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Transcript Practices and Costs at U.S. Institutions



AACRAO

Advancing Global Higher Education

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Foreword

The American Association of Collegiate Registrars and Admissions Officers (AACRAO) endeavors to undertake research projects that keep our membership and the higher education community at large informed about current and emerging practices in admissions, records and enrollment management practices.

The survey behind this report was created in conjunction with our sister organization, the National Association of College and University Business Officers (NACUBO), and Parchment, Inc. Parchment's generous underwriting of the project included in-kind services to review the draft survey for clarity, provide feedback on the draft analysis, and draft the report narrative. The company also provided a fiscal contribution in the form of a survey incentive for our membership and covered travel costs associated with presenting the report at AACRAO's 2014 Technology and Transfer Conference.

This survey builds on the original 1997 study, *A Business Case for the Electronic Exchange of Student Records*, and more recent, brief AACRAO surveys on transcript practices. Finally, we would like to acknowledge the more than 300 AACRAO members who responded to the survey. Thanks to their willingness to share their time, institutional practices, and costs, this report offers a much needed and updated look at the transcript practices and associated costs at U.S. institutions.

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Executive Summary

This survey was intended to update and expand on the 1997 SPEEDE/ExPRESS study titled, *A Business Case for the Electronic Exchange of Student Records*, conducted by the National Center for Education Statistics (NCES). The survey instrument consisted of two parts. The first queried respondents on their institutional methods for receiving post-secondary (PS) and high school (HS) transcripts, as well as methods for sending PS transcripts. Additionally, this section asked about the level of automation for these practices and any future eTranscript implementation plans.

The second part was designed to capture the costs associated with each transcript receipt and delivery method through self-reported information on transcript volume, average staff costs, average time on task, and other costs. These values were used to calculate the cost per transcript in this report.

The American Association of Collegiate Registrars and Admissions Officers (AACRAO) sent the survey electronically from the FluidSurveys¹ platform to a list of AACRAO members who had been matched against the membership list of the National Association of College and University Business Officers (NACUBO). The cross-listed membership list totaled 1,403 recipients. The overall response rate was 22.5 percent (n=315). Respondents represented the full-spectrum of institutional type and size.

The raw responses and data analysis indicate that paper and manual processes remain the predominant form and practice for receiving and sending PS transcripts.

- Most institutions use more than one method for receiving and sending transcripts.
 - 99.4 percent of all respondents send and receive paper PS transcripts.

¹ www.fluidsurveys.com

- 31.6 percent receive Electronic Data Interchange (EDI)/XML PS transcripts, while 20.3 percent send EDI/XML PS transcripts.
- 74.1 percent and 43.4 percent, respectively, receive and send PS transcripts in a PDF format.
- 7.6 percent and 6.3 percent, respectively, receive and send PS transcripts in another format than those noted above (for example, fax).
- Of the respondents who receive electronic transcripts, fewer than 12 percent use the electronic transcript data to automate transfer articulation or admissions decision processes.

Institutions also receive high school transcripts through a variety of methods but predominantly on paper. Similar to PS transcript practices, most institutions selected more than one method for receiving high school transcripts.

- 98 percent of all respondents report using paper.
- 30.9 percent use EDI/XML.
- 58.2 percent use PDF.
- 7 percent report using an alternate method.

A great deal of variation exists in the reported costs and processing time for each type of transcript.

- These costs varied by the transcript receipt and sending method and by the institution's size.
- With one exception, paper transcript processes have a higher per-transcript cost, on average, than all other methods. Average costs for paper transcripts were calculated as follows:



- \$6.58 per PS received
- \$4.86 per PS sent
- \$4.13 per HS received

Given the wide variance in responses across institutional size and type—and the limited sample sizes for some questions—the survey’s results generate additional questions on practice and costs. Questions stemming from the results include, but are not limited to:

- Why is paper still the predominant method for sending and receiving transcripts when eTranscript methods are often also available at an institution?
 - What are the institutional barriers to adopting eTranscript solutions for the majority of transcripts?
- Why are the majority of institutions not using the fully automated functions available through the use of eTranscript solutions and many student information systems?
 - When institutions adopted eTranscript methods, did they intend to use these automated functions but, for one reason or another, have not?
- Why does PDF appear to be the preferred eTranscript method over other options?

Generalizations based on the cost data should be limited, given the smaller sample size. Institutions interested in assessing the ROI and/or cost of various electronic transcripts practices should conduct their own cost study using a method similar to the one described in this report. In addition, future research should include case studies on institutions that automate the transfer articulation processes and/or admissions decisions processes using electronic transcript data. This research can help determine whether fully automating the transfer articulation or admissions data process leads to a further reduction in cost per transcript.



Introduction

Conducted by the National Center for Education Statistics (NCES) in 1997, the SPEEDE/EXPRESS study titled *A Business Case for the Electronic Exchange of Student Records* was visionary for its time—and many in education are still trying to make this vision a reality.

By examining the significant cost savings, efficiencies, and organizational benefits seen by other industries, the SPEEDE study suggested that adopting electronic data interchange (EDI) would yield similar benefits for students and staff at educational institutions. With a mechanism to exchange student records in near-real time, admissions officers would be able to save time in matriculating and placing students. Students would not miss key dates waiting for records to arrive and be processed, and administrators would be able to use the student record data to perform calculations and other high-level functions to improve their workflow and both student and institutional services.

In the 17 years since the study, the issues and proposed solutions have largely remained the same. Remarkably, in addition to cost savings, the six key business benefits identified in 1997 are still the main areas of improvement desired by higher education administrators today:

- Responsiveness
- Efficiency
- Accountability
- Better Decisions
- Improved Services
- Doing More with Less

The SPEEDE study suggested that, as institutions began to adopt and use electronic methods of exchanging student records, they would see near-term cost savings. In addition, they would have the opportunity to maximize the potential of digital records at their institution.



Since the original SPEEDE study, technical revolutions have occurred in almost every sector of secondary and postsecondary education. Nearly every aspect of registration, administration, and attendance is completed almost entirely online. Exchanging electronic student records, however, is one of the few areas with a remarkably low rate of adoption.

Sending and receiving paper transcripts remains the most common form of record transfer, even though labor-intensive, manual keying of data must occur on both ends of the transaction. As students explore different education pathways that may lead them to several institutions before earning a degree, transactional work for registrars and admissions officers will increase. The practice of sending, processing, and placing students using paper records will become untenable, resulting in delays that will ultimately impact student attendance and success.

Based on the replies to the survey, adoption of eTranscripts as an electronic record exchange mechanism is only beginning to gain widespread traction. All respondents reported at least some mix of paper and electronic (PDF, XML/EDI) method for sending and receiving transcripts, with paper transcripts representing the highest percentage for every institution type. Although the survey did not delve into the reasons for adoption—for example, whether the institution is realizing the anticipated benefits—but the benefits to students and/or staff are, presumably, driving the increased interest in adopting electronic methods.

Over the past decade, we have seen transitions and enhancements in the exchange networks and data formats. Whereas only the registered SPEEDE network could verify exchange partners in the past, now service providers broker the document exchange and verify the parties. Whereas before only the EDI standard for data exchange existed, now new data schemas—such as PESC-XML—have emerged to provide additional data fields and the flexibility needed for expanding data requirements. Before, security was taken into consideration at the exchange network level; now, security is applied to every individual document via Certified PDF and Digital Rights Management features.



Confusion often arises about data standards, such as XML or EDI, and transfer networks, such as SPEEDE, which allows registered networks of users to exchange with one another. Based on the results of the survey questions (as seen in Tables 1, 2, and 3 and Appendix C) eTranscript users are still somewhat confused about the formats available (PDF or EDI/XML) and how their institutions employ the formats. For clarification, here are definitions of each method:

PDF—A Portable Document File (PDF) created from the image of a transcript. Most transcript PDFs have two or three layers:

1. An art layer, where signatures, seals, and other art are applied to brand the document with institution-specific look and feel.
2. A text layer with a human readable representation of the transcript data.
3. An optional data layer, in either XML or EDI, that encapsulates the information on the transcript in a machine-readable format.

Other features can be added to a PDF transcript, such as Blue Ribbon Certification; this applies security certificate authorization upon every use of the document, making it an extremely secure delivery method. PDF is the most popular form of eTranscript adoption.

EDI/XML—The machine-readable representation of student data that adheres to an established data schema, such as PESC-XML or EDI. The standard data schemas can be extended to support specific fields or requirements specific to certain groups. For example, both eTranscript California and AMCAS require the inclusion of specific information in fields they have defined. Very few institutions send or receive only EDI/XML-based student records. More typically, if data is supplied, it is embedded within or attached to a PDF. As the easiest machine-to-machine method for exchanging student records, EDI/XML data transfer should be more widely explored for optimum data exchange efficiency.



As institutions adapt their processes to send and use student records in electronic format, they will see immediate improvements to efficiency and processing. The true power inherent in electronic student record exchange, however, comes with machine-to-machine data transfer via XML or EDI, which allows for the automation of many, if not most, manual processes. This leaves time and resources for higher-level analysis and goal achievement.

This report aims to provide more information on how institutions are making the digital transition. It first reviews the survey methodology and then describes the survey results. The presentation of the results matches the sections of the survey. Section 1 addresses institutional methods for receiving post-secondary (PS) and high school (HS) transcripts, as well as sending post-secondary transcripts. Section 2 captures the costs associated with each transcript receipt and delivery method. The self-reported information on costs and time on task is used to calculate the cost per transcript for this report and other data.



Survey Methodology

The survey population included a selection of members from the American Association of Collegiate Registrars and Admissions Officers (AACRAO) and the National Association of College and University Business Officers (NACUBO), all from U.S. institutions and representing various institutional types and sizes. AACRAO selected recipients by filtering its membership database for those with a title of institutional registrar or equivalent. NACUBO selected recipients by cross-listing the AACRAO recipients with its membership list. The resulting list of recipients included only those institutions where both AACRAO and NACUBO had active members. The final list totaled 1,403 recipients.

The overall response rate was 22.5 percent (n=315). However, the response count varied by question for two reasons: 1) the survey's question logic determined which questions were asked of respondents based on their own responses; and 2) respondents sometimes chose to skip questions. Given these two factors, the number of responses for any given question did not always total 315.

AACRAO sent the survey and introductory email (Appendix A) electronically to all AACRAO recipients on March 17, 2014. The survey was available for four weeks. During this period, reminder emails were sent to those who had started the survey and those who had not. In addition, NACUBO sent an email to its members, introducing the survey and encouraging them to assist their institutional colleagues who received the survey with the cost calculation section.

We believed AACRAO members would not be able to answer all of the survey's cost and volume questions on their own because most had the title of registrar and some of the requested information would more typically reside with the admissions office and/or the business office. AACRAO recipients were encouraged to connect with other staff members in admissions, the business office, or elsewhere as needed to complete the transcript cost and volume section.

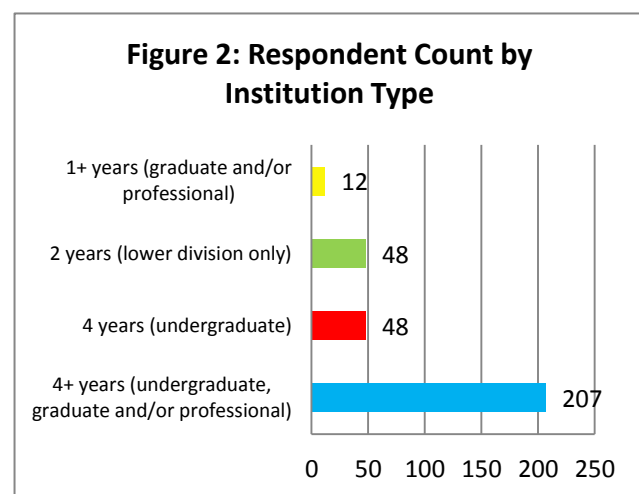
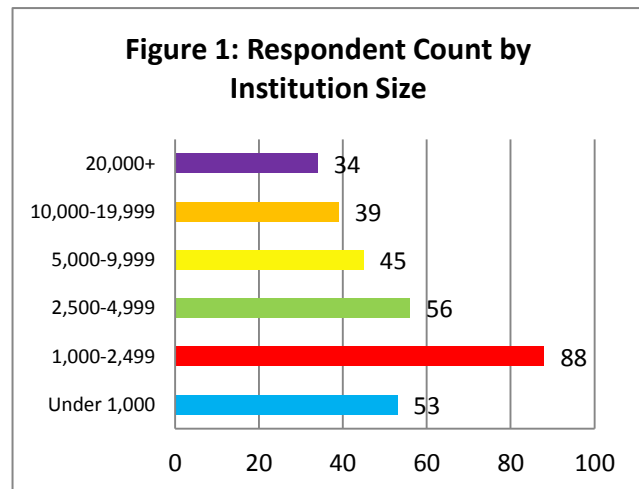


Finally, a survey incentive was provided to AACRAO members in the form of a random drawing for one AACRAO conference registration for the 2014 conference year.

The AACRAO member institution size and type categories used in this report are based on the following definitions and sources. The enrollment value used to delineate the institution size category is defined as full-time enrollment plus one-third of part-time enrollment; it is based on the enrollments reported by the institution to the U.S. Department of Education’s National Center for Education Statistics (NCES). Institution type is also defined by and verified through NCES.

Figure 1 displays the distribution of respondents by institutional size. The majority of respondents represented institutions with enrollment between 1,000 and 2,499 students. This somewhat over-representation of smaller institutions warrants limits to the interpretation and generalization of the aggregate report results to larger institutions, given that smaller institutions often have fewer human and fiscal resources and a lower transcript volume.

Figure 2 shows the distribution of respondents by institutional type. The vast majority of respondents are from four-year-plus institutions.



The survey's cost and resource section included a considerable number of self-calculated responses that were constrained in data type (for example, dollars and cents, integers) through the use of data validation rules in the survey itself. These rules, however, were still flexible enough to allow respondents to provide a broad range of time and cost answers. Given this flexibility and possible differences in how respondents interpreted a particular question, the resulting data set needed to be cleaned before conducting the analyses. The data was cleaned using these techniques:

- Contacting the respondent via email to clarify information.
- Removing outliers or incomplete sets of information from the costs and resource section when the respondent did not reply to the request for clarification.
- Normalizing the percentages assigned to the methods of transcript receipt and delivery, if the percentage totals were not 100 percent.
- Making other data corrections based on the question asked. (For example, when an hourly wage was stated as \$38,000, the assumption was made that this was a yearly wage and, as such, was converted to an hourly rate.)

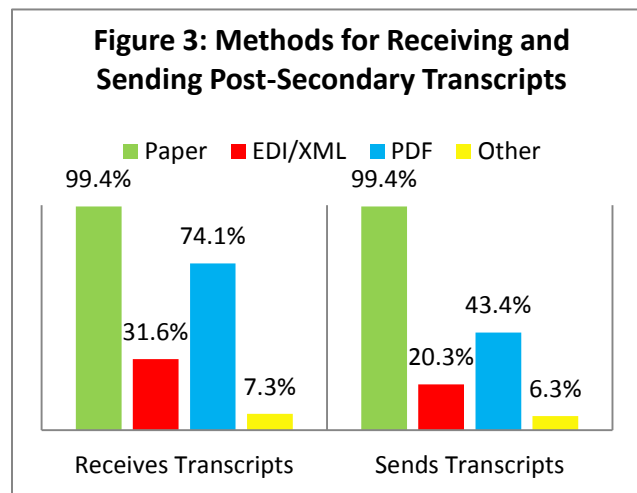


Section 1: Transcript Practices

Institutional Methods for Receiving and Sending Post-Secondary Transcripts

Along with questions about annual transcript volume (captured in Appendix D by institutional size and method), the survey asked respondents to indicate how they receive and send post-secondary (PS) transcripts (Figure 3). Respondents were able to indicate more than one method; hence, the data sets exceed 100 percent.

Nearly 100 percent of respondents indicate paper is one of the current methods for receiving and sending PS transcripts. The next highest adoption rate is for PDF, with 74.1 percent receiving and 43.4 percent sending in that format. The EDI/XML method for receiving and sending post-secondary transcripts is still relatively low within the group of respondents at 31.6 percent and 20.3 percent, respectively.



If respondents selected “other” for either receiving or sending PS transcripts, they were prompted to enter that “other” method in a free-text field (See Table 1 in Appendix C). Table 1 data are reported in their unedited format.

Faxing is the most common alternate method reported. Some respondents also report having agreements with other institutions specific to the exchange of faxed transcripts. It appears from the responses in Table 1 that some respondents are not aware their current transcript service vendors produce PS transcripts in some sort of an electronic format (for example, Parchment,

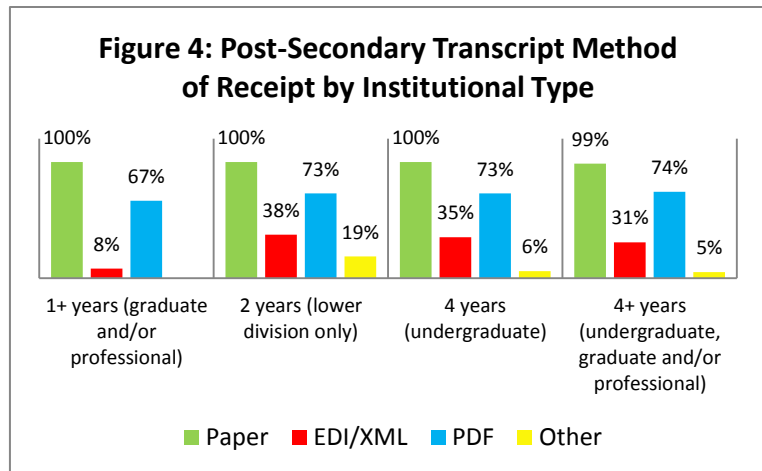


SPEEDE). Appendix E makes a distinction in the annual percentage of transcripts received or sent by type (PS or high school), method (paper, EDI/XML, PDF, other), and institutional size.

Table 2 in Appendix C lists all of the responses for other methods for sending PS transcripts. Similar to the Table 1 responses, faxing is the most common alternate method, with eight of the 20 responses listing fax as an option. Also similar to Table 1, it appears some respondents are not aware that their current transcript service vendor for sending PS transcripts is providing transcripts in some type of electronic form (for example, SPEEDE, FASTER, and ETX).

Figures 4 through 7 differentiate the PS transcript receipt and sending method by institutional type and size. As in Figure 3, the percentages totals in the charts across the methods and by institution type and size will not add up to 100 percent because respondents were able to report all methods they use.

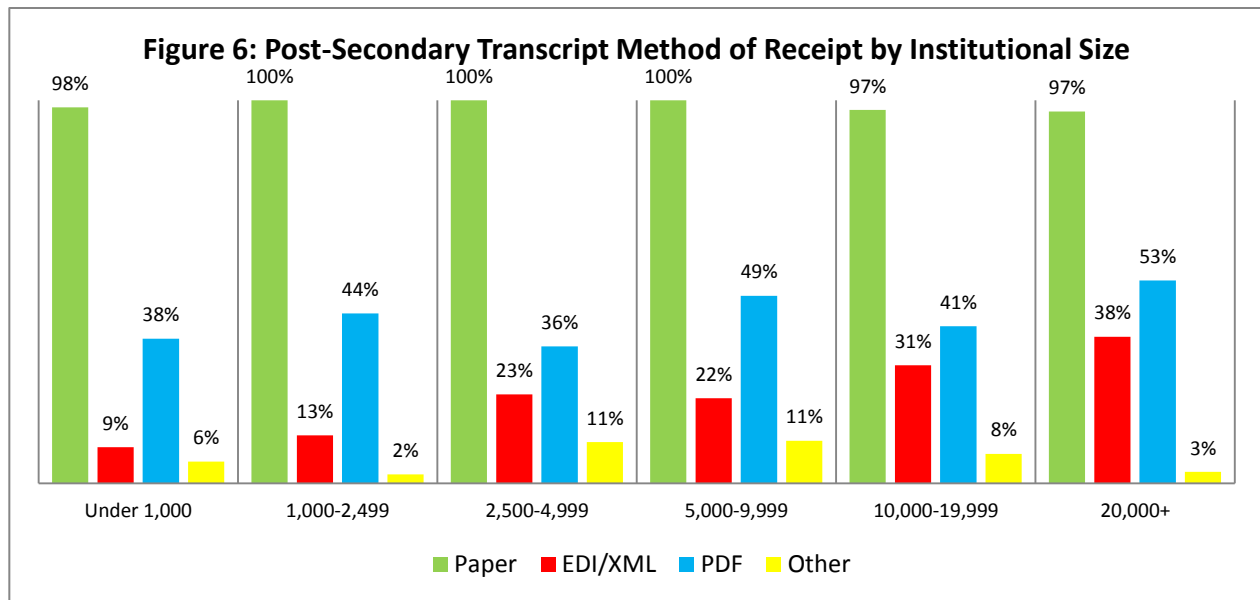
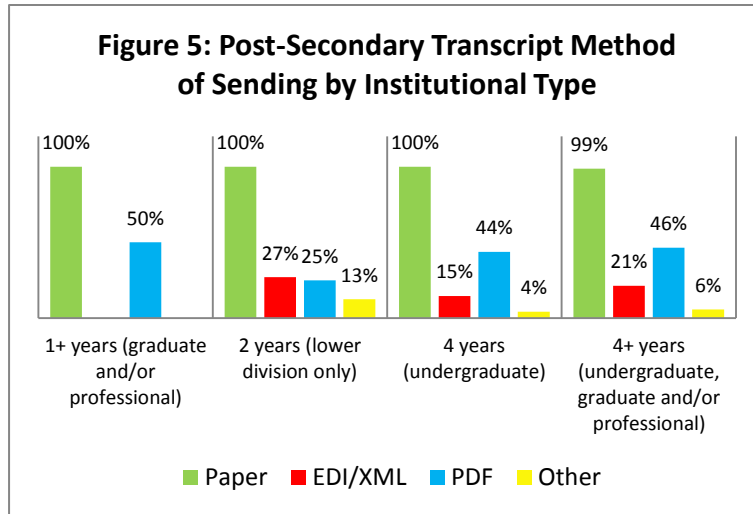
For both sending and receiving PS transcripts, PDF is the most common form of electronic transcript across institutional type and size. EDI/XML use for receiving PS transcripts ranges from 8 percent to 38 percent among respondents by institutional type; for sending, EDI/XML use varies from 0 percent to 27 percent.

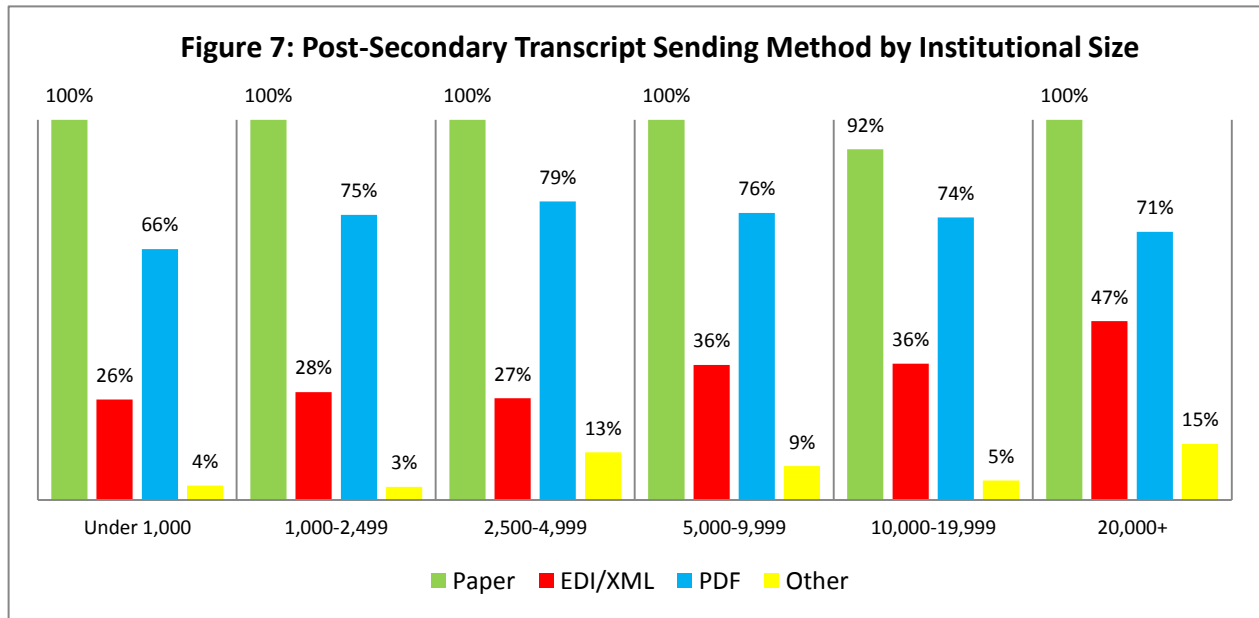


In general, institutions are more likely to use some type of electronic method for receiving PS transcripts than for sending. Graduate and/or professional institutions (n=12) and institutions



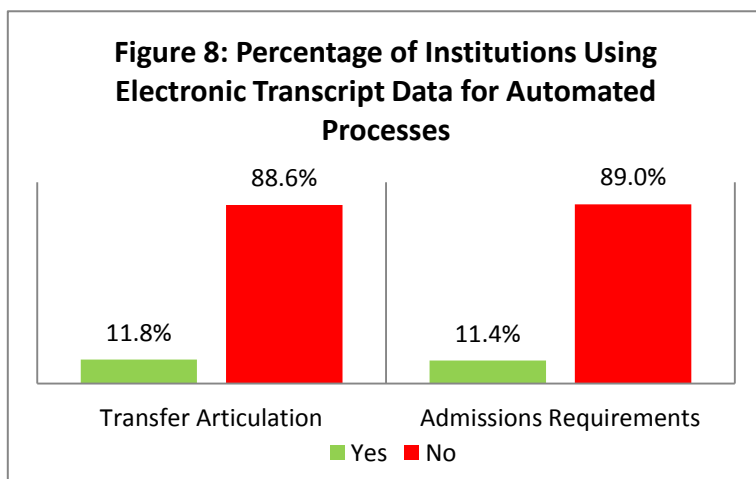
under 1,000 (n=53) report much lower rates of electronic transcript use compared to other types and sizes of institutions.





For respondents who reported receiving electronic transcripts, the survey asked if they use electronic transcript data for automated transfer articulation processes and/or automated admissions decisions. As Figure 8 indicates, the adoption rate of automated processes is quite low among the respondents, with less than 12 percent making use of them. The data imply that the majority of institutions receive electronic transcript data and then manually enter the data

into the transfer articulation system or admissions decision system.



Through observation at many institutions and anecdotally, we understand this process may actually involve creating a paper transcript from the electronic transcript and then



manually processing the transfer data or viewing the electronic transcript on one monitor and entering the data manually into the student information system on another monitor. Solely anecdotal evidence indicates this practice most often exists because the institution either does not have the time or human resources to implement the automated processes or it does not know how to do so. Further case study research is necessary to truly understand why this redundant practice exists.

This apparent lack of automated transfer articulation and admissions processes tied to electronic transcripts suggests that the majority of institutions are not taking advantage of the benefits to be gained. Intuitively, the relative lack of differentiation in average cost data across transcript receipt methods reported in Section 2 could possibly be explained by the lack of fully automated processes. The survey data, however, do not show that effect.

For example, the average cost per EDI/XML PS transcript received and used for automated admissions decisions is \$6.63, versus the aggregate per-EDI/XML transcript cost of \$6.21 for the entire sample. The fully automated cost per transcript is higher. The same can be said for the cost per EDI/XML transcript used for automated transfer articulation at \$6.95, versus the aggregate of \$6.21. It should be noted that the sample sizes ($n=4$ in both instances) of institutions using automated processes for admissions or transfer articulation are not large enough for these particular data points to lead to meaningful conclusions. These results, however, point to the need for additional mixed-method research that engages institutions in a manner that ensures cost reporting and resource calculations are comparable between institutions and lead to like comparisons.

We asked respondents who did not report any electronic method for *receiving* PS transcripts if their institution is considering electronic transcript receipt and, if so, for what. The majority (71%) indicate their institution is considering electronic transcript receipt for post-secondary transcripts (Figure 9).



Further, we asked those who responded “Yes” what options they were considering. Respondents could select more than one electronic method. For those who responded “other,” we provided with a free-text field to indicate that method. Table 3 summarizes the responses. Other options are reported in Table 4 in Appendix C.

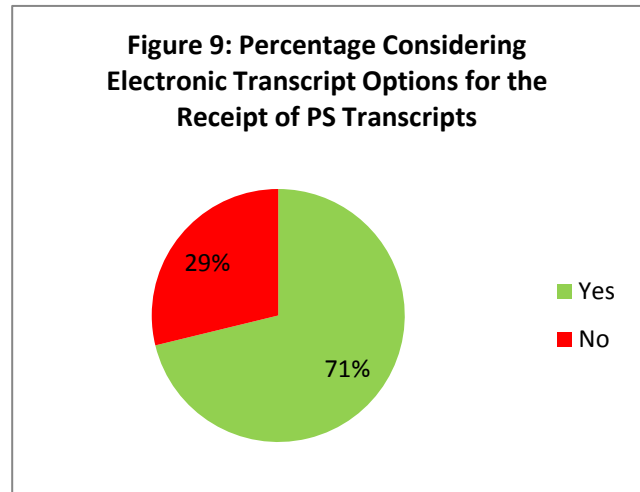
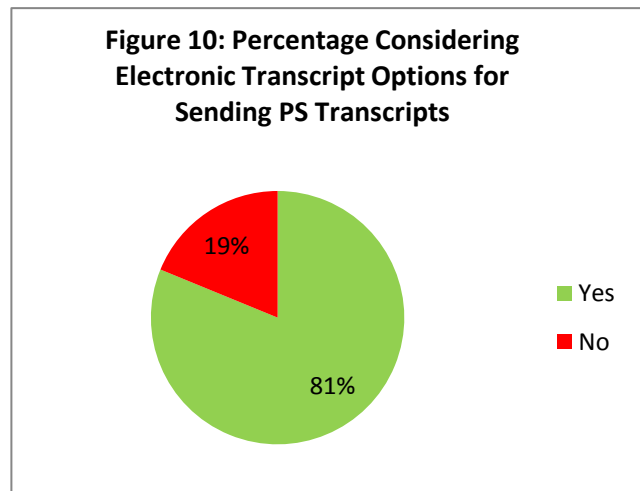


Table 3: Methods Under Consideration for the Receipt of Post-Secondary Transcripts

Response	Chart	Percentage	Count
EDI/XML		62.2%	23
PDF		75.7%	28
Other, please specify...		10.8%	4

For respondents who did not report any electronic method for sending transcripts, we asked if they are considering options and, if so, what options. As shown in Figure 10, an even higher percentage indicate they are considering options for sending PS electronic transcripts (81%) than for receiving PS electronic transcripts (71%). Just as with the similar question



about receiving PS transcripts, respondents could indicate whether their institution is considering more than one electronic method. Table 5 summarizes the responses. Those who responded “other” were provided with a free-text field to indicate that method.

Table 6 in Appendix C lists the other options under consideration by the respondents. The majority (83.2%) are considering PDF, and 56.1 percent are considering EDI/XML. The data also appear to indicate that not everyone understands what type of electronic transcripts are provided by the various transcript service providers (for example, Clearinghouse, Parchment, National Student Clearinghouse).

Response	Chart	Percentage	Count
EDI/XML		56.1%	60
PDF		83.2%	89
Other, please specify...		13.1%	14

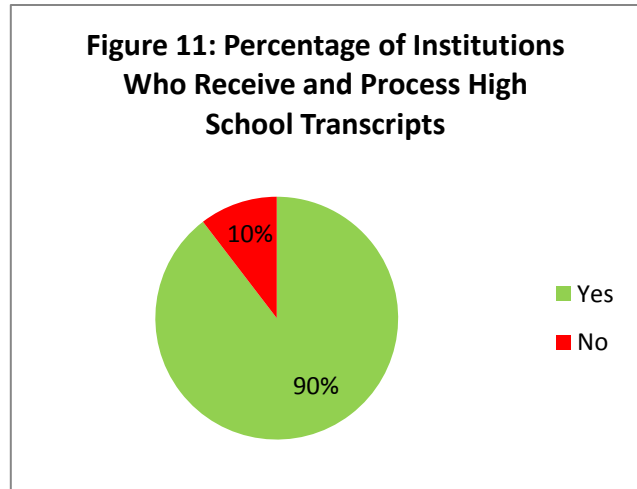
Institutional Methods for Receiving High School Transcripts

The majority of respondents (90%) indicate they receive and process high school (HS) transcripts (Figure 11). Some institutions receive HS transcripts but do nothing with them. This question was intended to capture the percentage of institutions that actually use HS transcripts for some internal process that requires that the institution to record receipt of transcripts, at a minimum, and possibly use them for admissions decisions or advising. It was not intended to capture the percentage of institutions that receive HS transcripts but do not use them for anything. While this latter institutional practice may seem counterintuitive, some colleges do not require a high school transcript for an admissions decision or proof of high school graduation. These institutions receive high school transcripts from applicants who presume it is



part of the admissions process. The institution *may* mark the transcript simply as received in the student information system but not use it for any other process.

As for the PS transcript questions, respondents were asked about the various methods they use for receiving HS transcripts and could select more than one answer. As Table 7 shows, the predominant method is still paper (used by 98%), with PDFs the second most popular method (58.2%). Seven percent report using other methods for receiving HS transcripts; Table C in Appendix captures the other methods specified. Once again, a fax is the most commonly reported alternative method.



As Table 7 shows, the predominant method is still paper (used by 98%), with PDFs the second most popular method (58.2%). Seven percent report using other methods for receiving HS transcripts; Table C in Appendix captures the other methods specified. Once again, a fax is the most commonly reported alternative method.

Table 7: Methods for Receiving High School Transcripts

Response	Chart	Percentage	Count
Paper		98.0%	251
EDI/XML		30.9%	79
PDF		58.2%	149
Other, please specify...		7.0%	18

Figure 12 differentiates the data by institutional type. Again, paper was reported as the most widely adopted method to receive HS transcripts across all institutional types, except for graduate and professional schools, which did not report receiving HS transcripts. Figure 13 displays the data by institutional size.



Figure 12: High School Transcript Receipt Method by Institutional Type

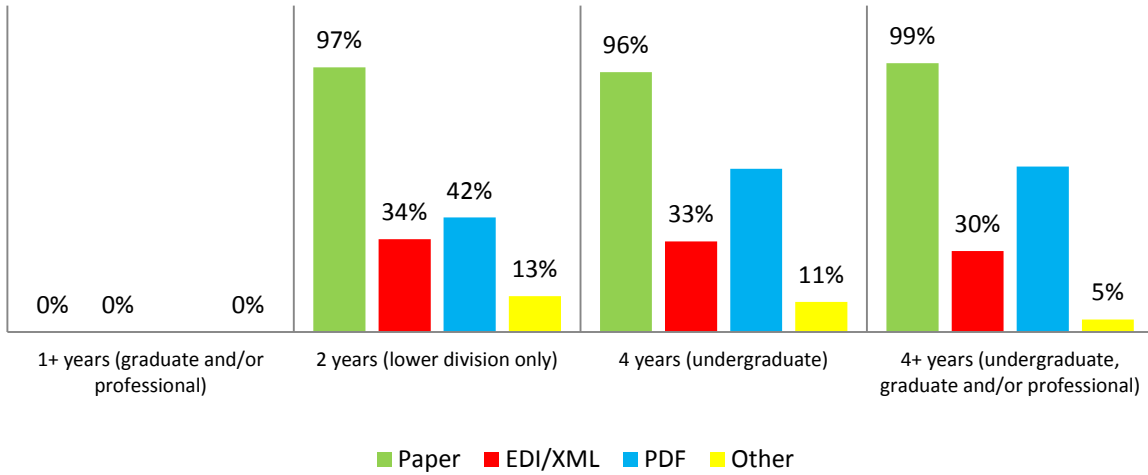
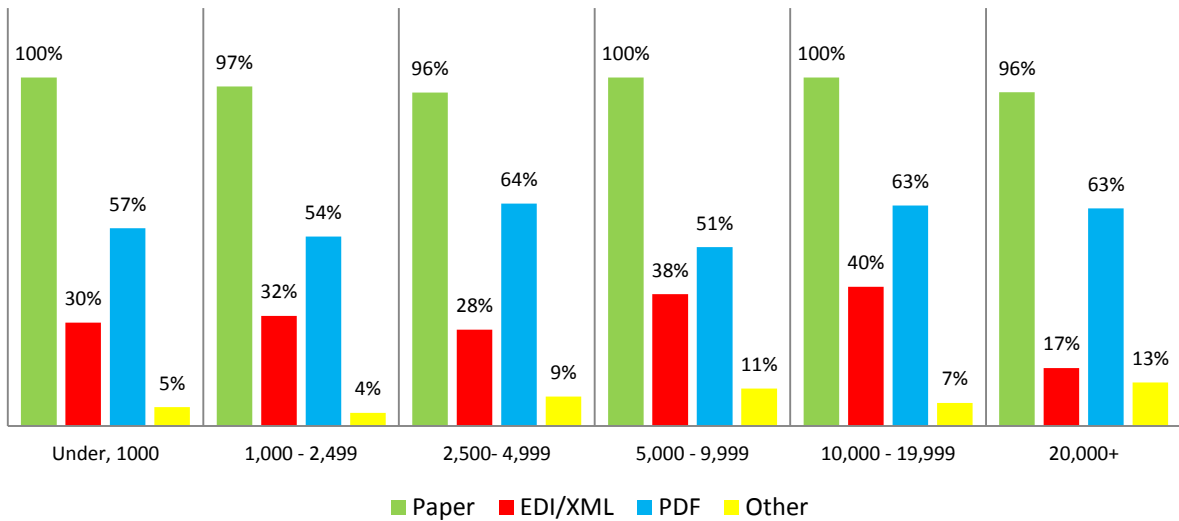


Figure 13: High School Transcript Receipt Method by Institutional Size



Section 2: Transcript Costs

The survey's cost calculation section required respondents to estimate, in minutes, the time spent processing each transcript; calculate the average hourly pay, in dollars, to process; and estimate any additional costs to the process beyond staff time (for example, postage, technology). Figure 14 offers an example of these questions. The survey in Appendix A includes the cost and resource section in its entirety.

Figure 14: Example of Transcript Resource Question from Survey

Estimated resources per PAPER transcript received

Estimated processing time spent per transcript in MINUTES

Average staff HOURLY PAY in DOLLARS to support process

Please estimate the costs to process each transcript beyond the staff time (e.g., postage, envelope, form, other technology, etc.).

Estimated resources per PDF transcript received

Estimated processing time spent per transcript in MINUTES

Average staff HOURLY PAY in DOLLARS to support process

Please estimate the costs to process each transcript beyond the staff time (e.g., postage, envelope, form, other technology, etc.).

Estimated resources per EDI/XML transcript received

Estimated processing time spent per transcript in MINUTES

Average staff HOURLY PAY in DOLLARS to support process

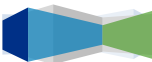
Please estimate the costs to process each transcript beyond the staff time (e.g., postage, envelope, form, other technology, etc.).

Estimated resources per "other" transcript received

Estimated processing time spent per transcript in MINUTES

Average staff HOURLY PAY in DOLLARS to support process

Please estimate the costs to process each transcript beyond the staff time (e.g., postage, envelope, form, other technology, etc.).



Less than half of the respondents who completed Section 1 of the survey completed either part or all of Section 2. As a result of this sporadic completion rate, the responses that included enough data to calculate average cost per transcript for each combination of transcript type (PS received, PS sent, HS received) and method (paper, EDI/XML, PDF, other) range from four to 91. Based on these sample sizes, generalizations about cost should be limited.

Figure 15 aggregates the average cost per transcript by method and type. HS transcripts received via EDI/XML had the highest average cost (\$7.89 per transcript), and PS transcripts sent by PDF had the lowest average cost (\$3.16 per transcript).

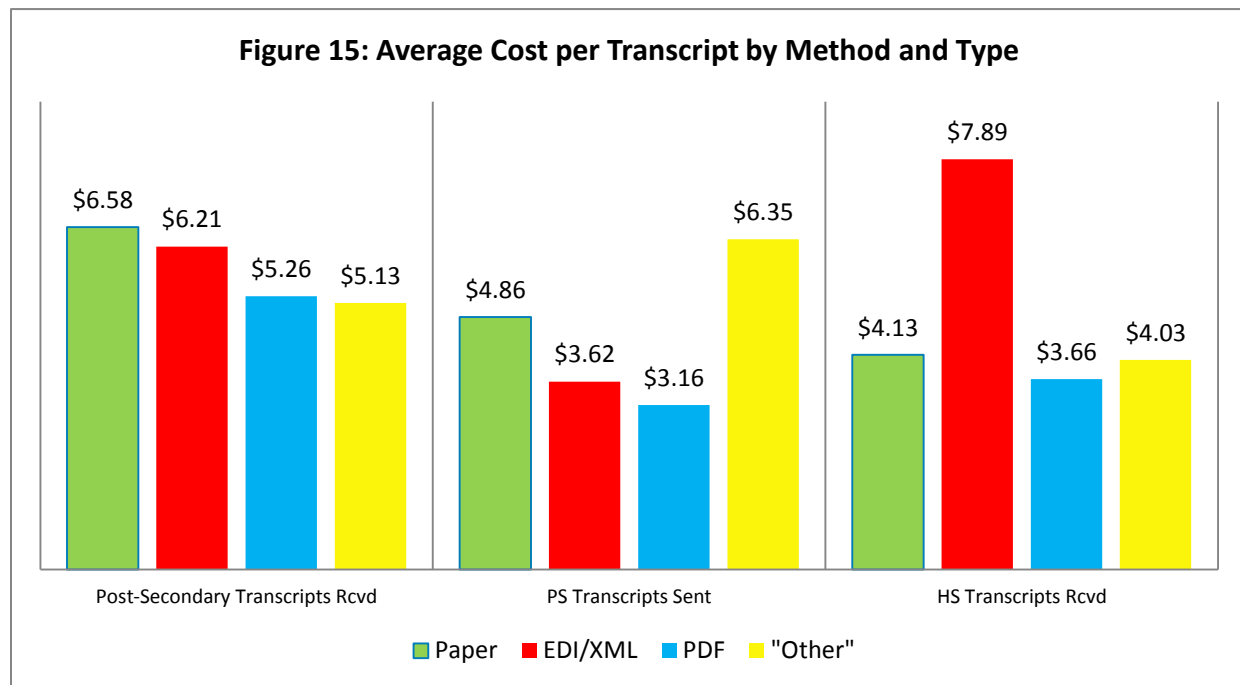


Table 9 provides average, high, and low costs by transcript type. This table also includes standard deviations and samples sizes per type and method. As evidenced by the standard deviations in this table, the average cost-per-transcript calculations are based on a wide range of time, hourly pay, and other costs provided by respondents. Appendices F, G, and H



summarize the hours per year, average staff costs, minimum and maximum staff costs, and respondent counts by transcript method and institutional size.

Table 9: Detailed Transcript Costs

Post-Secondary Transcript Received	Per Transcript			Std. DevS.	n
	Average	High Cost	Low Cost		
Paper	\$6.58	\$25.07	\$0.43	\$5.28	91
EDI/XML	\$6.21	\$21.27	\$0.43	\$6.06	23
PDF	\$5.26	\$21.27	\$0.25	\$4.84	62
“Other”	\$5.13	\$21.00	\$0.70	\$5.95	10
Post-Secondary Transcript Sent					
Paper	\$4.86	\$41.25	\$0.45	\$5.49	91
EDI/XML	\$3.62	\$12.25	\$0.25	\$3.80	9
PDF	\$3.16	\$17.33	\$0.30	\$3.86	22
“Other”	\$6.35	\$17.33	\$2.15	\$7.35	4
High School Transcripts Received					
Paper	\$4.13	\$24.00	\$0.45	\$4.66	61
EDI/XML	\$7.89	\$57.40	\$0.11	\$15.88	12
PDF	\$3.66	\$20.50	\$0.11	\$4.27	34
“Other”	\$4.03	\$12.46	\$0.25	\$4.45	7

Other interesting data points include the following:

- For the receipt of paper PS transcripts, the average annual staff costs range from \$1,960.24 (n=18) at institutions with an enrollment under 1,000 to \$115,750.81 (n=9) for institutions with more than 20,000 students.
- The average annual hours required for processing paper PS transcript range from 147.31 (enrollment under 1,000) to 6,940.94 (more than 20,000 students).
- In contrast, the range for the average annual staff costs associated with EDI/XML PS transcript receipt is \$223.83 (n=5) at institutions with an enrollment under 1,000 to \$12,712.84 (n=4) for institutions with more than 20,000 students.



- For EDI/XML, the average annual hours for processing range from 15.26 (enrollment under 1,000) to 785.60 (more than 20,000 students).

We also asked respondents to provide other costs associated with transcript processing. The survey described these costs as any cost beyond staff time, such as postage, paper, vendor service fees, ink, and so forth. The limited information provided by respondents contained such irregular per-transcript costs (ranging, for example, from \$0.25 to \$168) as to make further analysis on this subset of the data sample unlikely to yield useful or meaningful results. Future research in this area should include a focus on helping institutions accurately identify these costs.



Conclusions and Recommendations for Practice

Seventeen years after the original 1997 case study, paper remains the predominant method for receiving and sending transcripts. Most institutions, however, report using multiple methods for receiving and sending transcripts. This implies that staff at many institutions are now expected to know how to process EDI/XML, PDF, fax, and other forms of transcripts, in addition to paper. We can also reasonably hypothesize that transcript volume has increased in the same period of time because enrollment has increased for most institutions.

Together, these two items beg the question of whether the true benefits of eTranscripts have been realized by the institutions that accept or send transcripts in this manner. While the cost per transcript appears lower, in most instances, for eTranscripts, the annual volume of transcripts received in this manner typically represents less than half of the total transcript volume. Furthermore, few institutions report using the receipt of eTranscript data to its full capacity. In other words, they do not use the data in an automated manner for transfer articulation, admissions decisions, and other tasks.

These survey results point to real value—both in the saving of staff time and dollars—by using eTranscripts. It behooves AACRAO to gain an understanding of why institutions are not fully adopting the features and reaping the benefits of eTranscripts. With the intention of gaining answers to the questions raised in this study, we intend to conduct institutional case studies.

Based on the results of this survey, we recommend institutions engage in the following activities.

- Conduct a cost analysis to make business case for either adopting or increasing the use of eTranscripts.



- If applicable, examine the reason for the continued predominance of paper transcripts, and seek solutions for reducing the volume of paper transcripts.
- Seek agreements with transfer partner institutions to implement an eTranscript solution that helps reduce the percentage of paper transcripts.
- Fully implement all available technology to support transcript data processing automation for admissions decisions/processing, transfer articulation, and, if applicable, scholarship processing.



Appendix A: Survey Instrument

Invitation Email

Dear [First Name],

We are pleased to announce that Parchment is sponsoring this joint AACRAO and NACUBO study. The aim of the study is to measure the adoption rate of electronic transcript solutions as well as determine the ROI of the various electronic transcript options.

You have been selected as a survey recipient because of your role as registrar and your institution membership in both AACRAO and NACUBO.

All who complete the survey will be eligible for a drawing of one free AACRAO conference registration of their choice for the 2014 conference year.

Since the study asks questions about practice and the associated costs we have also sent an email announcing the study to your NACUBO business officer. We anticipate that you will need to partner with others to help complete the study. If there are other individuals in your organization from whom you need information in order to complete the survey, please reach out to them directly and record their responses in the survey.

This study "[Invite Link]" will be active until April 15. Please retain this link so you may return to the survey once you have collected the requested information.

The study results will be reported on and presented at the 2014 AACRAO Technology Conference and 2014 NACUBO Annual Conference this July.

We would like to thank you in advance for responding and recognize that this study will require some time on your part to collate the information and complete the associated survey. Your responses will provide our joint membership with valuable information on electronic transcript practices and costs.

ALL results will be reported in the aggregate.

If you should have any questions about this survey please email me at research@aacrao.org". This link is uniquely tied to this survey and your email address. Please do not forward this message.

Thank you,

Wendy Kilgore, Ph.D.
Director of Research and Managing Consultant



Electronic Transcript ROI Study

Introduction

Thank you for taking your time to complete this study. It contains two primary sections: The first section contains process questions about post-secondary and high school transcripts and should take less than 5 minutes to complete. The second section contains questions about the volume and costs associated with the various post-secondary and high school transcripts manual and electronic processes. This section will require data collection to complete. We encourage you to collaborate with colleagues across units at your institution to help collect the data. You may preview the survey at any point by using the PDF and WORD buttons near the bottom of each page. We recognize that it will likely take more than one sitting to complete the study because you will have to gather transcript data to answer the volume and cost questions. The survey will save your existing answers and enable you to return at any point during the study window to complete the remaining questions. Your completed survey will help us and our membership understand the ROI of eTranscripts and the adoption rate of various electronic transcript processes. Should you have any questions, please contact Wendy Kilgore at research@aacrao.org.

Section 1: Transcript Processes

In this section you will be asked to indicate how you receive and send post-secondary and high school transcripts. This section will take no more than 5 minutes to complete. Your answers to this section will form the basis for the questions in section 2 about volume and cost.

Post-Secondary Transcripts

Please indicate how your institution receives and sends post-secondary transcripts.

Check all that apply.

	Paper	EDI/XML	PDF	Other
Receives transcripts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sends transcripts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

You indicated "other" as a method for receiving post-secondary transcripts. Please type the other method(s) below.

You indicated "other" as a method for sending post-secondary transcripts. Please type the other method(s) below.

Is the transcript data received through the electronic process used in automatic transfer articulation AND/OR automatic admissions requirement assessment?

Further explanation: Electronic transcript data is loaded into the existing equivalency or admission requirement rules and automatically processed. Staff only process exceptions.

	Yes	No
Transfer articulation (course equivalency)	<input type="checkbox"/>	<input type="checkbox"/>
Admissions requirements	<input type="checkbox"/>	<input type="checkbox"/>

You indicate that your institution does not receive post-secondary transcripts electronically. Is your institution considering receiving electronic transcripts?

- Yes
- No



Please indicate what options your institution is considering.

Check all that apply.

- EDI/XML
- PDF
- Other, please specify... _____

You indicate that your institution does not send post-secondary transcripts electronically. Is your institution considering sending electronic transcripts?

- Yes
- No

Please indicate what options your institution is considering.

Check all that apply.

- EDI/XML
- PDF
- Other, please specify... _____

High School Transcripts

Does your institution receive and process high school transcripts?

- Yes
- No

Please indicate how your institution receives high school transcripts.

- Paper
- EDI/XML
- PDF
- Other, please specify... _____

Section 2: Transcript Volume and Cost

Based on your responses to section 1, in this section you will be asked to provide transcript receipt and sent volume and cost estimates for your transcript practices. You may use the PDF or WORD button at the bottom of each page to preview the survey. This can help in gathering the information required for this section. The image below provides a preview of the data needed for the cost section. This type of question will be asked for each type of transcript you indicated you receive or send in Section 1.

Total number of post-secondary transcripts received and processed per year.

Total number of post-secondary transcripts sent per year.

Post-Secondary Transcripts Received

You have indicated you receive post-secondary transcripts in the following formats. Please indicate the annual percentage for each.



What % of annual transcripts are received via PAPER?

Please use slider to indicate the percentage.

What % of annual transcripts are received via EDI/XML?

Please use slider to indicate the percentage.

What % of annual transcripts are received via PDF?

Please use slider to indicate the percentage.

What % of annual transcript are received via "other"?

Please use slider to indicate the percentage.

Staff Time Estimates for Receiving Post-Secondary Transcripts

In this section we will ask you to estimate the time and costs spent on receiving transcripts. Please include time estimates for the transfer articulation process as well as basic receipt of the transcript. We recognize that this section will require some additional work on your part. You can return to this survey at a later date to complete this information.

Estimated resources per PAPER transcript received

Estimated processing time spent per transcript in MINUTES

Average staff HOURLY PAY in DOLLARS to support process

Please estimate the costs to process each transcript beyond the staff time (e.g., postage, envelope, form, other technology, etc.).

Estimated resources per PDF transcript received

Estimated processing time spent per transcript in MINUTES

Average staff HOURLY PAY in DOLLARS to support process

Please estimate the costs to process each transcript beyond the staff time (e.g., postage, envelope, form, other technology, etc.).

Estimated resources per EDI/XML transcript received

Estimated processing time spent per transcript in MINUTES

Average staff HOURLY PAY in DOLLARS to support process

Please estimate the costs to process each transcript beyond the staff time (e.g., postage, envelope, form, other technology, etc.).



Estimated resources per "other" transcript received

Estimated processing time spent per transcript in MINUTES

Average staff HOURLY PAY in DOLLARS to support process

Please estimate the costs to process each transcript beyond the staff time (e.g., postage, envelope, form, other technology, etc.).

Post-Secondary Transcripts Sent

You have indicated you send post-secondary transcripts in the following formats. Please indicate the annual percentage for each.

What % of transcripts are sent via PAPER annually?

Please use slider to indicate the percentage.

What % of transcripts are sent via EDI/XML annually?

Please use slider to indicate the percentage.

What % of transcripts are sent via PDF annually?

Please use slider to indicate the percentage.

What % of transcripts are sent via "other" annually?

Please use slider to indicate the percentage.

Post-Secondary Transcripts Sent

Staff Time Estimates for Sending Transcripts

In this section we will ask you to estimate the time and costs spent on sending transcripts. We recognize that this section will require some additional work on your part. You can return to this survey at a later date to complete this information.

Estimated resources per PAPER transcript sent

Estimated processing time spent per transcript in MINUTES

Average staff HOURLY PAY in DOLLARS to support process

Please estimate the costs to process each transcript beyond the staff time (e.g., postage, envelope, form, other technology, etc.).



Estimated resources per PDF transcript sent

Estimated processing time spent per transcript in MINUTES.

Average staff HOURLY PAY in DOLLARS to support process.

Please estimate the costs to process each transcript beyond the staff time (e.g., postage, envelope, form, other technology, etc.).

Estimated resources per EDI/XML transcript sent

Estimated processing time spent per transcript in MINUTES.

Average staff HOURLY PAY in DOLLARS to support process

Please estimate the costs to process each transcript beyond the staff time (e.g., postage, envelope, form, other technology, etc.).

Estimated resources per "other" transcript sent

Estimated time spent per transcript in MINUTES.

Average staff HOURLY PAY in DOLLARS to support process

Please estimate the costs to process each transcript beyond the staff time (e.g., postage, envelope, form, other technology, etc.).

High School Transcripts

How many high school transcripts do you receive annually?

What % of annual transcripts are received via PAPER?

What % of annual transcripts are received via EDI/XML?

What % of annual transcripts are received via PDF?

What % of annual transcripts are received via "other"?



High School Transcripts

Staff Time and Cost Estimates for High School Transcripts

In this section we will ask you to estimate the time and costs spent on receiving transcripts. Please include time estimates for the entrance requirement process if applicable as well as basic receipt of the transcript. We recognize that this section will require some additional work on your part. You can return to this survey at a later date to complete this information.

Estimated resources per PAPER transcript received

Estimated processing time spent per transcript in MINUTES

Average STAFF HOURLY PAY in DOLLARS to support process

Additional estimated costs in DOLLARS per transcript (e.g., postage, envelope, form)

Estimated resources per PDF transcript received

Estimated processing time spent per transcript in MINUTES

Average STAFF HOURLY PAY in DOLLARS to support process

Please estimate the costs to process each transcript beyond the staff time (e.g., postage, envelope, form, other technology, etc.).

Estimated resources per EDI/XML transcript received

Estimated processing time spent per transcript in MINUTES

Average STAFF HOURLY PAY in DOLLARS to support process

Please estimate the costs to process each transcript beyond the staff time (e.g., postage, envelope, form, other technology, etc.).

Estimated resources per "Other" transcript received

Estimated processing time spent per transcript in MINUTES

Average STAFF HOURLY PAY in DOLLARS to support process

Please estimate the costs to process each transcript beyond the staff time (e.g., postage, envelope, form, other technology, etc.).



Appendix B: Copy of NACUBO Email

Dear Colleague:

I am writing to alert you to a new research initiative that we have undertaken in partnership with the American Association of Collegiate Registrars and Admissions Officers (AACRAO) and Parchment, Inc. The initiative is designed to measure the adoption rate of electronic transcript solutions, as well as determine the cost implications of various electronic and paper transcript options that are widely used by campuses.

The development and deployment of effective cost reduction strategies and process improvements is of critical importance to institutions of higher education. This research initiative will fill a gap in data availability that you and your campus can use as you consider how you deploy technology and your staff to manage the process of receiving, sending, and processing academic transcripts.

Your campus has been selected as a survey recipient because of your institution's membership in both AACRAO and NACUBO.

The study asks questions about your institutional practices and the survey invitation will be sent by AACRAO directly to your registrar. However, since the survey requests data about your costs for this campus function, I wanted to alert you to this project in case you get any questions from your registrar's office as they work to complete the survey. In addition, I wanted to encourage you to support the completion of this survey by your colleagues on campus. I know that you receive a great many invitations to participate in surveys, but I am confident that this project will provide you with valuable information about transcript management practices and associated costs.

The study results will be reported on and presented at the 2014 AACRAO Technology Conference and at our Annual Conference in Seattle.

If you have any questions about this survey, please feel free to contact Matthew Hamill, NACUBO's Senior Vice President, at mhamill@nacubo.org.



Appendix C: Tables of “Other” Methods Responses

Table 1: Other Methods for Receiving Post-Secondary Transcripts

1.	Fax
2.	Faxed transcripts are accepted directly from the sending institution
3.	Within our state system MnSCU we are able to access transcripts for students who have applied to our college
4.	FASTER
5.	Exchange ETX secure FTP
6.	Fax
7.	ETX
8.	Electronic transcript through Scrip Safe
9.	Secure fax
10.	Military
11.	Fax
12.	We do not accept emailed PDFs We will accept etranscripts where we login at a secure server and download an official transcript
13.	ETS or SPEEDE
14.	Parchment
15.	FAX via WACRAO FAX Agreement
16.	fax from specific educational institutions with which an agreement has been signed
17.	Parchment Exchange
18.	Fax
19.	Electronic scans or jpgs
20.	Florida has a FASTER system
21.	FAX to secure line
22.	Fax within the state
23.	Fax

Table 2: Other Methods for Sending Post-Secondary Transcripts

1.	Within our state system MnSCU we are able to access transcripts for students who have applied to our college
2.	FASTER
3.	Exchange ETX secure FTP
4.	Fax
5.	ETX
6.	Electronic transcript through Scrip Safe
7.	Secure fax
8.	In person
9.	We are in the process of testing the EDI XML exchange and will be live April eighth
10.	Fax
11.	We use eScripSafe [sic] to send electronic transcripts
12.	ETS or SPEEDE
13.	FAX via WACRAO FAX Agreement
14.	Fax
15.	Electronic Transmission
16.	We have the ability to send them electronically through our legacy student management system to the public universities and community colleges in our state
17.	FASTER and SPEEDE
18.	FAX to secure line
19.	Fax within the state
20.	Fax



Table 4: Other Methods Under Consideration for the Receipt of Post-Secondary Transcripts

1.	no decision about a vendor yet
2.	We just started receiving electronically within the past month
3.	Not sure
4.	Only through secure e-transcript providers

Table 6: Other Methods Under Consideration for the Sending Post-Secondary Transcripts

1.	Clearinghouse
2.	Clearinghouse
3.	Haven't decided
4.	Ellucian/NCS API
5.	no decision about a vendor or format yet
7.	Have not made a decision.
8.	We have not gotten that far yet
9.	Parchment
10.	Not sure
11.	We just finished the last phase with ScripSafe and should begin sending electronic transcripts in the near future.
12.	We are going to use the National Student Clearinghouse/Banner package. I am not sure what type of output is used.
13.	Clearinghouse
14.	Unknown at the current time, we'll be researching this in the next few months

Table 8: Other Methods Under Consideration for the Receiving High School Transcripts

1.	Fax
2.	Faxed transcripts directly from the high school
3.	XAP, Parchment, and Docufide
4.	Common App -- not sure how that counts
5.	The admissions office would have to answer this.
6.	Common Application
7.	We now receive through Parchment
8.	Parchment
9.	Fax
10.	Faxed directly into an imaging system
11.	Fax
12.	Fax from institutions with which we have a signed agreement
13.	Parchment Exchange
14.	Fax
15.	Fax direct from high school
16.	Naviance
17.	The Florida FASTER system
18.	Fax



Appendix D: Average Annual Count of Post-Secondary Transcripts Received by Institution Size

Post-Secondary Transcripts Received per Year by Institution Size

Inst. Size	Average	Minimum	Maximum
Under 1, 000	661	25	4,000
1,000 - 2,499	1,777	65	8,000
2,500 - 4,999	3,062	200	7,500
5,000 - 9,999	8,156	500	30,000
10,000 - 19,999	22,107	200	95,000
20,000+	30,971	5,000	100,000

Post-Secondary Transcripts Sent per Year by Institution Size

Inst. Size	Average	Minimum	Maximum
Under 1, 000	1,025	25	4,238
1,000 - 2,499	3,403	150	9,000
2,500 - 4,999	8,156	1,000	30,000
5,000 - 9,999	13,479	5,000	25,000
10,000 - 19,999	26,334	200	104,000
20,000+	48,641	6,000	100,943

High School Transcripts Received per Year by Institution Size

Inst. Size	Average	Minimum	Maximum
Under 1, 000	442	5	1,000
1,000 - 2,499	1,709	200	8,000
2,500 - 4,999	2,933	400	10,000
5,000 - 9,999	7,336	500	30,000
10,000 - 19,999	18,238	500	42,167
20,000+	41,851	6,500	80,000



Appendix E: Average Annual Percentage of Transcripts Received or Sent by Method and Institution Size*

Post-Secondary Transcripts Received

Inst. Size	Paper	EDI/XML	PDF	Other
Under 1,000	88.49%	13.12%	14.69%	0.00%
1,000 - 2,499	82.98%	33.09%	14.51%	2.00%
2,500 - 4,999	86.65%	23.67%	10.43%	3.26%
5,000 - 9,999	76.35%	12.65%	19.07%	18.33%
10,000 - 19,999	81.09%	24.40%	22.15%	2.00%
20,000+	74.93%	35.01%	18.51%	10.00%

Post-Secondary Transcripts Sent

Inst. Size	Paper	EDI/XML	PDF	Other
Under 1,000	91.15%	1.00%	22.60%	0.00%
1,000 - 2,499	89.60%	40.67%	18.50%	0.00%
2,500 - 4,999	91.35%	26.50%	21.50%	17.33%
5,000 - 9,999	81.35%	23.33%	25.66%	3.34%
10,000 - 19,999	80.57%	29.25%	40.00%	5.00%
20,000+	78.73%	33.65%	24.29%	1.00%

High School Transcripts Received

Inst. Size	Paper	EDI/XML	PDF	Other
Under 1,000	77.00%	8.20%	25.78%	50.00%
1,000 - 2,499	80.95%	34.50%	29.07%	18.67%
2,400 - 4,999	79.14%	9.00%	26.50%	1.00%
5,000 - 9,999	75.44%	15.00%	16.00%	26.67%
10,000 - 19,999	75.71%	5.00%	38.75%	10.00%
20,000+	66.52%	32.33%	35.48%	11.67%

*The percentages across methods will not add up to 100 percent because these numbers represent an average across institutions within the institutions size group, rather than individual institutions.



Appendix F: Annual Hours and Staff Costs for Receiving Post-Secondary Transcripts

Paper

Inst. Size	Average Annual Hours	Average Annual Staff Cost	Minimum Annual Staff Cost	Maximum Annual Staff Cost	Respondent Count
Under 1,000	147.31	\$1,960.74	\$80.75	\$12,600.00	18
1,000 - 2,000	275.71	\$4,823.21	\$3.67	\$27,000.00	26
2,500 - 4,999	1,054.00	\$17,825.05	\$956.25	\$84,875.00	14
5,000 - 9,999	1,393.07	\$18,121.09	\$573.33	\$88,000.00	15
10,000 - 19,999	3,833.68	\$63,693.13	\$211.50	\$178,296.00	8
20,000+	6,940.94	\$115,750.81	\$14,256.67	\$331,153.85	9

EDI/XML

Inst. Size	Average Annual Hours	Average Annual Staff Cost	Minimum Annual Staff Cost	Maximum Annual Staff Cost	Respondent Count
Under 1,000	15.26	\$223.83	\$22.00	\$500.00	5
1,000 - 2,499	155.96	\$2,937.51	\$41.25	\$8,291.29	3
2,500 - 4,999	50.63	\$514.06	\$28.13	\$1,000.00	2
5,000 - 9,999	128.37	\$1,900.98	\$541.67	\$4,687.50	6
10,000 - 19,999	556.67	\$8,847.22	\$4,750.00	\$13,125.00	3
20,000+	785.69	\$12,712.84	\$3,750.00	\$37,218.04	4

PDF

Inst. Size	Average Annual Hours	Average Annual Staff Cost	Minimum Annual Staff Cost	Maximum Annual Staff Cost	Respondent Count
Under 1,000	35.35	\$331.04	\$4.17	\$1,680.00	7
1,000 - 2,499	31.39	\$479.37	\$0.92	\$3,125.00	17
2,500 - 4,999	80.09	\$1,053.66	\$56.25	\$6,346.15	13
5,000 - 9,999	134.73	\$1,870.09	\$71.67	\$9,000.00	14
10,000 - 19,999	562.33	\$8,441.67	\$875.00	\$19,066.67	5
20,000+	535.62	\$9,272.37	\$2,500.00	\$22,557.60	5



Appendix G: Annual Hours and Staff Costs for Sending Post-Secondary Transcripts

Paper

Inst. Size	Average Annual Hours	Average Annual Staff Cost	Minimum Annual Staff Cost	Maximum Annual Staff Cost	Respondent Count
Under 1,000	114.37	\$1,953.84	\$106.63	\$6,174.00	17
1,000 - 2,499	369.14	\$5,377.78	\$3.44	\$29,700.00	23
2,500 - 4,999	1,413.33	\$18,278.99	\$1,083.33	\$67,900.00	14
5,000 - 9,999	1,356.67	\$17,976.78	\$1,300.00	\$72,000.00	15
10,000 - 19,999	3,804.94	\$61,404.80	\$250.00	\$330,026.67	7
20,000+	7,476.92	\$124,399.61	\$14,778.38	\$668,828.13	12

EDI/XML

Inst. Size	Average Annual Hours	Average Annual Staff Cost	Minimum Annual Staff Cost	Maximum Annual Staff Cost	Respondent Count
Under 1,000	-	-	-	-	0
1,000 - 2,499	46.82	\$85.10	\$65.31	\$104.90	2
2,500 - 4,999	393.75	\$3,590.63	\$431.25	\$6,750.00	2
5,000 - 9,999	55.00	\$512.50	\$400.00	\$625.00	2
10,000 - 19,999	1,565.00	\$25,030.00	\$140.00	\$49,920.00	2
20,000+	1,124.11	\$14,877.48	\$1,683.30	\$48,100.00	4

PDF

Inst. Size	Average Annual Hours	Average Annual Staff Cost	Minimum Annual Staff Cost	Maximum Annual Staff Cost	Respondent Count
Under 1,000	45.60	\$422.10	\$151.20	\$693.00	2
1,000 - 2,499	58.42	\$560.59	\$27.00	\$2,537.50	7
2,500 - 4,999	77.08	\$1,097.92	\$562.50	\$1,633.33	2
5,000 - 9,999	163.58	\$1,694.39	\$138.00	\$4,375.00	6
10,000 - 19,999	163.79	\$2,399.34	\$268.36	\$4,530.31	2
20,000+	2,974.80	\$51,059.03	\$6,698.59	\$148,628.47	4



Appendix H: Annual Hours and Staff Costs for Receiving High School Transcripts

Paper

Inst. Size	Average Annual Hours	Average Annual Staff Cost	Minimum Annual Staff Cost	Maximum Annual Staff Cost	Respondent Count
Under 1,000	38.94	\$573.41	\$2.20	\$3,395.00	9
1,000 - 2,499	275.03	\$5,152.98	\$150.00	\$30,000.00	17
2,500 - 4,999	561.50	\$10,344.77	\$53.33	\$52,500.00	10
5,000 - 9,999	549.47	\$8,949.88	\$225.00	\$60,000.00	10
10,000 - 19,999	1,027.41	\$17,060.67	\$5,250.00	\$48,450.00	6
20,000+	5,893.88	\$97,802.47	\$8,125.00	\$280,000.00	9

EDI/XML

Inst. Size	Average Annual Hours	Average Annual Staff Cost	Minimum Annual Staff Cost	Maximum Annual Staff Cost	Respondent Count
Under 1,000	2.78	\$25.94	\$1.56	\$70.00	3
1,000 - 2,499	800.00	\$20,000.00	\$20,000.00	\$20,000.00	1
2,500 - 4,999	11.88	\$239.69	\$57.50	\$421.88	2
5,000 - 9,999	172.08	\$3,160.50	\$140.00	\$12,000.00	5
10,000 - 19,999	-	-	-	-	0
20,000+	312.47	\$5,008.88	\$5,008.88	\$5,008.88	1

PDF

Inst. Size	Average Annual Hours	Average Annual Staff Cost	Minimum Annual Staff Cost	Maximum Annual Staff Cost	Respondent Count
Under 1,000	4.59	\$31.26	\$4.06	\$105.00	4
1,000 - 2,499	79.35	\$1,290.95	\$10.42	\$4,000.00	8
2,500 - 4,999	248.15	\$7,968.60	\$40.00	\$52,500.00	7
5,000 - 9,999	361.61	\$7,073.57	\$35.00	\$48,000.00	7
10,000 - 19,999	3,445.86	\$68,917.17	\$11,333.33	\$126,501.00	2
20,000+	750.53	\$13,215.62	\$4,500.00	\$25,065.94	6

