



**Your on the
Street Reporter**



Uyless Black

Social Security Number

Social Security Number and Beyond

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Remember those days when we citizens knew our social security number was forbidden to be used by anyone but the payroll department personnel at our place of employment? Recall that the payroll clerks could exchange this identifier *only* with the Social Security Administration and the Internal Revenue Service? If you are too young to have this memory, take a short trip with me to a time when the word *privacy* translated into confidentiality; when privacy also conveyed the notion of having a place to ourselves, away from prying eyes. On the other hand, if you are old enough to remember those times, take this trip back for the sake of nostalgia.

During the 1970s, I was employed as a software programmer and project leader at the Federal Reserve Board in Washington, D.C. The projects on my five-person team dealt principally with the Board's role in managing the money supply of the country. During one period of low activity (fewer requests from our users for software work), we were assigned the task of automating the Board's personnel files. At that time, this information was in the form of hard-copy documents.

I recall my first look at the files. They were stored in scores of metal file cabinets and machines with rotating shelves that took-up a room the size of one side of a tennis court. Our team savored having a software project requiring us to design and write code from scratch. We could create our own errors (bugs) instead of having them handed down to us from someone else.

One part of these files contained information about an employee's Board-sponsored retirement plan. Because of the nature of this information, several data fields in an employee's personnel file were associated with the payroll system, such as pay-period deductions for the retirement fund.

The payroll system was fully automated. It was under the control of the Board's comptroller department. This division was responsible for managing the financial affairs of the Federal Reserve Board, including budgets of the operating divisions, expenses of the Board's governors and chairman (at that time, Arthur Burns), funding for buildings, grounds, and other financial matters.

The automated payroll system was synchronized with the manual personnel system though a *sneaker net*. This term was invented later as a slang phrase to describe the exchange of information by a person taking a piece of paper from his/her out-basket, walking to another person's desk, and placing the paper into that person's in-basket. In replacing this sneaker net, we knew that an interface between the automated payroll system and the soon-to-be automated personnel system would be an easy, uncomplicated programming task.

We would write software that correlated the employee's payroll file identifier (ID) to that of the employee's personnel file ID. The automated payroll system used the Social Security number (SSN). The manual personnel system used a Board-specific employee number (BSN, for short).

A major impediment to creating this interface surfaced early-on in the project. A person's SSN was to be used only for (a) tax purposes and (b) the Social Security program. In conformance with laws governing Social Security, the SSN could not be used for any other purpose.

For each payroll (biweekly) period, our project team discovered the information from the automated payroll system, which was stored on disk and tape files, was (1) printed-out to hard copy. This paper was (2) shuffled through a sneaker net to the desk of a person in the comptroller's office. This person (3) examined the SSN and associated name of each employee's record, then (4) looked up the corresponding name and BSN in a hard copy listing of the personnel files. This clerk, who would be called a firewall or gateway in today's networks, (5) used white-out to obliterate the SSN. After the white-out had dried, the clerk would (6) ink-in the BSN where the former SSN resided. This payroll information *without* the Social Security number (7) would be carried by another sneaker-net person to the personnel department.

The up-shot of this procedure: The SSN *never* left the payroll office. It was not to be used by or recorded in the personnel office. And it was not. I will never forget the image of the Board's guardian of the Social Security number. This human firewall, an elderly, quiet diminutive woman, spent much of her time whitening-out and penning-in the two numbers. She was as filter-proof as a lead wall. Nonetheless, our project team needed the use of the SSN to build a software bridge between the two systems.

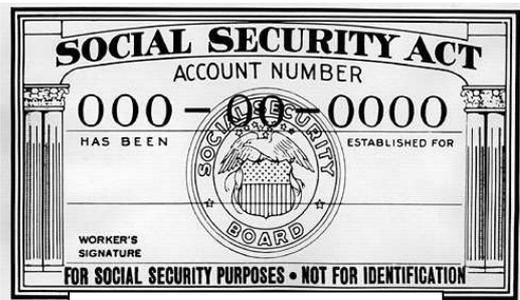


Figure 1. The old SSN card.

This awkward procedure existed because the Social Security ID was intended to track individuals' accounts within the Social Security program and not (for example) a person's promotion history within an organization. Readers may recall that for many years, the SSN cards stated they were to be used "for Social Security purposes -- not for identification," as shown in Figure 1.

I met with the payroll unit supervisor to set forth our problem. After explaining the law against using the SSN as an ID, she politely refused. Thus, a problem emerged: How were we going to automate Little Miss Firewall? I asked for a meeting with the comptroller. I knew him from afar. He was a senior officer at the Board, so we did not cross tracks. Along with his staff and my section chief, we met. I explained the problem. He was empathetic but politely refused.

I called the comptroller (his first name, John) and asked if we could meet, one-on-one. He agreed to a meeting, one consisting of a senior bank officer with a lowly programmer. I was fortunate to be viewed favorably by my division's users. The year before, I had written a program that was the first of its kind: simulating the money supply of the country for input to the Fed's monthly money market decisions. It ran without bugs and made everyone happy. I think his granting me an audience was because he knew about me from the economists.

After we exchanged greetings, John went to the heart of the matter. First, he was not going to compromise his responsibility to the law. Second, he posed a question to me----which, as with Little Miss Firewall---I shall never forget. He asked me (I paraphrase): *What's next? Using the Social Security number for comparing the Fed's employee benefits with those of the FDIC and Treasury? (Our partners and quasi-competitors in turf battles.) From that, we eventually lose control. The law becomes meaningless. It might be used for any ID...it's too damned convenient not to be used!*

I had never considered anything about this issue other than having the Social Security number to bridge two automated systems. John was ahead of his time.

I will fast forward past the details of my meeting with three division heads: the comptroller, the director of the personnel division, and the director of the division of data processing. Briefly, the comptroller stuck by his guns. He would not violate the law for the sake of automated expediency. Who could blame him?

After my meeting with the man, I found myself straddling the fence. I tried to share his view of the possible future. I could not fathom why it would be such a big deal to have some sort of universal identifier. I was hell-bent for efficiency, but maze-dull on the effects a universal identifier might have on privacy. But then, almost everyone else was equally clueless.

John was not. Sure, he could not foretell the exact future, but he had the ability of general foresight. He had nailed an idea that I later in life dubbed The Principle of Creeping Momentum.

I will slow down this fast forward to relate two more anecdotes pertaining to this story. The issue and debate were taken-up to the final level at the Board: The administrative governor met with the three division heads. He was one of seven governors, and performed this mandated duties. As with the other governors, he had some minor ancillary responsibilities, one was taking care of logistical and administrative matters at the Board. As project manager of the personnel-system-automation project, I was part of this meeting. I was there to explain the computer-related details of the subject to these software laymen.

Result: The governor suggested each party back off and look for a compromise solution to what was an important philosophical and legal issue. I think this meeting had an effect on John, as he softened his stand.

For my younger readers, this episode might appear irrelevant. As you likely know, the ability to track people today can be done easily with phone numbers, Internet addresses, Web site names, Twitter account numbers, postal addresses, etc. It is a relatively trivial exercise to write software to match a person to another person, or to an object (a store or product, as examples), a physical location, an arrest file, a held-in-custody-but-not-guilty file, a medical file (not yet, but on the horizon?), a record of military service, etc.

For all my readers, perhaps you are thinking: “Why is Uyless bothering to write this story? The issue of privacy does not affect me. I don’t care. I’ve done nothing wrong. Or “We need these systems of tracking people to keep us safe from terrorists.”

I am writing this story because its themes and messages affect every citizen in America. I hope to convince you that it matters not if you are liberal or conservative, whether you wave blue or red flags, if you are religious or irreligious, whether you hate or love government. Regardless of your personal or public personas and their mental foundations, privacy invasion is an agnostic gatecrasher into credos, colors, languages, and beliefs.

To wrap-up the Federal Reserve Board’s social security number story. Our solution was to automate Little Miss Firewall. By signing my name in ink-jet blood, I vowed the bridge between the payroll and personnel system would not result in the Social Security number leaving the payroll office. To that end, our software was given clearance to read each payroll record from a disk. The employee name in the payroll file was checked against the employee name on the personnel file. When a match occurred, the software copied only the data from the payroll record to be used for the person’s retirement plan. It then matched this information with the BSN, but not the SSN. The result: The Social Security number was not transferred into the personnel system.

For this report, the point is simple: The Social Security number was not to be used as a tool for identifying American citizens for purposes beyond taxes and federal retirement benefits. This idea was not an abstract notion. During the 1930s, unions and employers had squared-off many times, often violently, about employees' rights vs. owners' rights. From the union standpoint, there was concern that the SSN would be a fast, effortless way to identify and target (blacklist) union organizers. On the other side of the coin, company owners and other non-union members were not keen on the existence of a simple identifier to possibly track their income. (Sound familiar? See the Internet today.)

Turning the coin on its end: Later, Joe McCarthy and his minions were salivating at the idea of having a convenient national identifier to track suspected (and largely innocent) traitors to the American way of life.

Back in those times, we Americans had a security cocoon wrapped around us. Any intrusion into our privacy (listening to our phone calls, tracking our strolls down the street, reading our mail, reading our mail envelopes) was so out of the question, most citizens did not think about it.

But those times are long gone. As these essays will tell, the Law of Creeping Momentum eventually rendered the Social Security number privacy issue hackneyed. Gradually, since those archaic times, we are migrating toward a society with no privacy.

Louis D. Brandeis said that the makers of our Constitution conferred the right for United States citizens to be "...let alone---the most comprehensive of rights and the rights valued by civilized man."¹

Are we being let alone? Is our acceptance to use the Internet for our correspondence a declaration that we have forsaken this constitutional right? Because the Internet's letters (emails) are represented electronically and not with pencil or pen? Does this change our privacy rights of keeping prying eyes from reading our mail?

In 1974, one of the seven governors of the Federal Reserve Board was meeting on the issue of privacy of the sacred SSN. It was that big of an issue. Now, in 2013, the SSN is akin to public property, as is most of our once-sacred private information.

Does the still lingering idea of a secure Social Security number as a symbol for privacy matter anymore? What's next?

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¹ Louis D. Brandeis, *Olmstead v. United States*, 1928.