The NACUBO/EDUCAUSE Working Group on Administrative Services and Systems

Final Report

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The NACUBO/EDUCAUSE Working Group on Administrative Services and Systems

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Executive Summary

Higher education institutions generally face significant resource pressures and challenges to their traditional modes of operating, as well as the emerging need to renew or replace administrative systems. In response, NACUBO and EDUCAUSE convened a joint working group to explore how best to maximize the cost-effectiveness of administrative services and systems.

Over the course of the group's work from September to December 2013, members determined that the value of administrative services and systems derives from the degree to which they improve operations (e.g., quality, speed, cost), legal and regulatory compliance, and decision making. However, while such services and systems are critical to effective institutional leadership and management, they do not function as market differentiators. Thus, institutions can best maximize the cost-effectiveness of administrative services and related information technology by striving to meet industry standards while minimizing the resources required to achieve them.

The group identified a broad set of proposals that EDUCAUSE and NACUBO might pursue to drive greater administrative cost-effectiveness across higher education, starting with three priority next steps:

1. Develop general and, where appropriate, institutional category-specific:

   - Models for best practices–based standardization of administrative services and related IT

   - Benchmarking data and metrics for the costs of administrative services and related IT

   - Case studies and best practices–based guides for initiatives in business process reengineering and shared services, analytics, and knowledge-sharing processes

2. Clarify and promote "market differentiation versus mission criticality" as a core concept for understanding and managing the administrative services and systems environment

3. Convene NACUBO and EDUCAUSE member representatives to inform and support the development of collaborative efforts to address shared services and systems challenges, such as engaging system providers on common systems development concerns

In finalizing its recommendations, the group stressed that CIOs and CBOs alone cannot drive transformation in administrative services and systems—key stakeholders, including senior administrators and governing board members, must actively embrace the process. Thus, the group encouraged NACUBO and EDUCAUSE to conduct sustained outreach to build essential support for change among other leadership communities. With their shared commitment, the group believes that colleges and universities can significantly improve administrative efficiency and effectiveness, as well as their capacity to achieve their missions while adapting to the trends shaping the future of higher education.

Introduction

Colleges and universities confront an array of challenges to the ways in which they have traditionally operated. Major stakeholders view higher education as increasingly unaffordable, with cost structures that students, families, and the public cannot sustain. They watch with rapidly growing concern as aggregate student loan debt moves beyond the $1 trillion mark, leading to questions about whether students' debt burdens will limit their career options and serve as a drag on national economic growth. And they openly wonder if institutional performance on learning outcomes and student success justifies the level of resources they provide to achieve it.

As concerns about higher education's cost and effectiveness continue to rise, so has interest in new models for developing and delivering high-quality postsecondary education. Massive open online courses (MOOCs) have drawn the public's attention to the potential of technology to enable affordable access to learning. This interest has opened the door to broad consideration of how technology-supported approaches such as online learning, adaptive learning, competency-based education, and prior learning assessment might be integrated to provide affordable, scalable learning opportunities. It has also generated a new willingness to rethink whether colleges and universities are the right vehicles for advancing these alternatives, or whether new types of organizations might ultimately supplant the traditional higher education business model.

These pressures have clear implications for instruction and research, but their potential impact on administration and the technology that supports it is no less significant. As demands grow to reduce the cost and improve the outcomes of higher education, institutions must face these challenges in an environment of unrelenting resource constraints. This pressure has heightened interest not only in bolstering administrative efficiency and effectiveness but also in reallocating resources freed through such improvements to the academic mission. At the same time, institutions generally are approaching the end of their current administrative systems' life cycles, necessitating consideration of how to renew or replace such systems (e.g., finance, human resources, student information) cost-effectively while positioning administrative services and related IT to accommodate possible business model shifts.

With this context in mind, the National Association of College and University Business Officers (NACUBO) and EDUCAUSE, the association for IT in higher education, convened a joint working group comprised of three chief business officers and three chief information officers from September through December 2013 to explore how colleges and universities might best maximize the cost-effectiveness of administrative services and systems. The group focused on three major questions:

1. What is the real value of administrative services and systems to the institution?

2. What should institutions do to maximize that value?

3. What steps should NACUBO and EDUCAUSE take to support colleges and universities in this effort?

The following report details the group's findings and recommendations, culminating in a set of priority next steps for EDUCAUSE and NACUBO to consider.
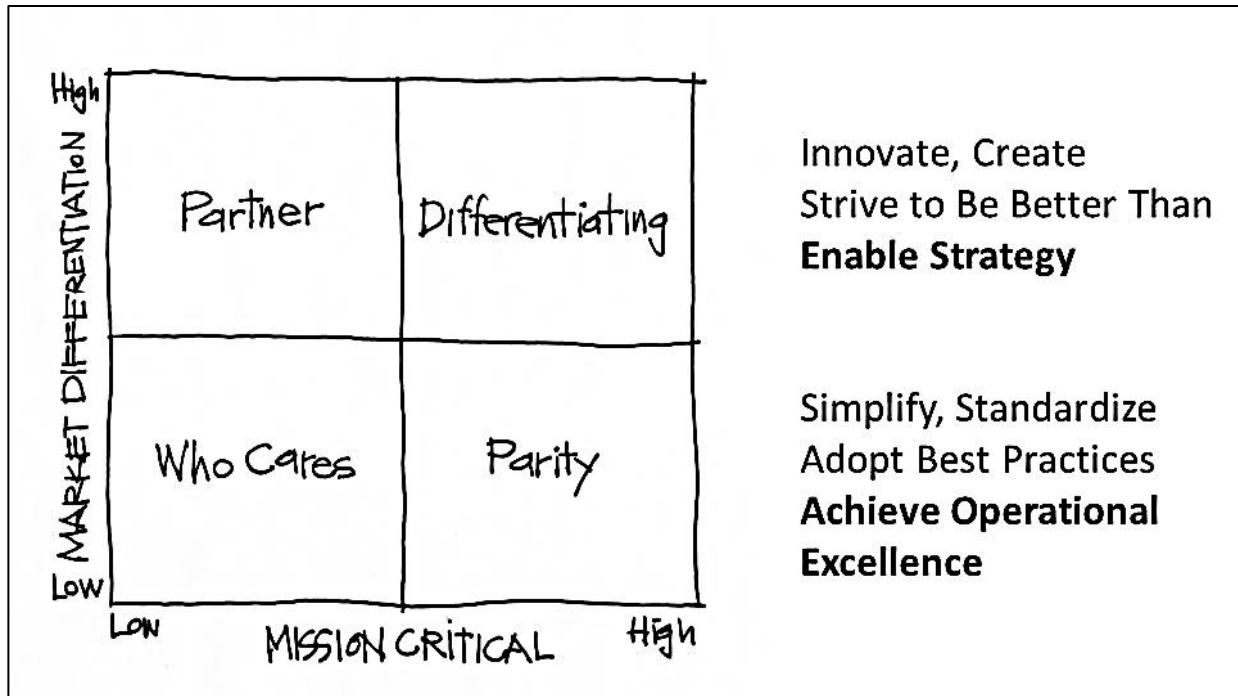
The Value of Administrative Services and Systems

At the outset, group members agreed to focus on the core administrative areas of finance, HR, and student services/information. The group felt that this gave it a solid starting point in terms of shared understanding between the CBO and CIO communities, knowing that EDUCAUSE and NACUBO could expand the scope of services and systems they address in future work.

Group members concurred that the value of administrative services and systems equates primarily to the value of "doing business right." In other words, such services and systems are so central to how institutions operate and continually strive to improve their operations (e.g., in terms of quality, speed, and cost), comply with legal and regulatory obligations, and enhance strategic decision making that effective institutional leadership and management requires them. Failing to appropriately invest in and maintain administrative services and systems could result in potentially crippling breakdowns and missteps that institutions simply cannot afford.

However, the group agreed that this view alone does not tell the full story. To fully assess the value of administrative services and systems to the institution, one must evaluate them in relation to two primary factors—the extent to which they help differentiate the institution in the competitive higher education marketplace (i.e., market differentiation), and the degree to which they are critical to supporting the institutional mission (i.e., mission criticality).

Looking at the administrative services and systems within the group's scope, the members determined that they fall within the "parity" quadrant of the market differentiation/mission criticality matrix that follows. They largely do not differentiate the institution in the marketplace—to paraphrase a group member's comments, no student or faculty member chooses an institution based on its financial or HR system—but these systems are essential to efficiently and effectively administering the institution.

Market Differentiation/Mission Criticality Matrix[1]

Thus, colleges and universities should strive to meet industry standards in administrative services and systems while minimizing the resources required to achieve parity. In the words of one group member:

> Since administrative services/systems are not differentiators, that means they should be comparable with other similar organizations in terms of their cost, quality, or responsiveness. The degree to which such services and systems are not at parity to other similar organizations along cost, quality, and responsiveness lines, they are either too expensive or not of sufficient quality.

As a good rule of thumb for determining value in this space, the group endorsed the "billboard test"—If the institution wouldn't put it on a billboard to promote itself, then it probably isn't strategic, and therefore would not rise to where the institution should invest beyond achieving operational parity. In contrast, the group surmised that functions and uses of technology that directly impact student or faculty success would pass the "billboard," or strategic value, test.

The group found that reflecting on the "differentiation versus criticality" comparison helped to clarify the tendency of institutions to conflate the criticality of administrative services and systems, and thus their operational importance, with the extent to which they differentiate the institution, or their strategic value. Because of their essential role in administration, such

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[1] Adapted from Pollyanna Pixton, Niel Nickolaisen, Todd Little, and Kent McDonald, *Stand Back and Deliver: Accelerating Business Agility* (Addison-Wesley Professional), June 26, 2009; see "Figure 2.1: The Purpose Alignment Model," 15. For additional theoretical foundations, see Richard Nolan and F. Warren McFarlane, "Information Technology and the Board of Directors," *Harvard Business Review*, October 2005; see also "The IT Strategic Impact Grid," 99.

services and systems demand significant, ongoing attention and support. However, this can obscure their limited role in directly advancing the institution's academic mission, potentially leading to outsized investments relative to their strategic value that limit capacity to invest in strategic differentiators. Overcoming this misperception of the value of administrative services and systems, in the group's view, holds the key to maximizing their actual value and the cost-effectiveness with which it can be achieved.

Maximizing the Value of Administrative Services and Systems

Group members reviewed the findings and recommendations of an EDUCAUSE expert panel on the future of administrative IT to inform the group's deliberations about how institutions can maximize the value of administrative services and systems. The group agreed that the panel's recommendations, as summarized below, served as an effective starting point for what it might propose (see Appendix A for the full set of expert panel recommendations):

- **Clarify costs and their drivers:** Higher education needs to develop effective, appropriate data and metrics for administrative services and systems costs to support strategies for improving cost-effectiveness.

- **Minimize customization:** Institutions should seek to reduce cost and improve performance through standards-based process reengineering and shared services.

- **Get analytic:** Institutions should implement analytics to enhance the capacity of administrative systems to support core mission objectives (e.g., student retention, learning outcomes).

- **Share knowledge:** Institutions should work individually and collectively to more effectively capture, document, and disseminate best practices and shared services opportunities.

As the working group considered these points, it developed a number of corollaries that institutions and the higher education community should keep in mind in pursuing them:

- **Get all senior leaders onboard:** Without effective engagement and support from the president, the senior leadership team, and the institution's governing board, the CBO and CIO will face severe limitations in their ability to establish and sustain business process reengineering (BPR) and/or shared services initiatives. The full weight of institutional leadership and governance is required to drive fundamental change in the institution's approach to administrative services and systems.

- **Capture incremental improvements while pursuing transformative opportunities:** The CBO and CIO should strive to foster comprehensive support for transforming

administrative services and systems through BPR and shared services as appropriate to the institution's needs and context. However, given the cultural and leadership challenges that such efforts pose, they should not overlook options for achieving incremental progress on efficiency and effectiveness within and between their areas of responsibility (e.g., evaluating the potential of cloud services to lessen infrastructure and maintenance costs for administrative IT).

- **Be realistic:** Institutions must approach BPR and/or shared services initiatives with a realistic perspective on the demands they place on the institution, the potential benefits they might generate, and the institution's capacity to effectively conduct them.

  - BPR and/or shared services initiatives require significant commitments of staff and leadership time as well as institutional resources. Senior leaders must ensure these requirements are well defined and well understood, and that they can be met.

  - Benefits may emerge more in cost avoidance than in direct financial savings, and they could lead more to a rebalancing of institutional investments than a pool of investment capital. Leaders must appropriately define the nature and scope of projected benefits, taking special care with financial-savings estimates, to allow for effective cost-benefit comparisons.

  - Institutional staff may not have the background in BPR or shared services development to effectively launch and sustain such initiatives; training and consulting services may be required to build the necessary institutional capacity to succeed.

  - BPR and shared services initiatives are fundamentally change management exercises that often occur in highly change-resistant environments. Helping staff and organizations to reinvest themselves in core objectives (not the ways they have historically tried to achieve them), and to make sure they focus on the right objectives (grounded in a focus on the institutional mission), takes patience and a willingness not to let sensitivity to the consequences of change become a barrier to change.

- **Acknowledge and leverage differences by institutional type:** The diversity of institutional types in American higher education presents different opportunities and challenges for change in administrative services and systems. Efforts to support such change should take advantage of that diversity by identifying needs and options by major institutional category. For example, the limited resources of small private institutions may have already oriented them toward mapping processes to systems, potentially limiting their BPR opportunities. Those same factors, though, may make

them more open to shared services, and thus to relevant models, guides, and other resources.

- **Address processes before systems:** Many in higher education are familiar with the admonition that institutions should first refine their processes and then select technologies to support them, as opposed to adopting systems and applications as hoped-for "silver bullets" to resolve underlying process problems. The group embraced this perspective, noting research on administrative system adoptions that illustrates the significantly higher success rate of projects where BPR preceded system selection and implementation.

Priority Next Steps for NACUBO and EDUCAUSE

Given a shared perspective on the value of administrative services and systems as well as the opportunities and issues involved in maximizing that value, the group identified a set of broad proposals that EDUCAUSE and NACUBO might pursue to advance progress in this area. (Please see Appendix B for the full list of proposals.) It then determined its priority recommendations for the associations' next steps, as well as related implementation and outreach considerations.

By identifying the following priorities, the group did not intend to signal a lack of support for its remaining proposals. It envisioned the priority next steps as the first, most pressing efforts that EDUCAUSE and NACUBO might undertake in a long-term, ongoing partnership based on the group's overall recommendations.

Priority Proposals

From its full set of proposals, the group derived three top priorities for near-term collaboration between NACUBO and EDUCAUSE:[2]

1. **Develop general and, where appropriate, institutional category-specific:**

   - Models for best practices–based standardization of administrative services and related information technology
   - Benchmarking data and metrics for the costs of administrative services and related information technology
   - Case studies and best practices–based guides for initiatives in BPR and shared services, analytics, and knowledge-sharing processes related to administrative services and systems

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[2] Proposal descriptions are presented in summary form; for the complete text, please see Appendix B.

Consistent with the group's findings on maximizing the value of administrative services and systems, members stressed the practical importance of expanding the higher education community's knowledge base in this area. In particular, the group expressed a strong interest in best practices models and case studies for standards-based BPR and shared services, but with the understanding that the development of comprehensive cost data and metrics may be a necessary precursor to such efforts.

The group agreed that aligning and mining existing EDUCAUSE and NACUBO research activities and data sources, such as the EDUCAUSE Core Data Service (CDS), would be an important first step toward meeting data needs in this area. It would also allow the two communities to better understand and address remaining data and knowledge gaps—separately, collectively, and potentially in concert with other stakeholder communities.

Group members acknowledged that each of the proposed projects under this recommendation entails significant planning and implementation requirements, as well as sustained member input and engagement. Thus, while the group identified data and resource development as its top next-step priority for NACUBO and EDUCAUSE, it did so knowing that the recommendation reflects long-term initiatives, commitments, and relationship building between the two communities.

For example, EDUCAUSE and NACUBO have already begun staff conversations on leveraging the CDS to develop a shared data infrastructure for administrative services and systems costs. Once staff members have more fully defined the potential opportunity, the associations may engage member representatives in advisory bodies similar to the current joint working group to provide institutional perspective and subject matter expertise. This process would ensure that any resource or service that may emerge meets the needs of the CBO and CIO communities, as well as colleges and universities generally. And this overall approach may serve as an effective model for future collaborations related to the next-step priorities and other proposals.

Regardless of the specific projects the associations may choose to pursue, the group believes that administrative leadership would benefit from subjecting thoughts, ideas, and practices to peer review. Incorporating peer review into the culture of administration (and related IT) could help accelerate improvements in administrative services across higher education, just as it has traditionally advanced progress in research and instruction. The development of the resources and data recommended by the working group could serve as a major first step in that direction.

2. **Clarify and promote "market differentiation versus mission criticality" as a core concept for understanding and managing the administrative services and systems environment:**

   As noted previously, the group agreed that the differentiation/criticality matrix defines the appropriate approach to determining the value of administrative services and systems. However, additional work needs to be done to provide colleges and universities with a comprehensive framework for making comparative decisions about service/system value and investment as well as where BPR or shared services may be warranted. For example, key elements of the potential framework that NACUBO and EDUCAUSE need to define and validate include:

   - The factors that should inform the determination of market differentiation and mission criticality
   - The assignment of administrative services and systems in light of those factors (starting with the working group's core set but expanding to other major types as appropriate)
   - The operating and investment principles institutions should apply based on the determinants of differentiation and criticality and how they are reflected in where services and systems fall on the matrix

   This initiative might, for example, take the form of a joint research project between EDUCAUSE and NACUBO leading to a white paper outlining the relevant principles and concepts, as well as their application. The associations could then use this conceptual framework to promote a shared understanding of the value of administrative services and systems, and how it should inform institutional action and collaboration, to presidents, provosts, governing boards, and other major stakeholders.

3. **Convene NACUBO and EDUCAUSE member representatives to inform and support the development of collaborative efforts to address shared services and systems challenges:**

   The group agreed that the results generated by the previous two priorities will undoubtedly help the CBO and CIO communities identify projects they might jointly pursue to overcome common problems in this space. For example, specific opportunities for shared services initiatives or engagement with system providers on common analytics needs might emerge.

   In the group's view, EDUCAUSE and NACUBO should continuously assess the findings and information produced by relevant data and research activities for opportunities to foster collaboration between their communities. The associations should then stand

ready to bring their members together to define, plan, and pursue such projects. And as they consider when and how to start such initiatives, they should keep in mind the recommendation of the EDUCAUSE expert panel on administrative IT to focus first on discrete, achievable projects to build credibility within their communities and with other stakeholders.

Implementation Considerations

In addition to the recommended priorities, members identified general implementation issues that might bear on those next steps and the group's other proposals (as described in Appendix B). The group suggested that NACUBO and EDUCAUSE explore opportunities to support the development of:

- **A common lexicon and set of data definitions for administrative services and systems:** CIOs and CBOs may not always use the same terms, or the same terms in the same way, as they think about this space, so having a set of shared references would help advance joint research and data efforts, potential collaborative projects, and so forth.

- **Strategies to address terms and concepts that may have loaded connotations in the culture of higher education:** For example, some in higher education might equate "standardization" with corporatization and infringement on academic freedom. EDUCAUSE and NACUBO should anticipate the cultural lens through which their work may be viewed and strive to clarify the real meaning and application of terms as appropriate.

- **A shared landscape for administrative services and related IT processes:** Mapping general administrative processes and their related technology processes would help CIOs, CBOs, and other stakeholders such as system providers visualize the points of intersection between the two and thus identify potential targets for process improvement.

- **Strategies for explaining administrative services and systems transformation in the context of changing higher education business models:** As NACUBO and EDUCAUSE develop and/or analyze data on administrative services and systems and consider what their communities' objectives for transformation in the space might be, it is important to remember that these efforts will take place against the backdrop of broader trends in higher education that may lead to shifts in the overall higher education business model. The associations should seek to understand and explain to their members and other stakeholders how those broad higher education trends should inform transformation in administrative systems and services, and vice versa.

Outreach Considerations

The group also considered the need for outreach, both on campus and across the higher education community, to advance the proposed priorities of NACUBO and EDUCAUSE in the administrative services and systems arena. Group members agreed that:

- **CBOs and CIOs must identify the key executive sponsor(s) to achieve on-campus success:** At some institutions, the provost may be critical to advancing a BPR and/or shared services agenda; at others, it could be a mix of senior campus executives. Whatever the case, ensuring the engagement and commitment of the institutional leader or leaders with the credibility to "make things happen" will be essential.

- **EDUCAUSE and NACUBO should focus on achieving a critical mass of support among institutional and community leaders:** Group members noted that not all presidents, provosts, other senior institutional leaders, and the groups that represent them will see administrative services and systems transformation as a major priority or agree with the group's perspective on it. The key for the CBO and CIO communities will be to identify those who "get it" and leverage their interest and support to drive broader awareness and engagement.

- **Dialogue with governing boards may be particularly important:** Given the change-resistant culture of most institutions and the importance of comprehensive senior leadership support to advancing BPR and shared services initiatives, having the backing of institutional governing boards for such efforts may be critical. NACUBO and EDUCAUSE should work to inform the governing board community about the issues and opportunities in this space to facilitate dialogue among major stakeholders, both on campus and across higher education.

- **The higher education community should incorporate the considerations identified in this report into its leadership development efforts:** Successfully transforming how institutions understand, structure, and implement administrative services will require leaders who think differently about the services' value and purpose. Given the strategic implications of making, or not making, this transition, the working group believes that higher education leadership organizations should incorporate the topic of administrative services and systems transformation into their leadership development programs. These efforts should have the shared goal of making this issue a priority for current leaders as well as a key part of the agenda for the next generation of leaders.

Conclusion

The NACUBO/EDUCAUSE working group found that maximizing the value of administrative services and systems requires colleges and universities, both individually and collectively, to have a more comprehensive view of:

- Administrative costs and what drives them

- How to minimize customization through standards-based BPR (which may also enable shared services)

- The potential of analytics to enhance the capacity of administrative systems to support mission objectives

- The ways in which institutions might best capture and share relevant guiding principles and best practices

Thus, the group's recommended priorities for NACUBO and EDUCAUSE next steps emphasize expanding our shared knowledge base on administrative services and systems, focusing on cost data and metrics, as well as the development of case studies and best practice guides on BPR and shared services, analytics, and knowledge sharing. In addition, the group advocated for EDUCAUSE and NACUBO to place a high priority on facilitating collaborative efforts between their communities (and potentially with others) to address shared administrative services and systems challenges, such as effective engagement with system providers on addressing common needs and issues in current and future systems development.

The group indicated that as NACUBO and EDUCAUSE plan and implement relevant initiatives, they should look for ways to support development of a shared lexicon, data definitions, and process landscape related to administrative services and systems. The group also noted the importance of anticipating the impact that higher education's culture and values may have on change efforts, and thus of EDUCAUSE and NACUBO consistently clarifying their terminology and intent accordingly. Likewise, the group emphasized the need for EDUCAUSE and NACUBO to help their members and other stakeholders understand the intersection between potential change in the higher education business model and the drive for change in administrative services and systems.

The group reiterated its consensus, though, that CIOs and CBOs alone cannot drive the level of transformation needed in administrative services and systems—key institutional decision makers and stakeholders, including other senior administrators and governing board members, must actively embrace the process. Thus, the group encouraged NACUBO and EDUCAUSE to strive to generate a critical mass of support for administrative transformation among presidents, provosts, and other major stakeholder communities. The group believes that, with the full commitment of these stakeholders, colleges and universities can realign processes and systems

to significantly improve administrative efficiency and effectiveness, as well as institutional capacity to achieve core mission objectives and adapt to the trends shaping the future of higher education.

Appendix A: "Maximizing Value"—The Future of Administrative IT: Expert Panel Findings and Recommendations

December 2013 EDUCAUSE Executive Briefing

1. **Clarify Costs and Their Drivers**

   The panel determined that balancing the cost of administration (including IT) with the operational efficiencies and performance improvements that effective administration produces requires a better understanding of administrative costs and what drives them. Key points from the discussion included:

   - Institutional customization of what should be "industry standard" processes often frustrates efforts to achieve cost-effective administrative services and systems. As a panelist noted, uniqueness tends to emerge in nonunique administrative functions over time through history and culture, and then this "institutional identity gets coded" into administrative systems.

   - The "coding of institutional identity" limits operational value by reducing opportunities for cost reduction and service improvement through standardization and shared services within and between institutions.

   - Business process reengineering can promote the standardization needed to reduce costs and improve services (through best practices and economies of scale, for example), as well as to enable shared-services models.

   - Colleges and universities generally lack good cost models for administration (and administrative IT). Panelists indicated that this may inhibit BPR and related cost-saving strategies (e.g., cloud services, shared services) in terms of identifying opportunities and building stakeholder support to pursue them.

   - Understanding and reducing administrative/IT costs is difficult to accomplish without appropriate cost data on which to base good working metrics; such "rule of thumb" measures would help institutions draw effective internal and peer comparisons, and would thus serve as an important starting points for BPR and cost-saving strategies.

2. **Minimize Customization**

   The panel agreed that the pending renewal of administrative systems creates a unique opportunity for the CIO to engage other senior leaders in assessing what the institution can achieve through BPR to reduce or eliminate unnecessary customization. Panelists concluded that:

- Institutions should explore the potential of BPR to enable greater efficiency and effectiveness in services and systems, even as they work to build effective working models of administrative (and related IT) costs.

- Colleges and universities often face cultural and leadership challenges to pursuing BPR, and an understanding of how to successfully tackle those challenges is not widespread across the IT and higher education communities.

  - For example, the viability of shared services initiatives often depends on whether administrative services leaders at partner or system institutions will agree to realign business processes with industry standards.

  - Helping administrative services leaders to "get to yes" on standards-based process realignment remains a puzzle on which the higher education community must work together to solve.

- Institutions must explore incentive models that have demonstrated success in driving BPR within units and institutions, such as approaches that allow units to recapture some of the associated savings.

- Significant savings from BPR are possible. A panelist discussed his direct experience with a university system that standardized student services processes as part of implementing a shared student information system; as a result, the cost of implementation dropped by over 60%.

- BPR might be essential to tapping administrative IT's strategic value through analytics: "How do we maximize value? We have to move from a focus on transactional processing efficiency to [a focus] on the strategic value that the data systems generate and how to get it. Services reengineering is the key to doing that…."

- Pursuing BPR (as well as shared services), both within and between institutions, requires sustained commitment from and active involvement by the full senior leadership team. The CIO alone cannot drive such efforts.

- A key consideration is what steps the institution will take to ensure that it captures any savings resulting from BPR to support strategic objectives, as opposed to letting those resources disappear within functional areas.

- Institutions should also consider whether their strategic interests might be better served by directing savings from BPR to establishing or enhancing their analytics capabilities.

3. **Get Analytic**

The panel recognized that higher education has thus far invested heavily in administrative systems to support operations as opposed to decision making: "Ninety percent of our money is spent on transactions, and ninety percent of the strategic value of the systems is in the data that we can't effectively analyze…." With this in mind, panelists expressed the following views on analytics:

- The potential of analytics to advance strategic leadership and mission performance makes pursuing an analytics strategy essential: "What institutions should do to maximize value is to move to data-driven decision making."

- Emerging cases illustrate the strategic potential of analytics. For example, a participant discussed his institution's application of analytics to its administrative data, which uncovered factors allowing it to significantly improve student retention.

  - He noted that this has "real world" implications—the institution determined that every 1% increase in freshman retention equals $1 million in additional tuition revenue.

  - By establishing clear ties between analytics, student retention, and financial returns, the panelist indicated that he has secured the leadership commitment and resources to continue bolstering the institution's analytics capability.

- Supporting analytics at scale will probably entail working to maximize the efficiency of spending on the operational aspects of administrative systems to allow for reinvestment in analytics.

- IT units should consider applying analytics and BPR internally first to generate proof of concept before engaging other stakeholders in such efforts. Panelists stressed the importance of establishing credibility on these issues to achieving success.

- The EDUCAUSE community must engage with system providers on the analytics capabilities institutions most need: "In order to achieve true progress, we will need true collaboration between the IT and institutional communities and the vendor communities."

  - The panel indicated that providers are moving to integrate analytics capabilities into their offerings, but it is not clear that they have effectively accounted for what institutions actually need.

- In particular, panelists expressed concern that providers may not offer institutions the ability to develop institution-specific analytic metrics and reports within future systems, limiting their usefulness and requiring use of "bolt-on" applications with their added complexity and expense.

4. **Share Knowledge**

Panelists stressed the importance of collaboration between administrative and IT units—both within and across institutions—to building the knowledge base on how to continuously improve efficiency and cost-effectiveness in administration and related IT. They recommended that:

- Administrative units should work with the IT organization to establish a process for ongoing evaluation of administrative systems capabilities, which should include assigning functional-area leads to regularly conduct such assessments.

  - Panelists noted that administrative units often do not fully understand the system capabilities already available. This lack of understanding leads to requests for procuring new applications to address needs that existing systems might meet, which adds further complexity and cost to the administrative IT environment.

  - By making regular evaluation and knowledge dissemination of systems' functional capabilities part of their ongoing operations, administrative units can partner with IT to maximize the value of the institution's existing systems.

- Institutions and stakeholder communities, both individually and throughout higher education, need to develop models and processes for consistently capturing and disseminating relevant best practices and opportunities for shared services.

  - Colleges and universities often produce significant improvements and innovations in administrative processes and systems that may go undiscovered outside the originating institution.

  - If institutions implement ways to regularly capture and share such progress, both internally and with peers, that dynamic could significantly impact service/process efficiency and effectiveness in general. It may also expand the potential for shared services, leading to even greater efficiency and effectiveness.

Appendix B: Next Step Proposals—NACUBO/EDUCAUSE Working Group on Administrative Services and Systems

December 2013

A. Clarify and promote "market differentiation versus mission criticality" as a core concept for understanding and managing the administrative services and systems environment; this would entail:

   a. Defining and validating the factors that determine the categorization of administrative services and systems in relation to the "market differentiation/mission criticality" matrix

   b. Sorting administrative systems via the matrix

   c. Defining and validating the operating and investment principles institutions should apply based on how services and systems are categorized

B. Develop general and, where appropriate, institutional category-specific:

   a. Models for best practices–based standardization of administrative services and related IT

   b. Benchmarking data and metrics for the costs of administrative services and related IT (including metrics and guides related to the initial and ongoing costs of systems customization)

   c. Case studies and best practices–based guides for:

      i. Business process reengineering and shared services initiatives, including:

         1. Executive and stakeholder outreach and engagement strategies

         2. Incentive models to motivate BPR and shared services adoption and support among affected units

         3. Reinvestment strategies for capturing savings and directing it toward mission-critical activities

      ii. Analytics initiatives to capitalize on the potential of administrative systems to support strategic objectives

      iii. Knowledge-capture and knowledge-sharing processes related to administrative services and systems (both intra- and interinstitutional)

C. Conduct sustained outreach to other higher education stakeholder communities to achieve widespread support for and adoption of BPR and shared services

D. Organize sustained higher education community engagement with system providers on institutional needs in emerging and future systems (e.g., analytics features/functionality)

E. Convene NACUBO and EDUCAUSE member representatives to identify and establish collaborative efforts to address shared administrative services and systems challenges

F. Explore the development of consulting services for BPR and shared services by and for the higher education community

G. Provide professional development on effectively scoping and managing administrative systems implementations