

Higher Education

Leveraging Technology to Thrive in a Transformative Period

A Business Process Review with
California Institute of Technology (Caltech)



It is generally acknowledged that the Higher Education industry and university business models are at a crossroads. Many institutions are facing significant headwinds that can only be overcome through collaboration and an innovative spirit. Revenue growth from nearly all sources is under pressure. At many institutions, expense growth exceeds revenue growth. Caltech's financial leadership realized that to thrive in this transformative period, they needed to evaluate their current cash and treasury processes, which included systems and operations that had been in place for decades.

Caltech's Objective

Leapfrog to an optimized treasury operation, leveraging innovative tools and processes that will sustain the Institute into the future

To drive the idea of change, Caltech enlisted campus-wide input, including administration, academic departments, and IT to define their key objectives and desired outcomes. Aligning with their organizational culture and strategic priorities, these objectives included:

- Implementing process improvements and efficiencies
- Strengthening functionality with the ERP system
- Minimizing banking costs
- Ensuring safety of funds and data security

"J.P. Morgan's patient engagement and thoughtful ideas helped my team to realize that we wouldn't make the most of a banking change unless we expanded the scope to include long-overdue process changes; doing so wasn't easy but it was the right call and J.P. Morgan supported us through the changes."

- Matt Brewer, Controller

Campus-wide needs drove Caltech to assess where they were and what future state would allow them to best serve their faculty, students and staff. This was an important step to evaluate current processes and to challenge the status quo. Ultimately, Caltech understood the value of change, which led them to issue a full banking services request for proposal (RFP). By embracing change, evaluating new technologies and leveraging optimized workflows, Caltech's financial leadership

realized they could solve many of their current challenges, which were manual, paper intensive, and duplicative, as well as improve service to their students through a more digital financial experience.

Caltech chose J.P. Morgan as its strategic banking provider to help adopt new technologies and optimize its treasury operations.

With no known changes in banking providers in its history, Caltech recognized that changing banks was a very important decision. Caltech was selecting a banking provider, its people, and technology for years to come. Caltech found that J.P. Morgan not only brought a strong understanding of the industry with its specialized higher education banking team, but also had a successful track record of change.

Collaborating together, Caltech realized significant qualitative and quantitative benefits. Today, Caltech has a highly efficient treasury process that is nimble and able to take advantage of new technology as it becomes available. Over a two-year period, Caltech improved the share of electronic payments from 58% to 89% of total payments, nearly at the best-in-class industry benchmark of 90%.

The Process for Transformative Change

It is not our intention to "lift and shift" from where we are today, but rather to "lift and innovate"

To begin the treasury optimization journey, J.P. Morgan completed a business process review and interviewed individual departments, asking three questions in the context of cash and treasury processes:

1. Are you as efficient as you can be?
2. Are you adopting and leveraging technology to the fullest?
3. Will your current processes move you forward?

Through this process, J.P. Morgan identified key challenges and opportunities:

Improving Receivables

Pre-transformation, Caltech had decentralized receivables, which resulted in manual and time-consuming processes. Examples included walking checks and cash deposits across campus and sending multiple emails to identify incoming electronic payments.

Inflows



Wires and ACH

Collection point



Virtual Reference Number is associated with the corresponding DDA

Receivables management



Automated posting to your designated DDA

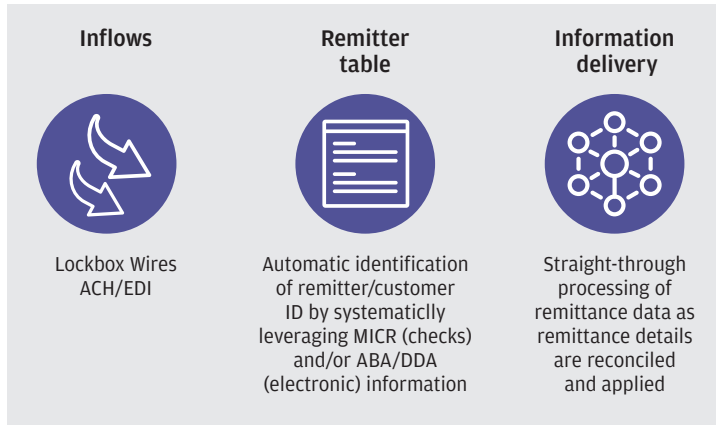
Information delivery



Access online reporting where reports show reference reconciliation host-to-host

Identifying incoming electronic payments to the concentration account

The ability to easily identify incoming electronic payments where multiple departments are depositing to one concentration account is a common pain point in the higher education industry. To identify where payments belong, Caltech substantially improved its process by leveraging Virtual Reference Numbers (VRNs). Caltech associated these VRNs with departments that deposited into the concentration account.



Identifying remitters associated with incoming grant payments

For Caltech, matching incoming check, wire, and ACH payments to the remitter was a pain point in its grants department. Caltech found significant value using J.P. Morgan's Payer Data Management solution. Now, Caltech creates a remitter record including any helpful remitter notes, such as grant numbers associated, in J.P. Morgan's secure portal. Both check and electronic payments are then identified as they are received by their MICR or DDA/ABA information and automatically matched to the remitter record to help ease the identification of the payment.

Improving Payables

Disbursements is another area that is experiencing significant change, including new methods to remit payments. Millennials and Gen Y are

challenging traditional payment practices - they want their universities to adopt the same mobile, digital financial experience they are used to in their daily lives.

Getting away from cash and check disbursements to individuals

Caltech recognized this trend and leveraged the ability to send individual payments via an email address or cellphone number. An additional advantage is no bank account information is required. This solution is in place for student refunds, athletic per diems and expense reimbursement for graduate student clubs. Additional use cases on the radar include global study abroad stipends, research subject payments and honorarium payments.

And the feedback from students? They love it.

Check print outsourcing

Caltech successfully deployed check print outsourcing as part of its strategy. Backed by a return on investment (ROI) analysis, Caltech's integrated payables strategy placed an importance on moving away from manual, time intensive workflows to allow personnel to work on more strategic efforts. While overall cost of supplies, equipment and FTE time was a large component of its evaluation, business resiliency was just as critical. With annual check volume of nearly 30,000 items for procurement and other payments, ROI analysis for check print outsourcing estimated cost savings of over \$65,000 annually.

Staying Nimble Going Forward

Caltech believed in the importance of taking a step back and thinking about how they could create a best-in-class treasury operation. Caltech thoughtfully invested the time and resources to build not only for today but for the future. While Caltech created a modernized infrastructure, the work to innovate is never done.

Looking forward, Caltech is committed to the constant pursuit of optimization by ongoing self-evaluation where areas of opportunity exist. This will allow Caltech to continually better serve its students, faculty, and community.

California Institute of Technology, one of the top institutions in the world for science and engineering, partners with NASA to manage the world-renowned Jet Propulsion Laboratory (JPL) and also operates numerous other research facilities.

Students | **2,237**

Selectivity rate | **8%**

Tuition & Fees | **\$54,600**

Total revenue | **\$3.3B**

Research revenue | **\$3.0B**

Total debt | **\$1.2B**

Endowment | **\$2.9B**

Investments | **\$3.5B**

71 US National Medals of Science and Technology

39 Nobel Prizes awarded to Caltech alumni & faculty

Caltech's Top 10 Ingredients for Success

1. Drive change through executive sponsorship
2. Assess the "hard truth" regarding current processes
3. Distill user feedback into themes and trends
4. Collaborate across departments, including IT and functional groups
5. Be open and flexible to change and new ideas
6. Consider new and readily available technology
7. Create an ambitious but realistic plan
8. Rank deliverables by time and effort
9. Phase the implementation with project leads
10. Establish a cadence for communication and updates



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