Full Eradication of Social Security Number as an Identifier –
A One Year Case Study

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Abstract
For institutions planning to migrate away from the social security number, the path of complete elimination is wider than the central computing staff may realize, extending well beyond the student ID. Identifying and converting all feeder and recipient systems to accommodate an anonymous ID requires cross-campus participation and a thorough investigation and plan.

The Problem

Nationwide
The problem of using social security numbers as student ID numbers had been a growing concern for several years. An added stimuli to address the issue were the legal requirements such as Family Educational Rights & Privacy Act (FERPA) prohibiting the use of even the last four digits of a social security number for identification.

This University
Faculty received the Social Security Number (SSN) on grade sheets and then wanted to use them to post student grades. Despite administrative policies, some faculty kept using them. The grade sheet with the SSN numbers printed on it was simply too convenient. Students complained because the numbers were usually printed out alphabetically, and a sharp student could easily figure out what another student’s social security number was. Two students actually had their SSN numbers changed after seeing their numbers on a grade posting sheet. In another example, one faculty member accidentally projected his grade roster with SSN numbers onto a screen; although it was only for a few seconds, students complained to the administration. University employees needed to use their SSN to obtain various services ranging from health care to parking passes, opening the door to SSN theft by student and full time employees.
The growing problem of identification theft and people acquiring illegal credit cards using false social security numbers has exacerbated the problem, and the national PR around the problem has made students sensitive to it. Obviously, the university could have encountered legal consequences if a serious incident had occurred; fortunately, it didn’t.

A Solution Path

An AQIP Project Task Force

The last comprehensive institutional self-study for the University occurred in 1994, culminating in a full report and NCA Commission Visit. With the need to begin another accreditation process in 2004, Northern Michigan University applied to become a member of a new initiative in accreditation with NCA, the “Academic Quality Improvement Project (AQIP). The AQIP model stresses continuous quality improvement. In recent years, decision-makers at the University have implemented a number of quality initiatives and wished to follow an accreditation model that built on the quality measures already in place. The AQIP model promotes a proactive approach to the process of accreditation. It looks towards the goals of the future rather than focusing on the events of the last ten years. Building upon past successes, NMU was able to develop new and better ways of serving the student population and other stakeholders.

During the most recent university accreditation process, it was necessary to have a campus-wide forum to identify initiatives for improvement. When the AQIP Campus Conversation Day discussion was held in November 2003, a change in student numbering for identification was one of the topics that quickly surfaced. Discussions among students, faculty, staff, and administration resulted in an AQIP Action Project charge to change the student numbering system. AQIP approved the project, and we were on our way. We anticipated one year to create the system and a second year to test and tweak it. So far, we’re right on the schedule shown in Table 1 of Appendix A.

An early realization was that our range of vision would be too easily limited to our primary administrative and academic support systems, and that lesser trained users in peripheral areas might be forced to manually interface with a new numbering system. A decision was made to use a large cross-campus task force whose members ranged from top administrators to the first line clerk. Formation of a Student ID System Committee in Fall 2003 included representatives from the computer center, academic affairs, Registrars Office, faculty, students, student services, financial services, and web development. The charge was to determine details of the problem and outcomes, research the solutions of others, decide on a plan and completion date, evaluate resources necessary, and publicize and implement the plan. The immediate goal of the task force was to identify all side systems and bring them on board early in the process. The list of identified departments is given in Table 2 of Appendix A.

The committee conducted interviews with personnel from all departments utilizing a third party or university proprietary system with social security as the unique identifier. The intent of the first round interviews was to alert all parties to the change deadline and to identify
impact on each. The outcome of the interviews categorized the almost 20 departmental systems into three groups: the few departments that must use social security numbers out of financial reporting necessities for financial aid, fundraising, and employment; the very few for which conversion will be a required hardship, and the majority that involved manageable changes ranging from a conversion table to a software rewrite. Follow-up meetings were held with the hardship group to further identify solutions and resources, and determine if any grace period were possible. For the last group, the committee raised concerns on the reliance on technical support from third party systems, and an uncertainty that departmental users fully grasped the requirements of the conversion process for in-house systems and might not act promptly. Follow-up memos soliciting requests for assistance and status reports were the communication vehicle with the last group to track progress.

The primary student and administrative systems managed by the central computer center are on target with successful phased installation and training. However, the use of social security number was found to be pervasive well beyond employment and academic and housing records. With committee member input, the initial departmental impact list prepared by the computer center expanded by 30%. Principally due to the billing function, social security had become the identifier key for peripheral systems such as daily guest parking, community recreation membership, conferences and catering, health center, asset management, summer camps, and library services. Department response ranged from full acceptance to strong resistance.

**The Role of Banner Software**

Concurrent with the AQIP project, separate actions were underway to change the university ID card software vendor and to replace the university mainframe along with its legacy CICS student and administrative systems with a full installation of the Oracle-based Banner product by August 2004. Since Banner was already establishing a unique university-wide identifier, it was determined to move the all projects forward in tandem and that the social security number would cease to be the identification number for students, staff, or guests by Summer 2004. The charge expanded from a student identifier to the elimination of all uses of social security number; it would not appear on any screens or reports nor be a searchable field unless mandated by reporting requirements, i.e. employment, financial aid. New ids were generated for students, faculty, staff, guests/patrons. SSN was retained as an information field, but was no longer a key for searching. Banner handles most student transactions online.

**Student ID Policy Change**

With the implementation of the new Student Identification Number, current policies needed to be reviewed and modified, The Associate Provost for Student Services and the Director of Administrative Information Technologies collaborated on a draft policy that was presented to the AQIP subcommittee for review and submission to the University’s President’s Council. The President’s Council, which reviews and makes recommendations to the President regarding university administrative policy received the recommendation from the AQIP subcommittee and made minor suggestions. It was then forwarded to the President with a recommendation for approval. The President received the recommendation and approved the new policy to be effective February 2004.
The new student ID policy effective February 2004 states:

1. This policy prohibits the use of SSN as a publicly visible identification number for University-related business transactions, unless specifically required by law or business necessity. Applications may allow the SSN to be used for individual identification if it is optional.
2. This policy recognizes that compliance will require our best efforts to change procedures, systems, reports and other printed materials that don’t require the SSN as essential information within such system, transaction or report. Therefore, it does not proscribe a specific timeframe for compliance, but periodic assessments of compliance may be made, as appropriate.
3. The appropriate identification number should be the NMU IN. The appropriate login ID for computer resources should be the NMU User ID.
4. The NMU User ID will be used as a standard for all computer resource authentication purposes.
5. Systems developed or purchased after the effective date of this policy will not display social security numbers or use them as keys to databases.
6. This policy assumes the official Northern Michigan University photo ID Card is issued and tracked by a single system.

(Dean of Students, Student handbook, http://dso.nmu.edu/handbook/)

Notification of Conversion

The process of informing students of the university id change involved several venues of communication shown in Table 3 of Appendix A. Electronic mail, posters, table tents, meetings, newspaper ads, phone hold messages and webpages were all used to communicate the change. Northern identified two groups that needed to know of the change, university employees (faculty & staff) and students. The new id was termed “NMUIN,” short for “Northern Michigan University Identification Number.”

Campus-wide communication:

- *The Northwind* NMU’s campus newspaper ran a quarter-page ad at the end of March 2004 to inform students, faculty, and staff of the upcoming change. It included reasons for the change, how to get their NMUIN, and uses of the new NMUIN.
- Large posters were hung in 150 spots on-campus to inform students of the upcoming change. This poster was identical to the *Northwind* ad.

Communication to students:

- Northern Michigan University is a laptop university. Which means that all students that take twelve or more credits are issues a preconfigured laptop and all part-time students are issued a Northern email address. Utilizing this technology our primary venue that new information is communicated to the entire student body is via email notification. Northern’s Dean of Students Office sent an email to all students in March 2004 informing them of the change, why Northern changed, how to get their NMUIN and the uses of their new NMUIN. The content of this email is given in Appendix B.
- Northern has a President-Student forum that is held three times a semester normally called “Let’s Chat.” At this event students are able to attend and be informed about ongoing university projects and ask questions/make comments about things affecting the university. The Interim-President of Northern informed students of the change at an April “Let’s Chat” and fielded a discussion on the effects of the change at northern. This forum is normally attended by student leaders and the general public.
- Table tents were put up in on-campus eateries. The quarter page insert informs students how to get their NMUIN numbers and when they will have to use it. About one third of Northern students eat on-campus every day and were able to read the table tent while they were eating. The content of the table tent is given in Appendix C.
- Telephone hold messages required students calling our Student Service Center and Financial Aid to first listen to a message that informed them that they must have their NMUIN to process and the hold message also informed students where they could get the NMUIN.
- A new section was added to the Student Handbook which informs students of the limited use of SSN numbers and the future implementation of the NMUIN.

Communication to Staff and Faculty:
- An article appeared in the university faculty/staff online newsletter announced the September 1 changeover date and stated “All faculty and staff who have regular contact with students for operations that currently require use of an individual’s Social Security number should plan to attend.”
- Course registration for fall, held in late March, used Banner, thus used the new university ID. In early March informational meeting served as a staff training session for 177 attendees. It covered the rationale for the change, the impact upon student registration, and dictated the need to remove SSN from all printed forms. Staff were also told they could no longer ask a student for their SSN for purposes of identification.

It was hoped that by canvassing the university with a consistent message via multiple modes of communication the new policy would be enforceable and enforced.

**Assessment of Progress and Achievement**

The plans for the second year of the initiative are primarily monitoring, reviewing and making appropriate changes.

**The Faculty/Staff View**

A survey was sent to all departments who had been identified as having a software interface with SSN. It is pending collection and assessment, but as of early October after implementation, only two departments using SSN in their independent software indicated they needed more time to meet the requirement. The major systems were successfully changed and it was known that most support or peripheral systems had undergone their changes.

During Freshman Orientation, students were shown how to locate and use their NMUIN for course registration and university transactions. Staff reported some instances of students not
knowing their NMUIN, requiring the staff member to either help them locate it online through the student website, or searching for the student by name or social security number, depending on the software. In some cases, students were delayed in completing their transactions. Anecdotal evidence indicates these problems were due to new students who had not attended orientation or upper class students who had not remembered or recalled their email notice. These are deemed transitory issues that will resolve themselves.

Pursuant to the staff training meeting in March, departments proceeded to replace or modify any printed form using SSN that did not meet the new ID policy requirements. In some cases, SSN was merely crossed out and NMUIN was written in. In other cases, the forms were reproduced and the paper form policy change appears to be intact. However, an oversight in both the communication and the form modification process was discovered: many forms that exist in Microsoft Office, HTML, or PDF formats for online downloading were overlooked and still contain SSN. This issue must be addressed.

Pockets of faculty who did not read or see the campus communications, and did not attend the staff information meeting were unaware of the change. The primary source of the violation may be in test-taking where a faculty member had historically asked for a full or partial SSN on the test or scanning sheet. A review of the communication venues revealed that no email announcement had gone to faculty and the message may not have been delivered at departmental meetings. This issue must be addressed.

**The Student View**

The role of students in the change from SSN to the NMUIN is the ability of students at NMU to invest effort in changing the university in a positive manner.

The Associated Students of Northern Michigan University (ASNMU), NMU’s sanctioned student government, was asked to assign a student to serve on the committee. To provide the students of Northern Michigan University with an official voice to the administration, to insure the students of NMU are represented on all matters of University operation, and to improve the quality of student life at NMU by being an advocate for positive change. ASNMU asked the student representative to ensure that student interests were kept, to be an active member of the committee, to bring positive change to the NMU community, and to provide weekly reports on the status of the committee back to ASNMU. After several committee meetings and reports back to ASNMU and the student body they were able to form opinions of the change to the new NMUIN. ASNMU had several concerns with using SSN as an identifier. First and foremost was identity theft. There were 4,640 reported cases of identity theft that occurred in Michigan; which accounted for 2.9% cases in the U.S. in 2002. Second, students were concerned with the legality of the university using the SSN as the unique identifier. Third, students complained about having to memorize another number/code. As of the 2003-2004 school year students had to remember a password, username, pin number, phone pin number, and a student id number to gain access to university resources. One student’s comments were: “I think the change from SSN to NMUIN will, in the short term, cause irritation to students who’ve already become accustomed to using their SSN. A lot of them, I believe, were not that bothered by using their SSN, whether due to their ignorance of the risks, or just lack of concern. On the other hand, the long term benefits should outweigh
the cost of the change in literal and irritation sense[s]. People will adapt to the new system and overall they'll be safer, and in my opinion better off, even for someone like me, who was among the unconcerned and irritated, at least at first.” Most students’ comments are adequately summed up in this student’s statement and their concerns were expressed in the committee meetings.

The final viewpoint looked at how the students felt about the progress of the committee in changing to the NMUIIN. The continual updates and participation by the ASNMU Representative was looked upon favorably by the ASNMU Assembly and other student leaders. Several comments made by the ASNMU Representative were that the committee process should have been started sooner to better identify and associate with the departments that were affected by the change and a qualitative process should have been initiated to judge students’ opinions of the change’s impact and their sense of security both before and after the change.

In conclusion of the student view, the role and justification for having a student or students sit in and participate on the committee helped fulfill the three organizational principles of Involvement, Collaboration and People, leading to direct access to information for students. Through this collaborative approach there were significantly fewer misunderstandings about the process by general students and NMU will be able to review this university process from a scientific perspective to contribute to reaccredidation. Undoubtedly, this change will affect students in a positive manner and will cut down on the possibility of identity theft at this institution.

Summary

The conversion project was significant in that a full eradication of the use of social security numbers was undertaken – no university-related office or computer system would use this number as an identifier. Additionally, excluding the extensions and oversights mentioned above, the task has been completed in one year. No campus entity disputed the need for the policy and accepted the challenge to convert within the short deadline. It was felt that the implementation of Banner software, coupled with the AQIP priority, were the leading factors in the success and speed of implementation. Further assessment of the process will be done during the second year.

Resources

The Educause website has a wealth of related information under the path Resources | Cybersecurity | Security Management, or search the website for “SSN.”

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## Appendix A Tables and Charts

### Table 1. AQIP Project Timeline

<table>
<thead>
<tr>
<th>Action / Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campus Conversation Day</td>
<td>November 2002</td>
</tr>
<tr>
<td>Project title approved by AQIP</td>
<td>November 2002</td>
</tr>
<tr>
<td>Project details sent to AQIP</td>
<td>May 2003</td>
</tr>
<tr>
<td>Call for participants</td>
<td>September 2003</td>
</tr>
<tr>
<td>Weekly meetings commence</td>
<td>October 2003</td>
</tr>
<tr>
<td>Software interface interviews</td>
<td>December 2003-January 2004</td>
</tr>
<tr>
<td>ID Policy approved</td>
<td>February 2004</td>
</tr>
<tr>
<td>Staff informational meeting</td>
<td>March 2004</td>
</tr>
<tr>
<td>Departments prepare software</td>
<td>February 2004-September 2004</td>
</tr>
<tr>
<td>Software interface needs follow up</td>
<td>March 2004</td>
</tr>
<tr>
<td>New ID cards issued</td>
<td>August 2004</td>
</tr>
<tr>
<td>Software interface compliance assessment</td>
<td>September 2004</td>
</tr>
</tbody>
</table>

### Table 2. Software Interfaces Assessed

| Housing ‡ | WebCT ‡ | Travel System ‡ |
| Dining Services ‡ | Library | Bookstore ‡ |
| University ID ‡ | Financial Services | Time Reporting ‡ |
| Micro Repair ‡ | Financial Aid* ‡ | Conference/Catering ‡ |
| Asset Management | Health Center ‡ § | Human Resources* |
| Orientation | PEIF | Development Office* |
| Records ‡ | Parking Management ‡ | Public TV/Radio* ‡ |

(* requires SSN ‡ involves 3rd party system § requested assistance)

### Table 3. Venues for Notification

<table>
<thead>
<tr>
<th>Venue</th>
<th>Audience</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>General university forum (SSN conversion - one of several topics)</td>
<td>Faculty / staff</td>
<td>February 2004</td>
</tr>
<tr>
<td>Campus online news publication article <a href="http://newsbureau.nmu.edu/campus/2004/0308/id.htm">http://newsbureau.nmu.edu/campus/2004/0308/id.htm</a></td>
<td>Faculty / staff</td>
<td>March 2004</td>
</tr>
<tr>
<td>University informational meeting on SSN conversion</td>
<td>Faculty / staff</td>
<td>March 2004</td>
</tr>
<tr>
<td>Dean of Students email to students</td>
<td>Students</td>
<td>March 2004</td>
</tr>
<tr>
<td>Quarter page advertisement in university student newspaper</td>
<td>Campus-wide</td>
<td>March 2004</td>
</tr>
<tr>
<td>Student-President Chat Session</td>
<td>Students</td>
<td>April 2004</td>
</tr>
<tr>
<td>Table tent notices in residence hall cafeterias</td>
<td>Students</td>
<td>April 2004</td>
</tr>
<tr>
<td>Posters on campus</td>
<td>Campus-wide</td>
<td>Summer and Fall 2004</td>
</tr>
<tr>
<td>Telephone hold message</td>
<td>Students</td>
<td>Aug-Sept 2004</td>
</tr>
<tr>
<td>Student handbook – University policies section #3.22 <a href="http://dso.nmu.edu/handbook/">http://dso.nmu.edu/handbook/</a></td>
<td>Students</td>
<td>Fall 2004</td>
</tr>
</tbody>
</table>
Appendix B – Content of Email Message Sent to Students

Subject: NEW UNIVERSITY ID POLICY - FROM DEAN OF STUDENTS - DO NOT DELETE

NMU Students:

As you have probably read or heard from one source or another, NMU is in the process of changing identification numbers used for students, faculty, and staff through the implementation of a recently approved University ID Policy. I want to inform you about the new policy and try to answer a few of the frequent questions that have been asked about how the policy will be implemented and how you will be affected.

Why is the University implementing the policy? In two words: identification theft. The University is changing from using the social security number as the primary student identification number to a computer-generated, eight digit, Northern Michigan University Identification Number (NMU IN). This will limit the number of people who have access to your social security number.

How do I find my new NMU IN? Your unique number has already been assigned. To find out your number simply go to http://myuser.nmu.edu/user and select view account status. Enter your NMU userid and password which is the same information you use to get into your NMU e-mail account. You will then be transferred to the user page. Scroll down to the bottom, and there is a line under school information labeled NMU ID Number that has your NMU IN next to it. Until you memorize this number, I would suggest you print the number and store it in a secure place so that if you need the NMU IN but don't have access to your laptop you will have the number with you.

When will I need to use the number? Frankly, not often. To register for fall classes you will only need your user id and password. To register for summer classes you will still need your social security number (this summer only). You will need your NMU IN for some financial transactions and to allow a faculty or staff member access to your student record information.

One last point, you should keep your NMU Identification Number secure. Do not share the number. Do not allow other people to access your student record by giving them the number. As with any assigned identification number, you must do your part to keep the number confidential.

I hope I have answered most of your questions. If not, please contact me at dso@nmu.edu. I will try to respond to your questions as quickly as possible. Remember, this change is being made for your protection. It will not have a huge impact on your access to most services. Even so, keep your NMU IN secure.

I wish you the best as your semester progresses. If I can be of any assistance at any time, contact me.

Sincerely,

Dean of Students and Director of the HUB
Appendix C. Table Tent

- Why?
  - Identity Theft
- How do I get my new NMU IN?
  - http://myuser.nmu.edu/user
- When will I have to use my NMU IN?
  - For some financial transactions
  - To provide faculty or staff members that may need to access your student record information.
- Make sure to keep your number secure.

DO NOT GIVE YOUR NMU IN OUT