# Northern Illinois University Administrative Efficiency Project

In February of 2020, Northern Illinois University President Dr. Lisa C. Freeman launched an initiative to identify administrative practices, policies and procedures that could be transformed, simplified or eliminated.

A few weeks later, the magnitude of that challenge was thrown into sharp relief when the COVID-19 pandemic led to an almost overnight switch to teaching, learning and working from home. It immediately became obvious that the university was too dependent upon manual and paper-based practices to handle even seemingly simple tasks such as filling out time sheets, processing grade changes and managing inventory.

Against that backdrop, a working group led by Vice President and Chief Financial Officer Sarah Chinniah and Vice President and General Counsel Bryan Perry, supported by former NIU Provost Chris McCord, began the work of identifying as many opportunities for efficiency as possible and then prioritizing those efforts. The goals: to save time and money while freeing employees from routine tasks and allowing time to focus on higher level thinking.

Through a very inclusive process, more than 70 opportunities for greater efficiency were identified. Each potential project was judged on volume and breadth of impact; contributions to mission; and contributions to operational efficiency. From that emerged a list of 21 projects that were ready for implementation along with nine others that require policy development prior to implementation.

The 21 projects went through a formal prioritization review by university leadership and were included in regular conversations at monthly leadership meetings, University Council and SPS and Operating Staff Councils to share updates and seek input. That process identified three tiers of priorities. Led by DoIT, detailed implementation plans are now being developed for the top tier projects.

The final list of projects is as follows:

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| Tier I | Tier II | Tier III |
| * Time and benefit reporting (interim) * Registrar/student transactions * PeopleAdmin upgrades * Inventory * Grant management financial tracking * Sensitive student financial aid doc. * Data for compensation analysis | * Electronic signatures * Curricular approval process * Vendor Invoice/Voucher Interface * Encumbering salaries on grants * Purchase order and   contract e-signatures   * Student financial aid forms   Manager dashboard | * Retroactive changes to grant salaries * Performance evaluation * Graduate Student forms * User testing * Check requests * Research joint appointment coding * Job data modernization |

As these efforts come to fruition, we expect to see our administrative processes become more flexible, quicker and less error-prone while accommodating the expectations of our students, faculty and staff for a more modern environment for learning and working.

The projects that have been prioritized for action that are underway or ready for implementation are as follows:

## Tier I

### Data for Compensation Analysis

NIU contracts with a vendor to analyze data on hiring, and promotions against demographics to ensure that opportunities for employment and advancement are handled equitably. To conduct this work, the vendor and Office of Affirmative Action, Equal Opportunity and Education require data that is timely, complete, accurate and consistent. This project will identify and address the issues needed to ensure that data integrity. As two of the key data sources are PeopleAdmin and PeopleSoft, this project is expected to co-ordinate closely with the PeopleAdmin Upgrades project.

### Grant Management Financial Tracking

The current manual processes required for tracking of most federal grant money are time-consuming, prone to error and do not provide Principal Investigators or staff with real-time budget information and control. This increases the risk of accounting errors and cost overruns, both of which can attract the ire of auditors and federal granting agencies. To address these issues, the university plans to adopt new post-award grant monitoring software to better integrate with that used for pre-award processing.

### Inventory Management

The current inventory management system involves multiple databases of information and often relies upon manual inputting of data, both of which create opportunities for errors. The primary opportunity for process improvement would be to eliminate NIU’s home-grown data interface and manage the inventory process directly from PeopleSoft. Such a solution would allow responsible officers at the sector level to access their data directly from PeopleSoft, allow them to upload data directly and provide them with year-round visibility into records of their assigned assets. Such a change may also allow the university to rely upon barcode scanning to largely replace error-prone manual verification of tag numbers

### PeopleAdmin Upgrades

There are ongoing discussions with PeopleAdmin about updates to their system. A System Review underway seeks to compare three configurations: NIU’s current implementation of PeopleAdmin’s system; the full capacity that NIU could enjoy if all of the aspects of the PeopleAdmin system that NIU has paid for were implemented; and the capacity that NIU would wish to have. NIU’s Affirmative Action and Human Resource Services teams have identified a list of upgrades that they believe can simplify some important functions:

* Incorporating Affirmative Action into Applicant Tracking
* Improving Information Flow by eliminating manual data transfer
* Tactical Changes to make the system more user-friendly including creating a separate workflow for instructor hiring; or creating finalist notification form.

Once the Solutions Review is completed and the range of feasible solutions has been identified, NIU will work with PeopleAdmin, and with our PeopleSoft system, to implement the upgrades.

### Registrar/Student Transactions

While most registrar/student transactions are already automated, there are several that students execute, related to their academic program, that are still managed through paper forms. As NIU looks to a near-term future with a significant amount of remote teaching; and to a long-term future with a growing percentage of our students online, there are clear needs for all large-scale student transactions to move to a digital/automated format. Curricular deans and advising directors identified 17 forms they would like to see converted to a digitized or automated format, primarily through the use of existing capabilities in PeopleSoft. In concert with the technology changes, the academic community is also reviewing and simplifying the approval chains that go with the forms.

### Sensitive student financial aid documentation

As part of the student financial aid process, students, applicants and their families are called on to submit a variety of documents that contain sensitive, personally identifiable information. This information requires a high level of security for its transmission and storage. At that same time, there is a very high volume of material involved. Moving the submission of student financial aid forms to an automated secure process would increase security, greatly enhance efficiency in the Financial Aid & Scholarship Office and promote recruitment and enrollment by making the financial aid application process more accessible to students and their families. Finding a secure, automated process to handle this information could reduce the amount of staff effort devoted to document processing as much as 85%.

### Time and Benefit Reporting (Interim)

The COVID crisis forced NIU to abandon its paper-based system for reporting time worked and benefits claimed. The current solution is paperless, but still essentially manual and has several shortcomings. The permanent solution is envisioned to be based on the implementation of the PeopleSoft Time & Labor module. However, this is seen as a very heavy lift, with both redesign of the time and benefit processing and significant technical work in HRS and DoIT to implement the new module. An interim solution that would automate time and benefit reporting is being designed.

## Tier II

Curricular Approval Process

NIU’s curricular approval process is cumbersome, time-consuming and error prone. The multi-layered approval process relies upon the sharing of meeting minutes and supporting documents from multiple sources. Complicating matters is that changes are often framed in in terms of changes to catalog language, rather than as direct actions to create a course, change requirements, etc. To correct those issues, the university is building a solution within OnBase that will allow individual curricular items to be tracked as identifiable items. The approval workflow, tracking and indexing will be handled by OnBase and managed by the catalog editor.

### Electronic Signatures

One of the most significant recent developments has been the introduction of policy and technology to support electronic signatures. An important first step has been the creation and approval of an electronic signature policy. With that in place, the university can move forward with implementation. Some e-signature efforts may have higher levels of complexity that require expert support   
(see “Purchase Order and Contract Electronic Signatures”), while others may be more amenable to local self-service approaches. This project will not provide direct support for implementing electronic signatures. Instead, it will explore opportunities for providing tools, job aids and design rubrics that would support a systematic approach to self-service implementation of electronic signatures.

Encumbering Salaries on Grants

Salaries that are charged to grants often have start and stop dates that are based on the grant lifecycle rather than the academic year or fiscal year. However, the current process in payroll obligates funds through the end of the fiscal year. This divergence can lead to salaries being incorrectly charged to grants, with a variety of negative consequences, such as over-spent grant accounts and incorrect federal reporting. The goal of this project is to ensure that salary charges to grants stop on the assigned dates and are accurately encumbered in advance for the specified period and that salaries and fringe benefits are encumbered at the start of grant employment.

Manager Dashboard

Managers routinely require basic personnel information about their staff, such as salary, salary history, reporting lines and position history. A manager dashboard would provide managers with this such a profile “on demand”, without searching through personnel files or requesting HRS to supply *ad hoc* reports. Opportunities for developing that dashboard have been identified within PeopleSoft and PeopleAdmin and are being investigated.

Purchase Order and Contract Electronic Signatures

Efforts to digitize the procurement and purchase order process have been underway for some time. However, the process still relies significantly upon manual, paper-based and is labor-intensive. DoIt is investigating a variety of software products to assist in correcting these issues including implementing electronic signatures for both purchase orders and contracts.

Student financial aid forms

In addition to financial aid documentation supplied by applicants/students and their families (see “Sensitive student financial aid documentation”), the Financial Aid & Scholarship Office collects information through a variety of forms from a variety of other offices, such as an academic advisor or an institutional representative of another institution. These forms are submitted manually, typically as either a paper copy or an email attaching a scanned document. These are loaded into OnBase. The Financial Aid & Scholarship Office would like to move these to automated online forms that feed directly into OnBase.

### Vendor Invoice/Voucher Interface

Currently, vendor invoices are received by NIU and entered into OnBase. Accounts Payable is interested exploring the ability to extract information from OnBase into PS-FMS to generate payment vouchers. The project is exploring the extent to which information indexed in OnBase can be used to populate the fields in PS-FMS needed to generate payment vouchers. This could have a significant positive impact on workload in Finance.

## Tier III

### Check Requests

During the COVID crisis, the university began to automate the travel voucher process (those efforts are nearly complete) moving away from hard copies of receipts, etc. to one that relies upon solely electronic documents. Moving the check voucher process into PeopleSoft as a follow up is seen as a natural and achievable extension of those efforts.

### Graduate Student Forms

The graduate school was the first unit to adopt OnBase and many of their high-volume forms have already been established there. However, there are still 20 student forms that remain in PDF form, of which 12-14 could be converted to electronic forms. The top two priorities are the re-entry request form and the schedule change request form. The approval workflow is the same as that for many of the existing forms, so no new development of approval workflows is required. Once these have been established in OnBase, the expectation is that other forms on the graduate school’s list would follow.

### Job Data Modernization

Each of the three PeopleSoft regimes makes use of different data structures to organize information for different purposes. To adapt PeopleSoft to use on mobile devices, Oracle has been migrating its structures from “classic” to “fluid” formats. With PS-HR, the job data component is one of the most important data components, and Oracle has released a job data modernization project that will migrate job data to fluid format. Oracle will terminate support for classic job data effective January 1, 2023, so if NIU plans to continue use of PeopleSoft past that date (or more generally, if NIU wishes to keep the option of continuing use of PS-HR past that date), NIU will need to carry out the modernization process and convert job data to the fluid format. While the process does not need to be completed before the end of 2022, this has implications for some of the other projects, such as the desire to integrate PeopleAdmin and PeopleSoft HR data.

### Performance Evaluations

One of the more neglected aspects of the employee lifecycle is the evaluation process. While the long-term goal is to move all performance evaluations to an online automated format, the current focus is on building an online process for probationary evaluations of staff.

### Research Joint Appointments

An important component of NIU’s research profile has been our ability to partner with the two Department of Energy national laboratories. In particular, the ability of national laboratory staff to hold joint appointments with NIU and leverage those joint appointments into federal grant opportunities contributes in a fundamental way to NIU’s grant portfolio. However, our systems for identifying and tracking joint appointments is not robust, which creates challenges for grant management and accounting. Opportunities for improved tracking have been identified, using new coding options in PeopleSoft Human Resources software.

### Retroactive changes to grant salaries

When changes need to be made to the way salaries are charged to grants, current practice requires the journaling of changes on a per-pay period, which includes a manual processing of fringe benefits. Sponsored Programs Administration is seeking a process to automate journaling and is also concerned about increasing the timeliness and accuracy of appointments to minimize the need for journaling. We have a custom process that allocates employer benefit costs to grants that runs as part of payroll. To implement an automated processing of retroactive funding changes, we would need to modify this program to back out the past employer benefit charges that hit the original funding and reallocate them based on the new funding. Options for making that change are being explored.

### User testing

Whenever a new software system is brought online, or significant modifications to an existing system are implemented, user testing is an essential step, to ensure that the system behaves as expected. This occurs twice to four times each year, and each time, each of the three PeopleSoft systems (financial management system, human resources system, student information system) currently requires approximately 350 separate user tests. With NIU’s implementation of PeopleSoft growing more complex with each customization, the ability to automate some or all of that testing can be a powerful accelerator of deployment or upgrade. The ERP team has targeted PeopleSoft Test Framework as a tool that they wish to develop to support automated testing. This works by replicating the actions of a user executing functional tests against the PeopleSoft application. Users can record test procedures and save them within the framework. Each time there is a need for testing, those recorded tests can be automatically executed against the application to verify whether the application still behaves as expected.