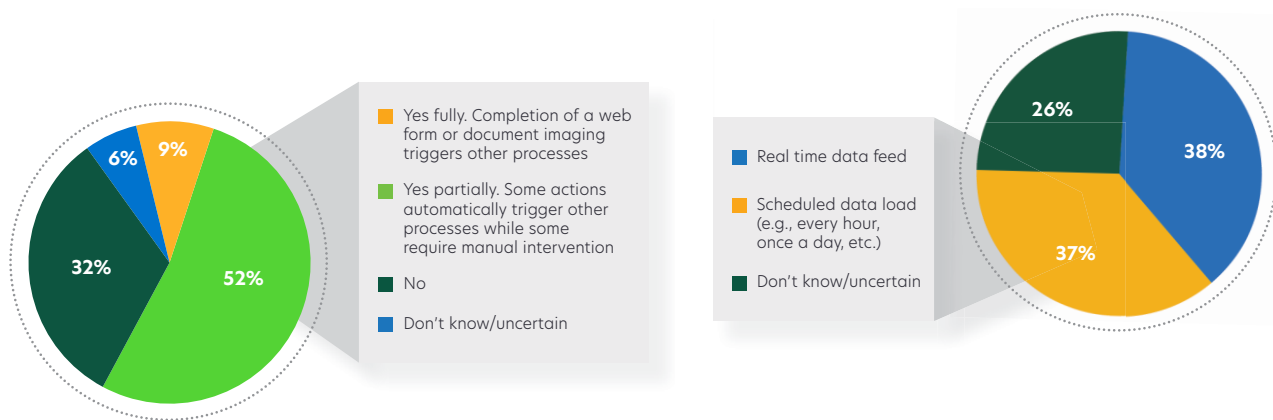
End User Experience

Although the ECM application is a mature product for most institutions which have one at all (i.e., in place for more at least two years and often more than five), most respondents describe themselves as intermediate users (Figure 7).

Figure 7: Self-described end-user level of experience with ECM

Two-thirds (n=271) described their implementation as "moderately successful," 21% (n=84) as "very successful," 6% (n=23) "not successful," and 7% did not commit to a description. Among the 23 who described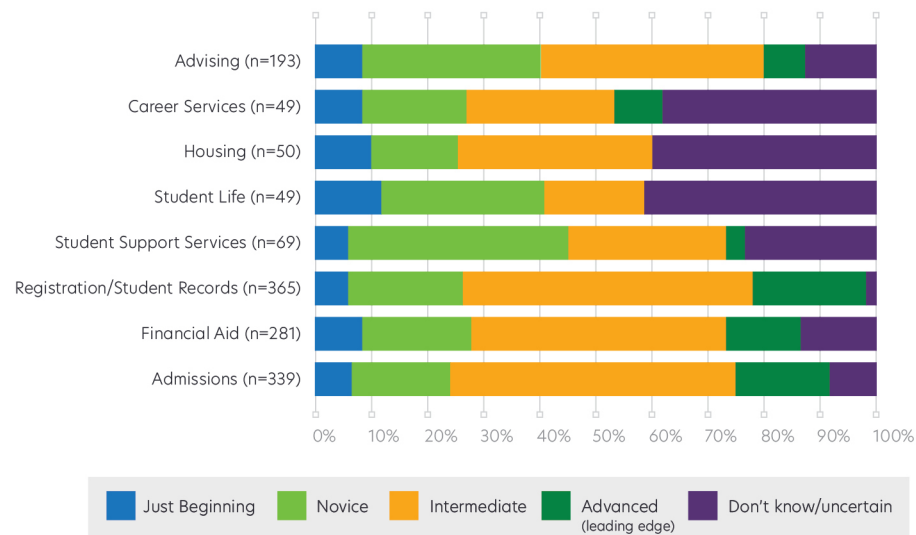 the use as "very successful" several volunteered to share why they feel that way. Several such testimonials are shown below.

"The use of our electronic document management system has improved our productivity in terms of retrieval, reduction in misplaced or lost paperwork, increased customer service in terms of speed of response to inquiries or our ability to provide customers with what they need and also reduced the amount of paper we used to store."

Belen Maestas, Registrar - Adams State College

"ECM has helped us to efficiently manage our growth. We would not have been able to grow as we have without these solutions."

Kyle Martin, Registrar – BYU Idaho

"We have been able to use ECM to streamline many business processes, particularly in Undergraduate Admissions as well as other Student Records processes like drop/add, grade changes, special credit. It has truly allowed us to be far more efficient and timely with our processing."

Mary Beth Myers, Registrar – IUPUI

"Using ECM for document management has allowed us to keep staffing level while enrollment grows, as well as cutting document processing time into fractions providing greater service to our students."

Dena Dennis, Registrar - Kirkwood Community College

"We have essentially eliminated all paper related to admission which has increased the timeliness for Records and Advising to access student information. We have eliminated paper processes related to faculty processes, change of grades, Incompletes, Mid-term deficiency reports, failure reports, catalogue updates, master course submission through the use of electronic workflows."

Rita Steiner, Director of Records, Loyal University Maryland

Some of those who believe they have been "moderately successful" also shared why they felt that way and their comments are included below. A large number of those who report "moderately successful" indicate that assessment is because they have not taken advantage of all of the functionality available to them. Others cite lack of buy-in from the institution as a whole and an inability to remove work silos.

"Additional workflow functionality is greatly needed. Additionally, fine grain access at the document level is needed; the current ECM security is built on separate folders where the documents are imaged, which means that a staff member (if they have the appropriate access) have to look in multiple folders to see if a student has submitted a particular document to a different office. In best practice, no matter which office receives and images a document (e.g. high school transcript), anyone with access to see that document should be able to see it in one location."

Darcy Briggs, Registrar/Director of Enrollment Services – Arapahoe Community College

"It works well for what we're using it for, but there's so much more we would like to investigate using it for."

Michele Neary, Registrar – Butler University

"We are not fully utilizing the capabilities of our ECMs."

Jodi Johnson, Vice President for Student Enrollment Services - Dalton State College

JUST 14% believe their institution is "maximizing its use of the ECM"

Similar to many in the "moderately successful" group, some among those who self-identified as "not successful" indicated a lack of cross-unit buy-in and a lack of institutional support as reasons for such an assessment. Others commented on the bad fit between the SIS and the ECM.

Just 14% (of 405) believe their institution is "maximizing its use of the ECM." This group describes several factors that contribute to their ability to use their ECM to its full potential. Their feedback is condensed here:

- » Ease of use
- » Buy-in before purchasing
- » Accurate and complete set-up before starting to use the ECM
- » Attending training offered by vendor
- » Continued buy-in from the whole campus even after the initial implementation
- » Strong information technology support
- » Business process experts

For the majority who report *not* maximizing the use of the ECM, most checked off "time to learn and implement," followed by "[lack of] people to do the work" and "product expertise" (Figure 8). Less than a third checked "product limitations," and even fewer checked "vendor/provider support." Some of those who selected "Other" were able to provide further details, which include: "lack of project management at an

enterprise level," "IT support," "inconsistencies among users," and "lack of [a] campus champion to develop a product to its fullest." Others mention lack of funding and the need for customization as challenges to full implementation. From this data, it appears that although some institutions do have limited functionality attributable solely to their particular ECM system, most are just unable to take full advantage of the functionality they do have.

> *…most are just unable to take full advantage of the functionality they do have*

Figure 8: Roadblocks to maximizing the use of the ECM (all that apply)(n=348)

Roadblock	Percentage
Time to learn & implement	66%
People to do the work	58%
Product expertise	56%
Lack of financial resources	55%
Buy-in from other parts of your…	43%
Product limitations	30%
Vendor/Provider support	12%
Other	8%
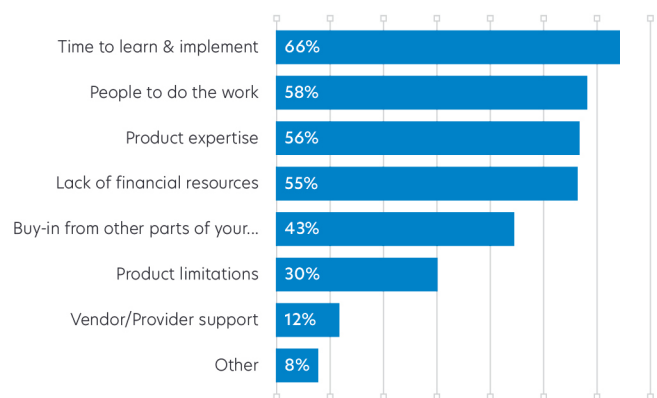
Additional Comments about ECM Use

Several provided additional comments about the use of their ECM.

"We love it. Electronic transcripts can be dropped into the system, it can read and recognize basic data to help with coding and input, as well and be used with a simple scanner from any printer in our office. Very accessible, but also have great security which we can manage as needed."

"We have not implemented OCR/Workflow technologies so many of our processes are frustratingly manual. I hope that this changes within the next year."

"At this time the functionality to be able to move electronic documents, such as email, directly to [XYZvendor] has not been enabled. For that reason, we are printing documents before they are scanned and then associated with a student's record. So far it's more work."

"We are trying to build momentum for an institutional system, and hope to leverage the success that admissions has demonstrated in that effort. There was impending doom (system failure) that drove their acquisition, and their success has been great. We have no such urgency, so the project is not very attractive to senior decision-makers."

"We are still in a transitional phase moving towards a paperless filing system. Once this is accomplished I foresee many value added benefits and efficiency."

"We are using document imaging on a very limited basis for archival purposes."

Changes in Efficiency, Staffing and Policy Associated with the use of an ECM

Efficiency

With a few exceptions, participants rated their processes as being more efficient since the implementation of the ECM application (Figure 9) by stating they "agree" or "strongly agree" with statements about ECM-related processes. Not unexpectedly, most note there are fewer paper records, fewer copies made of records, and improved records sharing. However, less than half agree with the statements that processes are less complicated and that stakeholder communication has improved.

Figure 9: Changes in efficiency
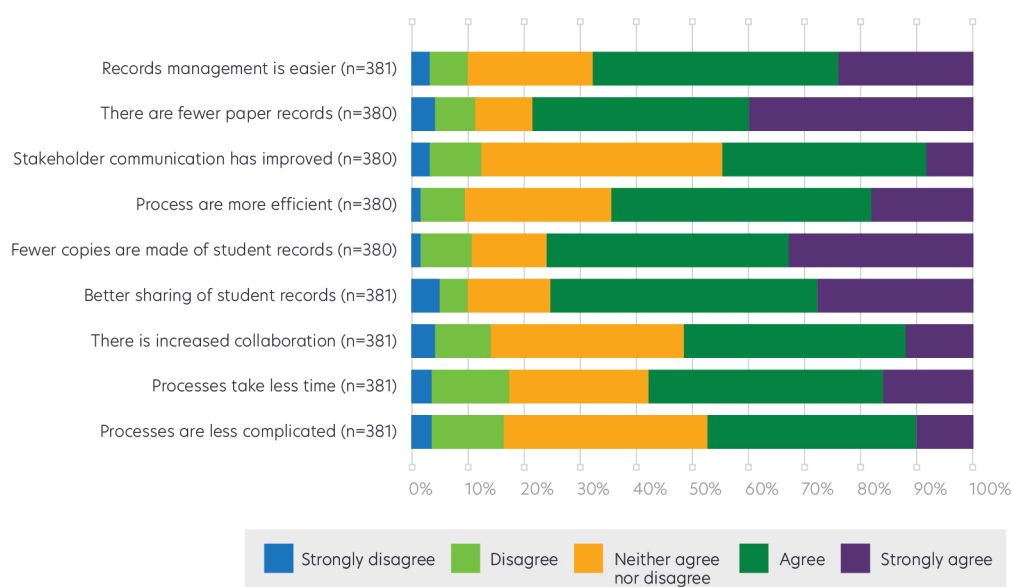
Changes to Staffing

From a list of prepared statements about staffing, we asked participants to state whether or not the adoption of an ECM application impacted staffing (Figure 10). Almost two-thirds (62%) indicated that some existing position responsibilities have changed to support the ECM. Just 16% said that fewer staff were involved in record keeping processes as a result of implementing the ECM and 37% indicated more staff were involved. Twenty two percent (22%) had at least one change in compensation to account for supporting the ECM. Others commented that while there have been no savings in staff, the processes are much easier; that the ECM has enabled the reallocation of resources; and that a shift in workload occurred but ECM system management needs require more people to make it truly efficient. For this sample population it appears that the addition of an ECM to their technology ecosystem has had mixed results with regards to its impact on staffing.

Figure 10: Changes in staffing

	Yes	No	Don't know/uncertain
A change in compensation to account for supporting the ECM (n=372)	22%	54%	25%
More staff are involved in processes supported by the ECM (n=372)	37%	46%	17%
Position responsibilities have changed to support the ECM (n=374)	62%	28%	10%
Fewer staff are involved in processes supported by ECM (n=375)	16%	69%	15%
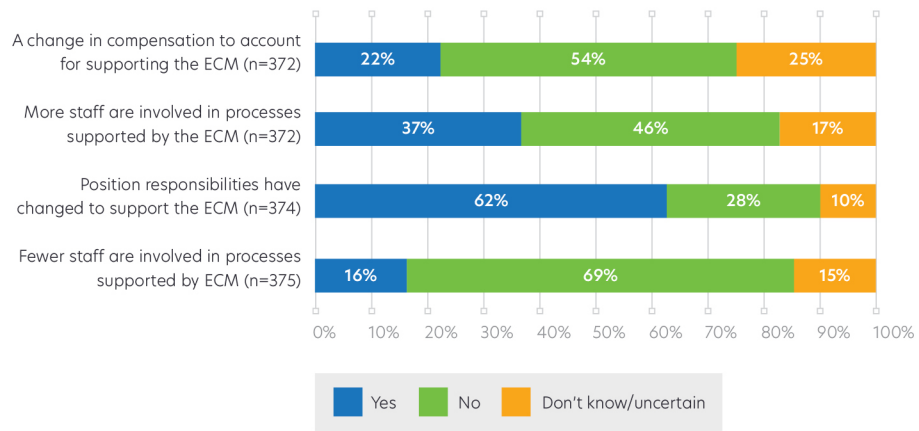
As anticipated, the total number of people using the ECM institution-wide is directly related to the size of the institution. That is, the larger the institution, the more people use the ECM (Figure 11).

Figure 11: Number of people using ECM institution-wide

Size	1-25	26-50	51-100	100+
Under 1,000 (n=73)				
1,000-2,499 (n=91)				
2,500-4,999 (n=65)				
5,000-9,999 (n=67)				
10,000-19,999 (n=43)				
20,000+ (n=32)				
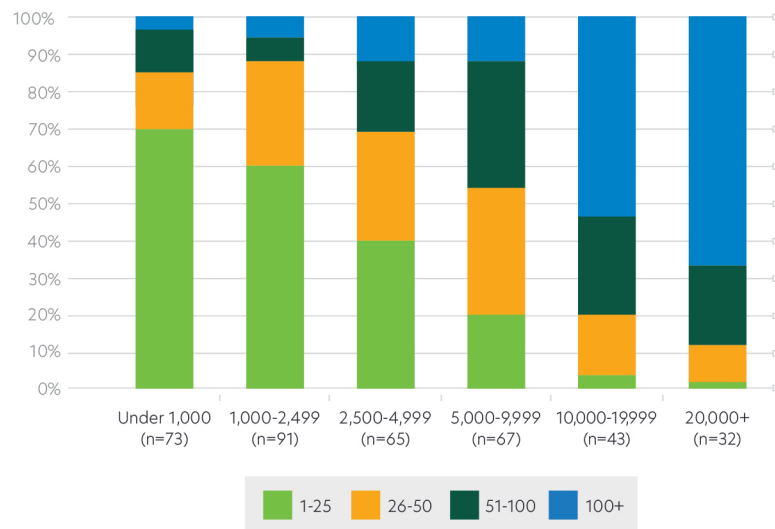
Policy

ECM implementation appears, for most, to have had little effect on institutional policy. Only 26% (n=381) changed policy as a direct result of implementing the ECM. Student records management policies were more likely than other policies to have been impacted, followed by FERPA, data access and other related policies.

Student Records Management Policy and Practice

This section of the report details the records management practices, policies and challenges faced by both those who own and operate an ECM application as well as those who do not. Most of the questions related to student records management were asked of both sample populations. A few were asked only of those with an ECM. In retrospect, the questions about whether or not student records are able to be purged/destroyed, and if they have been purged, should have been asked of both groups. However, this set of questions was only asked of those with an ECM.

According to AACRAO's guide *Student Records Management: Retention, Disposal, and Archive of Student Records*[15], there are elements of student records management that must be addressed with policy, practice and technology. These include:

» Defining what is and is not a student record,

» Understanding when and how a new student record is created,

» Managing both the evolving student record and the technology used to support them,

» Dealing with data corruption and breaches,

» Records security,

» Reporting from student records, and

» Understanding the when, why and how of the final disposition of the student record. (That is, which records need to be archived permanently, which need to be destroyed, and when).

> *... student records managers also need to understand and communicate to others any institutional risks associated with their current student records management practices*

In addition, student records managers also need to understand and communicate to others any institutional risks associated with their current student records management practices.

Student Records Management Practices Among ECM Owners

Student records inventories should be conducted before an institution implements technology that will impact the creation, use and disposition of student records. In this survey, among those with an ECM, only 28% (of 381) indicated their institution conducted an inventory before implementation. However, a further 43% stated they did not know whether or not an inventory was taken.

ONLY 28% indicated their institution conducted an inventory before implementation

It is our best practice recommendation that student records inventories be conducted on a regular basis, not just prior to an ECM implementation. AACRAO's guide on the subject states: "An inventory of student records involves identifying, cataloging, and recording the location of all types of records. This inventory is critical as it provides the basis for a sound records retention and disposition program" (p.9). Further, a regular records inventory schedule also helps an institution safeguard the student records by understanding the how, who, why and when student records are created and managed across the institution, identifying non-compliance with records management policies, and calling attention to areas of increased institutional risk so they may be addressed before becoming an issue.

[15]http://www4.aacrao.org/publications/catalog.php?item=0138#.VqpaTSorLcs

Participants were asked to indicate their level of agreement with several statements about their post-ECM implementation student records management practices. In practice, we have observed anecdotally that most of the documents scanned by the institution are never accessed again and the information stored in these documents is a duplicate of that already in the SIS. The results of this survey appear to give credence to those observations (Figure 12). Two-thirds (68% of 366) either "agreed" or "strongly agreed" with

68% either "agreed" or "strongly agreed" with the statement "Some materials are saved and never accessed again"

the statement "Some materials are saved and never accessed again" and slightly less than half (49% of 366) responded the same to the statement "Many items are saved for the sole purpose of backing up what has already been processed in the ERP[enterprise resource planning]." Interestingly, less than half felt the same about "There is only one copy of any official record." On the positive side, most agreed that student records management is easier with the ECM.

Figure 12: Post ECM implementation student records management perceptions
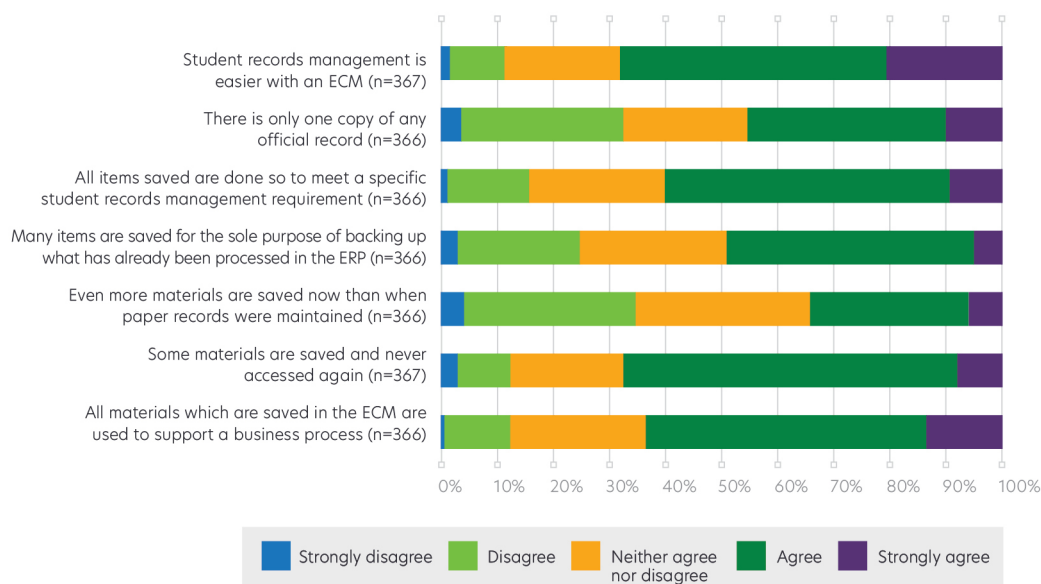
It should be noted that the student records management issues highlighted above are not exclusive to ECMs. The U.S. Family Educational Rights and Privacy Act (FERPA)[16] defines a record as "any information recorded in any way, including, but not limited to handwriting, print, computer media, video or audio tape, film, microfilm and microfiche" and a student record as "records that are directly related to a student and maintained by an educational agency or institution or by a party acting for an agency or institution, if certain conditions are met." As such, the student records management issues highlighted in this report can exist with the application of any technology or any other process used to create, use and manage student records including the ERP/SIS.

[16]Rooker, LeRoy and Tina Faulkner. "AACRAO 2013 FERPA Quick Guide." Washington, DC: American Association of Collegiate Registrars and Admissions Officers, 2013 available from http://www4.aacrao.org/publications/catalog.php?item=0137#.Vo2RaRUrLcs

Most (71% of 369) indicated that records *could* be purged in accordance with the records retention schedule, but *only 20%* have done so. As we commented earlier, an institution's risk for data breaches, court sanctions and financial consequences increases when records are neither kept nor disposed of in accordance with

their records retention schedule. While some retention schedules specifically require that at the end of a specified retention period, the records must be destroyed, many simply state a minimum retention period and as such perhaps give the impression that there is no reason not to keep records past their minimum retention period. It is important for an institution's student records

> *Defining an "end of lifecycle" for student records must, of course, accommodate current laws and regulations but also must allow deviations if there is an administrative need for the record (for any of the reasons stated above) and/or if the record is subject to current or pending litigation.*

management policy to define the "end of lifecycle" for each component of the student record. Defining an "end of lifecycle" for student records must, of course, accommodate current laws and regulations but also must allow deviations if there is an administrative need for the record (for any of the reasons stated above) and/or if the record is subject to current or pending litigation.

Public institutions in the United States are typically guided by state records retention schedules, which are often interpreted and specified in more detail at the institutional level. At least one state retention schedule goes so far as to indicate when a record must be destroyed, not just the minimum time period for retention (Figure 13). According to Deloitte, there are three key points to a defensible records destruction practice[17]:

1. "Records are destroyed in accordance with their data classification;"

2. "The process to destroy is repeatable;" and

3. "Records are destroyed regularly and NOT on an ad hoc basis."

Figure 13: Records retention schedule examples from Colorado[18]

9-16 Transcript Requests
Requests for a transcript of student's permanent academic records and the record of payment received for the copy.

Retention
Retain by agency for 1 year and then destroy

9-4 Graduation Files
Files which document the fulfillment of qualifications necessary to graduate from one of Colorado's institutions of higher education.

Retention
Retain for 5 years after graduation and then destroy

The 29% of respondents who indicated that they do not have the capability to purge records were asked to provide the reason(s) as to why not. Unfortunately, from their responses, it appears that some do not understand the need to provide a final disposition for student records, while others struggle with getting internal assistance from information technology to develop or implement the ability to purge records. For some, a decision has been made not to purge. Others expressed that their institution is not aware of the risks of not doing so.

Respondents who indicated they do have the ability to purge but have not done so (80% of 262) also provided reasons similar to the inability-to-do-so group. For example, one respondent stated, "It's not been a priority to do so, and we believe that it is not harmful to save documents past their life cycle." Some are working on the process now, while others have simply not yet reached the capacity of the storage capacity

of their particular ECM and appear to be using that limit as their records purge trigger. Finally, several are relatively recent adopters of an ECM and, therefore, have not had the system in place long enough to reach a required records destruction time frame.

General Student Records Management

Surprisingly, just three-quarters (73% of 569) indicated their institution has a documented student records management policy. We feel a student records management policy is integral to the safeguarding of student records. Some noted that they are in the process of developing one, or that they follow a state policy. Others stipulated that they follow the AACRAO standards but have nothing documented, and some cited the lack of internal agreement on a policy or the lack of time for creating one as for not having one.

... a student records management policy is integral to the safeguarding of student records

Those who *do* have a student records policy were asked about their level of agreement with several statements about that policy. The most divisive statement appears to be "All who manage student records (faculty, administrators and staff) understand the policy" (Figure 14). More than one-third (35% of 412) did not commit to agreeing or disagreeing with the statement, and nearly the same (29%) either "disagreed" or "strongly disagreed." Most agree that is clear from the policy which student records should be retained permanently and that the policy is up-to-date. Almost one-in-five disagree with the statement that "The official source for current student records is clearly identified." Clearly identifying the official source of the record is important when addressing records inconsistencies, audits and requests for records.

Clearly identifying the official source of the record is important when addressing records inconsistencies, audits and requests for records.

Figure 14: *Opinions about the institution's student records management policy*

Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree
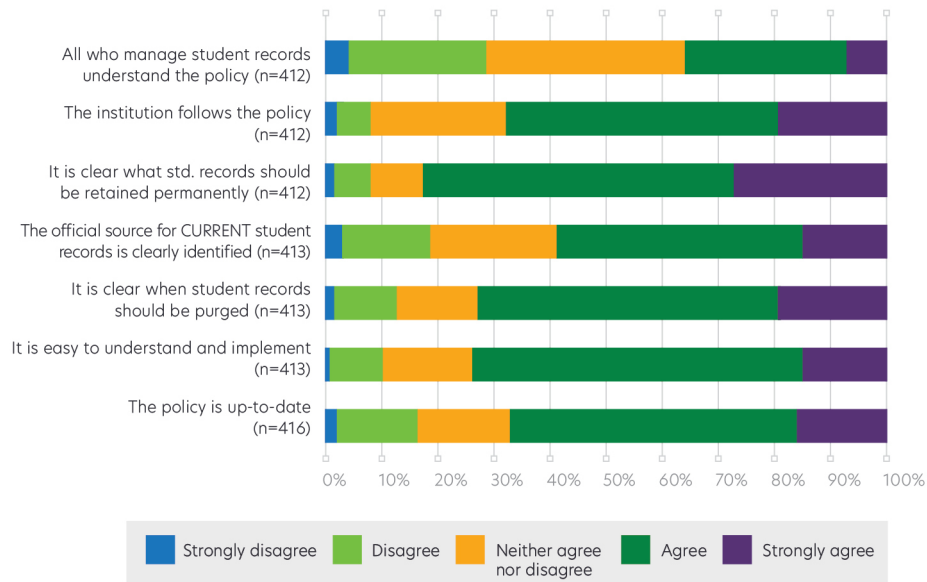
Respondents were given the opportunity to provide additional comments about their institution's student records management policy or practice. Selections from those comments are included below.

"Our SIS is the authoritative source for student information. Our electronic and paper files are documentation for the data that exists in the SIS."

"Many departments keep their own records in paper format, this is a long standing practice that is hard to break."

"My office has a records retention policy that is strictly followed but little progress has been made on an institutional records retention policy."

"We have an entire office of records management as well as an archives for the institution with retention schedules, as well as an internal office retention schedule to which we adhere."

"Our records management policy and procedures were just created a couple of years ago as a result of guidance from AACRAO workshops and literature. The project team was interdepartmental and the final document was reviewed and approved at the highest administrative level. The primary difficulty comes in further refinements of methods for finding and identifying information to be destroyed in a cost effective manner."

"Our policies are quite uneven. Well-documented and well-implemented in some areas, incomplete, unclear or out-of-date in others. Also our SIS/ERP product does not support purging well. This needs more attention. But it's been hard to give it priority given the relentless pressure to do more -- software implementations and just day to day business -- with less. It's one of the things that keeps me up in the middle of the night."

Official Source of Student Records and Format of Historical Student Records

Current Student Records

Although this sample is relatively small (n=239), the responses are a source of concern to us because less than half (46%) identified their institution's SIS/ERP as the official source of the student record (Figure 15). The majority of institutions run most of their primary student records business based on data that resides in the SIS/ERP, not in the other systems or on paper, including billing, student transcripts, degree progression, internal and external reporting, records audits, and financial aid calculations among others. If this sample is representative of the population of institutions overall, we feel that those that do not identify the SIS/ERP as the official source of student records, but also rely on that data for any or all of the business functions above, must be

> *…we feel that those that do not identify the SIS/ERP as the official source of student records, but also rely on that data for any or all of the business functions above, must be able to ensure that data in the information source they have identified as official matches the data they are pulling the data for the business functions*

able to ensure that data in the information source they have identified as official matches the data they are pulling the data for the business functions. Not doing so could potentially increase the risk for audit findings and student record errors such as transcript errors and degree status errors.

Figure 15: Official source of current student records (n=239)

- ERP/SIS — 46%
- Scanned/ECM — 18%
- Paper — 24%
- Microfilm, microfiche — 1%
- LMS — 1%
- Data warehouse — 3%
- Other, please specify — 8%
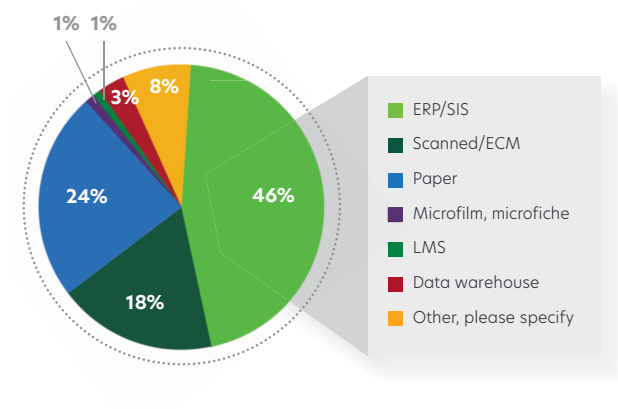
Historical Student Records

For this sample, historical paper records still exist for almost three-quarters of the respondents, followed by the ECM (Figure 16). Both the ERP/SIS and data warehouse records types were checked by a smaller percentage than we expected, especially the ERP/SIS. Among the sources listed in the survey, the Learning Management System (LMS) is the least likely repository of historical student records.

Figure 16: Sources of Historical Student Records (n=407)

- Paper — 72%
- Scanned/ECM — 57%
- Microfilm, microfiche — 48%
- ERP/SIS — 42%
- Data warehouse — 17%
- LMS — 10%
- Other — 5%
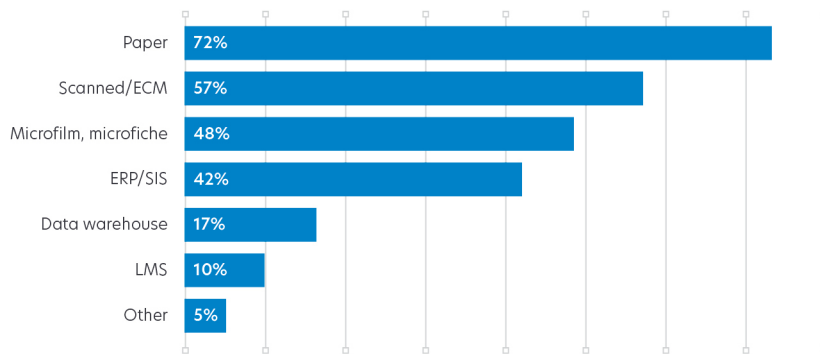
Closing and Recommendations for Practice

As we noted in the beginning of this report, this is our first survey of ECM ownership and use, and of student records management practices in general. We received a credible set of responses to our survey and found that:

» Most (71%) of institutions in this sample use at least one ECM; funding is the biggest deterrent for those who do not have one.

» The majority view their processes as more efficient with the application of an ECM, and records management is easier.

» Fewer than one-in-five believe their ECM technology is being used to its full capacity, with the greatest roadblock to doing so being not having the time to learn and implement.

» Since most institutions do not use all of the advanced functionality in most ECMs, much of the available process efficiency improvement is untapped.

» In the student services arena, registration and records departments are the leading users of an ECM (90%).

» Two-thirds feel "moderately successful" (as compared with "very successful" or "not successful") in their ECM use overall, regardless of how long the ECM had been in use.

» Most (73%) institutions have a records management policy and believe it to be up-to-date, easy to understand, and clear on which records should be retained permanently.

» Among those institutions that have clearly identified an official source for the student record (e.g., paper, student information system (SIS), ECM), less than half identify the institution's SIS as the source of the official record.

» Some institutions appear either not to understand the importance of managing the entire student records lifecycle from creation to *final disposition* or to accept the cost and security implications associated with keeping *all* records permanently.

Based on the insights gleaned regarding institutional ECM application use, and about student records management practices in general, we offer the following commentary and recommendations.

Guidance for Selecting an ECM

The Association for Information and Image Management (AIIM) notes in its white paper "New Standards for ECM Strategy[19]" that ". . . while there may be a tendency to react and apply ECM as a situational response like an audit or eDiscovery request, the best results are gained when ECM is positioned as a strategic initiative." Several survey respondents pointed out that the struggles they have getting to a full implementation of the ECM are because of a lack of institution-wide interest and focus. Fortunately for those just pursuing the acquisition of an ECM, there is a lot of vendor- and organization- provided guidance on how best to select and implement an ECM available on the web. Examples include:

» *Winning Integration Strategies to Inspire and Stimulate Campus-Wide ECM Adoption and Moving from and EDUCAUSE[20]* 2015 conference session.

» *EDUCAUSE Enterprise Content Management/Document Management Constituent Group*[21]

» *Evaluation Criteria for Enterprise Content Management by Gartner*[22]

» *How to Select an ECM Vendor in 9 Steps* by AIIM

» *Top 10 Criteria for Choosing an Enterprise Content Management System* by Oracle[23]

» *Critical Success Factors for Successful ECM System Selection* by Divurgent[24]

» *Choosing an ECM Solution to Revolutionize Your Business Processes* by Naviant[25]

» *Your ECM Scorecard* by Lexmark[26]

[19]www.aiim.org
[20]http://www.educause.edu/annual-conference/2015/winning-integration-strategies-inspire-and-stimu-late-campus-wide-ecm-adoption
[21]http://www.educause.edu/discuss/information-systems-and-services/enterprise-content-management-docu-ment-management-constituent-group
[22]https://www.gartner.com/doc/2871317/evaluation-criteria-enterprise-content-management
[23]http://www.oracle.com/us/products/middleware/top-10-criterias-for-ecm-wp-1939579.pdf
[24]http://divurgent.com/wp-content/uploads/pdf/ECMSystemSelection.pdf
[25]http://naviant-inc.com/ecm-101-education-guide/choosing-ecm-solution-tips/23/
[26]http://www.lexmark.com/content/dam/lexmark/documents/white-paper/y2015/WW_your-ecm-scorecard_white-paper_en-US2.pdf

In a nutshell, these resources and others recommend that institutions clearly understand and document their business needs before talking with vendors, develop a strategic initiative for adoption, develop a request for proposal, evaluate the proposed options and perhaps even pilot the solution to make sure it will work for the institution as intended.

How to Get the Most out of your ECM

Based on our findings, most institutions that own an ECM are not fully utilizing it. As we gathered from the results of the survey, institutions face several roadblocks to maximizing the use of their ECM. Again, there are a lot of web-based recommendations for reevaluating an institution's ECM strategy. As noted in an article posted on *data-informed.com*, an online publication of Wellesley Information Services[27], " . . . many organizations are re-examining their ECM strategies, expanding the myopic views of the past, and looking to better leverage one of their most valuable commodities: information itself." In this article the author recommends the following to reinvigorate an institution's ECM strategy, which is similar to other recommendations about re-invigorating existing technology:

» Understand your current state

» Understand what you want from the ECM

» Conduct a gap-analysis

» Manage change effectively

As we noted in our 2014 study on Constituent (or Customer) Relationship Management (CRM) Solutions[28], "Shifting an institution's use of their CRM to 'strategic' is an undertaking similar to any other institutional change effecting both practice and culture. To do so effectively and efficiently takes strong institutional leadership, comprehensive and in-depth change management skills, a willingness to let go of old business practices, perseverance over time, and, of course, the necessary resources." Doing the same for an ECM requires much of the same dedication and skill set.

Recommendations for Student Records Management

We feel that both records management in general, and student records management specifically, are professions in and of themselves. Given that, we will focus on a few key recommendations related to student records management and provide a sample of available resources specific to the profession. From the results of the survey, we note that a fair portion of respondents are not addressing the end of the student record lifecycle – final disposition – in either practice or policy, for a number of reasons. The AACRAO guide for records management recommends that "Institutions should identify the liability risks of non-compliance with student records management practices."[29] Just because there is storage space in any system to continue to retain records does not mean those records should be retained permanently. Regardless of the record format, the records retention and destruction guidelines apply.

> *Regardless of the record format, the records retention and destruction guidelines apply.*

[27]http://www.wisinc.com/
[28]http://www.aacrao.org/docs/default-source/PDF-Files/state-of-crm-use-in-higher-education-report_final.pdf?sfvrsn=2
[29]http://www4.aacrao.org/publications/catalog.php?item=0138#.VquqnyMrJaQ

The survey also revealed that some portion of documents are scanned and stored only to serve as back-ups to what has already been processed in the SIS and are never used to meet a business need. We recommend that scanning practices be re-evaluated to work more to the norm, not the exception. Because every document that gets scanned must be either disposed of or archived at the end of its lifecycle, consider only creating ECM records for things that are required for a workflow or by records retention policy, not just because there might be a need to see the original copy in case there was human error in the translation between paper and the SIS/ERP. Instead, build training, practice and policy to address those rare occasions where translation mistakes are made.

> *...consider only creating ECM records for things that are required for a workflow or by records retention policy*

Included here and elsewhere in this report are several guides on records management. The list is by no means an exhaustive citation of resources on the topic, but we hope it serves as a solid starting point.

» *Harvard Guide for Managing Student Records*[30] – Harvard University

» *7 Elements of an Effective Records Management Program*[31] – The Ohio State University

» *Records and Information Management: Culture and Strategy, not Just Software*[32] – InContext by Lexmark

» *AACRAO's Student Records Management: Retention, Disposal, and Archive of Student Records*[33] – American Association of Collegiate Registrars and Admissions Officers

» *The Ultimate Guide to Electronic Records Management*[34] – Laserfiche

» *RIM: Not just for destruction and defense anymore*[35] – InContext by Lexmark

» *Higher Education Business Classification Scheme and Records Retention Schedule*[36] – JISC Infonet

Lessons from the Field - University of Maryland

In a story all too familiar to several institutions in the last several years the University of Maryland (UM) was the victim of a security breach in 2014 which exposed over 300,000 records[37.] This breach led the university to conduct a comprehensive review of their electronic records management practices. Our colleague, Adrian R. Cornelius, Registrar at UM has generously provided us with the following words of wisdom and lessons learned to help others avoid what happened at UM.

> *"Critical to the management of student records is the destruction, or purging, of records. Given that often registrar officers have had to rummage back through records to find documents substantiating certain decisions, compliances, etc., we are often programmed to revert to the failsafe mode of just keeping all the records for as long as we can. This tacit behavior gives us a sense of reassurance, or risk aversion, that we can always prove we have done the right thing (apropos the neo term "CYA"). In doing so, however, we overlook, or choose not to comply with, our own records retention policies. As a result, we fail to consider the extent to which keeping records beyond the time required may place the institution at even greater risk than that of being unable to find a given document concerning a change of major, for example.*

[30]http://library.harvard.edu/university-archives/managing-university-records/homepage
[31]https://library.osu.edu/projects-initiatives/osu-records-management/records-management-over-view/7-elements-of-an-effective-records-management-program/
[32]http://www.incontextmag.com/content/dam/psw/incontextmag/pdfs/incontext_sr_rim.pdf#xml=http://PLEXWISYS003.na.ds.lexmark.com:8083/isysquery/10ddfc6c-ba63-4324-b606-638d6d060a5f/3/hilite/
[33]http://www4.aacrao.org/publications/catalog.php?item=0138#.VpVc_xUrLcs
[34]https://www.laserfiche.com/resource/ebook-ultimate-guide-records-management/
[35]http://www.incontextmag.com/articles/2013/rim--not-just-for-destruction-and-defense-anymore.html
[36]http://bcs.jiscinfonet.ac.uk/he/default.asp
[37]https://www.washingtonpost.com/local/college-park-shady-grove-campuses-affected-by-universi-ty-of-maryland-security-breach/2014/02/19/ce438108-99bd-11e3-80ac-63a8ba7f7942_story.html

Additionally, we are not intentional in managing our records retention policies, including adding new records types into the policy. One of the major risks associated with keeping records is that everything kept is discoverable, meaning that if it is subpoenaed and it exists, we have to produce it. This increases effort on behalf of the university to find and produce records. With the advent of enterprise resource planning solutions, document imaging systems, enterprise content management systems, and customer relationship management solutions also came the risk of non-purged records taking up computing space and slowing down processes. Even more precarious to the organization, though, is that the more records we accumulate in our systems, the greater the scope of a security breach.

In our assessment of the records breach of our ID card system in early 2014, we found that: 1) the ID card records were not included in our records retention plan, and 2) these records were just accumulating in the system without ever being purged. As a result, the scope of our breach was over 300% greater than it would have been had the system been on a purge schedule. We have since decided to not keep records in this system beyond two years and to place these records on a purge cycle, meaning that each semester, records created more than two years prior are completely purged from the system (i.e. they are not stored in a backup drive somewhere else)--they are completely gone. Our next step is to add this record type into our records retention plan, and to ensure we follow our records retention plan for all records types moving forward. Regretfully, it took a security breach for us to be more purposeful in following our records retention plan, but with the same token, the breach experience has sensitized other areas on campus to be more accepting of purge decisions, which means that meetings to decide whether to purge or not sensitive data, how much to purge, and whether to store purged records in back-up files or not have dwindled."

In closing, this report begins to paint a picture of ECM use in higher education among our membership and student records management practices. We intend to replicate the survey periodically and welcome comments and questions on this one. *Please send feedback to Wendy Kilgore at research@aacrao.org.*

Appendix A: Survey Instrument*

* Dynamic question logic is not included

Student Records Management and use of Electronic Content Management (ECM) Solutions

Introduction

This survey is designed to help the American Association of Collegiate Registrars and Admissions Officers (AACRAO) and its members gain an understanding about student records management practices and the use of Electronic Content Management (ECM) solutions to support student services. Enterprise Content Management (ECM) includes the strategies, methods and tools used to capture, manage, store, preserve, and deliver content and documents related to organizational processes. Examples include, document imaging, workflows and electronic records management. This survey should take about 15-20 minutes to complete. Thank you for your time and interest in helping us complete this survey.

Does your institution use at least one ECM?

○ Yes

○ No

Is your institution currently considering the purchase of an ECM?

○ Yes

○ No. If known, why not? _____

Please indicate which areas are considering an ECM. Check all that apply.

	Yes	No	Don't know/uncertain
Admissions			
Financial Aid			
Registration/Student Records			
Student Support Services (e.g., tutoring, TRIO, etc.)			
Student Life			
Housing			
Career Services			
Advising			

Is the ECM integrated with your institution's ERP (aka student information system, Banner, Colleague, PeopleSoft, etc.)?

○ Yes fully. Completion of a web form or document imaging triggers other processes

○ Yes partially. Some actions automatically trigger other processes while some require manual intervention.

○ No

○ Don't know/uncertain

How is the data shared with the ERP?

○ Real time data feed

○ Scheduled data load (e.g., every hour, once a day, etc.)

○ Don't know/uncertain

Please indicate which areas currently use an ECM.

	Yes	No	Don't know/uncertain
Admissions			
Financial Aid			
Registration/Student Records			
Student Support Services (e.g., tutoring, TRIO, etc.)			
Student Life			
Housing			
Career Services			
Advising			

Please indicate approximately how long the ECM has been in use for each area.

	< 2 years	2 to 5 years	More than 5 years	Don't know/uncertain
Admissions				
Financial Aid				
Registration/Student Records				
Student Support Services				
Student Life				
Housing				
Career Services				
Advising				

If known, please list any other departments that you are aware of that use an ECM at your institution.

_____

_____

Please indicate the ECM features in use for each area.

Most ECMs have multiple features which may or may not be used by each department. Those listed below are fairly common features for most ECMs.

Definitions

» **Scan/Retrieve** - The ability to scan or import a document and then access the document again at a later date.

» **Work Flows** - Electronically manage the daily flow of work, or the sequence of steps in a business process.

» **Forms Capture** - Electronic displays of information that may accompany a document, or become a document within an ECM which can then be acted upon within work flow.

» **Advanced Capture (OCR)** - Optical character recognition is the mechanical or electronic conversion of images of typed, handwritten or printed text into machine-encoded text.

» **Records Management** - Control the creation, receipt, maintenance use and disposition of records.

» **Mobile** - Use of mobile devices (tablets, phone) to access electronic content.

» **Advanced Search** - The practice of identifying and enabling specific content across the ECM to be indexed and displayed only to authorized users.

	Scan Retrieve	Work Flows	Forms Capture	Advanced Capture (OCR)	Records Management	Mobile	Advanced Search	Don't know/ uncertain
Admissions								
Financial Aid								
Registration/Student Records								
Student Support Services								
Student Life								
Housing								
Career Services								
Advising								

For each area, where known, please indicate the type of media and electronic content you use your ECM to manage.

	Paper	E-mail	PDF	Video	Audio	MS Office (xls., ppt., doc)	Don't know/ uncertain
Admissions							
Financial Aid							
Registration/Student Records							
Student Support Services							
Student Life							
Housing							
Career Services							
Advising							

Part 2: Depth and Success of ECM Use

How would you describe user experience of ECM for each department?

	Just Beginning	Novice	Intermediate	Advanced (leading edge)	Don't know/ uncertain
Admissions					
Financial Aid					
Registration/Student Records					
Student Support Services					
Student Life					
Housing					
Career Services					
Advising					

How successful do you feel your ECM use is overall?

O Very successful

O Moderately successful

O Not successful

O Not sure/don't have data

Please tell us more about why you made that choice.

_____

_____

May we have permission to use your answer above as a quote in the report?

We are interested in sharing success stories.

O Yes

O No

Part 3 Implementation and Use

Overall, do you believe your institution is maximizing its use of its ECM(s)?

O Yes

O No

What do you think contributed to your success?

_____

_____

What do you perceive are the roadblocks for doing so?

Check all that apply.

O Time to learn and implement

O Product expertise

O Lack of financial resources

O Buy-in from other parts of your institution

O People to do the work

O Product limitations

O Vendor/Provider support

O Other, please specify _____

Why do you think that is so?

_____

_____

May we have permission to use your answer above as a quote in the report?

O Yes

O No

Part 4 Practice Implications

Please indicate overall how much you agree with the following statements about how practice efficiency has changed as a direct result of adopting and using the ECM.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Processes are less complicated					
Processes take less time					
There is increased collaboration within and between departments					
Better sharing of student records					
Fewer copies are made of student records					
Processes are more efficient					
Stakeholder communication has improved					
There are fewer paper records					
Records management is easier					

Part 5 Staffing Implications

For the statements below, indicate overall how or if staffing has changed as a direct result of adopting and using the ECM.

	Yes	No	Don't know/ uncertain
Fewer staff are involved in processes supported by ECM			
Position responsibilities have changed to support the ECM			
More staff are involved in processes supported by the ECM			
At least one position has had a change in compensation to account for supporting the ECM			

If there are any details you would like to share about your answers above, please do so here.

_____

_____

Approximately how many people use the ECM across your institution?

- ○ 1-25
- ○ 26-50
- ○ 51-100
- ○ 100+

Additional comments about your institution's use of an ECM.

_____

_____

Part 6 Student Records Management Policy and Practice

Have there been any policy changes as a direct result of the implementation and use of the ECM?

○ Yes

○ No

Please briefly describe what those changes have been.

_____

_____

Did your institution conduct a student records management inventory before implementing the ECM?

○ Yes

○ No

○ Don't know/Uncertain

Please indicate overall how much you agree with the following statements about your institution's student records management practice.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
All materials which are saved in the ECM are used to support a business process					
Some materials are saved and never accessed again					
Even more materials are saved now than when paper records were maintained					
Many items are saved for the sole purpose of backing up what has already been processed in the ERP					
All items saved are done so to meet a specific student records management requirement					
There is only one copy of any official record					
Student records management is easier with an ECM					

Can your institution purge student records from the ECM in accordance with the records retention schedule?

◯ Yes

◯ No

Why can't records be purged?

_____

_____

Have you?

◯ Yes

◯ No

Why not?

_____

_____

Does your institution have a documented student records management policy?

◯ Yes

◯ No

Please indicate overall how much you agree with the following statements about your institution's student records management policy.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
The policy is up-to-date					
It is easy to understand and implement					
It is clear when student records should be purged					
The official source for CURRENT student records is clearly identified (ERP, ECM, paper)					
It is clear what student records should be retained permanently					
The institution follows the policy					
All who manage student records (faculty, administrators and staff) understand the policy					

If known, please state why your institution does not have a documented student records management policy.

_____

_____

What is the OFFICIAL source of CURRENT student records at your institution?

○ ERP/SIS

○ Scanned/ECM

○ Paper

○ Microfilm, microfiche

○ LMS

○ Data warehouse

○ Other, please specify... _____

For HISTORICAL student records, what other formats exist at your institution for official student records?

Check all that apply.

○ ERP/SIS

○ Scanned/ECM

○ Paper

○ Microfilm, microfiche

○ LMS

○ Data warehouse

○ Other, please specify... _____

Please include any additional comments you may have about your institution's student records management policy or practice here.

_____

_____

Appendix B: Participant count by country, institutional type, size and control

Country	Count
Antigua and Barbuda	1
Armenia	1
Bahamas	1
Canada	19
Italy	1
Lebanon	2
Mexico	1
Netherlands Antilles	1
Oman	1
Palau	1
Qatar	2
United Arab Emirates	1
United States	668
Grand Total	**700**

Control, type and size	Count
Public	**274**
lower division only	100
Under 1,000	15
1,000 - 2,499	27
2,500 - 4,999	29
5,000 - 9,999	17
10,000 - 19,999	11
20,000+	1
Undergraduate	26
Under 1,000	7
1,000 - 2,499	6
2,500 - 4,999	3
5,000 - 9,999	4
10,000 - 19,999	2
20,000+	4
undergraduate, graduate and/or professional	146
Under 1,000	2
1,000 - 2,499	16
2,500 - 4,999	18
5,000 - 9,999	43
10,000 - 19,999	33
20,000+	34
graduate and/or professional	2
5,000 - 9,999	1
10,000 - 19,999	1
Private, not-for-profit	**386**
lower division only	8
Under 1,000	7
5,000 - 9,999	1
Other	1
Under 1,000	1
Undergraduate	75
Under 1,000	36
1,000 - 2,499	34
2,500 - 4,999	4
10,000 - 19,999	1
undergraduate, graduate and/or professional	266
Under 1,000	67
1,000 - 2,499	93
2,500 - 4,999	55
5,000 - 9,999	32
10,000 - 19,999	15
20,000+	4
graduate and/or professional	36
Under 1,000	31
1,000 - 2,499	3
2,500 - 4,999	1
5,000 - 9,999	1
Private, proprietary	**40**
lower division only	5
Under 1,000	3
1,000 - 2,499	1
2,500 - 4,999	1
Undergraduate	15
Under 1,000	13
1,000 - 2,499	1
2,500 - 4,999	1
undergraduate, graduate and/or professional	16
Under 1,000	10
1,000 - 2,499	3
5,000 - 9,999	1
10,000 - 19,999	1
20,000+	1
graduate and/or professional	4
Under 1,000	4
Grand Total	**700**