

Numbered Individuals, Digital Traditions, and Individual Rights: Civil Status Registration in Denmark 1645 to 2010

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1. Introduction

Individual civil status registration systems collect and document data on individual identity, family relations and individual civil status changes. As such, they are a fundamental requirement of the modern nation-state and provide documentation that is crucial for the individual registrant. Still, implemented and used in various ways that reflect specific traditions, norms, and historical contingencies, these systems differ from state to state. Each system categorizes and organizes the population in more or less unique ways and by engaging the registrant each system exerts a profound influence on the population it describes. Differences between systems also occur because each state may add specific data categories, utilize the civil registration system differently, or organize the data in certain ways. These systems of individual documentation thus share the same fundamental goals, but as they differ in setup and usage, they shape societies in various ways.¹⁾ Systems of individual documentation form an important substratum of society, but they remain an emerging area of study (see for example Caplan and Torpey 2001). The number of studies more specifically focusing on individual civil status registration systems is likewise rather limited. Further, Civil status registration systems that assign their registrants individual numbers constitute a subset that also has yet to attract wider scholarly attention.²⁾

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1) Registration variables can include the scope of registration (e.g. citizens or legal residents), data types (e.g. ethnicity, legitimacy), the method of data collection (e.g. individual notifications or via public authorities), extent of public accessibility (ranging from free access to no access), and the various auxiliary purposes of the registration system (e.g. identify ethnic subdivisions or administrative households).

2) Watson (2010) offers an excellent study that focuses on the Icelandic system of individual numbering. ↗

Centralized-computerized systems using individual numbering are efficient and flexible, both for the state within a wide range of administrative services and for the registrants in their interaction with various institutions. With these advantages and the ongoing technological progress, the number of such systems may increase in the near future. The Japanese government, for example, announced recently that it aims to introduce ‘the highly convenient’ citizen numbering type registration system, patterned after the Swedish model (Mainichi JP 2010). These numbering systems are prevalent in the Nordic countries, and this paper will present a brief outline of one such system - the Danish civil registration system which today comprises three interconnected electronic systems of registration: the Church Book, the National Register, and the Central Person Register. The Central Person Register, or CPR, which was also initially inspired by the earlier Swedish numbering system, is today the ‘base register’ that collects individual civil status data (as well as other types of data) from the Church Book and the National Register, as well as various public authorities, and also, as needed, supplies these data to public and private entities. The main focus of this article is the historical, structural and functional interrelations of these three registers that constitute Danish civil registration. This paper also includes a discussion of some existing and emerging problem areas that relate to freedom of religion, protection of personal information, and the limits of efficient data storage and data use. As such, this article represents a contribution to individual civil status registration studies in general, and more specifically it is a contribution to the knowledge of the relatively few centralized-computerized civil registration systems that exist today.

1 Types of Civil Registration in Europe

According to a 2008 report from the European Commission, European Union (EU), we find in Europe three main types of civil status registration systems. Those of England, France and Greece, for example, are ‘events-based’ systems that record individual events in the locality where they take place. Another type is the ‘person-based’ system of registration that likewise collects individual data at local registration offices and then forwards these data to a central national civil status register. Examples of such systems are found in Slovenia, Turkey, and Switzerland. Finally, a number of smaller EU countries – Sweden, Finland, the three Baltic states, and Denmark that have populations under 10 million – have so-called centralized-computerized ‘population registers.’ The central population registers are characterized by assigning to each registrant a unique identification number and attaching to these numbers relevant data from a variety of registers, including their civil status register. Population

↘ As Watson also notes, the authorities in charge of such registration are often good sources of their particular system’s history, structure and functions. In the Scandinavian countries, for example we have *CPR-kontoret* in Denmark, (whose resources have been extensively used in the present paper) and the tax agencies of Sweden (*Skatteverket*) (for example Riksskatteverket 2003, Skatteverket 2007) and Norway (*Skatteetaten*) (for example Skatteetaten 2000).

register data thus encompasses much more than individual civil status data and since these central registers are also continually updated they can provide up-to-the-minute data on the size and the characteristics of the population. Although the population registers are much more flexible and precise, larger states with events-based and person-based systems have not adopted them (Feldtmann et al. 2008). The report notes that such systems may be too expensive in countries with larger populations, and we have seen that the idea of individual numbering itself is controversial, for example in England, USA, Australia, India, and Japan. Hungary and Germany have even deemed it unconstitutional, and Portugal has gone as far as to proscribe such identification in the constitution (Watson 2010: 2,29). More practically, to what extent does the flexibility and precision of a new population register justify large-scale and radical reforms of existing, functioning infrastructures that underpin and are interconnected with the existing registration system? Having emerged over decades, if not centuries, these existing infrastructures can, moreover, have more intangible value as they may represent and underpin longstanding traditions and norms. Still, a country like Japan which has traditional and complex systems of registration is considering such a population register, referred to as a ‘common numbering system’ (*kyōtsū bangō seido*) (Mainichi JP 2010).

The Danish individual civil status registration system is both remarkable and unremarkable within the European region. Like most European states, Denmark registers by the unit of the individual, but the registration of central matters such as birth, marriage, name change and death have not become secularized as they have practically throughout Europe. These matters are entered into Church Books (*kirkebøger*) managed by the Danish National Church (*Den danske Folkekirke*),³⁾ which is enshrined in the Constitution (*Grundloven*).⁴⁾ Compared to the other Nordic states, Denmark is also both unremarkable and different. Like Sweden, Norway,

3) The Danish National Church is Evangelical-Lutheran and had as of 1 January 2005 about 4.5 million members, or 83% of the total population (in Copenhagen less than 70%). Membership is gained through baptism. Foreigners baptized in an Evangelical-Lutheran congregation automatically become members when moving to Denmark, unless they state they do not wish to become members. Membership provides the right to confirmation, church marriage, and to receive an ecclesiastical burial or cremation. Membership dues are paid through Church taxes. Individuals can from age 15 decide for themselves whether to enter or leave the National Church. Discontinuance of membership is notified to the CPR register and the liability to pay Church taxes ends. Members belong to the parish in which they live. The supreme authority of the National Church is the Queen of Denmark and the Parliament (*Folketinget*). The church's income in 2004 was about 6 billion Danish kroner whereof 4.8 billion derives from church taxes paid by the members. About 630 million Danish kroner of the income are subsidies deriving from state taxes levied from the general population, including non-members. For more in English on the National Church, see <http://www.folkekirken.dk/om-folkekirken/english/>

4) The Danish Constitution on religion: Art. 4 *The Evangelical-Lutheran church is the national church of Denmark and is, as such, supported by the Danish state.* Art. 6: *The King shall belong to the Evangelical-Lutheran church.* Art. 67 *Citizens are free to unite in congregations to worship God in a manner the suits their conviction, but nothing shall be taught or done that is contrary to morals or public order.*

Iceland, and Finland, the Danish Central Person Register (*Centrale Person Register*, or CPR) assigns a unique identification number to each individual resident upon birth (or when they become legal residents), and this identification number is used conspicuously in daily life and is quite accepted by the populations. But the Danes, who will readily recite their CPR-number when asked by private businesses or at public offices, are far from the Icelanders, who practically treat their personal identifying number like an alternate name, using it to sign petitions or letters to the editor, for example. Countries such as Germany and Portugal, and the Nordic countries are in this respect like night and day.

Danish administrative civil registration can largely be divided into three periods demarcated by the advent of these three registers and their gradual integration. Civil registration from about 1500 until 1924 is centered on the Church Books that listed births, marriages, and deaths, as well as other ecclesiastical events. The second period is from 1924, when the municipal index card-based National Register was established and operated alongside the Church Books, until 1968. The third period begins with the introduction of the centralized, electronic CPR system, which assigned each member of the population a personal number and began using that number to organize individual civil status data. The CPR Register began tying data it received from the Church Books, the National Register, as well as other sources to the CPR numbers of the person they relate to. These data are, in turn supplied to a range of administrative registers and institutions. At this juncture, the National Register's role changed radically. Data was converted to electronic form and its index card system was abolished in 1978. The Church Book system, too, became electronic in 2003. Largely adhering to these three periods, this article outlines Danish civil status registration focuses by presenting the Church Book from 1465 to 2008, the National Register from 1924 to 2008, and the CPR system from 1968 to 2008.

2 Early Registration

Administrative registration of individuals has existed in Denmark for several hundred years and has generally been motivated by tax collection. An early example of administrative registration is a land register (*jordebog*) written in Latin from about 1300. The first censuses (*mandtal*) were held in 1787, 1801, and 1834. Thereafter, they were held roughly every ten or 15 years until 1970, shortly after CPR was introduced (Romvig Thomsen 2005: 51, Hansen et al. 2006: 69).

There were also other register types and they were all typically sequential; that is to say, chronological and often subdivided by, for example, topic or topography. They were also usually in book form and therefore rather inflexible. The introduction of index card systems in the early twentieth century made registers somewhat more dynamic. Still, ledgers and card boxes could usually not be removed from their storage location, so paper-based registration tended to limit a registry to serve one specific purpose within one specific administrative institution. The electronic registries that emerged in the mid-twentieth century were not

geographically bound and thus not limited to internal use. Extremely flexible, electronic registration facilitated the storage and processing of vast amounts of data and it also made it possible to apply data to a wider range of uses among an unlimited array of institutions (Hansen et al. 2006: 11-12). The advent of electronic registration in the early 1960s freed administrative data from its geographical restrictions. Data became transferrable and reusable. Registration systems began to be designed so as to maximize the benefits of data sharing between authorities. Data could now have a variety of user groups and thus be used for a variety of purposes. This electronic revolution also facilitated administrative structural change. Where administrative institutions had been stiff and separate entities, they began adopting more integrated cooperative procedures as well as focusing on planning and coordination. This administrative shift was also greatly helped as other new electronic registers emerged. The CPR register became the base register (*basisregister*), serving as a common database for many branches of the public administration. (Hansen et al. 2006: 12). So over the centuries as registration technology has changed, the population has variously been identified as parishioners, as municipal residents, and now, as numbered individuals. With the advent of electronic data processing, data can be quickly retrieved and recombined, and data is increasingly aggregated under single numerical identifiers, such as the personal CPR number.

2. Church Books 1645-2010

In Europe the church was traditionally in charge of official registration, partly because it was used for administrative work, and partly because it had an interest in keeping ledgers over ecclesiastical events, such as baptisms and burials. In Europe the church and state began separating during the 18th and 19th century and the official duties of the church, such as birth and marriage registration, were generally transferred to the state. But this separation did not occur in Denmark where the Danish National Church has retained these duties up until today.

The earliest Danish Church Books are from the 15th century. They were maintained by the church without involvement from the state, but on 20 May 1645 the king ordered in a letter to the Bishop of Zeeland (*Sjælland*) that pastors were to 'keep a proper church book with day and date for how many are born in the parish and for how many are married and dies.' The purpose was individual taxation. Then, on 17 May 1646, a royal edict obliged the bishops of Denmark to maintain a Church Book (*kirkebog*) listing birth, marriage, and death, as well as other religious rites performed within the parish. These stipulations were repeated in *Danish Laws (Danske Lov)* from 1683 and remain fundamentally in force today. (Personregistrering 2009, Hansen et al. 2006: 68, Romvig Thomsen 2005: 51).

The early Church Books thus contained data on the person, delineating events recorded by the pastor relating to birth, confirmation, marriage, and burial. Later the Church Book received additional duties. In 1652, for example, the Church Book became the basis for

conscription and had to list all rural males aged 16-40 (Personregistrering 2009). Until the 1812 revision of the Church Book system there were few instructions on how to make these registrations. Each pastor was free to organize his records as he wished. Some listed all events chronologically, others chose to list births and marriage separately, for example. There are also examples of illegitimate children being registered separately at the end of the Church Book. The 1812 reform introduced a new Church Book with preprinted columns specifying the required data, as well as the order in which it should be entered: newborn boys, newborn girls, confirmed boys, confirmed girls, marriages, deceased men, deceased women (Hansen et al. 2006: 9-10, Landsarkivet 2009, Romvig Thomsen 2005: 42). To stress the official status of the Church Book, they were now referred to as ‘ministerial books’ (*ministerialbøger*), which were to exist in two copies: a main ministerial book kept by the pastor and a ‘counter-ministerial book’ (*kontraministerialbog*) kept by the deacon or the school master. To keep them safe from fires, it was instructed that ‘they shall never for one night be under the same roof’ (Hertzberg and Taranger 1919: 931, Romvig Thomsen 2005: 45, Personregistrering 2009). All changes of address also had to be recorded, so from 1812 until 1875 Church Books included entry and exit lists (*til- og afgangslister*). From 1822, however, address records were limited to servants, lodgers, and vagrants.

After 1812, the efficiency of the Church Books only improved slowly. On 31 October 1891 new forms and instructions regarding Church Book registration were announced (Hertzberg and Taranger 1919: 931), but since Church Books remained topological and chronological they were inconvenient for looking up data by individual name. Even if the place and the time of an event was known, the entry could be so brief so as to elide the name of the principal of an event. The burial of a woman might just state ‘the wife of Niels Nielsen.’ The full name of a child was at first only occasionally entered in the Church Books at the time of baptism, a practice which from 1824 became the norm. Another problem with names was that children born in the countryside typically received a name comprising their own personal name and a patronymic; a surname derived from the personal name of their father. For example, the surname of Peter Jensen’s son Peter would become ‘Petersen’ (‘-sen’ meaning ‘son’), making him Peter Petersen. Since the number of male and female first names was rather limited (about 64 per cent of the population in the 17th century shared the six most popular male and female first names), very prevalent surnames such as Jensen or Petersen were therefore not very helpful in identifying family relations (Romvig Thomsen 2005: 42-43).⁵⁾ Given these issues, some pastors found it helpful to establish and maintain for their own purposes – and to better service his parishioners – a separate name registry on index

5) It was not unusual for illegitimate children to receive a patronymic surname based on the personal name of the alleged father – even when the alleged father made a sworn oath denying his paternity. The patronymic surname of an illegitimate child could change later if their mother married another man. Even in the case of a sworn oath from the alleged father that he is not the biological father, the child would still receive a patronymic based on his name (Romvig Thomsen 2005: 42-43)

cards so as to find more easily past events that relate to particular individuals. One Church Book registrar explains in his reminisces that he kept such a name index to quickly check if, for example, a man claiming to be married was indeed married (En forhenv. kirkebogfører [Viggo Holm] 1912). The problem of addresses and names were resolved with the National Register when it was established as an additional register alongside the Church Book system.

1 Debates on the Church Book system and freedom of religion

In the decades before and after 1900 there were suggestions that there ought to be a new and separate registry of the population so as to achieve a more precise registration of names, as well as former, current, and new addresses, (Toft Hansen 2002: 13-16, Personregistrering 2009). In the late nineteenth century and in the early decades of the twentieth century there were also debates on whether or not to abolish the Church Book system and organize a system outside the church. The early debates on the Church Book were part of a larger discussion of the deficiencies of the existing system and later in the twentieth century the debate began focusing on the inefficiency of having the separate Church Book system. Recently, however, this debate has centered on the issue of freedom of religion. Before proceeding with this debate, however, we should note that there exists non-secular civil registration in southern Jutland by the Danish-German border.

When Denmark lost the regions Slesvig and Holsten to Germany in 1864, the German non-secular system of registration was introduced there. Then, after these regions were reunited with Denmark in 1920, this type of registration continued with the expectation that such registration would be introduced in the rest of the country. This never happened, and it has not been until the debate began focusing on freedom of religion after 2000 that some fundamental changes have begun to emerge.

The National Register that emerged in 1924 did not displace the Church Book system, but the idea of incorporating the Church Book in the National Register did not go away. In the following decades, representatives of the Ministry of Ecclesiastical Affairs, which is in charge of the Church Book system, has successfully avoided any changes, arguing variously that this registration form is relatively cheap, and that since it secures a personal relation between the pastor and the parishioners its demise would lead to a general secularization of society. In 1972, when this issue resurfaced, the Church Book system prevailed despite a report suggesting that the abolition of Church Book registration would reduce costs by several million Danish kroner (Hansen et al. 2006: 76-77). With the introduction in 1968 of the CPR system the duty of the citizens to report births and deaths to the Church Book registrars was affirmed by law: this registration of birth, name, and death is considered valid proof that these events took place (Personregistrering 2009).

On 5 December 2003, the Church Book system went on-line. All parishes are now connected to the so-called New Church Book (Den Ny Kirkebog), which collects all Church Book data in one place. The electronic New Church Book is, in turn, integrated with CPR so

the data entered locally by the Church Book registrars gets transferred directly into CPR.⁶⁾ The Church Book registrars can, in turn, print out certificates by accessing CPR via the New Church Book (Hansen et al. 2006: 77). The Church Book, then, is now a completely integrated part of the CPR system, supplying a subset of individual civil status data. The professional and content-related responsibility of these civil registrations remain within the purview of the Ministry of Ecclesiastical Affairs (Jerlach 2009: 31).

Throughout the twentieth century, then, Church Book registration of births has remained a matter of course. As late as 1996, a large majority of the parliament rejected to allow for birth registration forms lacking the heading 'The Danish National Church'. Still, such neutral forms were introduced within the first decade of the twenty-first century. The church office has, moreover, gradually been displaced as a site of birth registration, first by the establishment of an alternative secular office, then a post office box and online registrations, until suddenly the requirement that parents register births was abolished in 2010. These sudden and rapid changes stemmed from human rights based protests by parents who belonged to religious groups other than the National Church and who did not want to step into the National Church offices, much less have their children registered in the Church Books.

In early 2000, faith-based criticism of Church Book registration of births emerged, asserting that it is discriminatory in terms of freedom of religion. Unwilling to enter their local national church offices, four Baptist families refused in 2004 to register their children. One of the families was reported to the police for neglecting to make the necessary birth registration. The Ministry of Ecclesiastical Affairs responded, however, in 2005 by establishing a non-ecclesiastical central office for birth registration. One Baptist found this solution 'sensible', but added that it was 'only a step on the way to completely remove civil registration from the national church' (Politiken 2005). Subsequently a Christian Iraqi-born Danish citizen, who was a member of a Danish Catholic congregation, brought a lawsuit against the Ministry of Ecclesiastical Affairs. When he properly registered the child's birth, the national church office official had asked him about this religious affiliation and if it would not be a good idea anyway to baptize the child in the Danish national church. The thrust of his lawsuit was, however, that the child would permanently remain the object of registration of the national church. This lawsuit reached the Supreme Court, which ruled against the claimants.

Still, during its preparations for this Supreme Court case, the Ministry of Ecclesiastical Affairs chose to widen the scope of 'non-church office' registration, establishing a postal box address whereto birth registrations could be sent by mail. This development was criticized by Catholic officials as simply a 'cosmetic solution' that did not prevent these registrations from ultimately winding up in the Church Book (Politiken 2007a).

In connection with the nationwide establishment of new residents' service offices

6) Congregations other than those of the State Church, however, still maintain handwritten ledgers and their data is subsequently entered into CPR (Personregistrering 2009).

(*Borgerservice*) and the introduction of the website *borger.dk* – a central digital portal to the public sector, on 2 January 2005, KL (*Kommunernes Landsforening*), the national union of municipalities (*kommune*), offered to take over birth registrations as it would be ‘much more logical that the municipalities have all duties, and then send a mail to the national church.’ The minister of Ecclesiastical Affairs immediately responded solomonically that people now could make birth registrations online via the websites of either church office or municipality (Politiken 2007b, Kommunernes Landsforening 2007). Then, 16 March 2009, KL suggested that the reporting of birth to the Church Book office that parents are obliged to perform should instead be added to the midwives’ duties. This would be more efficient since the midwives would then not need to report the birth of a child to both the municipality and the church office. Further, since the public administration already acquires the required data via the midwife, the parents’ duty to report the birth is superfluous (see the section on CPR for more details). To simplify registration (and possibly also to mitigate the dissatisfaction among other religious faiths), then, the Ministry of Ecclesiastical Affairs submitted 8 June 2009 a bill that transfer the duty of birth registration from the church offices to the hospitals, and in the process, parents are also relieved of the duty to report a birth. Acknowledging that the new law will be a good development for members of other faiths, some pastors regretted this loss of contact with their parishioners. Still, others noted that this loss of contact is not likely to have much impact, as most birth notifications today already arrive by postal or electronic mail (Berlingske 2010, Kristeligt Dagblad 2010).

The new law was adopted in March 2010, but Mandana Zarrehparvar of the Danish Institute for Human Rights found the development both un-ambitious and non-inclusive as it does not accommodate members of other faiths, atheists, or agnostics since registration of births and deaths remain within the national church. She pointed out that the alternative system of civil registration of births at the municipality, which has existed for members of the German minority in southern Jutland since the early 1920s, is an excellent example of how a much more inclusive administrative system could be introduced relative easily, and suggested that the Ministry of Ecclesiastical Affairs considers a more suitable legislative model. One obvious solution could be that since the midwife has to contact the National Register to fetch a CPR number anyway, then the registration can just as well take place directly to the national registry (*menneskeret.dk* 2010a, *menneskeret.dk* 2010b).

In sum, these rapid changes in the Church Book system over the last few year may well indicate a coming changeover to a wholly secular registration system.

3. The National Register

Before 1924, information on the population had to be sought partly in the Church Books and partly in the somewhat regular national or county-wide censuses (Villumsen 1999: 4-6). The existing registration systems were inadequate for the local municipalities. It was costly

in terms of money and work hours spent on fulfilling central municipal duties relating to taxation, poverty relief and support, and elections. Further, lacking reliable and precise records on population movement meant that many untraceable individuals were not put on the yearly tax lists. This meant local tax loss and also increased local expenditure because the municipality had to pay the missing state tax. Poverty relief and support was another local administration matter where the municipalities had to make up for any missing child support from fathers, who evaded their financial duty by not notifying their change of address. Finally, to prepare local and state election lists, the local administration needed to determine the right to vote and to this end, it needed data on the residents' age, gender, citizenship, residence and income. Assembling these data was costly in terms of time, rather than money (Hansen et al. 2006: 69-70). (CPR-Kontoret 2010a)

The National Register (*folkeregisteret*) was modeled on the existing rationing card registers (*ernæringskortregistre*) that had been established in 1916 in connection with World War I.⁷⁾ Rationing had required stricter controls on changes of address, and households were here listed individually for the purpose of distributing, for example, sugar cards. The rationing card register also recorded movement in and out of administrative jurisdictions. After WWI (1914-1918), these registers were extended in 1918 and 1920, but the population's willingness to cooperate with this registration scheme dropped significantly after the rationing of food ended (Toft Hansen 2002: 7-8). It was mainly municipalities who wanted a better registration system and it was, in fact, because of their experience with rationing system that the city council of Bogense in 1916 urged the state government to legislate a comprehensive registry of the population and its movement. A federation of larger municipalities later discussed the merits of 'mandatory notification of municipal entry and exit,' and shortly after a union of parish councils also decided to request the Ministry of the Interior to make entry and exit notifications a basic civic duty. In January 1917 the federation of larger municipalities informed the Ministry that lack of precise address data made tax collection and election rolls difficult to manage – especially in relation to servants. This request was forwarded to various ministries but nothing came of it. Other local administrators and cities later made similar suggestions, and the city council of the capital of Copenhagen urged separately in November 1917 that a general 'national registry office' should be established for the city. Copenhagen based its proposal on a Norwegian model and the main focus of the proposal was address registrations. In October 1919, the Ministry of Justice suggested the establishment of a commission to consider the introduction of a National Register and in 1920 the Ministry of the Interior formed the National Register of Persons Commission. The commission comprised

7) The 'national register' and 'national registration' are the English renditions of '*folkeregistrering*' and '*folkeregistre*' (CPR-Kontoret 2010a), but here we must keep in mind that 'national' refers to 'population' or 'inhabitants, not 'citizens' or 'state.' Similar in meaning to the German term *Volk*, the Danish term *folk* generally refers to a group of people with some shared characteristic(s), and is not necessarily limited to specify Danish citizens. In this specific case *folk* refers to the group of individuals who are registered as legally residing within the Danish territories.

representatives from parish councils, federations of smaller and larger municipalities, as well as the city of Copenhagen, the Ministry of Ecclesiastical Affairs, and the police. It also had representatives from the Ministry of the Interior, and the Statistical Department, as well as the National Health Council, which was represented because medical doctors had expressed a great interest in a National Register. There were thus economical, electoral, statistical, genealogical, biological and anthropological reasons for the coming National Register (Villumsen 1999: 7-8). There were critics among the parliamentarians, mainly on the economic aspect and one legislator even argued that comprehensive registration would inhibit individual freedom of movement (*bevægelsesfrihed*). The 1920 Commission released its findings in 1922 and the National Registration Law was enacted 14 March 1924. The existing Rationing Card Register Law was extended until the new National Registration Law was in place, but in the capital of Copenhagen and its vicinity, local governments already began compiling the new registers based on a census carried out on 1 February 1923 within these jurisdictions (Toft Hansen 2002: 13-16, Villumsen 1999: 4-6).

1 The National Register 1924-2008

The commission's report proposed a National Registration Act, drafts for an executive order on national registration, a notice to the municipalities on the establishment of national registration procedures, and instructions for the registrars who would work with the new system. The commission further recommended that the notification of change of address should become a civic duty (Villumsen 1999: 7-8). The Church Book would be retained as their abolishment would most likely meet strong resistance and thus impede the introduction of a functioning address registry. Another reason not to unite the Church Book with the national registry was to prevent mismanaged registries by not placing undue strain on the municipalities (Villumsen 1999: 7-9).

2 Establishment of the National Register

The new national registry arose from a nationwide census carried out on 5 November 1924. A specific form was distributed and the municipalities promptly wrote the data on the census forms onto main register cards and name register cards; the two card systems that structured the new National Register.

To identify the residents, it was necessary also to know the municipal births and deaths. Therefore the Church Book authorities were obliged to report these events to the National Register. The time limit for such reports was set to three days. The birth reports included data on gender, birth date, birthplace, residence, and the name and residence of the parents (or the mother in case of extra-marital birth). Incidentally, the need for accurate birth data required the abolition of the confidentiality that for over 175 years had been extended to

women who sought to keep their pregnancy and child's birth secret.⁸⁾ The National Register recorded, of course, a host of standard civil status items such as marriage, divorce, separation, name change, and adoption, but to be an efficient tool in relation to voter rolls, tax roll, etc, it also required data reporting from a variety of other authorities because voting rights were influenced by bankruptcy, criminal punishment, restoration of honor, poverty relief, and tax payments (Villumsen 1999: 8-9).

3 Revisions to the National Register

The 1924 National Registration Law⁹⁾ was a so-called frame-law, its stipulations are further specified in separate orders and notices, and it therefore underwent a number of changes and larger revisions. A minor revision in 1956 was mainly motivated by the damages the register incurred during World War 2. The 10 June 1968 revision made in connection with the introduction of CPR had greater impact.¹⁰⁾ As CPR gradually took over the functions of the national registry an order handed down in 1973 reduced the National Registration Offices to simply process address changes and supply data to the Central Person Register.¹¹⁾ A 8 June 1978 revision¹²⁾ introduced CPR-Histor (see below) – a repository for non-current registrations that abolished the local administrations' duty to store historical registration data within the National Register. From that year, also, personal data was accessed from CPR (Toft Hansen 2002: 17). Presently national registration, *i.e.* changes of address takes place at municipal service offices called Citizens' Service (*Borgerservice*).¹³⁾

4 Structure of the National Register

The National Register comprises three registers – a *main register (hovedregister)*, an *exit register (afgangsregister)* and a *name register (navneregister)*, and it uses two types of index

8) Such confidentiality had been secured via the Birth Foundation (*fødselsstiftelsen*), which offered anonymous births and free medical assistance. Established by the King in 1750 to prevent secret births and the killing of newborns.

9) *Lov nr. 55 af 14 marts 1924 om folkeregistre* (Law no. 55 of 14 March 1924 regarding national registers).

10) *Lov nr. 239 af 10. juni 1968 om folkeregistre* (Law no. 239 of 10 June 1968 regarding national registers).

11) *Cirkulære nr. 2 af 5 januar 1973 vedrørende de nye folkeregistreringsregler* (Circular notice no. 2 of 5. January 1973 regarding the new national registration rules). *Bekendtgørelse nr. 5 af 5. Januar 1973 om folkeregistre* (Announcement no. 5 of 5 January 1973 regarding national registers). *Instruks nr. 3 af 5. Januar 1973 for førelse af folkeregistre, herunder om folkeregistrenes medvirken ved driften af det centrale personregister (CPR)* (Instruction no. 3 of 5 January 1973 regarding the management of national register, including the role of national registration in relation to the operation of the central person register (CPR)).

12) *Lov nr. 304 af 8. Juni 1978 om ændring af lov om folkeregistrering* (Law no. 304 of 8 June 1978 regarding revision of law on national registration). *Bekendtgørelse nr. 508 or 509 af 14. September 1978 om lov om folkeregistrering* (Announcement no. 508 and 509 of 14 September 1978 of revision of the law on national registration).

13) Again, *borger* (similar to the German *Burger*), refers to the inhabitants of a municipality, not holders of Danish nationality/citizenship.

NEW CARD!

Revision 1945

Revision 1945

Larsen Jens Peter Chalk quarry worker Egedevej Faxe

Man Larsen Jens Peter		Name		Woman Larsen Marie Kristine		First domicile and subsequent domiciles within the commune	
House hold position		Birth year and date		House hold position		Year	Day
						/	
Værløse Præstø Amt		Place of birth		Karise Præstø Amt		Egedevej Faxe 135g	
Married		Marital status		Married			
Chalk quarry worker		Occupation					
Faith	Danish church	Danish	Citizenship	Danish	Danish church	Faith	
When arrived		Last domicile prior to arrival				When arrived	
Children under 18 years old		Sex	year	Birth day	Place of birth	Note	
Name							
1	Larsen Karl Willy	M	1911	5-2	Faxe Præstø	apprentice at Julius Kjær Egedevej	
2							
3							
4							
5							
6							
7							
8							

0961, union Revision 1955

Changes of address to and from the commune					Notes	
Arrival Report	Occurred	Arrived from	Departure Report	Occurred	Departed to	Miscellaneous
						[[1939 Married 14/6-02]
						[a. Faxe Parish Health Benefit Association recipient b. Membership relation payer c. Serial no. /82 -/83 d. Proof Art. 11 No. 6 e. Proof Art. 11 No. 2 f. Is attestation issued Art. 78 No. 2 ID card [...] July 1944
Incapacity or bankruptcy			Punishment and rehabilitation			
Poverty relief			Tax Fixed assessment [Lists assessments conducted from ca. 1925/26 until 1956/57]			

Figure 1: National Registration system. Main card (front and back).

The most recent data on this card is only 50 years old, but it can be reproduced because all registrants have passed away. Adapted from *Efter Bemyndigelse* (Nørr and Mikkelsen 2008: 607-608).

cards – a *main card* (*hovedkort*) and a *name card* (*navnekort*). Figure 1 illustrates the front and the back of the main card.

The main register delineates the current population within a municipality and the exit register lists the municipality's former residents. The main register lists its current residents by current address and the name register, finally, provides a tool for finding these current residents by listing them alphabetically by name on name cards. The exit register is also organized by name, not address. The main register and the exit register use the *main cards*, and the name register uses *name cards*. The main card is referred to as a *family card* (*familiekort*) when it lists a household and a *single card* (*enkeltkort*) if it lists a single individual. Main cards are thus used in the main register and the exit register to list both families and individuals (Toft Hansen 2002: 20). The exit register receives main register cards as families or individuals move to other municipalities, die, or are reported missing by the Department of Statistics.

5 The main register and the exit register

Cards in the main register are organized after street name, house number, and, possibly, by entrance and floor number. In certain cases parish, town, and cadastral number can also order them. (Toft Hansen 2002: 20). The main register cards are categorized as either family cards or single cards, depending on the individual who is listed first. A family card will list the 'principal' (*hovedperson*) of a family, whereas a single card only lists one individual. On family cards this principal is the husband, and under his name are registered the wife and children under 15 years old who live at home (under 16 years old from 1956). This included adopted children (but not foster children), as well as extra-marital children under 15 years old who resided with their mother. In case of the husband's death, the surviving wife is entered at the top of the card as its principal. The principal on a single card is the individual in question, and this individual can be a child over the age of 15, a foster child, other resident members of a household, such as maids, more distant relatives, assistants, boarders, etc. The system as such remained largely unchanged, but few changes have been made to the columns of the main register card over time (Toft Hansen 2002: 18,20). Figure 2 illustrates one important change: that the CPR number displaced the household role references of 'husband' and 'wife.'

An historical register organized alphabetically by name, the exit register contains the main register cards of those who no longer reside within the municipality. Additionally, this register also has the single cards of women, who upon marriage have transferred to the husband's family card, as well as the cards of children who have been adopted by others (Toft Hansen 2002: 22).

6 The name register

To facilitate access to the main register via names, the name register contains name cards written out for every principal listed at the top of a family card and for every individual

MAIN FAMILY CARD BEFORE CPR (detail)				MAIN FAMILY CARD AFTER CPR (detail)			
Mand				Mand			
		Navn				Navn	
Stilling i Husstanden	Husband	Fødselsaar og -dag		Person nr.	180728-0593	Fødselsdato og -år	
		Fødested				Fødested	
		Ægteskabelig Stilling				Ægteskabelig stilling	
		Erhverv				Erhverv	
Troeskendelse		Statsborgerforhold		Troeskendelse		Statsborgerforhold	
Når tilflyttet Kommunen		Sidste Bopæl før Tilflytningen		Når tilflyttet kommunen		Sidste bopæl før tilflytningen	

Figure 2: National Registration system. Main card (detail).

Adapted from *Efter Bemyndigelse* (Nørr and Mikkelsen 2008: 607)

listed on a single card. The name card refers to the current address of the individual as it appears on their main card. It was also possible to compile name cards for wives and other subordinates listed on family cards (Toft Hansen 2002: 23). Women were listed as subordinates, but a 1956 instruction allowed women, who had married to also have a name card. The objective was not to achieve gender equality but simply to increase the efficiency of the name register. Women, who were or had been married, were also allowed to request the National Register to list them under their maiden name; a request that constituted a legal change of name. Further, the instruction rose the age for individual registration of children to 16. The reason for this was that tax deductions for families with children were available until the sixteenth year (Villumsen 1999).

7 Maintenance of address data

The law stipulates that individuals are obliged to report permanent address changes and temporary address changes in excess of three months. In case of a change of address within the jurisdiction, the new address was recorded in the existing cards. In case of moves to another jurisdiction, the jurisdiction of departure sent to the jurisdiction of arrival a notification of movement that contained all data relevant for the new jurisdiction. The registers were revised via national censuses compiled every five years and could also be revised via yearly local censuses. Counterfactual reporting to the National Registry Office could invoke fines (Toft

Hansen 2002: 18).

In case of relocation between two administrative localities, the locality of exit prepared a relocation notification that was forwarded to the locality of entry. The new address was entered in the main card's 'movements to and from local administration' column. The former address was struck off with a thin line and the card placed in the exit register. The name card was also furnished with the new address. The local administration of entry recorded the address from which the person in question arrived from in the 'Movements to and from local administration' column and placed the card in the main register under the new address and created a name card. In case of movement within the jurisdiction, the old address was struck off, and the new address entered in the 'First residence and movements within the jurisdiction' column. Then the card was placed in the main register under this new address. The new address is also entered into the name card (Toft Hansen 2002: 31-32).

In case of incarceration, military service, boarding schools etc., the person in question was not registered in the local administration of these institutions. Rather, the stay was noted in the 'First residence and movements within the jurisdiction' column in the register of the local administration where he or she had residence prior to the stay. In case of temporary stay in a local administration over 3 months (e.g. in case of admission to a state hospital), a main registry card and a name card was established in the local administration where the temporary stay took place, with the note 'temporary stay.' Notifications of relocation were not drawn up. Missing persons were notified to the Department of Statistics. On the main registry card was written 'notified to Statistical Department' or 'missing' whereupon it was placed in the exit register (Toft Hansen 2002: 31-32).

The National Registration Law also stipulated that the municipalities every quarter report population movements to the Department of Statistics. For this purpose many municipalities kept ledgers of movement (or the so-called entry- and exit lists), and they also contained data pertaining to tax-assessment and the public health fund (*sygekasse*). These ledgers were not mandatory (Toft Hansen 2002: 23).

8 Movement between cards and registers

In case of death, the data was struck off with a thin line on both the main registry card and the name registry card, and the date of death noted. If the person in question was listed in a family card and left a spouse behind, then the card remained in the main register. If the bereaved was a widow, a new name card was issued for her, and her name and any new address was entered in the name card of the deceased as a reference. If there was no spouse, but children under 15 (or later 16) years of age, these children were entered on single cards and also provided with name cards, and the family card transferred to the exit register. *In case of marriage* where the spouses move in together, the wife was transferred from her present single card to the husband's family card along with all the data relevant for National Registration. Her existing single card was then transferred to the exit register. In the name

register the woman was entered under her husband's surname. If the woman maintained her maiden name, then name cards were issued for both the maiden name and the husband's surname. *Upon divorce*, the woman was again entered on her own single card (or, possibly, family card if she gained custody over the children). Furthermore, a card was issued for the name register if such a card did not exist already. *In case of adoption*, the adoptive child was deleted from the card on which it was recorded prior to the adoption, and transferred to the card of the adoptive parents. If the child was entered on a single card (e.g. as a foster child) this was transferred to the exit register. When a child who resides with the parent(s) reached the age of 15 (16), a new single card was established. On the family card was written 'single card established (date)' and, possibly, the names of the parents are given under 'remarks' on the single card of the child (Toft Hansen 2002: 31-32).

9 Reliability of the data:

Data in the National Register was collected by National Register itself and other data arrived from outside authorities. Data submissions from public institutions, such as civil status data (name, place and date of birth, marital status, citizenship), faith-related data, legal incapacity, and criminal punishment, are quite reliable. There can, however, be doubts if all relevant data were transferred, especially in relation to criminal history because legislation on these types of data was ambiguous. Data transferred by the local administrative offices are also quite reliable, for example tax, retirement pay, poverty relief, and franchise. Obligated to report the public health fund membership of incoming registrants and supplying data for the conscription rolls, the National Register had a considerable control function so the data relating to the public health fund and conscription are also quite reliable. Less reliable were data that derived from the individual citizen, for example employment title. An individual could have several professions or have provided one degree but be working within another field. Unemployment also affected the reliability of these data. It was not required to report change of job, so such changes were only entered when there was a change of address.

The cornerstone of the National Register remained, however, the address data. As noted above, a notification of change of address involved the local administrations of exit and of entry. Landlords were required to ensure that their renters possessed a 'proof of relocation' (*flyttebevis*) and if they did not, the landlords were to fill one out such a form on their behalf and send it to the National Register. Incorrect data or neglect to submit data to the National Register was, and remain today, subject to fine. Still, the national registries were, of course, incomplete. People who could not be traced were recorded as 'missing' (*forsvundne*). The number of 'missing' individuals were highest in the early years of the system, growing from 13,000 in 1924/25 to almost 19,000 in 1927/28, but then the numbers fell to a couple of thousand individuals by 1939. From the 1950's onwards, the number of individuals who escape the fine mesh of National Registration has oscillated around 1000 (Toft Hansen 2002: 30).

4. The CPR register

Serving the public, the central public administration, as well as the municipal taxation offices and social services, the work load of the National Register had by 1960 reached a level where it was difficult for these manual index card registers to keep up with the ever-increasing demand for data. Some municipalities had in the early nineteen fifties begun to automatize many work processes using punch card systems and many of these systems were in the mid-nineteen fifties and in the nineteen sixties merged into larger shared punch card centrals. Most of these centrals also acquired electronic data processing machines that facilitated magnetic tape data storage, so by 1967 there already existed electronic national registration data on about 4 million out of the 4.7 million inhabitants. Still, since the legal basis for registration remained the manual paper-based registers, these electronic advances had only had little impact on the organizational structure of national registration. The existence of much data in electronic form was of course important for the realization of CPR but this mass of electronic data was not in itself the reason for the introduction of CPR.

1 The road towards CPR

The 1922 national registration commission had considered a centralized manual registration system, but this idea was abandoned due to high cost and it would, most likely have been impossible to maintain such a huge manual register adequately (Hansen et al. 2006: 73-74). The advent of electronic data processing made a centralized register more feasible, and the Ministry of the Interior established 22 February 1961 a commission to investigate how the municipal National Registers and the punch card centers (*hulkortcentraler*) might support the implementation of electronic data processing in the public administration. The commission should also investigate how National Register data could be used in other administrative branches, and whether or not it would be advisable to assign a specific serial number to each individual member of the population.

An individual number could serve as an efficient ‘key’ for accessing personal data in various registers, but it could turn out to be unacceptable for the Danish population to become ‘mere numbers’. Sweden had already in 1947 introduced such a ‘key’ in the form of a 9-digit person number (*personnummer*).¹⁴⁾ Norway introduced their ‘birth number’ (*fødselsnummer*) system in 1964,¹⁵⁾ and also England and the US had introduced ‘numbers’ without much

14) The 9-digit format introduced in Sweden in 1947 was YYMMDD-SSG, where the first six digits represent birth year (Y), month (M), day (D), and the latter three comprise two serial digits (S) referring to the birth date and the third digit (G) indicating gender – even for females and uneven for males. In 1967 a tenth control digit was introduced, changing to the following 10-digit format: YYMMDD-SSGC. The hyphen between the sixth and the seventh digit is changed to a plus (+) when the person in question turns 100 years old (Riksskatteverket 2003: 99,105, Skatteverket 2007).

15) Like the present Danish CPR number, the first six digits of the Norwegian 11-digit number format ↗

CPR No.	1	8	0	7	2	8	-	0	5	9	3	The last digit (3) is the control number
Modulus 11	x	x	x	x	x	x	x	x	x	x	x	The first 9 digits are multiplied by 4-3-2-7-6-5-4-3-2
	4	3	2	7	6	5	4	3	2			
	=	=	=	=	=	=	=	=	=	=	=	
	4 + 24 + 0 + 49 + 12 + 40 + 0 + 15 + 18 = 162											
<i>Calculating a control number for the sequence 180728-059:</i>						<i>Verifying the CPR number 180728-0593:</i>						
Divide 162 (the sum of all subtotals) by 11. The sum is 14 with the remainder 8. Subtracting 8 from 11 gives 189728-059 the control number 3.						Add the control number 3 to the sum 162. 165 is divided by 11, giving the sum 15. Leaving no remainder, the CPR number is valid.						

Figure 3: Calculation of a control number and verification of a CPR number using Modulus 11

negative reaction from the public. Still, Holland had had to abandon individual numbers due to protests. Also, the Danish authorities were unsure if it was advisable to introduce a citizens' card, given the Danish populations' recent experience with the ID cards issued by the German occupation forces during WW2.

The main motive for introducing the personal number was the coming introduction of the 'source tax' where taxes are withheld by the employer – a system also known as P.A.Y.E. (pay-as-you-earn). The Danish authorities referred to the envisaged individual number variously as an 'account number' (*kontonummer*) or a 'citizen number' (*borgernummer*) and determined to introduce it, not as a technical and 'hidden' number but rather with as wide an acceptance as possible. It was even discussed if it might give the individual number a better 'image' by initially connecting it to a right, such as social services, rather than a duty, such as taxes (Hansen et al. 2006: 85-88).

The individual number scheme that was adopted in 1965 consisted of 10 digits DDMMYY-SSSC, six digits for the day (D), month (M), and year (Y) of birth, followed by three digits indicating a serial number (S), and a final digit (C) that function as a control number to catch erroneous or false numbers. This control number would also specify gender, with even numbers indicating females and uneven numbers indicating males. The day-month-year order of the first 6 digits is not ideal from an archival viewpoint, but it was chosen because it would feel more 'natural' as it conforms with spoken Danish and also be less error-prone in everyday usage (Hansen et al. 2006: 88-89). The sequence '180728-0593' is an example of a CPR number for a person born 18 July 1928 with the final uneven control number '3' indicating that the holder is male. The control number is found via a 'modulus 11' calculation, and figure 3 illustrates how the validity of a given CPR number can be checked

↘ DDMMYY-SSSC represent the birth date, followed by a three-digit serial number and a two-digit control number (Skatteetaten 2000).

using a reverse ‘modulus 11’ calculation.

This CPR number format was introduced without being explicitly mentioned in a law, but it was not introduced in secret. In October 1968, individual number certificates (*personnummerbevis*) were sent by mail to each resident (except children born 1967 and 1968 who would receive their certificate later). In this way people would become familiar with their own particular number, as well as check for any errors.¹⁶⁾ The certificate itself could, furthermore, be used as an ID card (Hansen et al. 2006: 91). The use of this certificate as ID never caught on. What did become generally used as ID in everyday transactions was the yellow the national health care card (see figure 4), which displays the holder’s name, current residential address, and CPR number.

2 The CPR system

With the introduction of CPR, the responsibility for maintaining the registration of the Danish population was transferred from the municipalities to the Ministry of the Interior’s Secretariat for Individual Registration (*Sekretariat for Personregistrering*), the current CPR office (*CPR-kontor*).¹⁷⁾ This Secretariat was established for this purpose in 1965 and has ever since been responsible for the development of the CPR system.



Figure 4: A specimen of the Health Card.

In addition to the CPR number, full name, and current address of the holder, the health card also lists municipality and the holder’s general practitioner.

16) The CPR data listed on the individual number certificate was his or her CPR number, occupation, and address, as well as the name of the municipal national register the individual was registered in (Villumsen 1999).

17) Since 23 February 2010, the Ministry of the Interior has been named the Ministry of Interior and Health (*Indenrigs- og Sundhedsministeriet*).

3 The CPR system - registration and structure

The purpose of the Danish Act on the Civil Registration System is to ensure that any person, who is officially registered as residing within Denmark on the grounds of birth or relocation from abroad, are supplied with an individual civil registry number (Sections 1.1 and 3.1). The CPR system thus contains data on all Danish citizens, as well as all foreign individuals who have resided legally in Denmark after 2 April 1968 (in Greenland as of 1 May 1972) and have been registered in a Danish county (*kommune*). CPR also registers certain individuals in foreign countries who are liable for taxation in Denmark or who should be registered in a Danish Church Book. Individuals remain within CPR upon death, emigration and disappearance. As of 2009 CPR had data on about 8.4 million people, the data probably amounting to less than 50 GB. The population of Denmark was 5.5 million as of 1 January 2009. The CPR is updated daily by the municipalities and these updates amounted in 2009 to an annual 850,000 changes of address, 25,000 name changes, 60,000-70,000 births and deaths, etc (CPR-Kontoret 2009).

4 Numbering newborns

Most residents in Denmark enter the CPR system at birth. Every birth (whether live or stillborn) must be reported to the civil authorities, and this reporting involves the midwife who assisted the birth and, until 2010, the child's parents. The following are the reporting requirements as of 2010 for all of Denmark, except southern Jutland (Sundhedsstyrelsen 2001).¹⁸⁾ The midwife usually makes the report upon completion of the birth via a data system called 'GS open' (*GS åben*), which communicates directly with the CPR office, which in turn issues a CPR number. If the system is down, GS open will provide a so-called replacement CPR number to be used until the system is up and running again.¹⁹⁾ Bracelets are then attached to the mother and child, each carrying identical data in written and barcode form pertaining to the newborn. This data identical to the data is seen in the lower right corner of the document in Figure 5. In case of a home birth, the midwife fills out a form and the CPR number is issued later. (The midwife will usually upon leaving the house of birth go to a hospital to log on to CPR regarding the birth.) Nursing aides and social health care assistants can also conduct this 'establishment' of the newborn, but it remains the responsibility of the midwife to make the report. The issuance of the CPR number is today

18) Birth report procedures in southern Jutland is made by one of the parents or by another person authorized to make such a report to the registrar of the municipality where the mother resides. However, when the child is born at a clinic or hospital, the duty to make the report rests solely on that institution (Sundhedsstyrelsen 2001).

19) When a real CPR number for some reason cannot be issued, a replacement CPR number can be used by private and public institutions. Its 10-digit structure resembles the CPR-number, but to distinguish real CPR numbers from replacement CPR numbers, the value of the first digit is raised by 6. Birth dates such as 07, 17, and 27, for example, will thus appear in replacement CPR numbers as 67, 77, and 87, respectively (CPR-Kontoret 2010c).

Tillykke	
Til stede ved fødslen:	
Dato: 29.07.09	<u>Carina Meile</u> Jordemoder
Klokken: 20 ⁴³	<u>Charlotte Lantor Olsenk</u> Social- og sundhedsass.
Vægt: 2910 g	<u>Søren Krause</u> Læge
Længde: 51 cm	
29 07 09 - 0000 G2 G2-1402 Fink.Ud.Pige af Signe	

Figure 5: Intial birth document.

The Danish text is as follows: Congratulations. Present at the birth: midwife (name), social health care assistants (name), doctor (name), date and time of birth, weight and length. In the lower right corner (as well as on the newborn's and the mother's bracelet) is given the newborn's CPR number 290709-XXXX, and that it is 'daughter of Signe'. (Signe is the first name of the mother.) The CPR number is anonymized by the author for the purpose of this article.

a natural part of the parent's expectations regarding birth the duties of the midwife, who may comment positively on an easy-to-remember CPR number.²⁰⁾ It has been the parents duty to make a birth registration at the parish office. If this is neglected the authorities, who know about the birth due to the post-birth CPR registration, will fine the parents and will, if necessary, unilaterally complete the birth registration. With the coming reforms of the birth reporting system, it will most likely become the midwife's duty to report the birth to the Church Book system.

5 Registers within CPR

To optimize the use of the individual numbering system, the CPR system encompasses several registers so as to attach to the individual number other additional data that are directly or indirectly relevant to these residents.

1. The civil register contains current civil registrations on each citizen, including the personal identity number, as well as former (historical) data pertaining to addressee, name, civil status and citizenship.
2. The road system register has current data on Danish roads. Each road is assigned a code, a name, and data pertaining to its particular administrative relationship to

²⁰⁾ The midwife Anna Barfoed, explained these procedures to me via e-mail correspondence during 3-4 November 2010.

parishes, as well as postal and voter districts. As an example, this register supplies the civil register's road code with road names.

3. The housing register contains all addresses and localities, sorted by an address code. A housing code specifies the utilization of a specific dwelling. This register is used when it is practical or necessary to use the address as data entry, for example to check if individuals are moving into an approved dwelling type.
4. The register of authorities contains all authorities that are in contact with the CPR, listing their addresses, and phone/fax numbers, as well as their relation to other authorities. These authorities each have an identifying four digit code, and any relevant administrative change within an authority must also be reported to CPR (e.g. amalgamation of parishes or counties) (CPR-Kontoret 2001).

In 2001, for example, CPR listed 106,000 roads, 2.9 million dwellings, and 3000 authorities (CPR-Kontoret 2001). Within this scheme, these registers rely on each other and need to be calibrated in order for CPR to function. For example, when the number of municipalities in Denmark was reduced from 270 to 98 on 1 January 2007, all roads that came under a new county were given new codes and the address codes for a great deal of the population also had to be updated.

6 CPR's civil register data

With the introduction of CPR, the 1340 municipal National Registration offices began serving this single electronic system, and CPR, in turn, gradually took over from the National Register duties such as supplying data to the tax authorities, to other public authorities, and to private citizens, as well as supplying statistical information, preparing election rolls, etc. Instead of being recorded locally in the manual registers, data was now reported directly to CPR. The paper-based National Registers were not abolished right away, however. By 1978 the CPR register was so developed that the paper-based National Registers were not essential, and by 1991 it became possible for the National Registers to dispense with paper registrations and the duty to maintain index card registers was abolished (Hansen et al. 2006: 68,71-73).

The individual civil status data within CPR is largely identical to that found within the manual National Register. CPR does have unique data, as well as other items needed to serve other authorities (Hansen et al. 2006: 99). Figure 6 gives an overview of data found in only the National Register, in both the National Register and CPR, and only in CPR.

There have before been discussions on appropriate and inappropriate CPR data. The 1961 commission suggested including data on, for example, criminal investigations and contagious diseases. Later discussions have questioned the suitability of data on membership of the Danish national church, registered partnership, and incapacity, which all have been deemed appropriate; data on membership of the Danish state church was retained for tax and

ONLY NATIONAL REGISTER**Bankruptcy 1924-1956**

Incur loss of voting rights until 1953. Abolished in 1956.

Criminal punishment 1924-1953

Loss of voting rights. After 1953 limited to national treason.

Poverty relief 1924-1962

Loss of voting rights. Abolished in 1962.

Tax information 1924-1970

Wealth and debts were typically noted to assess municipal tax.

Not entered into CPR due to coming "source tax" system.

Conscription roll number 1924-1968

The national register notified draft boards when conscripts changed address. This number replaced with CPR number.

CPR has a special field for noting conscript status.

Alimentation duty 1956-1959

Municipalities were required to pay for those who did not pay child support, so when such failure occurred the first time, this was noted on that individual's card so as to better control his movements. Inadequate, this system was soon abolished.

ONLY CPR

Apart from the CPR number, which is a sort of individual data items, there are no truly new individual data categories in CPR compared to those of the national register. For technical reasons, CPR introduced new data categories, for example, appending to CPR numbers data relating to address coding and time of last data update.

BOTH NATIONAL REGISTER AND CPR**Civil status items 1924-today**

name, maiden name (for women), date and place of birth, address, occupation, marital status, possibly date and place of marriage, spouse, children/parents, and death.

Citizenship 1924-today

Since the national register and later CPR has to notify the police when a foreigner changed address, their nationality data is necessary.

Faith 1924-today

Data on membership of the Danish national church required since 1956 in order to prepare election rolls for the local parish council elections and calculation of church tax. In CPR only (non-)membership data is required.

Incapacity 1924-today

Needed for election rolls since incapacitated individuals lose their voting rights. Also needed for pension payments.

Public health insurance 1935-1973

The national register notified health insurance funds when a person reached an age that required such fund membership.

Retirement or disability pay 1956-today

Needed for the national register to notify the municipality in case of change of address or death, and for tax purposes.

Voting rights 1956-today

To prepare yearly election rolls, listing on these rolls is noted. Not registered in CPR, but appears indirectly from other personal data.

Figure 6: Overview of data found in the National Register and CPR.

election purposes,²¹⁾ registered partnership because it legally is on the same footing as legal marriage,²²⁾ and incapacity because it entails loss of voting rights. 'Refugee status' is an example of data that has not become a required registration (Hansen et al. 2006: 100-103).

7 Data collection and updates

Under the National Registration Act, individuals are basically only obliged to notify the National Registers about changes of address within Denmark and when moving to or returning from another country. Practically all other data, such as naming, change of name, marriage, adoptions, and divorces are submitted to the National Register from the various public authorities that are in charge of registering these types of basic data. In 2001, for example, it was the municipalities that reported information on adoptions, paternity acknowledgements, divorce, etc., whereas the courts, for example reported adoption annulments, paternity verdicts, declarations of incapacity, etc. Registrants have until 2010, at least, additionally been obliged to notify parish registers about births, names, and deaths. The parish registers, in turn, provide these data, as well as data on weddings and membership of or resignation from the Danish state church to the national registry. In this case the birth,

21) The term 'elections' here just refers to elections relating to local parish boards, not parliamentary or municipal elections.

22) Registered partnership (*registreret partnerskab*) was introduced in 1989 in Denmark to facilitate legal unions between same-sex couples that had the same legal effect as legal marriage except for the right to adopt and the right to have legally binding ceremony in a church.



Figure 7: A baby boy with his own health card.

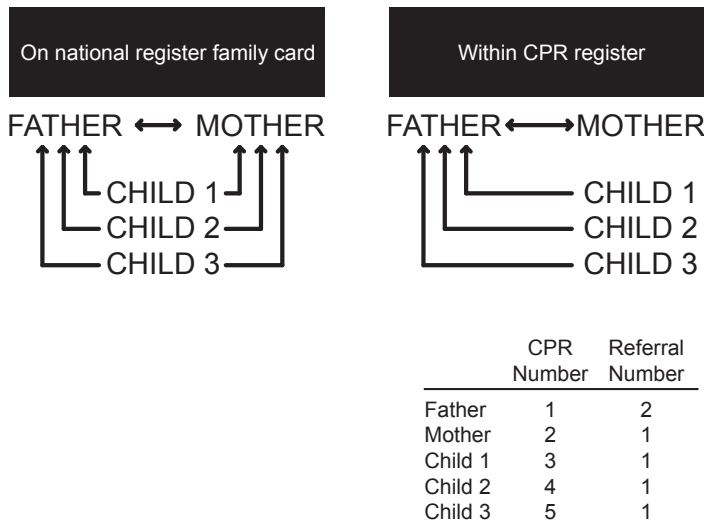


Figure 8: Family relationships as indicated within the National Registers and CPR (only 1968-78).

name, and death registrations are in duplicate because only the Church Book provides legal proof on these matters (CPR-Kontoret 2001). The Church Book authorities are immediately alerted of newborns, as they receive a CPR number immediately after birth. Not long after, a national health card is issued for the child as well, listing its name and address, its doctor and its CPR number (see figure 7).

8 The family unit within CPR

The family unit within the civil register also gradually changed with the introduction of

CPR. The National Register organized the family under a principal because of tax-related requirements and the structure of the national registration system therefore expressed family relations (husband/wife, parent/child). Figure 8 illustrates how both the female and the male spouse were directly linked to their children. The National Register's cohabiting family unit as well as the concept of 'principal' was also used within CPR registration from 1968 until 1978. Each registrant held a CPR number and within each of these individual postings was a field containing references to other CPR numbers. This field functioned to reference between the 'principal' and his wife, and between the 'principal' and children under 18 years old, who were still living at home. The principal was usually the father, but it could also be a single mother or a stepfather. So where the national registration card tied children equally to both the father and the mother, in the first ten years CPR registration tied children in nuclear families directly to the father and only indirectly to the mother (via the spousal reference between her and the children's father). In 1978 the CPR system's principle for registering families changed from a co-habitational to a biogenico-relational basis and references now tie both parents directly to their children, and the references remain in place whether they live together or not (Hansen et al. 2006: 97-98). CPR was thus initially a setback in terms of gender equality – and not only technically. Although the registrants never saw this structural setup, it irked many women, especially feminists. According to one informant it was very irritating that public officials during that period would consistently ask for her husband's CPR number but not hers, and her female friends felt the same way.

9 Preservation of historical data

The National Register never deleted register cards, nor did they delete data on cards, but there are lacunae in the manual register archives. Many National Registers were sabotaged during the war as they provided the basis for the German Wehrmacht's fight against Danish resistance groups. There are also instances where local administrations threw away their original National Register cards after microphotography. Finally, the conjoining of municipalities and the municipal reform of 1970 meant that National Registries of several small parish municipalities were conjoined under a new primary municipality. This is problematic from an historical angle as it impedes or, at least, complicates demographic investigations at the parish municipality level (Toft Hansen 2002: 33).

The CPR register, however, did not maintain historical data from 1968 until the so-called CPR-Histor register was established in 1971. The opinion of the 1961 commission had been that historical data was of minor importance – not least because storage of data files at the time was costly. In 1965, arguing that historical data would be available elsewhere in various files and documents within the relevant authorities and institutions, the commission also discussed a register comprising current data only. The National Register would retain its role as keeper of historical data, but in the new centralized register the need for data on former addresses, for example, would be reduced once individual searches via CPR number was

integrated widely in the administrative system. CPR-Histor was eventually established, partly due to the realization that the central register is the most rational place to keep historical records, and partly because storage was getting less costly. With this historical register in place, the legal requirement to maintain the manual National Register fell away after 1978, and to make up for CPR's lack of historical data for the first number of years after its introduction, the State Archives (*Statens Arkiver*) decided to keep a complete exit register for the period 1924-1978, as well as the main register as it stood in 1978. (The name registers were not mandatory to keep since the CPR-Histor provides a table of contents for the main registers as of 1978.) (Toft Hansen 2002: 33, Hansen et al. 2006: 103-104).

10 Accessing data in the National Register and CPR

As we have seen, public authorities have historically had extensive rights to use the data within the National Register. During the first years of national registration, individual data access was also fairly open in relation to commercial marketing. In Copenhagen, for example, newborns would thus be greeted by baby carriage manufacturers or with gift certificates from savings and loan associations, while young people, who had just moved to the city, could be greeted by visits from ecclesiastical or humanitarian associations. This praxis was since stopped as the National Register contains data that should be kept private. Data deemed sensitive has also been protected to some extent. For instance when moving to another municipality, data pertaining to the cancellation of poverty relief (poverty relief was registered because it incurred a loss of voting rights), as well as data on the reinstatement of legal capacity, were not to be transferred to the new register cards established (Toft Hansen 2002: 31-32).

In order to protect private data, the National Register archives are subject to the Registers Act (*Registerloven*),²³⁾ which stipulates that the data is, in principle, inaccessible for an 80-year period. Public access to these data covering 1924-1978 is therefore not fully available until 2058. It is, however, possible for researchers to apply for access to the municipal National Registers, for example for the purpose of larger-scale historical or demographic surveys. To grant a private person access to particular data on specific individuals, there is also a set of rules in place (*Bekendtgørelse af folkeregistrering af 13. Juni 2002*) which simplifies access and specifies what data is available. Someone who, for example, is tracing a family genealogy, can have access to additional data in older national registry sources. These rules relates to sources that originate from the introduction of the National Register in 1924 onwards and that has not been transferred to CPR (and is therefore not available in electronic form) after 1968. Data provided according to these rules must, however, be over 30 years old and the person in question must be deceased.

Private individuals can also, upon payment of a fee, request data on people registered in

23) *Lov nr. 294 af 8. juni 1978 om offentlige myndigheders registre* (Law no. 294 of 8 June 1978 regarding the registers of public authorities), also known as *Registerloven* (Registers Act).

NATIONAL REGISTER 1924-1978	
<p>Public access (general): In general after 80 years, so earliest registers accessible from 2004 and fully accessible in 2058.</p> <p>Public access (special): It is possible for private individuals such as genealogists to gain earlier access but the person investigated must be dead, the data must be over 30 years old, and the investigator must provide data on the person in question (name, municipality of registration, and if possible, provide address or date of birth).</p> <p>Research: Possible to apply for access in relation to large-scale demographic or historical surveys.</p>	<p>Available data: Data on index cards (e.g. full name and former names, date and place of birth, profession, legal incapacity, date and place relating to other civil status data (e.g. marriage), date of death and place of death report, address information with date of entry and exit).</p>
CPR REGISTER 1968-today	
<p>Public access (general): Data is available to private individuals upon payment of a fee. The person in question must be identified by name (present or prior) combined with his or her CPR number or birth date or address (present or prior). Protected address is also available if one can prove a legal interest.</p> <p>Legal person access: companies, corporations, foundations etc, can for a fee receive personal data on individually specified persons Private enterprise access: for a fee, private businesses can search CPR by name and address (not by CPR number)</p>	<p>Available data: Data relating to a person's last address and date of relocation, death or disappearance, and incapacitation.</p>

Figure 9: Rules for accessing data in the National Register and CPR.

CPR. The available data is the person's last address and date of relocation, the date of death or disappearance, as well as data on incapacitation. If one can prove a legal interest it is also possible to be informed of a protected address. Protection of address is based on a justification. So, for example, on the one hand an adoptive child or a wife at the time of divorce can obtain data on a protected of address, and on the other hand, a debtor should not be able to hide from a creditor by way of a protected address (Toft Hansen 2002: 33). The rules relating to data access is given in Figure 9.

Private citizens, who do not have any particular legal interest, can obtain data from the National Register if they fulfill these three criteria (Toft Hansen 2002: 34): 1) the person in question must be dead, 2) the data must be over 30 years old, and 3) the data must not be in CPR. When these requirements are fulfilled, and if the following data on the person in question is furnished: 1) Name (present or prior) and 2) CPR-number *or* birth date *or* address (present or prior), then the following data is available:

- Full name and earlier names
- Birth data and location
- Profession
- Legal incapacity
- Dates and location for civil status data [marital status data]

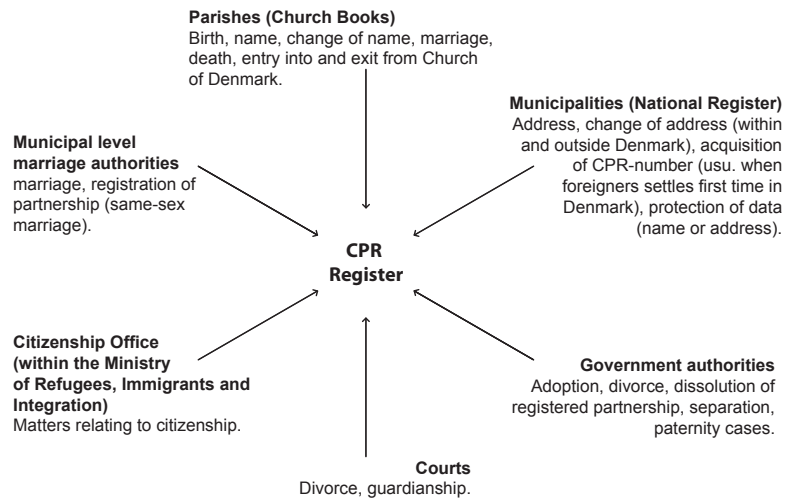


Figure 10: Authorities delivering civil status data to CPR.

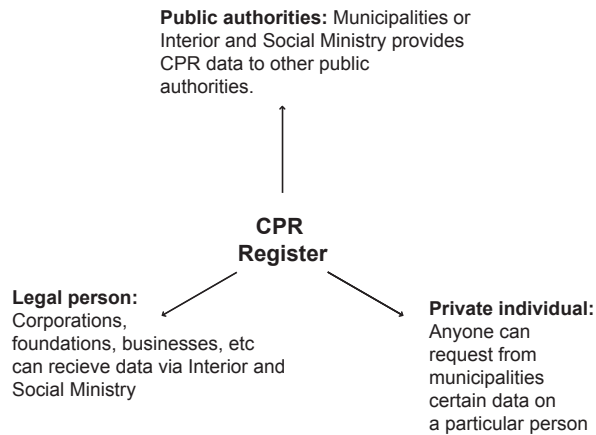


Figure 11: Entities to which CPR supplies data.

- Date of death and place of death report
- Address information with date of entry and exit (Toft Hansen 2002: 35).

11 Origins of CPR data and its dissemination

CPR functions as a data exchange that both receives data from *and* sends data updates to the individual registrant, to public institutions, and to private businesses (see Figures 10 and 11). As such, it is a central and very efficient system that radically diminishes the need for these three parties to contact each other directly. The registrant only needs to report a change

of address to the National Register – for instance by logging on to the National Register homepage and there enter the new address. The new address is then relayed via CPR to the public institutions and the private businesses that require that individuals address data.²⁴⁾

12 Physical aspects of the CPR system and its perspectives

The CPR system was developed and maintained at Datacentralen (DC), which was established in 1959 by the Danish state, counties, and municipalities in order to collect, and rationalize national and municipal administrative tasks in one place. DC developed the it-systems that handled CPR numbers, VAT calculations for private businesses, and the incipient P.A.Y.E system. CPR has since 1996 existed on mainframes located at CSC Danmark, a branch of CSC, which is one of largest providers of information technology services.

Evolved over time, the CPR system is an amalgam of solutions at various stages of technological development. To achieve a more portable, flexible, and consolidated system, the CPR office aims at developing a system that will as far as possible adopt one solution to one problem. Java will be adopted as the unifying programming language and all data processing (be it data updates or data use) will take place in one core. Another goal is to outsource IT services. By relying on private IT services, the CPR office personnel will focus on developing and carrying out projects, managing contracts and suppliers, and serving its customers – the public and private CPR data users (CPR-Kontoret 2008, CPR-Kontoret 2010b).

Recent developments, then, include further streamlining of the computerized registration systems as well as a gradual outsourcing of the management of private civil status data. Further, the Danish population can today interact with the public authorities, such as the National Register via the online identity verification systems of Digital Signatur and NemID. These ID systems also provide access to private internet banking so we are seeing a melding of fundamental private and public data bases and registration systems. To cut cost and increase convenience, the line between public and private register data is blurring, but this also means that the consequences of misuse or security breaches become exponentially more catastrophic. Security glitches can increase the danger of third-party data abuse, and the amalgamation of registers increases the potential for state control of the individual. The temptation among politicians, for example, to examine specific groups ‘for the sake of the common good’ can become irresistible. In the following final sections we will look at the

24) Change of address within Denmark has been available online since around 2005 (first on www.cpr.dk and later on www.borger.dk). To do so one must log on using Digital Signatur or NEM ID (see later section in this article) or in person at the local National Register office. When making a change of address to a foreign country the National Registry will collect one’s national health card (‘yellow card’) and when one returns to Denmark to reside, the change of address has to be made in person at the National Register, submitting a photo ID such as passport or drivers license. The new address becomes available to other institutions within a few days and a new national health card with the new address and the name of one’s health practitioner arrives by mail within about a week. (This description is based on my own experience when returning from a two-year stay in Japan in December 2010.)

potential for abuse of electronic data by individuals and government.

5. Problems relating to data protection and data use

1 The CPR number in relation to identity theft, and commercial ID verification systems

CPR data has generally been well protected against misuse. There is no example of private individuals having inappropriately accessed CPR data, for example via hacking, but there have been occasional reports of abuse by people authorized to access CPR.²⁵⁾ One example is a police officer who was sentenced and fined DKK 10,000 for making unauthorized background checks on his ex-wife's new lover, on her new friends and her new neighbors, and for sharing that personal information with his new girlfriend. He had also made illegal searches on behalf of a former girlfriend, who was adopted and wanted to find out about her own background. He had further investigated a neighbor to see if she was illegally receiving social welfare benefits (Politiken 2007c). It is, however, private fraudulent use of third party CPR numbers that pose a bigger threat to personal privacy.

There is in Denmark a rather casual attitude towards the CPR number. Until now, it has not really been questioned that CPR numbers are printed on pay slips and university diplomas, or that opticians might ask for one's CPR number. Danes who have grown up with their CPR number can recite their own number rapidly without thinking.²⁶⁾ This frequent use presentation of the CPR number in everyday interactions means that it is rather easy for a CPR number to get into the hands of third parties. This, in turn, has become a problem today when many financial transactions take place over the Internet. There has lately been a rise in cases of identity theft where a CPR number can serve as a tool to take over the identity of another person. With a CPR number the victim's postal address can be changed, where after a credit card can be ordered, leading to online purchases. The change of address means that the identity thief automatically begins to receive the victim's mail, and if the mail includes a pay slip, this along with the CPR number can suffice to make a bank loan on the Internet. The increase in these types of crimes may cause Danes to reassess their relationship to the CPR number. The government, however, does not have immediate plans to reduce the CPR number's appearance on various documents. On 1 October 2010, a member of parliament asked if the Minister of the Interior and Health might consider laws or regulations that could help combat CPR number abuse, for example by limiting its use – or at least by concealing the last four digits when it is made public. She also noted that

Since CPR numbers are requested in many connections (establishment of bank account,

25) Personal e-mail communication on 13 September 2010 from Carsten Grage, Section Chief at IT and CPR, Ministry of Interior and Health.

26) I experienced once that an official during a conversation suddenly asked me casually about my CPR number. I stated it immediately, and he told me later that a lack of hesitation serves as an informal way to ascertain identity.

change of medical practitioner, prescriptions etc), and for that reason are exposed in many subsequent connections (e.g. the CPR number on a prescription unnecessarily winds up on the issued receipt, including the four last digits)

Focusing on the example, the Minister simply responded that the listing of the full CPR number on the prescription receipts is mandatory because they serve as the customer's documentation of medical expenses when calculating the public health care subsidy. But a much bigger threat to privacy is, perhaps, posed by the banks and the state itself, as they create and introduce national verification systems that can access both personal banking, health, tax, and civil status data (Haarder 2010).

In order for the state to go online, it began in 1999 developing a digital signature for the residents, and has since 2003 offered the so-called Digital Signatur log-on from specific computers by way of a unique pass code and a 'key file' - a certificate installed on one or more computers used by the person in question. Then, in 2010, NemID was introduced which offers a unified log-in from any computer using a user ID (either CPR number, a NemID number issued by NemID, or a self-made code) and a self-made password. Once the user ID and the password is accepted, the user must enter a specific six-digit one-time code, called a 'key.' Each resident has received by postal mail a 'key card' that contains 120 one-time codes that each are numbered. When 20 keys are left, a new card will be sent by mail. To use it 'anywhere' this credit card-sized folded key card must thus in practice be carried around. NemID can be used for internet banking, at the municipal self-service sites, to submit and adjust tax assessments, to put insurance issues in order, to access e-box which contains electronic letters from private and public institutions, to apply for financial benefits, to see one's medical history, as well as to sign documents and forms online. To offer these services, unambiguous online identification is, of course, necessary and here the state relies on the identification technologies of Digital Signatur and NemID. Both of these systems are today developed and are maintained by the private banking industry - a type of service that is increasingly becoming globalized.²⁷⁾ This outsourcing of IT management and verification services is potentially problematic in relation to protecting individual privacy, as any breach of security would obviously leak increasingly enormous amounts of data.

27) The Ministry of Science began the process of developing a digital signature in 1999 and in 2001 the law on digital signatures was enforced. The government made it a goal in 2002 to provide all residents with a digital signature. In 2003 the government entered into a five-year contract with the private telephony company TDC, who, upon request, was to supply residents with a free digital signature, called Digital Signatur. The next generation of Digital Signatur was developed by DanID, which is wholly owned by the private company PBS. PBS controls the majority of private financial transactions by providing the very popular Betalingsservice (automated bill payment) and Dankort (a bank card that can be used in lieu of cash payments at most points of sale in Denmark). DanID has later developed the new NemID system, introduced in September 2010. In 2007, the Danish company PBS fused with the Norwegian counterpart BBS, and in 2010 the Danish PSB, and the Norwegian companies BBS and Teller merged into Nets, creating 'the leading Northern European provider of payment, card, and information solutions' (Nets 2010, IT- og Telestyrelsen 2010).

In 2010 a serious security flaw in the new NemID system was discovered; a security flaw that also turned out to be present in the older Digital Signatur. When a user logged off after having used a computer at a net cafe or a public library, for example, the user was not in fact logged out. Should the next user access the homepage of the tax authority, or a municipality, the former user's data relating to salary, taxes, the CPR numbers of family members, medicine consumption, etc. would be revealed, and changes relating to her address or taxes, etc were potentially possible (Politiken 2010c, Politiken 2010b).

This melding of commercial and public registers is obviously efficient and probably a financially good development for both the public and the private sector. The merging of registers under single ID verification systems is not likely to end here. Privately operated verification systems will likely come to handle increasingly heterogeneous swaths of registers. But is it appropriate to combine under unified identification systems both private data collected by public authorities and private financial data kept at private banks?

The problem posed here is not limited to large-scale security breaches. As David Lyon points out

State identification practices lend themselves to surveillance, even if this is not their stated or their primary purpose. Given this basic ambiguity of surveillance, this may ensure everything from appropriate entitlement to ongoing scrutiny of 'suspects' is built into the system (Lyon 2008: 1).

The data that can be produced by cross-referencing various registers might be enticing politically, and it actually seems as if the Danish government lately has rather quickly slid into politically motivated cross-referencing that target specific minority population groups.

2 Targeted cross-register searches

In the nineteen sixties the development of the CPR system provoked little debate but there were critics who suggested that we would become anonymous numbers and lose control over our lives.²⁸⁾ At this point there was little focus on the implications it might have to introduce a personal number that facilitates unambiguous identification and immediate access to all data relevant to each individual. Over the next two decades, however, 'registration fear' arose as the CPR system developed into the 'key system' it is today, feeding all other systems or registers with the personal data they might require. Now able to easily conjoin, cross-reference, and cross-check electronic civil status data with other types of public and private electronic data, critics and media began evoking the specter of an all-seeing and controlling 'registration state' and a 'registration society' in the 1970s and 1980s (Hansen et al. 2006: 87, 99).

28) Interestingly, the Icelandic personal numbers, the so-called *kennitala*, have among the Icelanders achieved a status approaching that of an alternative name. A *kennitala* such as 200353-2699 is not perceived to be a 'secret code' but more akin to an alternate name that is used when an exact personal identification is needed – for example, to sign a letter to the editor (Watson 2010: unpaginated).

Despite the tremendous developments in electronic registration between the early 1960s and the late 1970s, there was very little legislation on how the state should handle the electronic systems. The Ministry of Justice established in 1970 a commission to consider the issue of individual privacy rights in relation to the establishment and use of public and private registers. A report was issued the following year regarding the need for data workers to observe professional secrecy. This requirement entered the penal code in 1972 and in 1973 and 1976 reports on legislation on private and public registers arrived. The enactment in 1978 of the Registers Act (*Registerloven*) provoked a quite spirited debate in parliament. While this law did provide a negative delimitation of how public authorities may use the electronic registers, emphasizing how the public should be safeguarded against data-abuse, it only indirectly treated the issue of how these authorities *could* use the registers. The legal text notes that it was necessary to weigh ‘the interests of the registrants against [...] the considerations pertaining to society.’ The ‘registration debate’ in the 1970s and 1980s was thus characterized by uncertainty regarding what would be registered and how the data would be used. The politicians, on their side, felt that it would be crucial to conjoin diverse registers to control public expenditure, but the wider anti-state sentiment of the 1970s feared that such conjoining would increase control of the population. By the 1990s these fears abated somewhat and were replaced by a debate on to how data could be used in the best way.

Then, in the last decade, the question of control of the population – specifically particular segments of the population for economical, ideological, or political reasons – have emerged as a contested area, a political majority appears to weigh the common good over individual rights. Efforts ostensibly focusing on economy – to fight welfare fraud – have lately focused on specific groups, such as Danish citizens or permanent residents with a Middle Eastern or ‘Muslim’ background. As a parliamentary member of the opposition framed the problem: The Registration Act does not permit cross-referencing registers unless there is a concrete suspicion of cheating. It is not allowed to throw a wide net over the sea of people to see if you can catch some interesting fish (Arnold 2007).

When war broke out in Lebanon 14 July 2006 there were in Lebanon at the time thousands of Danish residents and Danish citizens of Middle Eastern extraction and the government began arranging for their evacuation to Denmark. Over 5700 individual were eventually evacuated, but already on 18 July the anti-immigration Danish National Party (*Dansk Folkeparti*, hereafter DNP), which from 2001 until 2010 had been a staunch supporter of the present neoliberal minority government, proposed to specifically check these evacuees upon return to see if their presence in Lebanon constituted welfare fraud. It was to DNP a ‘unique chance’ to check a ‘myth of welfare fraud’ by cross-referencing the list of evacuees with municipal data to see if some of them had been vacationing while receiving unemployment benefits or cash support from the Danish welfare system. As the spokesperson for DNP put it: ‘We are certain that they all have nothing to hide. But it would dispel some myths if the returnees are checked. And these myths have emerged to a great degree.’ Questioned

about the propriety of examining war refugees, the spokesperson added; ‘It not as if they have to do anything. It’ll be done by pushing a few computer buttons’ (Berlingske 2006a). The left-wing opposition was outraged, calling the proposal politically motivated and questioned the propriety of using register data in this way. The Minister of Employment stated that the Ministry would not make such an investigation, but added that it would not be a problem if the municipalities or the unemployment benefit funds did so. Excepting a few larger municipalities, the municipalities were generally unwilling to investigate, and no such investigation was made by the government either. But the Ministry of Employment did admonish the municipalities and the unemployment benefit funds to secure that recipients of welfare benefits are in fact available to the job market (Berlingske 2006b). But most importantly, perhaps, was the Register Oversight Committee’s opinion that it would not be permissible under the Registers Act to cross-reference the Foreign Ministry’s list of evacuees with the municipal lists of welfare recipients (Arnold 2007). In 2010, however, the government chose to carry out the kind of welfare fraud investigations on people arriving from the Middle East that DNP had suggested in 2006.

Between midnight and 5 in the morning of 14 October 2010 the National Directorate of Labour and the police detained six flights arriving at Copenhagen airport from Syria and Turkey to catch, for example, recipients of unemployment benefits who have illegally taken vacations. The raid netted 72 such cases, and all passengers would also be investigated to see there were some who had left the country illegally (Politiken 2010a).²⁹⁾ The choice of these two countries is no co-incidence as it is a fundamental policy goal of the nationalist party Danish National Party to limit and diminish the number of residents and/or naturalized foreigners of Middle Eastern origin. There are surely also ‘ethnic Danes,’ who illegally take vacations while receiving unemployment benefits or other social support (and similar controls *are* also made in Spain which is a favorite vacation area of ‘ethnic Danes’), but the Danish National Party wishes to increase the focus on the Muslim segment of the Danish population by establishing control units in Pakistan, Somalia and Lebanon. As the party notes: ‘The raid at the airport shows that there are people to catch on flights leaving from the Middle East – people who do not obey basic welfare requirements’ (Politiken 2010a).

Interconnected registers listing numbered individual are efficient and fast, but they can also be powerful tools of surveillance. There is in a society all sorts of administrative fraud and misbehavior but to what extent shall it be allowed to use what began as simple civil status registration to become a tool for large-scale investigations of general fraud and how do we make sure that such requests are not politically or ideologically motivated? Modern identification practices are vastly expanding dams, as it were, that are likely to burst in the hands of authorities that do not respect individual privacy as a fundamental rule.

29) Under the existing rules, unless an unemployment benefit recipient has a right to take a vacation, he or she must stay in Denmark so as to remain available for the labor market. Welfare fraud can also be related to child support and Lebanon housing benefits.

6. Summary and conclusion

For about two and half centuries, Danish civil status registration, as conducted by the Church Book system, was rather lacking. Then, with the arrival of the National Register in the 1920s, registration became quite precise. By the end of the 1960s, a new electronic registration technology centered on an individual numbering system adding flexibility to the registration system, turning information on the individual into highly portable and searchable digital data. Via this CPR system, the civil registration system can service society with a tiny fraction of the manpower the manual registers required. With advances in IT technology and Internet services, the present system continues to streamline the population's interaction with public authorities and private companies. However, this paper has identified three problem areas that to some extent threaten or infringe on the rights of the individual, specifically freedom of religion, the right to privacy, and respect for the individual.

First, the Danish Constitution stipulates freedom of religion and (excepting the royal head) membership of the National Church is, indeed, voluntary. Still, the tradition of registering birth in Church Books has lately stirred popular resistance among people, who do not belong to the National Church. The Church Book system has over the last century easily overcome calls for its abolition that were grounded on economy and efficiency. In the last few years, however, arguments based on a freedom of religion perspective have in a remarkably short time caused some fundamental revisions to the Church Book system. In fact, to this author it seems quite likely that birth registration in particular, if not the Church Book system as such, will be abolished within the foreseeable future.

Secondly, the CPR number is ubiquitous in the various everyday transactions private individuals have with public institutions and private businesses, and this has over the decades given people a relaxed attitude when it comes to providing one's own number when someone requests it. It has also meant that the CPR number appears in all sorts of documents and receipts. Third parties can therefore fairly easily obtain a CPR number and commit identity theft. Serious cases of such theft have risen with the increasing use of online commercial transactions. To combat this and to protect personal privacy, both the individual and the authorities must change their behavior. Individuals must be more careful to prevent the dissemination of their own numbers and perhaps begin to question if a private businesses actually needs to know one's CPR number. Public authorities, on the other hand, should more proactively reduce the instances where CPR numbers are reproduced in the public sphere. For example, in the case of the prescription receipts mentioned earlier one solution, that would relinquish some administrative ease, could be to substitute the CPR number with an alternative code that only the authorities and the pharmacist can use to identify the person in question. A larger safety issue is related to the new online identity verification systems. The underlying arguments behind the production of universal ID systems that the population can

use to access both Internet banking sites and to log on to an array of public authorities where personal information can be accessed, updated, and corrected are most likely based on the mantras of economy and efficiency. From the point of view of protecting individual privacy, however, the wisdom of making one ID system the gateway to so many public and private data processing sites is questionable. Further, the propriety of putting such identification systems in the hands of single private businesses – such as Nets which runs these ID systems in Denmark as a monopoly – is another burning question that needs to be addressed. Further, what are the implications of having commercial operators, who are rapidly globalizing their services, protect data that has been collected by the state for the sake of a sovereign state and its residents?

Finally, there is the problem envisioned by those who in the 1970s and 1980s feared a ‘registration society’. Registers may not be created for the purpose of surveillance, but they can certainly be useful for those who deem surveillance to be necessary. Some Danes envisioned that the state would be tempted to increase surveillance and control of the population once it possessed efficient cross-referencing electronic registers. In the 1970s, this belief was fed, not least, by a general mistrust of the state. Over the decades this mistrust of the state has abated, but it may have been replaced by a mistrust of certain population segments, for example people of Muslim immigrant background. One influential Danish political party, at least, gathers votes by pursuing a variety of anti-immigrant and anti-Muslim policies. In 2007, this party proposed cross-register searches of evacuees from Lebanon, but this was deemed in violation of the Registers Act. Then, by 2010, a similar search was conducted, provoking little protest. This is, I think, a troubling example of how imperceptibly it can become generally acceptable ‘for the sake of the common good’ to use the considerable power of cross-register searches so as to unleash surveillance and control targeting a specific population group, rather than specific suspected individuals. Discrimination arise when ‘myths’ begin to surround a particular population, and using registers to confirm ‘myths’ is a serious infringement on the dignity of the individual.

The relationship between social order and individual rights is reflected in systems documenting individual identity, because these systems provide a measure of order while also providing the identification that is the basis for individual entitlement. Such systems, however, can easily become powerful tools of surveillance and control. For this reason, the registering state, as well as the individual registrant must be vigilant in securing that a proper balance between social order and individual rights is kept at all times.

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